Australasian HFG

Australasian Health Facility Guidelines

An initiative of the H C A M C in association with
the University of New South Wales

Release Notes

This release represents the first public issue of the Australasian Health Facility Guidelines (HFG).

This current release is for Industry Use and Commentary for a 12 month period commencing 24 November 2006.

Clauses are compiled from many different sources and every attempt is being made to bring consistent terminology to the clauses. The terminology or methods of measurement used in these guidelines may vary from that used within individual jurisdictions covered by Health Capital and Asset Management Consortium (HCAMC) in Australia and New Zealand.

These guidelines are compiled within a database framework, it is intended that each clause will cover one discrete concept. The clause numbering system allows for the insertion of new or modified clauses as needed.

To understand the philosophy behind the development of these guidelines, refer to the "Health Facility Guidelines Framework for Development" – the last section in the overall database and available from the web site www.healthfaciilityguidelines.com.au

What is New?

This release consists of 19 Hospital Planning Units (HPUs) and 125 Standard Components. Part A – Introduction and Instructions for Use - and the General Requirements in Part B of the Guidelines have been updated to include reference to all jurisdictions where such information is available. Formatting maintains consistency with the Victorian and NSW versions

Important Information re: Copyright & Disclaimer

Disclaimer: These Guidelines are stand-alone documents. Nothing in these Guidelines implies that compliance with them will automatically result in compliance with other legislative or statutory requirements, the Australian and New Zealand Standards or the Building Codes of Australia and New Zealand. It is the responsibility of each user to ensure compliance with all other relevant legislative and statutory requirements.

Both words and concepts found in other Guidelines have been used when appropriate, sometimes with changes to terminology or methods of measurement. Since very similar concepts and requirements are covered by many different guidelines, a clause by clause reference to other guidelines would be impractical. A short list of other Guidelines reviewed for the preparation of these Guidelines can be found under "Reference and Further Reading" in each section of the Guidelines. Nothing in these Guidelines implies or guarantees compliance with every requirement of those other Guidelines.

These guidelines are not a subsitute for professional judgement and where necessary, professional advise should be sough (whether legal, financial or other advice).

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Index

Page No

Part A - Introduction and Instructions for Use

1	**Table of Contents**	5
2	**Acknowledgements**	6
3	**Foreword**	7
10	**Introduction**	8
20	**Terms of Reference**	10
30	**How to Read**	12
40	**Administration**	14
50	**Glossary, Definitions and Abbreviations**	16
55	**References and Further Reading**	21

Part B - Health Facility Briefing and Planning

80	**General Requirements**	24
90	**Standard Components**	52
120	**Administration Unit**	116
132	**Child & Adolescent Mental Health Unit**	125
133	**Psychiatric Emergency Care Centre (PECC)**	150
134	**Adult Mental Health Acute Inpatient Unit Including PICU**	162
140	**Rehabilitation / Allied Health Unit**	191
155	**Ambulatory Care Unit**	223
240	**Clinical Information Unit**	242
250	**Ambulatory Mental Health Unit**	262
255	**Community Health**	278
300	**Emergency Unit**	305
340	**Inpatient Accommodation Unit**	336
360	**Intensive Care - General**	356
390	**Intensive Care - Neonatal / Special Care Nursery**	377
440	**Medical Imaging - General**	408
510	**Maternity Unit**	436
520	**Operating Unit**	460
540	**Paediatric/ Adolescent Unit**	492
560	**Pharmacy Unit**	515
620	**Renal Dialysis Unit**	533

Part C - Design for Access, Mobility, OHS and Security

1	**Table of Contents**	559
10	**Introduction**	561
705	**Physical Planning Models and Policies**	562
710	**Space Standards & Dimensions**	571
730	**Human Engineering**	593
750	**Signage**	603
790	**Safety and Security Precautions**	607

Part D - Infection Prevention and Control

1	**Table of Contents**	637
820	**General Requirements**	638
860	**Physical Environment**	648
880	**Surfaces & Finishes**	649
900	**Construction & Renovation**	652
1000	**References**	659

Part E - Building Services and Environmental Design

1	**Table of Contents**	661
2	**Communication**	668
3	**Electrical**	669
4	**Fire**	671
5	**Hydraulic**	673
6	**Mechanical**	675
7	**Medical Gases**	677
8	**Security**	678
9	**Transportation**	679
10	**Equipment**	680
11	**Appendices**	682

Part F - Project Implementation

680	**Furniture Fittings & Equipment**	684
950	**Operational Commissioning**	707

1 TABLE OF CONTENTS

INDEX

		Description
5E+06	1 .0.10	2 Acknowledgements
		3 Forward
		10 Introduction
		Description
		Background
		Objectives
		20 Terms of Reference
		Facilities covered
		New Facility Types
		New and Refurbished Buildings
		30 How to Read
		The Structure of These Guidelines
		40 Administration
		Statutory Codes and Regulations
		Building Codes
		Other Building Regulations
		Disability Discrimination Acts and Regulations
		OH&S Acts and Regulations
		Non-Statutory Guidelines and Regulations
		Accreditation
		50 Glossary, Definitions and Abbreviations
		Introduction
		Glossary of Terms
		Definitions
		Abbreviations
		55 References and Further Reading
		General
		Australasian
		Individual Jurisdictions

2 ACKNOWLEDGEMENTS

General

600010 2 .1.05 The Health Capital Asset Management Consortium (HCAMC) acknowledges the following contributors to the development of these Health Facility Guidelines:

-HCAMC Steering Committee who have overseen the project;

-NSW Health for contributing the database from which these Guidelines have been developed;

-The Victorian Department of Human Services for contributing the initial database from which the NSW Guidelines were developed;

-Western Australia Department of Health for their original and ongoing contribution to the Victorian and NSW Guidelines via the Private Hospital Guidelines;

-Health Projects International for advice and assistance in utilising the database;

-The consultants who facilitated the working group processes and all members of working parties who have contributed to the development of these Guidelines;

-All reviewers of the draft Guidelines.

3 FOREWORD

Foreword

500020 3 .2.00

Many people undertake a capital development only once in their working life and may not be familiar with capital planning processes. These Guidelines therefore include not only information on capital planning, but also information on current policy directions. They also include information on service and facility planning that will be useful for any agency undertaking the planning, design and construction of a health facility. The Guidelines promote the importance of clearly defining a Service Plan, Model of Care and Operational Policies for the facility before embarking on the capital planning process.

The Guidelines have been developed with recognition of the fact that all parties involved in a facility planning process have a responsibility to ensure that they develop Health Care Facilities that comply with legislation. They also have a responsibility to ensure that Health Care Facility developments are designed to minimise asset management and maintenance costs and maximise efficiencies.

10 INTRODUCTION

Description

600011 10 .1.05 This document represents the recommended design guidelines for Health Facilities in Australia and New Zealand. They are referred to as 'the HFG' or 'these Guidelines' throughout the text.

This issue of the Australasian HFG in an electronic database format sets the directions for HCAMC to update further HFG in this format

500040 10 .2.00 Generally designs that depart from these Guidelines will not be approved by the responsible Health Authority unless clear patient/service benefits can be demonstrated and justified.

600023 10 .2.05 Individual jurisdictions will provide instructions regarding the application of the Guidelines in capital projects.

Background

600012 10 .3.05 The development of these Guidelines in electronic format was made possible by NSW Health's contribution to the database derived from the Victorian Department of Human Services' Guidelines database as developed by Health Projects International in 2000. This contribution has allowed HCAMC to further develop and refine the database and guideline process in the production of an initial suite of priority Health Facility Guidelines to meet Australasian requirements.

Objectives

500033 10 .4.00 These Guidelines have been developed on the basis that provision of appropriate physical environments that support and enhance the delivery of high standards of patient care.

600013 10 .5.05 The main aims of these Guidelines are to:

-Establish acceptable standards for the design of Health Care Facilities;

-Achieve affordable solutions for the planning and design of Health Care Facilities;

-Maintain public confidence in the standard of Health Care Facilities;

-Provide general guidance to designers seeking information on the special needs of typical Health Care Facilities;

-Promote the design of Health Care Facilities with due regard for the safety, privacy and dignity of patients, staff and visitors;

-Eliminate design features that result in unacceptable practices;

-Update Guidelines to meet current clinical practice and standards on a regular basis;

-Eliminate duplication between various existing Guidelines.

-Minimise recurrent costs and encourage operational efficiencies.

500038 10 .6.00 In most jurisdictions and depending on individual planning processes, the following should be defined and approved for the Facility prior to commencement of design:

Service plan;
Model of care for service delivery;

Operational policies;

Health Planning Units/Functional Units;

Schedules of accommodation;

Functional relationships, external and internal;

Key planning principles.

These will generally be set out in the planning brief for the project. Refer to Part B and Part C for further details.

600398 10 .6.03 In South Australia, refer to the following website for jurisdiction application:

http://www.health.sa.gov.au/Default.aspx?tabid=156

600024 10 .6.05 In Western Australia, refer to the following website for jurisdiction application:

http://www.health.wa.gov.au/hrit/infrastructure

Facilities Covered

500664 20 .1.00 Depending on the individual jurisdiction, these Guidelines may apply to the following types of Health Care Facility:

-Public Hospitals;

-Licensed facilities contracted to provide services to public patients;

-Day Procedure Units - integrated or stand alone;

-Ambulatory Care Facilities - integrated or stand alone

-Mental Health Facilities;

-Rehabilitation Centres;

-Oral Health Units – integrated, stand-alone or mobile units;

-Palliative Care Centres;

-Multipurpose Centres (remote & rural areas including aged care facilities)

-Birthing Centres – stand-alone

-Community Health Centres.

Note: Licensed private health care facilities may have regard to these guidelines as a reference for facility standards and plan approvals under the relevant legislation.

500781 20 .2.00 These Guidelines do not apply to the following types of Health Care Facility although they may be voluntarily used in designing them:

-Aged Care Facilities – residential, hostel, nursing home (Commonwealth funded); (refer to Queensland Health Aged Care Facilities Guidelines available on www.health.qld.gov.au/cwamb)

-Medical Practitioner Consulting Suites;

-Pharmacies (retail stand-alone).

New Facility Types

500676 20 .3.00 Changes in health practice may result in new facility types, descriptions or names. The fundamental principles and processes set out in these Guidelines apply equally to all types of Health Care Facilities, whether new, traditional or combinations of these.

Changing the names of Health Care Facilities (or sub-components) will not alter the requirement to justify departure from the Guidelines that would apply to the traditional settings delivering similar services.

New and Refurbished Buildings

500045 20 .4.00 All new work shall comply with these Guidelines. Each jurisdiction will determine

to what extent refurbishment work will need to comply.

The Structure of these Guidelines

500673 30 .2.00 STRUCTURE

The Guidelines are divided into a number of “Parts”. Each subject is covered once only in order to avoid duplication of the same information under different Planning Units. The Parts are as follows:

-Part A: Introduction and Instructions for Use;

-Part B: Health Facility Briefing and Planning - including Briefing and Planning, Standard Components and specific Hospital Planning Unit (HPU) sections;

-Part C: Access, Mobility, OHS and Security;

-Part D: Infection Control;

-Part E: Building Services and Environmental Design Briefing (under review for Australasian use)

-Part F: Project Implementation - including FF&E and Operational Commissioning;

-Enclosures: Generic Room Data Sheets (RDS) and Generic Room Layout Sheets (RLS).

Within the Parts, numbered headings are used to designate key sections or subjects such as requirements for a particular Health Planning Unit (HPU) e.g. Emergency, Intensive Care, or to cover issues such as Safety', 'Security', 'Access' requirements etc.
Part B contains generic sections that apply to all or most HealthCare Facilities and specific sections that apply to individual HPUs.

Part B also contains a selection of Standard Components i.e. rooms / spaces that apply to many Health Care Facilities. These Standard Components cross-reference to Room Data and Room Layout Sheets in the Enclosures.

Part C also contains a table indicating recommend discounted circulation for Hospital Planning Units.

501985 30 .3.00 REVIEW AND REVISION

A process of review and revision will be developed for the Guidelines. Industry comment will be sought and responded to in future issues of the Guidelines and the results of Post-Occupancy Evaluations will also be factored into the Guidelines.

500052 30 .4.00 APPLICATION

These Guidelines are expressed as a combination of performance-based standards and prescriptive requirements.

500053 30 .5.00 Mandatory requirements are identified by the words 'shall', 'must', 'mandatory', 'required', etc.

Other non-mandatory or advisory information has also been provided. This is

identified by words such as 'should', 'optional', 'non-mandatory', 'desirable', 'highly desirable', 'preferable', 'ideal', etc.

500041 30 .6.00 The primary objective of the Guidelines is to achieve a desired performance result or service.

Prescriptive limitations, when given, such as exact recommended dimensions or quantities, describe a condition commonly recognised as a practical standard for normal operation.

Where specific measurements, capacities or other standards are described, equivalent alternative solutions may be deemed acceptable if it is demonstrated that the intent of the standards has been met.

It is important to note that these Guidelines do not intend to restrict innovation that might improve performance and/or outcomes.

Statutory Codes and Regulations

600014 40 .1.05 Facility design shall comply with all statutory requirements including Australian and New Zealand Building Codes, referenced Australian and New Zealand Standards and local authority requirements. It is the responsibility of those referring to these documents or requirements to ensure that the latest version or edition is used.

Licensed Private Health Care Facilities must also meet the requirements of the relevant Acts and Regulations under which they are licensed.

Building Codes

600015 40 .2.05 Construction and design standards in new and refurbished projects shall comply with the requirements of the latest edition of the Building Code of Australia (BCA) or the New Zealand Building Code.

The requirements of these Guidelines may be in addition to or in excess of the building code requirements. In such situations, the higher standard or further requirements of these Guidelines will be required.

Nothing in these Guidelines implies that compliance with a provision of the Australian or New Zealand Building Code is not required.

Both the Building Codes and these Guidelines refer to other Codes and Standards. When such Standards are referenced by the Building Codes or these Guidelines, they also become a mandatory requirement.

Other Building Regulations

500686 40 .3.00 Facilities covered by these Guidelines may also be covered by other building regulations such as:

-Local Government planning instruments/agencies;

-Government policies and directives;

-Food Services regulations;

-Disability Discrimination legislation such as the Australian Commonwealth Disability Discrimination Act (DDA);

-Environmental Protection Authority (EPA) or Environmentally Sustainable Design (ESD) regulations;

-Import bans.

Compliance with these Guidelines does not imply compliance with any other regulations.

Approval of a Health Care Facility by one or more authorities does not imply that the Facility has complied with all other relevant regulations.

The relevant licensing authority, through its approval and licensing processes may require verification or proof of compliance with other relevant regulations.

Disability Discrimination Legislation

500687 40 .4.00 In Australia, the Commonwealth Disability Discrimination Act (DDA) has the potential to influence many aspects of the design and construction of Health Care Facilities covered by these Guidelines. This influence goes beyond other disabled access standards such as AS1428 series.

Designers are strongly advised to review the DDA and proceed with caution. It may be helpful to employ a disability specialist to assist with compliance with DDA requirements and to avoid conflict with these and other Guidelines and Codes.

Also refer to Part C of these Guidelines for more details.

600016 40 .4.05 Designers in New Zealand should refer to the report - Human Rights in New Zealand Today
Ngā Tika Tangata O Te Motu. New Zealand Action Plan for Human Rights — Mana ki te Tangata.

OHS Acts and Regulations

600017 40 .5.05 Health Care Facility design shall comply with each jurisdiction's OHS legislation including referenced Australian and New Zealand Standards.

Refer to Part B and C of these Guidelines for further details on OHS requirements.

Non-Statutory Guidelines and Regulations

500043 40 .6.00 Compliance with non-statutory guidelines and regulations is required only when specifically nominated by each jurisdiction.

Accreditation

500044 40 .7.00 Accreditation is primarily concerned with hospital management and patient care practices, although provision of equipment and the standard of the built environment is taken into consideration.

In Australia, accreditation is conducted by the Australian Council on Health Care Standards (ACHS). Compliance with these Guidelines does not however imply that the Health Care Facility will automatically qualify for accreditation by ACHS.

For detailed information on accreditation requirements contact the ACHS - www.achs.org.au/default.htm

Quality Health New Zealand performs a similar service for accreditation of health care facilities.
http://www.qualityhealth.org.nz/

Introduction

500298 50 .1.00 Throughout these Guidelines, various terms, definitions and abbreviations are used. In order to standardise these, the following lists are given. These are not comprehensive lists.

Glossary of Terms

500065 50 .2.00 Act - An Act of Parliament.

Acceptable standard - A standard acceptable to the appropriate authority.

Area / Space - A room, space or 'area' noted in these Guidelines for a specific use. The area requirement may be enclosed or may be without walls as part of a larger area.

Building Code of Australia - The regulation controlling construction of all buildings in Australia and any subsequent amendments or updates.

Compliance - To act or provide in accordance with the requirements or recommendation of these Guidelines or referenced standards or regulations.

Disabled Facilities - Facilities that are designed for use by people with a disability.

Documentation - Preparation of the detailed plans and tender specifications that will control construction of the project.

Egress (Designated) - A designated means of escape in the event of an emergency.

En Suite - A room containing sanitary fixtures attached to a Bedroom, Treatment Room, Consult Room etc. Refer to Standard Components for a discussion of en suite options.

Facility - A complex of buildings, structures, roads and associated equipment, such as a Hospital or Health Care Facility that represents a single management unit for financial, operational maintenance or other purposes.

Fixed Equipment - Items that are permanently fixed to the building or permanently connected to a service distribution system.

Fully Assisted Facilities - Facilities for toileting, showering or bathing that are designed for two staff members to assist the patient. Hoists or other equipment may also be required to be used in these spaces.

Guidelines - A collection of requirements and recommendations that describe a minimum level of facility provision.

Health Planning Unit (HPU) - All the rooms, spaces and internal circulation that make up a particular health service department and that are necessary for that department to function.

Maximum - The highest level of provision that is considered appropriate for a given function. Anything above maximum must be justified and approved by the relevant health authority on a special case basis.

Minimum - The least level of provision that is considered necessary for a given function. Anything below minimum is considered unacceptable, unless justified

and approved by the relevant health authority on a special case basis.

Mobile Equipment - Equipment items (medical or non-medical) that require electrical or mechanical connections or floor space. Includes such items as wheelchairs, patient lifters and monitoring equipment.

Nursing Unit - The module by which a hospital is developed to ensure cost-efficient nurse coverage for patient treatment, care and safety. For example One Nursing Unit = 30 acute patient beds = One Inpatient Unit.

Operating Suite - Operating Rooms and all support facilities; may include a Procedure Room.

Optimum – (Also optimal) The most favourable or advantageous condition or set of circumstances.

Partially Assisted Facilities - Facilities for toileting, showering and bathing that are designed for one staff member to assist the patient.

Patient Care Area - The Building Code of Australia defines this as 'a part of a health- care building normally used for the treatment, care, accommodation, recreation, dining and holding of patients including a ward and treatment area'.

Post Occupancy Evaluation (POE) - The fourth and final stage of the NSW Health Process of Facility Planning. To be developed for national use.

Treatment Area - The Building Code of Australia defines this as: 'an area within a patient care area such as an operating theatre and rooms used for recovery, minor procedures, resuscitation, intensive care and coronary care from which a patient may not be readily moved.'

Definitions

500297 50 .3.00 CIRCULATION

'Circulation space' is the space required within a department or unit to enable movement and functionality between individual rooms/ spaces. An example of circulation space is the corridor that joins two rows of rooms or the entrance alcove to a room. Circulation space is nominated as a percentage of total usable floor area prior to the development of the design. These figures can be seen in each of the Schedules of Accommodation and in the Schedule of Circulation Areas in Part C of these Guidelines.

The circulation space required depends on the scope of activities conducted in the space and the layout of the unit. The circulation factor could range from 15% up to 40% of the total room area.

If refurbishment work entails retention of existing corridors within a department, the measured area of the corridors should be added to the schedule of accommodation in lieu of a percentage.

Circulation factors will vary depending upon the type of design used, such as single or double corridor, racetrack, etc and whether sanitary facilities are inboard (adjacent to the corridor) or outboard (adjacent to the window line). Sharing of some facilities will also have an impact upon circulation factors.

A balance should be achieved between providing sufficient circulation space to ensure the unit provides a feeling of spaciousness and the wasting of space on poor functional relationships between spaces. If the circulation rate is unduly high it will add to the inconvenience of staff and patients who have to travel excessive distances.

Definitions

600025 50 .3.05 PROCUREMENT METHODS

Different procurement methods are available for project delivery. The most commonly used are:

-Traditional Lump Sum: A process that requires completion of contract documents such as drawing and specification prior to the calling of tenders for a lump sum contract for construction.

-Design and Construct: The process whereby a contractor is appointed to deliver both the design and construction phases of a project as one contract. Usually a building contractor will fill this role and employ the architect or other designer as a subcontractor or subconsultant.

-Managed Contracts: The process whereby a construction manager is engaged to manage a series of contracts or subcontracts on behalf of a client on the basis of reimbursement for the actual contract sums negotiated plus an agreed management percentage or fee.

-BOOT: 'Build Own Operate and Transfer' - A process that sees a facility built and operated by a private firm or consortium with eventual transfer to the eventual owner (such as the public sector) after an agreed period of time.

-Public Private Partnership (PPP) or Private Finance Initiative (PFI) – A process that sees a facility built and maintained for a contracted period of time by a private firm or consortium and operated by the health organisation.

600026 50 .3.10 REFURBISHMENT

The Australian Institute of Quantity Surveyors advises that neither the Australian Cost Management Manual nor the Standard Method of Measurement documents as published by AIQS offer a precise definition of the term. Nor is the term defined in the NSW “Standard Facility Cost Planning Guidelines”.

SAI HB 50 - Glossary of Building Terms refers “Refurbishment” to “Rehabilitation” defined as 'Extensive work intended to bring an asset up to a new standard or to alter it for a new use.' And 'Statutory Rehabilitation’ defined as “Work required to ensure a building complies with current building regulations.”

The Victorian DHS Capital Development Guidelines – Hospital Project Planning Benchmarks, Appendix E – Cost Benchmarks uses the following definitions:

Refurbishment Low - Redecorate
Refurbishment Medium - Part altered
Refurbishment High - Gut and refit.

600027 50 .3.15 TRAVEL AND ENGINEERING

-'Travel’: The space that is required for the circulation of people and goods both vertically and horizontally in a facility. Examples include ramps, lift wells, links, tunnels, main corridors and detached covered ways joining two buildings.

-'Engineering': The spaces that are required to accommodate plant, ducts and service tunnels. These spaces will be located horizontally and vertically.

Horizontal service voids (ceiling spaces, roof spaces, sub-floors) are excluded from area calculations unless they have a floor to floor height of 1800mm or more. If the space meets this requirement it must be counted as plant floor.

Abbreviations

500851 50 .4.00 Throughout these Guidelines, various terms, definitions and abbreviations are used In order to standardise the Guidelines. The following list is not comprehensive.

ADMIN - Administration

ADL - Activities of Daily Living

ANAES - Anaesthetic Induction Room

CBR - Chemical, Biological and Radiological (agents)

CCU – Cardiac (or Coronary) Care Unit

CLEAN - Cleaners Room

CLN - Clean-up Room (as in operating suite)

CSSU - Central Sterilising Supply Unit

CT - CT Scan Room

CU - Clean Utility

DIN - Dining

DU - Dirty Utility

ED - Emergency Department

END - Endoscopy

ENG - Engineering and Maintenance

ENS - En Suite

ENT - Entrance

EQUIP - Equipment Room or Bay

EWIS - Emergency Warning Intercommunication System

GEN - General as in GEN X-RAY

HDU - High Dependency Unit

HOLD - Holding Room or Bed Bay

HVAC - Heating, Ventilation and Air Conditioning

ICU - Intensive Care Unit

KIT - Kitchen or Catering

LDR - Labour, Delivery, Recovery room within a Birthing Unit

LDRP - Labour, Delivery, Recovery, Post Partum room within a Birthing Unit

LIN - Linen Room or Bay

MAMO - Mammography

MATV - Master Antenna Television

MRI - Magnetic Resonance Imaging Room

NICU - Neonatal Intensive Care Unit

OR - Operating Room

PACU - Post Anaesthesia Care Unit within an Operating Suite, Day Procedure Unit or Day Surgery Unit

PATH - Pathology

PHA - Pharmacy

PPE - Personal Protective Equipment

REC - Records

SCRUB - Scrub-up Room (in Operating Unit)

TSSU - Theatre Sterilising Supply Unit

RAD - Radiology

ULT - Ultrasound

XRAY - X-ray Room.

55 REFERENCES AND FURTHER READING

General

500004 55 .1.00 These Guidelines should also be read in conjunction with the following documents or with reference to the nominated web sites. Note as these documents are regularly updated or reissued, users should always ensure that the latest version or edition is being used. The list is by no means inclusive and additional references and reading are provided in each individual Health Planning Unit.

Australasia

500299 55 .2.00 "Australian Cost Management Manual", vols 1-4, Australian Institute of Quantity Surveyors (AIQS) http://www.aiqs.com.au/Publications/Order_Pubs/Index.htm

100033 55 .3.00 Building Code of Australia, 2006 (comes into effect as of 1 May 2006 and will remain current until 30 April 2007).

600020 55 .4.00 AS4485 – Security for Health Care Facilities
Part 1: General Requirements
Part 2: Procedures Guide".

600019 55 .5.00 New Zealand Building Code and Building Regulations

600028 55 .6.00 Relevant Occupational Health and Safety Acts and Regulations. Refer Part B of these Guidelines for details.

600021 55 .7.00 HB 260 2003 - Hospital acquired infections - Engineering down the risk

600022 55 .8.00 The current legislation in each jurisdiction for licensed Private Health Care Facilities – Hospitals, Day Procedure Unit, Nursing Homes etc.

Individual Jurisdictions

100035 55 .9.00 NSW Health - TS11 - Engineering Services Guidelines, April 2003. (Under revision)

100030 55 .10.00 NSW Health - Guide to the Role Delineation of Health Services, 3rd edition, 2002.

100029 55 .11.00 NSW Health - The Process of Facility Planning, 2004

600029 55 .12.00 Queensland Health : Clinical Services Capability Framework, Public and licensed private health facilities, Version 2, July 2005:

600030 55 .13.00 Western Australia:

WA Health Infrastructure Development
http://www.health.wa.gov.au/hrit/infrastructure

WA Health – Western Australia Health Facility Guidelines for Engineering Services 2006; and

WA Health – Western Australia Health Facility Guidelines for Infection Control 2006
http://www.health.wa.gov.au/hrit/infrastructure/procedures/facility.cfm

600397 55 .14.00 Victoria - Capital Development Guidelines

CHECKLIST

No	Item	Yes	No
1.0	**Terms of Reference:**		
1.1	Have you understood the Terms of Reference and Objectives of these Guidelines?	☐	☐
2.0	**How To Read**		
2.1	Have you understood the structure of these Guidelines, how to read it and how to apply it correctly?	☐	☐
3.0	**Administration**		
3.1	Have you understood how these Guidelines will be administered in relation to your project?	☐	☐
4.0	**Role Delineation**		
4.2	Have you determined the Role Delineation level applicable to each one of the services in your project?	☐	☐

Checked and certified by:

Name: _____ Date: _____

Company: _____

Position _____

Signature: _____

80 GENERAL REQUIREMENTS

INDEX

Description

500302 80 .1.00 TABLE OF CONTENTS

General
Service Planning
Role Delineation
Capital Development Guidelines
Cost Planning Guidelines
Cost and Area Benchmarks
Recurrent Costs
Environmentally Sustainable Design
Natural Disaster
Occupational Health and Safety
Access
Infection Control
Engineering Services/Standards
Information and Communications Technology
Standards and Codes
Fittings and Fixtures
Operational Policies

PLANNING

General

500513 80 .2.00 This section sets out the parameters required to guide the planning of Health Care Facilities.

It covers the service, policy and operational issues to be considered for all projects. It then looks at basic principles for good design that will result in appropriately planned facilities, fit for purpose and adaptable in the future.

The target audience for this part ranges from clinicians and managers with little or no capital project experience, through novice designers to experienced planners, managers and clinicians.

For experienced project teams, this section may be used as a reference point or checklist against which to compare or assess project design solutions.

Service Planning

500035 80 .3.00 These Guidelines are a resource to assist in the planning, design and construction of Health Care Facilities. The information provided places the capital planning process within a framework that depends on prior and thorough service planning.

500036 80 .3.05 A clearly defined Services Plan, Models of Care, outline of community requirements and Operational Policies must be developed and approved in accordance with appropriate delegations before embarking on the capital planning process.

These Guidelines require that all parties involved in the Facility Planning Process have responsibility for ensuring that Health Care Facilities are planned and designed in a way that minimises asset management and maintenance costs, maximises efficiencies, and provides a safe work environment.

Sharing of space, equipment and staff, wherever possible, are practical steps towards reduction of excessive asset costs. This approach is promoted throughout these Guidelines.

Role Delineation of Health Facilities

500852 80 .4.00 GENERAL

In those jurisdictions that use a role delineation model for categorising clinical and clinical support services, the role level of a service describes the complexity of the clinical activity undertaken by that service and is chiefly determined by the availability of medical, nursing and other health care personnel who hold qualifications compatible with the defined level of care plus teaching and research responsibilities.

As part of the planning process, the range and complexity of services to be provided by Health Care Facilities will be predetermined and approved by each jurisdiction.

The Levels of Service referred to in Schedules of Accommodation in these Guidelines are currently based on the NSW Health 'Guide to the Role Delineation of Health Services' (Third Edition, 2002). The Guide to Role Delineation Guide is not available on the NSW web site but can be obtained from NSW Health Statewide Services Development Branch.

600040 80 .4.05 NEW SOUTH WALES

In NSW, in addition to Role Delineation, NSW also categorises its health care facilities into Peer Groups. These definitions may be found in NSW Health Services Comparison Data – 1999-2000, Volume 2, Casemix Measures. www.health.nsw.gov.au/pubs/h/pdf/yellowbook_vol2_99-00.pdf

500401 80 .4.10 QUEENSLAND

In Queensland, specific information on service levels may be found in the report Clinical Services Capability Framework, Public and licensed private health facilities, Version 2, July 2005:

Section C - Service Capability Profiles

www.health.qld.gov.au/legislation/reviews/clinical_framework/28712_section_C.pdf

and

Section E - . Map of Role Delineation of Health Services to Clinical Services Capability Framework
www.health.qld.gov.au/legislation/reviews/clinical_framework/28712_section_E.pdf

600081 80 .4.15 WESTERN AUSTRALIA

In Western Australia, a system of categorising hospitals is used e.g. “tertiary”, “general”, “specialist”, “other” as well as levels of service. Details may be found in the report - WA Health Clinical Services Framework 2005-2015. http://www.health.wa.gov.au/hrit/csf/docs/clinicalframework.pdf

Capital Development Guidelines

500312 80 .5.00 GENERAL

Each jurisdiction will apply guidelines to capital works projects in accordance with their local legislative and other requirements where available for capital works development. Jurisdictions without their own role delineation (ACT, Tasmania and New Zealand) may have access to another jurisdiction's documents.

600041 80 .5.05 NEW SOUTH WALES

NSW Health: Assets and Contracts – Process of Facility Planning
www.health.nsw.gov.au/assets

600042 80 .5.10 QUUENSLAND

Queensland Health: Works Division, Capital Works Management Framework
www.build.qld.gov.au/amps/amps03a.asp in conjunction with: The Integrated Planning Act 1997, State Purchasing Policy and The Financial Administration and Audit Act 1977.

600043 80 .5.15 SOUTH AUSTRALIA

Government of South Australia: Construction Procurement Policy, Project Implementation Process, December 2005.
www.dais.sa.gov.au/webdata/resources/files/pip.pdf

600044 80 .5.20 VICTORIA

Victoria Department of Human Services: Capital Development Guidelines
www.dhs.vic.gov.au/capdev.htm

600045 80 .5.25 WESTERN AUSTRALIA

Health Reform Implementation Taskforce
WA Health Infrastructure Development
http://www.health.wa.gov.au/hrit/infrastructure

500712 80 .5.30 POST-OCCUPANCY EVALUATION (POE)

Post-occupancy evaluation is the final stage of a capital works project and methodology guidelines are under development.

Cost Planning Guidelines

500716 80 .6.00

Cost planning guidelines are required to provide a framework for the uniform preparation and presentation of costs for all projects. The deliverables for cost plans at various stages of capital projects are defined in the Guidelines.
The deliverables for Cost Plans at various stages of capital projects are clearly defined in these Guidelines.

600046 80 .6.05 NEW SOUTH WALES

The Guidelines may be found on www.healthdesign.com.au/nsw.hfg

600047 80 .6.10 VICTORIA

Similarly, Victorian benchmarks may be found in the HHS Capital Development Guidelines. www.dhs.vic.gov.au/capdev.htm

Cost and Area Benchmarks

500296 80 .7.00 Refer to respective jurisdictions for advice on cost and area benchmarks.

600048 80 .7.05 NEW SOUTH WALES
NSW Health can provide benchmarks for area and capital cost rates for capital projects.

600049 80 .7.10 VICTORIA
Similarly, Victorian benchmarks may be found in the HHS Capital Development Guidelines. www.dhs.vic.gov.au/capdev.htm

Recurrent Costs

500061 80 .8.00 Recurrent costs of new facility proposals must be fully analysed and estimated at feasibility and project definition stages in the planning process, and then progressively refined as the project proceeds. It is critical that client groups and designers ensure that future facilities are sized to provide only those services for which recurrent funds will be available under future funding and resource allocation projections.

Prior to embarking on the capital planning process, contact should be made with the relevant health department personnel who can provide information on recurrent costs.

500063 80 .8.05 Facility design and construction should take due consideration of the cost of maintenance as part of the overall lifecycle costs of the Facility.

Refer to Part E - Building Services and Environmental Design.

And – in Western Australia – Health Facility Guidelines for Engineering Services 2006.
http://www.health.wa.gov.au/hrit/infrastructure/procedures/facility.cfm

500304 80 .8.10 For every project, a financial impact statement or similar should be prepared that sets out the current format for an operating budget. Each jurisdiction will need to follow their own department requirements for preparing operating budgets.

500064 80 .8.15 Examples of planning and design decisions that may impact on operating costs include:

-The potential to make the best use of staff skills by collocation of like facilities;

-Designs that increase staffing needs due to impact on Operational Policies, such as the increased need for porters if small store rooms necessitate more frequent deliveries of consumables.

-Clustering of areas to allow sharing of common spaces;

-The impact on maintenance costs of:
+extensive glazing;
+use of low maintenance equipment and building fabric/finishes utilising pre-finished materials;

+protection of finishes;
+accessibility of in-ceiling services;

-The selection of low maintenance furniture, fittings and equipment;

-Additional lighting costs that may result from a deep design that does not offer opportunities for natural lighting.

-Costs resulting from common law (negligence) and Workers Compensation claims for injuries to patients, staff or visitors if facility design does not support safety;

Environmentally Sustainable Design

500060 80 .9.00 All governments are committed to the principles of environmentally sustainable design in observance of a commitment to meet ecological obligations with regard to resource use, water consumption, energy conservation and waste management. Every effort should be made in public capital works projects to reduce the cost of energy, water usage and to eliminate pollutants in our environment, especially greenhouse gases, but without compromising patient and staff safety and comfort.

A capital project provides an ideal opportunity to address these issues and to include design features, equipment choices and operational practices that eliminate previously unacceptable practices.

Each jurisdiction requires certain reports to be completed or guidelines to be followed under relevant Acts.

Also refer to Part E of these Guidelines.

600050 80 .9.05 NEW SOUTH WALES

The Environmental Performance for Buildings Reports are to be completed for the Predesign, Design, Construction and Operation stages and submitted to NSW Health. The Environmental Performance Guide for Buildings is available from www.asset.gov.com.au/EnvironmentGuide

Also refer to TS11 – Engineering Services and Sustainable Development Guidelines, Version 1.1, December 2005.

600051 80 .9.10 QUEENSLAND

Refer to the Department of Public Works Energy Conservation and Management Manual for Government Departments in conjunction with the following Acts:
-Environmental Protection Act 1994
-Environmental Protection Regulation 1998
-Environmental Protection (Waste) Policy and Regulation 2000 and (Interim Waste) Regulations 1996
-Environmental Protection (Water) Policy 1997
-Environmental Protection (Noise) policy 1997
-Environmental Protection (Air) policy 1997
-National Environment Protection Council (Queensland) Act 1994
-Queensland Government Sustainable Housing Regulations 2006

Further information is available on www.smarthousing.qld.gov.au and www.sustainable-homes.org.au

Environmentally Sustainable Design

600052 80 .9.15 SOUTH AUSTRALIA

Refer to SA Department of Administrative and Information Services, Building Management guidance notes on ESD.
http://www.buildingmanagement.sa.gov.au/pdf/ecologically_sustainable_development_planning_and_design.pdf

600053 80 .9.20 VICTORIA

Refer to - Capital Development Guidelines, 6.5 – Sustainability, August 2004
www.dhs.vic.gov.au/pdfs/capdev/sustainability.pdf

600054 80 .9.25 WESTERN AUSTRALIA

Refer to the WA Government sustainability website
http://www.sustainability.dpc.wa.gov.au/

Natural Disaster

500017 80 .10.00 All nominated healthcare facilities should be capable of continued operation during and after a natural disaster, except in instances where a facility sustains primary impact. This means that special design consideration is needed to protect the occupants and the essential services such as emergency power generation, heating systems, water (if applicable), etc.

Typical problems such as disruption to public utilities including water supply, sewer mains or energy supplies, may affect the operation of on-site services; however, the responsibility for maintaining these public utilities lies with others.

Appropriate construction detailing and structural provision shall be made to protect occupants and to ensure continuity of essential services in areas where there is a history of earthquakes, cyclones, flooding, bushfires or other natural disasters.

In addition, consideration of disease pandemics may need to be addressed and the threat of terrorism has led to a growing need to consider this type of emergency at master planning stage.

600055 80 .10.05 POST-DISASTER FUNCTION

At times due to a natural disaster, pandemic or major act of terrorism, heath facilities may be called upon to admit patients and deliver health services that differ from their normal operations. This requirement may affect facility design. Consult local jurisdiction health disaster preparedness bodies to ascertain any particular requirements.

900024 80 .10.15 FLOODS

Consideration shall be given to possible flood effects when selecting and developing a site. Where possible, facilities shall NOT be located on designated flood plains. Where this is unavoidable, extra care shall be taken when selecting structural and construction methodology, and protective measures against flooding shall be incorporated into the design.

600056 80 .10.20 EARTHQUAKES

600056 80 .10.20

In earthquake-prone areas, facilities shall be designed and constructed to withstand the force assumptions of AS1170 Part 4 - Earthquake loads.

Also refer to Earthquake Technology – New Zealand –
www.wellington.govt.nz/aboutwgtn/innovation
www.earthquakeengineering.com/
NZS 1170.5: Structural design actions - Earthquake actions

600057 80 .10.25 CYCLONES

In cyclonic areas, special attention shall be given, not only to protection against the effects of the direct force of wind (structural detailing, special cladding fixings, cyclonic glazing etc), but also against such things as wind generated projectiles (trees, cladding, fencing etc) and localised flooding.

502060 80 .10.30 BUSHFIRES

Facilities shall be designed and constructed to conform to AS3959 - Construction of buildings in bushfire-prone areas. Protection against bushfires shall be addressed in site selection, creation of firebreaks, fire resistant construction, sufficient water supply and building sprinkler systems (external)

Further information regarding bushfire protection may be found on the following web sites.

NSW Rural Fire Service - Planning for Bushfire Protection - www.rfs.nsw.gov.au

ACT Rural Fire Service - www.rfs.act.gov.au/

Queensland Fire & Rescue Service - www.fire.qld.gov.au

South Australia Country Fire Service - Bushfire Safety - www.cfs.org.au

Tasmania - “Bushfire - Prepare to Survive” - www.fire.tas.gov.au

Victoria - Country Fire Authority - www.cfa.vic.gov.au

Western Australia - Fire and Emergency Services Authority - www.fesa.wa.gov.au

500018 80 .10.35 COMMUNICATION SYSTEMS

Where appropriate, consideration should be given to effective long range communication systems that do not rely on ground lines to function and communication within a facility should not be vulnerable in a disaster situation, e.g. between wards, departments and support services.

Consultation with local State Emergency Services is recommended to ensure arrangements are in place for long range communications assistance in the event of emergency situations or a major disaster.

Occupational Health and Safety

600003 80 .11.00 All Australian States and Territories and New Zealand have responsibility for making laws about occupational health and safety (OH&S) and for enforcing those laws. Each health authority has a principal OH&S Act setting out requirements for ensuring that workplaces are safe and healthy. These

requirements outline out the duties of different groups of people who play a role in workplace health and safety.

500311 80 .11.05 Each OH&S Act requires employers to ensure that the workplace - including premises, work environment and plant (equipment) is safe and without risk to the health of employees and others.

Each health authority is committed to a high standard of workplace safety and minimisation of risk in the health care system by the provision of a safe and secure environment for patients, staff, contractors and visitors.

The physical environment includes the infrastructure of the Facility plus the building services and operational systems to support that physical infrastructure. Note that the definition of 'plant' in OHS legislation includes any machinery, equipment or appliance and could be viewed to include furniture, fittings and equipment.

Employers are also required by their respective Act to consult with employees on OHS and welfare matters. This includes consulting with employees when changes that may affect the health, safety or welfare of employees are proposed to premises or plant.

The OHS or WPH&S Regulations require employers to identify hazards, assess risks arising from those hazards, and eliminate or control those risks. The project team, in consultation with employees, must therefore aim to identify, assess and eliminate/control any risks associated with the design of a facility and proposed furniture, fixtures and Equipment (FF&E) prior to finalisation of the plans.

A list of the various Acts and Codes of Practice for each health authority is provided in the following sections and also refer to Part C of these Guidelines.

600058 80 .11.10 CONSULTATION

During the planning and design stage, the project team should consult key coordinators who manage OH&S issues to minimise the risk of repeating any existing design problems.

Coordinators may include OH&S officer, Injury Management Coordinator, Infection Control Specialist, Ergonomic / Manual Handling Coordinator, Industrial Hygienist, Facility Manager, Security Officer and Human Resources Officer (aggression/violence).

Hazard reports, near misses, incident and injury statistics for existing facilities should be reviewed and discussed during the design stage.

600004 80 .11.15 OCCUPATIONAL HEALTH & SAFETY ACTS & REGULATIONS

Some workplace hazards have the potential to cause so much injury or disease that specific regulations or codes of practice are warranted. These regulations and codes, adopted under state and territory OH&S Acts, outline the duties of particular groups of people in controlling the risks associated with specific hazards. Note that:

- Regulations are legally enforceable.

- Codes of Practice provide advice on how to meet regulatory requirements. As such, codes are not legally enforceable, but they can be used in courts as evidence that legal requirements have or have not been met.

600059 80 .11.20 AUSTRALIAN CAPITAL TERRITORY

ACT WorkCover
-Guide to the ACT Occupational Health and Safety Act 1989
-Codes of Practice under the OH&S Act

600060 80 .11.25 NEW SOUTH WALES

WorkCover NSW

-Occupational Health and Safety Act 2000

-Codes of Practice

-"Protecting People and Property - NSW Health Policy and Guidelines for Security Risk Management in Health Facilities" PD2005_339, NSW Health, February 2005:

-Zero Tolerance Response to Violence in the NSW Health Workplace PD2005_315, NSW Health, January 2005.

-Workplace Health and Safety: Policy and Better Practice Guide, PD2005_409, NSW Health, January 2005.

-www.health.nsw.gov.au/policies/PD/2005/PD2005_339.html

600061 80 .11.30 NEW ZEALAND

New Zealand Injury Prevention Strategy / Rautaki Ärai Whara o Aotearoa Ministry of Health, June 2003 www.nzips.govt.nz/resources/publications.html

Patient Handling Guidelines
www.acc.co.nz/wcm001/idcplg?IdcService=SS_GET_PAGE&ssDocName=WCM001675&ssSourceNodeId=4141

Hazard Management
www.acc.co.nz/wcm001/idcplg?IdcService=SS_GET_PAGE&ssDocName=WCM000660&ssSourceNodeId=4141

600062 80 .11.35 QUEENSLAND

QLD Workplace Health and Safety
-A guide to the Workplace Health & Safety Act 1995
-Industry Codes of Practice

600063 80 .11.40 SOUTH AUSTRALIA

SafeWork SA
http://www.safework.sa.gov.au/home.jsp

Occupational Health Safety and Welfare Regulations 1995
http://www.parliament.sa.gov.au/Catalog/legislation/Regulations/O/1995.12.un.htm

Government of South Australia, Compliance Obligations of Building Asset Owners - A Guide for SA Government Agencies, 2004
-
http://www.buildingmanagement.sa.gov.au/pdf/obligations_of_government_agenci

es.pdf
-

600064 80 .11.45 TASMANIA
Workplace Standards Tasmania
Workplace Health and safety Act 1995.
Workplace Health and safety regulations 1998

600065 80 .11.50 VICTORIA

Victorian WorkCover Authority
Legislation overview
Codes of Practice

600066 80 .11.55 WESTERN AUSTRALIA

Refer to Worksafe WA at
http://www.worksafe.wa.gov.au/newsite/worksafe/default.html
Relevant legislation:
-Occupational Safety and Health Act 1984
-Occupational Safety and Health Regulations 1996

The regulations are supported by Codes of Practice covering various hazard types.
Some examples of Regulations and Codes of Practice and their relevance to facility design are:
-Regulation 3.4 and Code of Practice -Manual Handling - (equipment, patients, stores, Engineering Department large and heavy items).
-3.10 Evacuation Procedures - (immobile patients).
-3.13 Lighting (glare and reflections on computer screens).
-3.18 Movement around Workplaces (pathway design for pedestrian and wheeled equipment)
-3.27 Gas Cylinders to be Secured.
-3.50 3.53 and COP - Prevention of falls in the workplace - (fall arrest anchor points).
-3.82-3.87 Confined Space (Engineering Department maintenance)
-4.55 and COP Working safely with forklifts (Stores Department design).
-5.20 Hazardous Substances (storage transport and handling, ventilation).

Access

500305 80 .12.00 Planning and design teams are to ensure that Health Care Facilities are suitable for people with disabilities. The needs of people with a wide range of disabilities should be identified and those needs addressed in all capital works projects.

Refer also to the Commonwealth Disability Discrimination Act 1992 (DDA). As noted in Part A of these Guidelines, it may be prudent to employ a disability specialist to assist with compliance, and this may also be required by some local authorities.

600006 80 .12.05 THE COMMONWEALTH DISABILITY DISCRIMINATION ACT (DDA)

The Commonwealth Disability Discrimination Act 1992, … makes discrimination on the basis of disability unlawful. Under this Act all Commonwealth Government activities must be accessible to people with disabilities. This means:

-people with disabilities must have access to all parts of buildings utilised by the Commonwealth in the same way as people without a disability;

-all publicly available Commonwealth information must be able to be provided, upon request, in formats accessible to people with a range of disabilities;

-staff of Commonwealth organisations must display non-discriminatory attitudes in the workplace;

-where necessary, adjustments are to be made to the workplace so that people with disabilities have equal opportunity to use and display their skills; and

-administration of all Commonwealth laws and programs must be consistent with the DDA.

600067 80 .12.10 REFERENCES

Australian Standard 1428 series (1428.1 to 1428.4) refer to access and are critical to access design
-AS1428: Design for access and mobility
-AS1428.1 General requirements for access – new building work …
The NSW Health Design Series DS32 - Improved Access for Health Care Facilities 1994 may be referenced. However it does not override the Australian/New Zealand Standards (refer below), the Building Codes of Australia or New Zealand nor does it relieve users of their obligation to ensure fitness for purpose in the planning and design of Health Care Facilities.
Also refer to Part C of these Guidelines.

600068 80 .12.15 NEW ZEALAND

Refer to NZS 4121: Design for access and mobility: Buildings and associated facilities.

600069 80 .12.20 QUEENSLAND

Also refer to The Disability Services Act 2006
http://www.disability.qld.gov.au/key_projects/disability_services_act/

Infection Control

500306 80 .13.00 Infection prevention and control principles and practices have a direct impact on facility design and should be reviewed by project teams at the commencement of planning for all capital works programs. The involvement of infection control professionals and the incorporation of infection control principles and their interpretation into Facility and Unit Operational Policies ensure that relevant issues in the design and layout of Health Care Facilities have been considered and incorporated into building plans.

Infection control consultation prior to construction, renovation, commissioning or demolition work is also essential to ensure that infection risks are identified and appropriate measures put in place to reduce such risks.

Issues that require infection control input include: the number, type and location of hand basins; the number and type of isolation rooms; air handling systems; clean and dirty work flows; interior surfaces to facilitate cleaning; transportation routes etc.

Refer to Part D of these Guidelines for assessment of infection control risks and suggested physical design responses.

600007 80 .13.05 INFECTION CONTROL POLICY DOCUMENTS

Australian Standards, HB 260 – 2003, Hospital acquired infections— Engineering down the risk.

Australian Government, Department of Health and Ageing, Infection Control Guidelines, January 2004. www.health.gov.au

600070 80 .13.10 ACT: Draft in process.

600071 80 .13.15 NEW SOUTH WALES

Policy Directive PD2005_247 – Infection Control Policy, January 2005. www.health.nsw.gov.au/policies

600072 80 .13.20 NEW ZEALAND

Standards New Zealand, NZ 8142: Infection Control, www.standards.co.nz/web-shop/?action=viewSearchProduct&mod=catalog&pid=8142:2000(NZS) www.standards.co.nz/

600073 80 .13.25 QUEENSLAND

Infection Control Guidelines, November 2001. www.health.qld.gov.au/infectioncontrol

600074 80 .13.30 SOUTH AUSTRALIA
Infection Control Guidelines (review in progress)
http://www.health.sa.gov.au/INFECTIONCONTROL/Default.aspx?tabid=157

600075 80 .13.35 WESTERN AUSTRALIA

Health Facility Guidelines for Infection Control 2006
http://www.health.wa.gov.au/hrit/infrastructure/procedures/facility.cfm

Engineering Services/Standards

500046 80 .14.00 Refer to Part E of these Guidelines and – in NSW to TS11 and in WA to Health Facility Guidelines for Engineering Services 2006 regarding the design and installation of engineering services in new and refurbished premises.

Note that these guidelines and technical reports do not override the requirements of the Australian and New Zealand Building Codes nor the Australian/ New Zealand Standards.

Information Technology / Communications

500792 80 .15.00 GENERAL

All capital projects will have an information and communications technology component. This could include the provision or upgrade of the infrastructure, new

or upgrade of equipment and installation of new health information management systems.

It is recommended that all proposals for funding be discussed with the relevant health jurisdiction prior to formal submission, processes for which will depend upon the type and scale of the proposal.

Proposals must be consistent with each jurisdiction's ICT strategies and are expected to comply with the relevant technical standards as appropriate to the project;

Health information developments and investments included in capital works projects must support current clinical practices.

600076 80 .15.05 NEW SOUTH WALES

In NSW, proposals requiring state capital funding should be submitted to NSW Health and be in accordance with the Shared Corporate Services Strategy as managed by NSW Health. The process for funding for Information and Communications Technology Proposals is outlined in Treasury Circular TC 03/10. www.treasury.nsw.gov.au/pubs/03_tcirc/tc_03ind.htm

Also refer to Information Management Strategy 2002. www.health.nsw.gov.au/pubs/a-z/i.html

600077 80 .15.10 QUEENSLAND

In Queensland, capital projects must comply with the Queensland Government, Information and Communication Technology (ICT) Cabling Standards (IS32) and Queensland Health ICT Cabling Standard ISO934.
IS32 can be found at
www.governmentict.qld.gov.au/02_infostand/standards/is32.htm

Standards & Codes

500309 80 .16.00 Refer to Standards Australia for information regarding standards that may be relevant to a particular project. Standards Australia also produces handbooks and guides on various topics and subjects. The web address for further information is www.standards.com.au.

In New Zealand, refer to Standards New Zealand at www.standards.nz.co/

Although generally desirable, compliance with Standards is not mandatory unless cross-referenced by the relevant Building Code or other statutory legislation.

In other situations, compliance with Standards, Codes, Guides or Handbooks is not required unless specifically noted by these Guidelines.

Fixtures & Fittings

500310 80 .17.00 The health system has significant purchasing power and the purchase of fittings and fixtures should be carried out in accordance with each jurisdiction's policy.

Also refer to Part F of these Guidelines – Project Implementation – FF&E - for further information.

600078 80 .17.05 NEW SOUTH WALES

The Purchasing and Supply Manual for Public Health Organisations, January 2006. www.health.nsw.gov.au/audit/manuals/purch_supply.pdf

600079 80 .17.10 QUEENSLAND

Queensland Government Better Purchasing Guides: www.qgm.qld.gov.au/02_policy/better_purch.htm

600080 80 .17.15 VICTORIA

Victorian Government Purchasing Board: www.vgpb.vic.gov.au/CA256C450016850B/0/4FBAC7BE2075606FCA256C850025DA77?OpenDocument

Operational Policies

500055 80 .18.00 OVERVIEW

Operational Policies define the “What, How, When, Where, Who and With What” of any process. They are a critical factor in the implementation of a desired service model and the achievement of targeted capital and recurrent costs. They should be documented early in the planning process in 'broadbrush' terms to assist in selection of the recommended capital option. The impact of new technology and changing clinical work practices should be reviewed prior to commencing capital planning.

500059 80 .18.05 Operational Policies should be developed by the Project Team in consultation with health service stakeholders and require a determination of not only what current practices will continue in the future but also what new practices will be implemented and the process for change management where this is required. This process of reviewing and documenting Operational Policies is valuable as it subjects the current operation of a Facility or Unit to scrutiny.

500515 80 .18.10 Project teams should constantly review their design proposals with the Operational Policies in mind and be able to demonstrate that the capital and recurrent cost implications of proposed operational policies have been fully evaluated and the most cost-effective and efficient solutions are being proposed and developed, as the planning effects of operational policy decisions are often not apparent until planning has commenced and the consequences can sometimes be quite different to those expected.

500713 80 .18.15 Operational Policies may be overarching policies across an entire Health Care Facility or health service network or may be specific to one Health Planning Unit such as the Emergency Unit.

The specific operation of a Unit will reflect the demographic profile of the anticipated users of the service (patients, consumers) the clinical characteristics of the patients and the defined role of the Unit including its place within the service network.

500714 80 .18.20 Operational Policies are significant in the design process as they can have an impact on the size, configuration and the nature of accommodation. Operational Policies not only act as a specific guide to the operation of each group of spaces, but also as a frame of reference for the workings of the whole Facility.

Operational Policies should be consistent across health facilities within an Area Health Service or Network to the extent dictated by the role and service delineation of the individual facilities. The Operational Policies shall also respond to, and incorporate policies of other services within the Area Health Service so as to ensure a patient focussed continuum of care. Admission and discharge policies would be two key examples.

In the design phase, the operational policies, traffic and workflow diagrams will be used by the architects, engineers and facility planners to ensure that the range of activities and requirements are reflected in the design. At this stage, necessary compromises can be discussed or changes made where there are financial, building and other constraints.

A general description of a generic set of Operational Policies to be developed to inform the design and planning process follows.

500303 80 .19.00 LIST OF OPERATIONAL POLICIES

Admissions
Amenities for Patients and Visitors
Amenities for Staff
Cleaning
Clinical Information
Communication Systems
Consultation and Interviews
Disaster Planning
Equipment Storage
Food Services
Infection Control
Linen Management
Maintenance and Engineering
Medication Management
Operating Hours
Pastoral Care
Pharmacy
Safety and Security
Sterilising Services
Stores and Supplies
Vehicle Access and Parking
Waste Management

500692 80 .19.05 ADMISSIONS

SUMMARY

The admission process has two main components - the 'administrative' process and the “clinical (medical / nursing / allied health) admission / assessment process' and may occur in a number of locations.

OPTIONS

The admission process may be conducted in a dedicated Admissions Unit – usually in or near the Main Entry, within a Unit (inpatient unit, day procedure unit, operating suite etc) or in the Emergency Department. Note that with the increase in pre-admission clinics and day only procedures, day surgery and day-of-surgery, where admission will often occur within the actual unit, the need for a dedicated Admissions Unit needs to be carefully considered and the availability of staff ascertained.

IMPLICATIONS

Space (waiting areas, interview rooms etc) and personnel (workstations) requirements will vary depending on the source and location of admissions, eg Emergency Department, Day Only Units, Operating Units etc and associated Operational Policies.

Access routes to the Unit/s shall also be considered.

500694 80 .19.10 AMENITIES FOR PATIENTS AND VISITORS:

SUMMARY

Provision of appropriate patient amenities enhances the quality of a patient's or visitor's hospital experience and often assists in minimising stress.

OPTIONS

Amenities may include waiting areas, gardens, toilets, baby change and baby feeding facilities, kiosks, quiet rooms etc. They may extend to provision of sleeping accommodation in Palliative Care or Paediatric Units, or on-site accommodation for relatives, patients from remote locations or from poor socio-economic circumstances.

The provision of disabled toilets as a ratio of all toilets will be determined in accordance with the acuity and dependency levels of patients and the needs of visitors, and planners should refer to the Australian and New Zealand Building Codes.

IMPLICATIONS

The extent and location of amenities for patients and visitors will impact on planning of both the whole Facility and specific Units where they are needed.

502061 80 .19.15 AMENITIES FOR STAFF

SUMMARY

Occupational Health and Safety Acts and Regulations require employers to provide for the welfare of employees and to consult with employees when providing facilities for their welfare.

BCA requirements are the minimum standard for provision of staff amenities.

The provision of appropriate staff amenities may influence the ability of a Health Care Facility to attract and retain staff and consultation with staff regarding the type and quality of facilities is an essential part of facility design.

Infection control requirements may also determine the need for amenities such as showers and change rooms.

OPTIONS

Staff amenities will include showers and toilets and either change rooms or secure storage areas for property, ie handbags, clothes, etc.

In addition, Staff Lounges and/or Cafeterias may be provided depending on the size, function and location of individual units and/or the Facility.

The need for central amenities in addition to unit-based amenities will need to be addressed.

In order to support and encourage a healthy workforce, “end of trip” facilities for cyclists should also be considered.

IMPLICATIONS

The extent and location of amenities for staff will impact on planning of both the whole facility and specific Units where they are needed.

500776 80 .19.20 CLEANING

SUMMARY

Cleaning services may be provided by facility staff or by an external contractor. The time, frequency and methods of cleaning will determine the amount of storage space required for equipment and cleaning products within the Unit and the overall Facility.

SOME OPTIONS
The most common option – particularly if services are provided by facility staff - is a centralised Housekeeping Unit comprising necessary offices and stores for equipment and dry goods, and small Cleaners' Rooms strategically located throughout the Facility. The latter also provide a supply of cleaning materials and equipment for staff to use in emergency situations or out of hours.

IMPLICATIONS

Allocation of space for storage of cleaning equipment, chemicals and consumables within the Unit or Facility.

Consumables such as toilet paper, paper hand towels, etc must be stored separately from cleaners' wet area / equipment to prevent cross contamination with moisture and exposure to equipment used throughout patient care areas.

Design, layouts, fittings, furnishings, floor coverings and other finishes will have a significant impact on the cleaning of the Unit. Ledges, corners and all other surfaces that are difficult to clean or hard to reach should be minimised.

Facilities such as power outlets, particularly in corridors and hand washing facilities should be provided in appropriate locations to enable staff to efficiently clean the Unit.

500700 80 .19.25 CLINICAL INFORMATION

SUMMARY

The requirements for the Clinical Information Health Planning Unit itself can be found in Part B of these Guidelines. However, methods for delivery of medical records to and within a Facility or Unit should be clearly defined.

SOME OPTIONS

The trend is towards one centralised record per patient within a health service so reducing the multiplicity of records that often occurred in the past across health service providers.

Whilst considerable advances have been made towards electronic record systems, most health care facilities still operate a paper-based system and are likely to do so for some time yet. Should an electronic medical record system be planned, this will have major implications in terms of IT requirements and space for workstations, computers, etc to access and manipulate the records both within and outside the Clinical Information HPU.

IMPLICATIONS

The methods for transporting records to their point of use (trolleys, mechanical transport system) will need to be determined and secure storage for paper records must be provided in staff stations and reception areas.

In all situations, the security and handling of confidential patient information and records must be addressed.

Staff must have safe access to records after hours.

500696 80 .19.30 COMMUNICATION SYSTEMS

SUMMARY

A wide range of information and communications technology options are now available to a Health Care Facility.

The primary objectives of communication facilities are.

-to improve work efficiency;

-to make clinical information more readily available to staff ;

-to assist staff to provide better service to patients;

-to assist patients to maintain contact with staff and with their relatives and friends and access entertainment and education material.

Communication facilities will be required to comply with each judiciary's strategies and policies, plus many are subject to regulatory control. Therefore early advice should be sought regarding these.

SOME OPTIONS

The communication strategy chosen will depend on various issues including size of Facility, location, locally available technology, the available technical support and advances in technology.
Options to be considered may include:

-Teleconferencing;
-Videoconferencing;
-Teleradiology;
-Telepsychiatry;
-Telepathology;
-Bedside data ports;
-Telemetric monitoring;
-Handheld computing;
-Barcode scanning;
-Fingerprint, handprint and voice recognition security systems;

This is in addition to the more 'standard' provision of systems covering:
-Computers

-Telephones – land lines and – increasingly - mobile phones;
-Intercom systems;
-Dictation/transcription;
-Data communication – facsimile, email and intranets;
-Nurse call and emergency call systems;
-Emergency Warning Intercommunication System (EWIS);
-Public address;
-Pocket paging;
-Personal duress alarms;
-MATV distribution.

IMPLICATIONS

The Communications strategy and the Information Management & Technology strategy for a Facility are usually integrated.

In considering the strategy to be adopted, including all component parts, a careful analysis of options, including costs, flexibility and future adaptability is required.

The aim, where possible, should be the 'future proofing' of communications infrastructure even though this may be difficult to achieve.

500697 80 .19.35 CONSULTATIONS AND INTERVIEWS:

SUMMARY

Clinical consultation involving physical examination should always take place in appropriately equipped Consultation/Examination Rooms - see Standard Components in these Guidelines.

Interview Rooms are required to fulfil functions such as:

-Clinical consultation not involving physical examination

-Interviewing patients (often with family/friends) on admission to a Facility or on discharge for purposes such as explaining follow-up care, arranging transport, paying of accounts etc;

-Interviewing patients (often with family/friends) on first attendance for treatment or for pre-admission assessment for surgical treatment or day procedure (although the former may more frequently occur in a Consultation / Examination Room);

-Interviewing / supporting grieving family/friends

-'Family conferences' where clinical staff address treatment issues with family/friends with or without the patient present;

-Formal and informal teaching space for small groups.

SOME OPTIONS

The interview / clinical consultation function may be incorporated into individual offices which will increase the size of offices and also the number of enclosed offices required.

Alternatively, interviews may be conducted in shared Interview Rooms' this option is more flexible and reduces the overall space allocated to individual office accommodation. This will require a commitment to an efficient scheduling system to meet the requirements of those using these spaces.

IMPLICATIONS

The major implications of the approach to be taken should be assessed in terms of the privacy and convenience for patients and staff, and the reallocation of space from Offices to Interview Rooms. The safety and security of staff, patients and visitors is a prime consideration and in certain situations a second egress door may be required, e.g. Mental Health.

500855 80 .19.40 DISASTER PLANNING

SUMMARY

Towards the end of both the Schematic and Design Development phases of a project a specialist review session should be held to:

-Consider the role the health facility will play in case of disaster

-Consider the potential disasters that could occur within the hospital setting and those that could occur outside the hospital setting;

-Consider the implication that those potential disasters could have on the proposed design;

-Review how the design will respond to the potential disaster/s;

-Develop actions to amend the design as required;

-Review existing and develop new operational policies for disaster management to complement the new design and

-Document Operational Policies for future implementation.

SOME OPTIONS

Examples of the types of disasters that will need to be reviewed are:

-Those occurring within the hospital setting eg loss of back-up energy, fire, loss of gas supply;

-Those occurring external to the hospital setting eg singular traumatic events affecting a large number of people, such as use of gas, nuclear, biological or chemical agents, earthquake, fire or rapid spread of disease such as SARS.

IMPLICATIONS

Some examples of issues that may impact on the design are:

From those occurring within the hospital setting:

-Areas such as Intensive Care and Operating Units will require uninterrupted power supply systems to cope with loss of generator back up supply systems;

-Are the paths of fire egress suitable for staff, ambulatory and bedridden patients and if not, can the design and Operational Policies be reviewed to address this issue?

From those occurring outside the hospital setting:

-Does the design provide facilities for appropriate decontamination of personnel

and equipment as required?

-Are the proposed air-conditioned environments appropriate for potential disasters including smoke and heat generated by bushfires?

-Has a disaster control facility been incorporated into the design in an identified area?

-Does the path from the helipad or nominated helicopter landing site provide for ease of access?

-Is it possible to design the Building Management System to respond to disaster situations?

500856 80 .19.45 EQUIPMENT STORAGE

SUMMARY

The increasing dependence on medical equipment including non-invasive ventilatory support, monitors for oximetry, blood pressure monitoring and testing equipment has increased demands for storage space and has significant implications for FF&E budgets.

SOME OPTIONS

Designated equipment may be stored at or near each bed space / point of use.

Additionally, a central storage space will be required for each Unit or cluster of Units and/or for the entire Facility. Centralised storage offers a number of economies and efficiencies but requires a commitment to effective management, record-keeping, cleaning and safe storage of shared equipment to ensure that it is available when required. There are also implications for the maintenance and regular calibration of such equipment.

IMPLICATIONS

Where equipment is to be stored at the bed space, adequate space to use and service it must be provided.

Storage of patient manual handling equipment must be considered in locations convenient to use.

Central storage must be safely accessed by staff during the day and after hours.

Sufficient power points for recharging equipment must also be provided.

500695 80 .19.50 FOOD SERVICES:

SUMMARY

The Food Services Unit provides meals, snacks and beverages for inpatients, day-only patients, occasionally for relatives, and for staff. It may cater for functions on request and may also provide a 'Meals-on-Wheels' service, especially in rural or regional areas.

Catering for staff may range from provision of beverage-making supplies to wards and departments to a full cafeteria service which latter may be privately-operated either by the Facility or by an outside contractor.

Meals may be prepared and delivered to patients and staff in a number of different ways.

SOME OPTIONS

Options for food preparation include:

+ Cook Fresh
Patient meals and beverages are prepared from fresh ingredients and plated hot in the Main Kitchen before delivery to the wards and departments. The system may be supplemented by a "cook-freeze" system to provide selected menu items for other sites.
+ Cook Freeze
Selected menu items including main meals, desserts and a limited range of vegetables and modified consistency items may be prepared in bulk in a central Kitchen, packed into foil containers of between 1 and 12 serves, frozen and boxed for delivery to outlying sites where they are reconstituted.
+ Cook Chill
This system is based on cooking food until thermal kill is achieved followed by rapid controlled chilling that reduces the food temperature to below -3 degrees within a specified time. Storage at this temperature extends the shelf life of the product for between 5 and 45 days depending on the system used.
Meals are plated cold and trayed in rethermalisation carts that are divided vertically in two sections. The carts are then connected to terminals and both sections are refrigerated. Prior to serving, the terminals are activated and the hot part of the trays will be rethermalised while the cold products remain chilled.
IMPLICATIONS

The needs of people with special dietary requirements must be considered when determining food services operational policies. The capacity to produce special meals must be available.

The spatial needs of each preparation and delivery method vary and will impact not only on the central Food Services Unit within the Facility but also on the planning of individual Units. Small beverage bays / pantries, trolley parking bays or trolley re-heat bays or even Activities of Daily Living (ADL) kitchens may be needed in those areas where ADL activities are offered.

Also Refer to Part D – Infection Prevention and Control.

500698 80 .19.55 INFECTION CONTROL:

SUMMARY
Consideration of infection control principles is fundamental to the design of Health Care Facilities. Refer to Part D of these Guidelines for assessment of infection control risks and suggested physical design responses.

Interpretation of infection control principles into Facility and Unit Operational Policies and associated briefed spaces is part of briefing a project.

SOME OPTIONS

The design and layout of all new or renovated Health Care Facilities should take account of the movement of people and incorporate all necessary physical requirements to minimise the transmission of infection.

IMPLICATIONS

Separation of "clean" and "dirty" work flows: Clean and dirty corridor planning for Operating Units is the clearest example of this. However the single corridor

Operating Suite is increasingly the norm and provides fewer planning constraints to the design team.

The inclusion and location of handwash bays/basins is a less dramatic but no less critical example.

500699 80 .19.60 LINEN MANAGEMENT

SUMMARY

The procedures for the delivery and storage of clean linen and the removal of dirty linen impact on the planning for an individual Unit and on the whole Facility with particular regard to trolley movements.

SOME OPTIONS

Laundry facilities may be located on or off campus. Depending on the location of the Laundry and transport methods, a Clean Loading Dock and temporary holding area will/may be required.

Clean linen may be delivered on an imprest trolley exchange system on a regular basis – usually daily plus once on the weekend. Alternatively, clean linen may be delivered and unpacked onto storage shelves or into cupboards; however this is a much more labour intensive approach and should be avoided if possible.
Dirty linen should be sorted at point of use and stored in appropriate receptacles to await pickup. This may be in the Dirty Utility Room or in a Disposal Room in individual units and a Soiled Linen Holding Area with dock access.

IMPLICATIONS

There shall be policies and procedures in place for the safe manual handling of linen.

How linen is delivered and removed, in what type of trolley, cart or bin, how often and in what quantity, will affect sizes and placement of linen bays and cupboards and of central linen receipt and holding areas.

It is essential that clean linen is stored separately from dirty linen.

Depending on facility requirements, different types of linen may have different laundering requirements, eg patient clothes or special items (such as may be necessary in longer term care facilities) may be processed in a laundry within the Unit or on the site, with other items sent off site to a central, District or commercial laundry.

Ensuring adequate clean linen delivery and pickup of soiled linen occurs is also a management issue for the Unit that will relate to the storage areas available for both.

Also Refer to Part D – Infection Prevention and Control.

500780 80 .19.62 MAINTENANCE AND ENGINEERING

SUMMARY

Health service premises, furniture and equipment will all require regular inspection and maintenance. Biomedical equipment will also require regular testing and calibration.

SOME OPTIONS

Maintenance and engineering services may be provided by Facility staff or by contractors, or by a mix of both. They may be provided at a facility level or across an Area or other network of facilities. This will depend on the Service Level Agreement.

For staff and some contractors, maintenance facilities including indoor and outdoor covered work areas plus storage for tools and materials may be required on the facility site.

IMPLICATIONS

Maintenance contracts and work methods will impact on the need for work areas and storage on or off the site.

If performed on site, materials and equipment will be delivered and waste materials removed from maintenance work areas. To avoid any noise problems the maintenance work areas should not be located close to patient care or residential areas.

Staff should regularly conduct an inventory of stored equipment or furniture awaiting repairs and dispose of any surplus goods.

500701 80 .19.65 MEDICATION MANAGEMENT

SUMMARY

Methods and policies for storage, dispensing and administration of oral and injectable drugs at Unit level will impact on planning and operation of that Unit but should as far as possible be standardised across the Facility or Network..

Refer to relevant legislation in each jurisdiction regarding the storage of drugs.

SOME OPTIONS

Options for dispensing include lockable medication trolleys, lockable bedside lockers, a Webster pack or other similar proprietary system.

Options for storage of drugs or medications include storage within a Clean Utility Room or a separate Medication Room with or without a dispensing window.

IMPLICATIONS

The option chosen will affect the size and layout of the Clean Utility Room or Medication Room. It will determine the need for a dangerous drug cupboard, the need for sinks, benches, etc, plus storage for the equipment associated with distribution such as trolleys, baskets, etc.

Provision and location of dangerous drug cupboards/safes will need to be addressed.

500702 80 .19.70 OPERATING HOURS:

SUMMARY

The hours of operation of a Unit or Facility will affect access for patients, visitors and the general public and security requirements. They may also affect the placement of individual Units in relation to other Units and to the entry and exit

points of the overall Facility.

Typically the need to access the Facility after hours will relate to access for visitors or patients attending the Emergency Unit or Birthing Unit or when called in for a sick or dying patient. It will also affect access required by staff, contractors and others.

Refer to Part C for further information.

SOME OPTIONS

A Facility and/or Units may operate 24 hours a day, 7 days a week or at the other extreme be operational for only limited hours and days each week.

Other Facilities / Units may operate 5 days per week but require occasional after hours or weekend access.

Options for access include:
-Staff access - 24 hours;
-Public access 9am to 5pm;
-Public access 9am to 5pm plus designated visiting hours;
-Public access 9am to 9pm;
-Public access 24 hrs;
-Public access after hours by invitation/appointment;
-Public access after hours only in case of emergency.

Consideration should be given to locking down defined spaces out of hours to improve security and reduce energy demands associated with lighting and air-conditioning.

IMPLICATIONS

A Unit that operates 24 hrs over 7 days has different security needs to a 9am to 5pm Unit. It needs to be placed appropriately and planned so that traffic to and from the Unit does not adversely disturb other Units or jeopardise security for the Facility overall.

Units with similar operating hours should be located within the same zone. Requirements for after hours access to a Unit are important in planning the placement of the Unit, access stairs and lifts, and in considering the security issues for that Unit, Units nearby and the Facility as a whole.

500779 80 .19.75 PASTORAL CARE

SUMMARY

Pastoral care services may be offered to all patients and their families during the course of their hospital stay or outpatient attendance.

SOME OPTIONS

Services may be provided by specially employed health service staff, by visiting clergy or by other organisations.

IMPLICATIONS

Provision of offices / Interview Rooms for Pastoral Care Staff

A quiet room may be provided for the use of bereaved relatives or friends in departments such as the Emergency Department and ICU and/or in the Main

Entry.

A Chapel or Prayer Room may be provided to meet the spiritual needs of patients, relatives and friends.

The special needs of different cultural groups will need careful consideration.

500777 80 .19.80 PHARMACY

Pharmacy is comprehensively addressed in HPU 560 - Pharmacy Unit in Part B of these Guidelines.

Note that liaison with local law enforcement agencies may be required / appropriate to ensure that the security of the Unit, the drugs contained therein and the safety of staff cannot be compromised.

500703 80 .19.85 SAFETY AND SECURITY:

SUMMARY

Safety and security of staff, patients and visitors is of the highest priority and must be considered at every stage in the planning and design of Health Care Facilities.

Refer to Part C of these Guidelines for more details.

SOME OPTIONS

Specific requirements will vary depending on the type and location of the Facility.

IMPLICATIONS

Failure to address these issues could lead to serious injury or death. This may also result in increased operating and Workers Compensation costs.

500778 80 .19.90 STERILISING SERVICES

SUMMARY

The method of providing sterile supplies to the various Units in a Facility should be determined in conjunction with consideration of the Operational Policies for each of the Units where sterile supplies are used.

SOME OPTIONS

Sterile items may be processed off-site, in a centralised location in the Facility or at Unit level on an as needed basis.
In areas that have a number of smaller Health Care Facilities, consideration should be given to the establishment of one central Sterilizing Unit with facilities in outlying facilities for reception and storage of sterilized items and processing and collection of used items.

IMPLICATIONS

The procedures adopted for sterile supply will determine the need for space and equipment for sterilisation within the Facility or Unit. It will also determine the requirements for storage space for sterile supplies, and the need to provide an area for used (contaminated) instruments and equipment storage prior to return to the Sterilising Unit.

Quality assurance and availability are key issues in choosing the sterilising method.

500704 80 .19.95 STORES AND SUPPLIES:

SUMMARY

Policies and procedures for the ordering, receipt, central and dispersed storage and distribution of supplies need to be determined for the Unit or Facility.

Supplies may include pharmaceuticals and medical/surgical consumables, general consumable items such as stationery and products for use by cleaning staff e.g. chemicals, soaps, detergents, cleaning cloths, toilet paper, hand towels etc.

SOME OPTIONS

The system used may depend on centralised stores management, be Unit based, or a combination of the two.

The ordering system to be used will determine delivery times and storage requirements.

Different types of goods may be supplied via different ordering systems.

IMPLICATIONS

The Central Store may be located either on the hospital campus or off-site.

Systems of delivery such as 'Just In Time' may impact on the need for storage space in Health Planning Units.

Responsibility for ordering and receipt, location of bulk stores, frequency and method of distribution will affect size and location of storage facilities and staffing.

Different types of supplies will require different types of storage facility, eg shelves, cupboards, locked rooms, etc.

Different levels of security will also apply to the storage of different goods eg drugs and medications, although all supplies will need to be secured and managed to the extent that pilfering and wastage are prevented.

Provision of adequate storage for long weekends, etc, is important especially when a 'just in time' model is adopted.

500705 80 .19.96 VEHICLE ACCESS AND PARKING:

SUMMARY

Access for emergency, health service staff, general public and service vehicles should be clearly designated and separated, where possible, for a Unit and for the whole Facility. Arrangements will need to be made for disabled parking and drop-off spaces for ambulatory patients.

SOME OPTIONS

Patients may be admitted to the Facility through a dedicated entrance or through the Main Entrance.

Separate staff entrances may be provided.

Parking may be centralised, controlled or distributed around a site.

Provision of secure staff parking is essential.

IMPLICATIONS

The number and locations of vehicular and pedestrian entrances will determine site planning and reception points and impact on security requirements.

500706 80 .19.97 WASTE MANAGEMENT

SUMMARY

Policies and procedures for the bagging, collection, storage and disposal of waste need to be determined.

Recycling issues, infection control, food and wet waste disposal, and environmental protection issues need to be considered.

Also refer to Part D of these Guidelines – Infection Prevention and Control.

SOME OPTIONS

Policies need to be developed to determine how waste is sorted and removed, the frequency of removal, the quantity, size and number of waste holding and transport containers and who has responsibility for waste collection.

IMPLICATIONS

These will impact on planning and management of the whole Facility as well as the Unit including size and distribution of waste holding areas at Unit level and in central bulk handling facilities, equipment requirements eg compactor, cardboard baler, on site treatment.

Turning circles of equipment to be used such as tug trolleys will determine space layouts including key dimensions.

COMPONENTS OF THE UNIT

Planning

500051 90 .1.00

This section describes a range of standard rooms that fulfil the same or similar purpose across many Health Planning Units. Key planning considerations only are addressed for each.

For more detail in regard to finishes, recommended dimensions, equipment and building service requirements including data, power and lighting refer to the Room Data Sheets (RDS), Room Layout Sheets (RLS) for each room, Part E of these Guidelines and to TS11 Engineering Services and Sustainable Development Guideline.

Floor areas given are recommended spatial allocations, and increases or decreases must be justified.

It is the responsibility of the designer to work with the recommended spatial allocations in planning the Facility.

Where recommended dimensions of rooms are considered essential, they have been included and shown on RLS.

Rooms List

502063 90 .2.00

ROOM NAME	Area M2	Room Data Sheet Code	Room Layout Sheet Dwg
1 BED ROOM (INBOARD ENSUITE)	15	1BR-ST	1BR-ST-A
1 BED ROOM (OUTBOARD ENSUITE)	15	1BR-ST	1BR-ST-B
1 BED ROOM (SHARED ENSUITE)	15	1BR-ST	1BR-ST-A
1 BED ROOM - ISOLATION (NEGATIVE	15	1BR-IS-N	1BR-IS-N
1 BED ROOM - ISOLATION (POSITIVE	15	1BR-IS-P	1BR-IS-P
1 BED ROOM - ISOLATION (STANDARD)	15	1BRI-S	1BRI-S
1 BED ROOM - MENTAL HEALTH (INBOARD	15	1BR-MH	1BR-MH-A
1 BED ROOM - MENTAL HEALTH (SHARED	15	1BR-MH	1BR-MH-B
1 BED ROOM - MENTAL HEALTH (BACK TO	15	1BR-MH	1BR-MH-C
1 BED ROOM - SPECIAL	18	1BR-SP-A	1BR-SP-A
2 BED ROOM (INBOARD ENSUITE)	25	2BR-ST	2BR-ST-A
2 BED ROOM (OUTBOARD ENSUITE)	25	2BR-ST	2BR-ST-B
2 BED ROOM (SHARED ENSUITE)	25	2BR-ST	2BR-ST-C
2 BED ROOM - MENTAL HEALTH (INBOARD	28	2BR-MH	2BR-MH-A
2 BED ROOM - MENTAL HEALTH (SHARED	28	2BR-MH	2BR-MH-B
2 BED ROOM - MENTAL HEALTH (BACK TO	28	2BR-MH	2BR-MH-D

4 BED ROM (INBOARD ENSUITE)	42	4BR-ST	4BR-ST-A
4 BED ROM (OUTBOARD ENSUITE)	42	4BR-ST	4BR-ST-B
ADL BATHROOM	12	ADLB	ADLB
ADL BEDROOM	15	ADLBR	ADLBR
ADL DINING	6	ADLD	ADLD
ADL KITCHEN – OPEN BAY,	12	ADLK-OP	ADLK-OP
ADL KITCHEN – ROOM, 12M2	12	ADLK-ENC	ADLK-ENC
ADL LAUNDRY	8	ADLL	ADLL
AFTER HOURS DRUG STORE	4	AHDR	AHDR
ANAESTHETIC INDUCTION ROOM	15	ANIN	ANIN
ANGIOGRAPHY CONTROL/REPORTING	14	ANCRT	ANCRT
ANGIOGRAPHY PROCEDURE ROOM	42	ANPR	ANPR
ANGIOGRAPHY STERILE STORE/SET-UP	10	ANSS	ANSS
ANTE - ROOM	8	ANRM	ANRM
ASSEMBLY/PREPARATION (PHARMACY), 20M2	20	ASSP-20	ASSP-20
ASSEMBLY/PREPARATION (PHARMACY), 30M2	30	ASSP-30	ASSP-30
AUDIOLOGY TESTING ROOM	10	AUDIO	AUDIO
BATHROOM	10, 12	BATH	BATH
BAY – BEVERAGE, ENCLOSED	4	BBEV-ENC	BBEV-ENC
BAY – BEVERAGE, OPEN	4	BBEV-OP	BBEV-OP
BAY – BLANKET/FLUID WARMER	1	BBW	BBW
BAY – FLOWERS, ENCLOSED	5	BFLW-ENC	BFLW-ENC
BAY - FLOWERS, OPEN	2	BFLW-OP	BFLW-OP
BAY – HANDWASHING, TYPE A	1	BHWS-A	BHWS-A
BAY – HANDWASHING, TYPE B	1	BHWS-B	BHWS-B
BAY – HANDWASHING, TYPE C	1	BHWS-C	BHWS-C
BAY - LINEN	2	BLIN	BLIN
BAY - MOBILE EQUIPMENT, 4M2	4	BMEQ-4	BMEQ-4
BAY - MOBILE EQUIPMENT, 6M2	6	BMEQ-6	BMEQ-6
BAY - PERSONAL PROTECTIVE EQUIPMENT	2	BPPE	BPPE
BAY - RESUSCITATION TROLLEY	2	BRES	BRES
BAY _ WHEELCHAIR PARK	4	BWC	BWC
BIRTHING ROOM – LDR,	28	BIRM	BIRM

CHANGE – STAFF (MALE/ FEMALE)	10	CHST-10	CHST-10
CHANGE – STAFF (MALE/FEMALE), 35M2	35	CHST-35	CHST-35
CHANGE CUBICLE - PATIENT	2	CHPT	CHPT
CHANGE CUBICLE - DISABLED	4	CHPT-D	CHPT-D
CLEAN UTILITY, 12M2	12, 14	CLUR-12	CLUR-12
CLEANER'S ROOM	5	CLRM	CLRM
CLEAN - UP ROOM	7	CLUP-7	CLUP-7
CLEAN-UP ROOM – SHARED, 15M2	15	CLUP-15	CLUP-15
CONSULT ROOM	12	CONS	CONS
CT SCANNER – CONTROL ROOM	6	CTCR	CTCR
CT SCANNER – PROCEDURE ROOM	45	CTPR	CTPR
DARK ROOM	6	DARK	DARK
DAYLIGHT PROCESSING	16	DPRO	DPRO
DIRTY UTILITY – 10M2	10	DTUR-10	DTUR-10
DIRTY UTILITY – SUB	8	DTUR-S	DTUR-S
DIRTY UTILITY, 12M2	12	DTUR-12	DTUR-12
DISPOSAL ROOM, 8M2	8	DISP-8	DISP-8
ENSUITE (INBOARD)	5	ENS-ST	ENS-ST-A
ENSUITE (OUTBOARD)	5	ENS-ST	ENS-ST-B
ENSUITE (SHARED)	6	ENS-SH	ENS-SH
ENSUITE (SPECIAL)	7	ENS-SP	ENS-SP-A
ENSUITE – BIRTHING ROOM	10	ENS-BR-A	ENS-BR-A
ENSUITE – BIRTHING ROOM (ALTERNATIVE	5	ENS-BR-B	ENS-BR-B
ENSUITE - MENTAL HEALTH (INBOARD)	5	ENS-MH	ENS-MH-A
ENSUITE - MENTAL HEALTH (INBOARD –	5	ENS-MH	ENS-MH-B
FEEDING ROOM	7	FEED	FEED
FORMULA ROOM	7	FORM	FORM
FILM PROCESSING, VIEWING & REPORTING	16	FPVR	FPVR
GENERAL X-RAY,	30	GENXR	GENXR
GOODS RECEIPT – PHARMACY	5	GRE	GRE
GYMNASIUM, 45M2	45	GYAH-45	GYAH-45
INTERVIEW ROOM - FAMILY/ LARGE, 12M2	12	INTF	INTF
LOUNGE – PATIENT, 15M2	15	LNPT-15	LNPT-15

MAMMOGRAPHY	16	MAMMO	MAMMO
MEETING ROOM – SMALL,9M2	9	MEET-9	MEET-9
MEETING ROOM – SMALL, 12M2	12	MEET-12	MEET-12
MEETING ROOM - MEDIUM/ LARGE, 15M2	15	MEET-L-15	MEET-L-15
MEETING ROOM - MEDIUM/ LARGE, 20M2	20	MEET-L-20	MEET-L-20
MEETING ROOM - MEDIUM/ LARGE, 30M2	30	MEET-L-30	MEET-L-30
NEONATAL BAY – GENERAL CARE	5	NBGC	NBGC
NEONATAL BAY – INTENSIVE CARE	12	NBICU	NBICU
NEONATAL BAY – SPECIAL CARE	10	NBSC	NBSC
OFFICE - 2 PERSON SHARED	12	OFF-2P	OFF-2P
OFFICE - 3 PERSON SHARED	16	OFF-3P	OFF-3P
OFFICE - 4 PERSON SHARED	20	OFF-4P	OFF-4P
OFFICE - CLINICAL/ HANDOVER	12	OFF-CLN	OFF-CLN
OFFICE - SINGLE PERSON 12 M2	12	OFF-S12	OFF-S12
OFFICE - SINGLE PERSON 9 M2	9	OFF-S9	OFF-S9
OFFICE – WORKSTATION, 5.5M2	5.5	OFF-WS	OFF-WS
OFFICE - WRITE-UP BAY(SHARED)	2	OFF-WIS	OFF-WIS
OFFICE – WRITE-UP BAY, 3M2	3	OFF-WI-3	OFF-WI-3
OPERATING ROOM - GENERAL	42	ORGN	ORGN
OPERATING ROOM - LARGE	50	ORLA	ORLA
OPERATING ROOM - MINOR	36	ORMS	ORMS
OVERNIGHT STAY – BEDROOM	10	OVBR	OVBR
OVERNIGHT STAY – ENSUITE	4	OVES	OVES
PANTRY	8	PTRY	PTRY
PARENTING ROOM	6	PAR	PAR
PATIENT BAY - ACUTE TREATMENT, 10M2	10	PBTR-A10	PBTR-A10
PATIENT BAY - ACUTE TREATMENT, 12M2	12	PBTR-A12	PBTR-A12
PATIENT BAY - HOLDING, 9M2	9	PBTR-H-9	PBTR-H-9
PATIENT BAY - RESUSCITATION	25	PBTR-R	PBTR-R
PATIENT BAY - CRITICAL (ENCLOSED), 20M2	20	PBCE-20	PBCE-20
PATIENT BAY - CRITICAL (ENCLOSED), 25M2	25	PBCE-25	PBCE-25
PATIENT BAY -NON ACUTE TREATMENT, 10M2	10	PBTR-NA	PBTR-NA
PATIENT BAY – RECOVERY, STAGE 1	9	PBTR-RS1	PBTR-RS1

PHARMACY – COUNTER, 9M2	9	PHA-CO	PHA-CO
PLASTER ROOM	14	PLST	PLST
PLAY AREA – PAEDIATRIC, 10M2	10	PLAP-10	PLAP-10
PLAY AREA – PAEDIATRIC, 20M2	20	PLAP-10	PLAP-20
PREPARATION ROOM – NON STERILE	12	PREP	PREP
PREPARATION/ SETUP ROOM (IMAGING)	9	PREP-S	PREP-S
PROCEDURE ROOM, 14M2	14	PROC-14	PROC-14
PROCEDURE ROOM, 20M2	20	PROC-20	PROC-20
PROPERTY BAY – STAFF, 2M2	2	PROP-2	PROP-2
RECEPTION/ CLERICAL, 10M2	10	RECL-10	RECL-10
SCREENING ROOM (FLUOROSCOPY)	36	SCRN	SCRN
SCRUB-UP/ GOWNING - SHARED	6	SCRBS	SCRBS
SCRUB-UP/ GOWNING, 8M2	8	SCRB-8	SCRB-8
SECLUSION ROOM	14	SECL	SECL
SET-UP ROOM	8	SETUP-8	SETUP-8
SHOWER - PATIENT	4	SHPT	SHPT
SHOWER - STAFF	2	SHST	SHST
STAFF ROOM, 15M2	15	SRM	SRM
STAFF STATION, 5M2	5	SSTN-5	SSTN-5
STAFF STATION, 10M2	10	SSTN-10	SSTN-10
STAFF STATION, 14M2	14	SSTN-14	SSTN-14
STORE – ACCOUNTABLE DRUGS	5	STAD	STAD
STORE – BULK	40	STBK	STBK
STORE - CLEANER'S	12	STCL	STCL
STORE- DRUGS, 5M2	5	STDR-5	STDR-5
STORE- DRUGS, 10M2	10	STDR-10	STDR-10
STORE – EQUIPMENT, 14M2	14	STEQ-14	STEQ-14
STORE - EQUIPMENT, 20M2	20	STEQ-20	STEQ-20
STORE – FILES, 10M2	10	STFS-10	STFS-10
STORE – GENERAL , 9M2	9	STGN-9	STGN-9
STORE – GENERAL,10M2	10	STGN-10	STGN-10
STORE - PHOTOCOPY/ STATIONERY	8	STPS	STPS
STORE - STERILE STOCK, 12M2	12	STSS-12	STSS-12

STORE - STERILE STOCK, 24M2	24	STSS-24	STSS-24
TOILET - DISABLED	5	WCDS	WCDS
TOILET - PATIENT	4	WCPT	WCPT
TOILET – PUBLIC, 3M2	3	WCPU-3	WCPU-3
TOILET - STAFF	2	WCST	WCST
TREATMENT ROOM	14	TRMT	TRMT
WAITING - SUB 5M2	5	WAIT-SUB	WAIT-SUB
WAITING	10	WAIT-10	WAIT-10
WAITING - PATIENT, 20M2	20	WAIT-20	WAIT-20
X-RAY VIEWING AND REPORTING	12	XRRR	XRRR

1 Bed Room

600197 90 .2.10 PERFORMANCE REQUIREMENTS

A 1 Bed Room shall accommodate one patient for the delivery of medical and nursing care and treatment and can be used for standard isolation without the need for positive or negative air-conditioning.

Dedicated en suites shall be directly accessible from within the bedroom.

A staff handbasin shall be provided in each bedroom.

External windows shall be provided in accordance with the BCA.

500066 90 .3.00 DESCRIPTION AND FUNCTION

A 1 Bed Room should be 15 sqm. Where required for special care such as accommodation for bariatric patients, a 1 Bed Room should be 18sqm. (Refer Bedroom Special)
Patients to be accommodated may include:

-Noisy or disturbed patients
-Palliative care and rooming-in of relatives
-High dependency patients
-Patients requiring privacy
-Mothers and babies rooming in
-Patients with a lowered resistance to disease or infection.

LOCATION AND RELATIONSHIPS

Where possible, single bedrooms should be located close to and observable from the Staff Station and with natural light and outlook.
Three options are available for the relationship between bedroom and en suite:

A Inboard
B Outboard
C Back-to-back.

These variations are shown in the RLS for this room.

CONSIDERATIONS

For staff handwashing facilities and PPE bays refer to Part D of these Guidelines. For additional details, refer to Room Data and Room Layout Sheets.

1 Bed Room - Isolation

600283 90 .3.10 PERFORMANCE REQUIREMENTS

Isolation Rooms are used to isolate patients with known infectious conditions, or to protect patients from infection. They shall have positive or negative pressure airconditioning.

Each Isolation Room shall have a dedicated Ensuite.

500084 90 .4.00 DESCRIPTION AND FUNCTION

Class N or P Isolation Rooms will generally only be provided in special Units and according to service demand. It is noted that all standard 1 Bed Rooms may function as Class S Isolation Rooms.

These are described in detail in Part D of these Guidelines.

CONSIDERATIONS

For Anterooms, staff handwashing facilities, PPE Bays and further information regarding Isolation Rooms refer to Part D of these Guidelines.

For additional room considerations refer to Room Data Sheets and Room Layout Sheets

1 Bed Room - Special

600198 90 .4.10 PERFORMANCE REQUIREMENTS

A 1 Bed Room - Special shall accommodate one patient for the delivery of nursing and medical care, and treatment.

It shall be a larger bedroom to accommodate special needs patients such as bariatric and palliative care patients. The additional floor area allows for larger or additional furniture and equipment. It also permits overnight stay by carers.

Doors from the Unit corridor to the room shall allow for 1400 clear opening to allow passage of bariatric beds and other over-size equipment.

Each 1 Bed Room - Special shall have a 'Super' Ensuite, which will facilitate the assistance of the patient by 2 carers.

503041 90 .5.00 DESCRIPTION AND FUNCTION

A 1 Bed Room -Special should be 18 m2.

A 1 Bed Room - Special may be used as a Class S Isolation Room without positive or negative air conditioning.

LOCATION AND RELATIONSHIPS

The recommended provision of 1 Bed Rooms - Special is as follows:

+ One per facility where that facility has fewer than 50 beds;

+ One per 60 beds or one per two Inpatient Units in larger facilities, whichever is the lesser.

The number of rooms shall be determined by considering factors such as type of services, proportion of dependent patients requiring rooming in, and proportion of bariatric patients.

CONSIDERATIONS

For staff handwashing facilities and PPE Bays refer to Part D of these Guidelines.

For additional room considerations refer to Room Data Sheets and Room Layout Sheets

2 Bed Room

600199 90 .5.10 PERFORMANCE REQUIREMENTS

A 2 Bed Room shall accommodate two patients with similar nursing needs for the delivery of nursing and medical care and treatments.

External windows shall be provided, in accordance with BCA requirements.

Each 2 Bed Room shall include a clinical handwashing basin within the room.

500090 90 .6.00 DESCRIPTION AND FUNCTION

2 Bed Rooms are not recommended for general medical/surgical Inpatient Units. They are most often used in Maternity and Rehabilitation Inpatient Units. They are commonly provided in Maternity Units in lieu of 4 Bed Rooms to reduce disturbance caused by the rooming-in of babies.

A 2 Bed Room should be 25 m2 (not including an Ensuite).

LOCATION AND RELATIONSHIPS

Bed Rooms should be located close to, and visible from, a Staff Station and with natural light and outlook. Ensuites shall be directly accessible from the Bed Room, or from directly adjacent to the entry door.

Three options are available for the relationship between Bed Room and Ensuite:

A Inboard Ensuite

B Outboard Ensuite

C Back-to-back Ensuite (as per DS26)

These variations are shown in the RLS for this room.

CONSIDERATIONS

Careful consideration should be given to their use in other types of Inpatient Units.

For additional room considerations refer to Room Data Sheets and Room Layout Sheets

4 Bed Room

600284 90 .6.10 PERFORMANCE REQUIREMENTS

A 4 Bed Room shall accommodate four patients with similar nursing needs for the delivery of nursing and medical care and treatment.

Visual privacy from casual observation by other patients and visitors shall be provided for each patient. The design for privacy shall not restrict patient access to the room entrance, the patient toilet or shower. This includes access via mobility equipment such as wheelchair, shower chair or hoist, and for resuscitation trolley.
The space within the privacy curtain shall be sufficient to allow for use of equipment and to carry out medical procedures without entanglement in the curtain and encroachment on the space of other patient.

Ensuite shower and toilet shall be directly accessible from the bedroom or from adjacent to the entry door.

External windows shall be provided in accordance with BCA requirements.

Each 4 Bed Room shall include a clinical handwashing basin within the room.

500096 90 .7.00 DESCRIPTION AND FUNCTION

A 4 Bed Room should be 42 m2 (not including an ensuite). Provision of 42 m2 allows for flexibility of use, as well as space for extra equipment and reduction of clutter.

LOCATION AND RELATIONSHIPS

Bedrooms should be located close to, and visible from, a Staff Station and with natural light and outlook.

Two options are available for the relationship between Bed Room and Ensuite:

A Inboard Ensuite Shower and Ensuite Toilet

B Outboard Ensuite Shower and Ensuite Toilet.

These variations are shown in the RLS for this room.

CONSIDERATIONS

For additional room considerations refer to Room Data Sheets and Room Layout Sheets

ADL Bathroom

600201 90 .7.03 PERFORMANCE REQUIREMENTS

Domestic style Bathroom for patient Activities of Daily Living assessment and training to assist patients to return to normal living. It provides for training to use a domestic bath, showering, dressing/undressing, grooming and toileting.

The shower shall not have a raised hob or steps.

Patient/nurse and emergency call points are required.

ADL Bathroom

502066 90 .7.05 DESCRIPTION AND FUNCTION

Use of wheelchairs, lifting equipment and specially adapted equipment may be demonstrated in this space.

The ADL Bathroom should be a minimum of 12 m2.

LOCATION AND RELATIONSHIPS

The ADL Bathroom should be located with other ADL facilities with ready access to waiting and amenities.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets.

ADL - Bedroom

600202 90 .7.06 PERFORMANCE REQUIREMENTS

The ADL Bedroom is a domestic style bedroom for patient assessment and training purposes, to assist patients to return to normal living.

502221 90 .7.07 DESCRIPTION AND FUNCTION

The ADL Bedroom may require use of wheelchairs and lifting equipment and specially adapted equipment may also be demonstrated in this space.

The ADL Bedroom should be a minimum of 13 m2.

LOCATION AND RELATIONSHIPS

The ADL Bedroom may be located with other ADL facilities, in the Allied Health / rehabilitation patient treatment zone, with ready access to waiting and amenities areas.

CONSIDERATIONS

Furniture and fittings may include:
- Domestic bed
- Bedside table
- Bedside chair
- A patient/nurse call and access to an emergency call point is required
- GPOs are required for bedside use
- Fittings and finishes should be domestic in nature; the floor should be carpeted

ADL - Dining

600203 90 .7.08 PERFORMANCE REQUIREMENTS/ DESCRIPTION AND FUNCTION

Domestic style dining area within a Transitional Living Unit to allow patients and their visitors to eat their meals away from the bedroom.

Wheelchair access required to the dining table.

503376 90 .7.09 LOCATION AND RELATIONSHIPS

Within the Transitional Living Unit adjacent to the Kitchen.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets

ADL Kitchen

600204 90 .7.10 PERFORMANCE REQUIREMENTS

Domestic style Kitchen for patient Activities of Daily Living assessment and training to assist patients to return to normal living. It provides for training to use a range of kitchen appliances.

502067 90 .7.15 DESCRIPTION AND FUNCTION

Specially adapted equipment may be demonstrated in this space.

The Kitchen may be an enclosed room or open bay; in the latter instance direct access to the Dining Area will facilitate group training sessions.

The ADL Kitchen – whether open or enclosed - should be a minimum of 12 m2.

LOCATION AND RELATIONSHIPS

The ADL Kitchen should have ready access to patient dining / lounge areas with direct access to the Unit corridor.

CONSIDERATIONS

Benches should be a mix of heights to suit a range of ambulatory and wheelchair patients.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

ADL Laundry

600205 90 .7.17 PERFORMANCE REQUIREMENTS

Domestic style Laundry for patient Activities of Daily Living assessment and training to assist patients to return to normal living. It provides for training to use a range of laundry appliances.

502068 90 .7.18 DESCRIPTION AND FUNCTION

The ADL Laundry should be 8 m2.

LOCATION AND RELATIONSHIPS

The ADL Laundry should have direct access to the Unit corridor with ready access to patient therapy and dining/ lounge areas.

CONSIDERATIONS

Benches and appliances must suit a range of ambulatory and wheelchair patients.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

After Hours Drug Store

600285 90 .7.19 PERFORMANCE REQUIREMENTS

Secure store for drugs required after hours when the Pharmacy is closed. Access is by authorised staff only.

502069 90 .7.20 DESCRIPTION AND FUNCTION

After Hours Drug Store should be minimum area 4 m2.

LOCATION AND RELATIONSHIPS

May be located at the perimeter of the Pharmacy with two-way access from Pharmacy and corridor. This arrangement facilitates checking and restocking by the Pharmacy staff.

If the location of the Pharmacy is remote, a secure location in a 24 hour zone should be selected – an inpatient unit or, frequently, the Emergency Unit.

CONSIDERATIONS

Bench, shelving, refrigerator, DD safe and possible computer for stock monitoring.

Temperature monitor and alarm to to refirigerator and DD safe.
For additional details refer to Room Data and Room Layout Sheets.

Angiography Control Room

600206 90 .7.30 PERFORMANCE REQUIREMENTS

The room provides for remote operation of angiography equipment, review of procedure images and for reporting function.

502065 90 .7.35 DESCRIPTION AND FUNCTION

If two angiography rooms are collocated, a single Control Room may service both rooms.

Single Room – minimum area 14 m2. If shared between 2 rooms, minimum area 17m2 depending on the configuration of the Procedure Rooms.

If the reporting function is not included, the single room may be reduced to 11m2 and a shared room to 14m2.

LOCATION AND RELATIONSHIPS

Immediately outside and with direct access into the Angiography Procedure Room.

CONSIDERATIONS

Lead glass observation window to permit full view of the patient .

Provision for general anaesthesia

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets

Anaesthetic Induction

600207 90 .7.90 PERFORMANCE REQUIREMENTS

The Anaesthetic Induction Room is for holding patients on mobile beds or trolleys prior to operative procedures at times when the Operating Room is not available. Local, regional or general anaesthesia shall be administered in this area.

The area shall accommodate the patient on a mobile trolley/bed plus 3 staff and equipment.

500793 90 .8.00 DESCRIPTION AND FUNCTION

The size of an Anaesthetic Induction room should be 15 or 18m2 as per Operating Unit Schedules of Accommodation.

LOCATION AND RELATIONSHIPS

The Anaesthetic Induction Room should be located near the entrance of the Operating Suite, the Holding Bay and the Operating Rooms.

It should be enroute from the entrance of the Unit to the Operating Room.

CONSIDERATIONS

For additional room considerations refer to Room Data Sheets and Room Layout Sheets

Anteroom

600208 90 .8.05 PERFORMANCE REQUIREMENTS

Anterooms are required for staff and visitors to change and dispose of personal protective gear used on entering these rooms when caring for infectious patients.

The Anteroom shall not be shared between rooms. The Anteroom shall not need to function as an airlock for Class N rooms with the exception of ICU.

500795 90 .9.00 DESCRIPTION AND FUNCTION

Anterooms increase the effectiveness of the Isolation Room by minimising the potential escape of airborne nuclei into the corridor when the door is opened.

An Ante-Room should be 6 m2.

LOCATION AND RELATIONSHIPS

Staff must pass through the Anteroom to enter the Isolation Room.

CONSIDERATIONS

For additional information refer to Part D - Infection Control.

For additional room considerations refer to Room Data Sheets and Room Layout Sheets.

Angiography Procedure Room

600209 90 .9.02 PERFORMANCE REQUIREMENTS

The Angiography Room provides an area and equipment for examination of the vascular system using contrast medium.

502064 90 .9.03 DESCRIPTION AND FUNCTION

The Angiography Room should be a minimum of 42 m2.

LOCATION AND RELATIONSHIPS

Adjacent to the Control Room with ready access to Patient Holding/Recovery Areas and Staff Change Rooms.

May be one of a cluster of rooms forming an Interventional Imaging Suite.

Scrub facilities shall be located at the staff entry to room.

CONSIDERATIONS

Immediate access to a resuscitation trolley.

Radiation shielding as assessed by a certified Radiation Consultant.

For additional details, refer to Room Data and Room Layout Sheets.

Angiography Sterile Store/Setup

600210 90 .9.05 PERFORMANCE REQUIREMENTS

A room for storage of sterile packs, consumables and drugs, preparation of radiological contrast media and parking and set-up of procedure trolleys.

A clinical scrub sink shall be provided

502070 90 .9.06 DESCRIPTION AND FUNCTION

Used and soiled items and clinical waste will not be returned to this room.

LOCATION AND RELATIONSHIPS

Ready access into the Angiography Procedure Room/s.

Direct access from corridor for delivery of supplies and removal of clean packaging waste.

CONSIDERATIONS

Space for assembling and setting up procedure trolleys.

Consider a mobile adjustable open shelving system, that has no rough or projecting edge that could damage sterile packaging.

For additional details, refer to Room Data and Room Layout Sheets.

Assembly /Preparation (Pharmacy)

600211 90 .9.08 PERFORMANCE REQUIREMENTS

The Assembly/Preparation Area is a work space within the Pharmacy containing work benches and drugs and containers storage from the pharmacists assemble and label drug orders for delivery to the appropriate patient care areas or to the outpatient dispensing area.

Internal temperatures shall not rise above 25 degrees Celsius.

502222 90 .9.10 DESCRIPTION AND FUNCTION

Functions and Activities include:
+ counting tablets and capsules from bulk containers into dispensing containers
+ selecting the required quantity of prepacked medications and placing them in the appropriate container
+ labelling the containers with the name of the medication, the patient's name and directions for use
+ selecting the required amount of lotions, antiseptics and other liquids to fulfil the order
+ counting and packaging ampoules of drugs for administration by injection
+ QA activities including computer data entry of all materials supplied
+ meeting legislative requirements for the control of drugs of addiction
+ storing completed ward orders in boxes/tubs to await delivery
+ transferring outpatient orders into the Outpatient Pharmacy Counter for pick-up.

LOCATION AND RELATIONSHIPS

The area should be adjacent to the Active Store and should have ready access to the Non-Sterile Preparation Area and to the hospital corridor system for ward deliveries.

CONSIDERATIONS

Task lighting will be required at each work station.

Refer to Part C of these Guidelines for further information on security.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Audiology Testing Room

600212 90 .9.13 PERFORMANCE REQUIREMENTS

The Audiology Room is an acoustically isolated room containing an audiology soundproof booth and workstation area to undertake audiology testing and assessment.

502072 90 .9.15 LOCATION AND RELATIONSHIPS

The Audiology Room should be located in a quiet zone within the Allied Health patient consult and treatment areas or near ENT Clinic. It should have ready access to waiting and amenities areas.

CONSIDERATIONS

The following fittings and equipment will be required:
- Soundproof booth
- Desk and chairs
- Microphone

Bathroom

600213 90 .9.20 PERFORMANCE REQUIREMENTS

The Bathroom is for patients to use for:

+ Washing, shaving, grooming, showering, toilet use either independently or with assistance;

+ Assisted bathing of disabled patients;

+ Bathing of patients for treatment purposes.

It shall allow for independent disabled access as well as the manoeuvring of a patient on a lifting device, wheelchair or assisted sani-chair access.

500119 90 .10.00 DESCRIPTION AND FUNCTION

Water conservation should be considered in the selection of fittings and fixtures.

Space may be required to enable transfer of a patient to a bath from both sides. The placement of the toilet should also allow assistance from both sides.

The bath provided may be either fixed, eg 'Arjo' type, or mobile (such as trolley bath). A disabled toilet should be provided and room for a shower trolley where required.

The size of the room will be determined by the space required for fixed and mobile fittings and equipment, plus the free floor areas required to ensure adequate circulation space for semi- and non-ambulant patients. A bathroom should be 15 m2.

The layout of bathing facilities must not put adult carers at risk of injury from sustaining an awkward posture, extended reaching or manual handling.

The BCA requires a Bathroom to be provided in health facilities- minimum 1 per floor; although generally only specialist units such as Paediatrics would actually require provision of this facility.

LOCATION AND RELATIONSHIPS

The Bathroom should be central to all bedroom areas, to reduce travel and manual handling from pushing wheelchairs, shower chairs and hoists.

It should be placed in a low traffic area.

CONSIDERATIONS

Finishes: Floors are to be slip resistant and impervious to water; walls to wet

areas are to have water resistant finish with no gaps and the ceiling is to be water resistant.

If a paediatric bathroom is provided, the height, scale and type of fittings and fixtures should be suitable for use by children.

For additional room considerations refer to Room Data Sheets and Room Layout Sheets.

Bay - Flowers

600214 90 .10.10 PERFORMANCE REQUIREMENTS

A bay for staff, relatives or visitors to fill or empty vases, and to arrange and dispose of flowers.

500722 90 .11.00 DESCRIPTION AND FUNCTION

A Flower Bay should be 2 m2. It should include a deep sink and storage for vases and a waste bin for disposal of spent flowers.

LOCATION AND RELATIONSHIPS

Central to Patient Areas.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Bay - Handwashing

600215 90 .11.10 PERFORMANCE REQUIREMENTS

Handwashing Bays are provided for staff to cleanse their hands before and after every patient contact.

500159 90 .12.00 DESCRIPTION AND FUNCTION

Refer Part D for further information re. provision.

LOCATION AND RELATIONSHIPS

Handwashing Bays should be highly visible and conveniently located to encourage use by clinical staff.

CONSIDERATIONS

All 1 Bed Rooms shall contain a clinical hand basin within the room. Provide additional handwashing bays throughout the Unit in accordance with the requirements of Part D. Generally staff should be no further than 10-12 metres from a handwashing basin at any time.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Bay - Linen

600216 90 .12.10 PERFORMANCE REQUIREMENTS

An alcove or bay to accommodate a linen supply or exchange trolley. This shall be open or enclosed with double doors or a roller shutter. If enclosed, the doors/frame shall not impede trolley access.

500164 90 .13.00 DESCRIPTION AND FUNCTION

Blankets and pillows may also be stored in this bay.

A Linen Bay should be 2m2.

LOCATION AND RELATIONSHIPS

Ready access to Patient Areas.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Bay - Mobile Equipment

600217 90 .13.10 PERFORMANCE REQUIREMENTS

The Mobile Equipment Bay is for the storage of wheelchairs, mobile scales, sanichairs, patient lifting devices and other equipment.

The bay shall be deep enough to allow storage or equipment without projection into the corridor.

500797 90 .14.00 DESCRIPTION AND FUNCTION

Electrical Equipment that requires recharging may be stored in this space during the recharging period therefore provision of appropriately located power outlets will be required.

A Mobile Equipment Bay should be 4 m2.

If mobile x-ray equipment is stored, the bay area shall be 6 m2. Floor area and depth of bay may vary to suit the types of equipment stored.

LOCATION AND RELATIONSHIPS

The Mobile Equipment Bay should be located in a low traffic area, close to Patient Areas.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Bay - Personal Protective Equipment

600218 90 .14.10 PERFORMANCE REQUIREMENTS/ DESCRIPTION AND FUNCTION

A bay for the storage of personal protective equipment such as gloves, gowns, overshoes and masks for infection control purposes.

500799 90 .15.00 LOCATION AND RELATIONSHIPS

May be located with the Handwash Bay or immediately outside Isolation Rooms of all types (unless an Anteroom is provided) and outside all patient bed rooms. For 1 Bed Rooms, one PPE Bay may be shared by two rooms

Personal Protective Equipment (PPE) Bays may also be required in Operating Suites, Cardiac Catheter Labs, Endoscopy Units/Endoscope processing rooms and maintenance workshops for storage of protective equipment required by OHS legislative requirements.

CONSIDERATIONS

Refer Part D for further information.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Bay - Resuscitation Trolley

600219 90 .15.10 PERFORMANCE REQUIREMENTS

The Resuscitation Trolley Bay is for the supervised holding of the resuscitation trolley and equipment.

Rapid emergency access to the trolley and from this area to Patient Areas is essential.

500253 90 .16.00 DESCRIPTION AND FUNCTION

A Resuscitation Trolley Bay should be 2 m2.

LOCATION AND RELATIONSHIPS

It should be adjacent to a Ward Staff Station and elsewhere as required.

CONSIDERATIONS

The Resuscitation Trolley Bay may be incorporated in the Clean Utility Room in an Inpatient Unit.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Bay/Room - Beverage

600220 90 .16.10 PERFORMANCE REQUIREMENTS

The Beverage Bay is for preparing and/or heating refreshments, snacks and some meals for patients, washing some utensils, storing food and drink and disposing of food waste. It shall also provide space for a meal tray collection trolley. If an instantaneous boiling water unit is provided, it shall be hardwired and access
restricted as required.

500124 90 .17.00 DESCRIPTION AND FUNCTION

The Beverage Bay should be 4 m2. A Beverage Room may also function as a

small kitchenette for preparation of meals and snacks for patients and may be larger in accordance with the project brief.

If an enclosed room is provided the floor area may be increased to 5 m2.

LOCATION AND RELATIONSHIPS

The Beverage Bay should be close to Patient Areas and may need to be observable from the Staff Station depending on the type of patients within the Unit.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Bay-Blanket/Fluid Warmer

600221 90 .17.02 PERFORMANCE REQUIREMENTS/ DESCRIPTION AND FUNCTION

A Bay to accommodate a blanket or combined blanket /fluid warmer.

502073 90 .17.03 LOCATION AND RELATIONSHIPS

Centrally within the Unit accessible from Patient Care Areas and Operating Rooms. This bay may be collocated with Linen Trolley Bay.

CONSIDERATIONS

Blanket/Fuid Warmer may be mobile or fixed.
For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Bay-Wheelchair Park

600222 90 .17.05 PERFORMANCE REQUIREMENTS/ DESCRIPTION AND FUNCTION

An open storage bay for parking wheelchairs ready for use.
The bay shall be deep enough to ensure that the wheelchairs do not intrude onto corridor and circulation space.

502075 90 .17.06 LOCATION AND RELATIONSHIPS

Locate near Waiting Areas and Unit entries.

CONSIDERATIONS

Wall protection.
Power points for recharge may need to be considered.

Birthing Room - LDR

600223 90 .17.08 PERFORMANCE REQUIREMENTS

These rooms provide facilities for the entire birthing process including:
+ patient assessment and preparation
+ management of labour
+ delivery

+ infant clean-up/bathing - and resuscitation if necessary
+ post-natal recovery and observation
+ record keeping.

Each Birthing Room shall have a dedicated en suite shower / toilet with or without bath, a scrub basin and access to a discrete storage area for mobile equipment.

502074 90 .17.10 DESCRIPTION AND FUNCTION

A Birthing Room (LDR) should be a minimum of 28 m2.

LOCATION AND RELATIONSHIPS

Birthing Rooms should be located with ready access from the Unit entry and Staff Station.

CONSIDERATIONS

The décor and finishes for a Birthing Room should be in a domestic style.

Clinical items such as medical gases and equipment should be concealed but within easy reach.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Change Cubicle - Patient

600224 90 .17.20 PERFORMANCE REQUIREMENTS

The Patient Change Cubicle is provided for an ambulant patient to undress from street clothes into a hospital gown, as appropriate prior to examination or treatment. Following the examination or treatment, the patient will re-dress in street clothes.

500803 90 .18.00 DESCRIPTION AND FUNCTION

The Change Cubicle should provide hanging facilities for clothes, and a bench for the patient to sit on whilst dressing or undressing.

A Change Cubicle for general use should be 2 m2.

A Change Cubicle for disabled use shall be 4 m2. This cubicle may also be used by bariatric patients, pregnant patients or accompanied patients.

Change cubicles for disabled use should be provided at the following minimum rate - one cubicle or 30% of all cubicles, whichever is the greater figure.

LOCATION AND RELATIONSHIPS

The Change Cubicle should be located near or directly adjacent to Treatment areas.

CONSIDERATIONS

Security of patient belongings should be ensured. Privacy and accessibility from waiting areas should be considered.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Change - Staff

600225 90 .18.10 PERFORMANCE REQUIREMENTS

Staff Change Areas are provided for staff to change into appropriate work clothing or gowns, to store their street clothes and to perform personal ablutions. Secure storage for personnel property shall be required.

500801 90 .19.00 DESCRIPTION AND FUNCTION

Provision should generally be made for two Staff Change Areas, one for male and one for female staff.

If staff numbers are small and predominantly of one sex, unisex facilities may be considered.

The total area for Staff Change will depend on the size of the Unit but should be divided into male and female areas on a proportional basis to meet the specific requirements of the project brief.

Showers, toilets and decontamination facilities will be included within or adjacent to Staff Change areas depending on the nature of the Unit.

LOCATION AND RELATIONSHIPS

In Operating Units, for security and control purposes it is desirable that the traffic patterns to and from the Staff Change can be overviewed from the Reception/Entry Area.

In other Units, the Change Areas should be located in a convenient position, generally near the entry point to the Unit, but separate from Patient Areas.

CONSIDERATIONS

Provision should generally be made for two Staff Change Areas, one for male and one for female staff.

If staff numbers are small and predominantly of one sex, unisex facilities may be considered.

In units such as the Operating Suite where staff do full clothing change - full height lockers will be required.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Cleaner's Room

600226 90 .19.10 PERFORMANCE REQUIREMENTS

A secure room for the storage and decanting of cleaning materials and agents, storage of cleaning equipment and trolley, washing and storage of mops, buckets, brooms, etc and for waste disposal.

500139 90 .20.00 DESCRIPTION AND FUNCTIONS

An externally accessed cupboard should be provided for dry goods such as toilet

paper and paper hand towels.

The Cleaner's Room should be 5 m2 and lockable.

LOCATION AND RELATIONSHIPS

Anywhere convenient in the Unit, preferably in a low traffic area near the periphery of the Unit. It may be shared with other areas.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets.

Clean-Up Room

600227 90 .20.10 PERFORMANCE REQUIREMENTS/ DESCRIPTION AND FUNCTION

The Clean Up Room is a dispersal area where used trolleys and articles shall be held temporarily. These items may be rinsed, sorted or disposed of in accordance with the Facility Operational Policies.

500807 90 .21.00 DESCRIPTION AND FUNCTION

One Clean Up Room may be shared between two Operating Rooms.

A Clean Up area should be 10 m2 where its use is shared by more than one Operating/Procedures Room.

A Clean-Up Room should be 7 m2, where used by one Operating/Procedure Room only.

LOCATION AND RELATIONSHIPS

The Clean Up Room should be located adjacent to its associated Operating or Procedure Room(s) and may be off the appropriate Exit Area(s).

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Clean-Up - Scopes

600228 90 .21.10 PERFORMANCE REQUIREMENTS

The Clean-Up - Scopes room is used for rinsing and cleaning of medical equipment, instruments or endoscopes used in procedures, prior to a sterilisation procedure.

500148 90 .22.00 LOCATION AND RELATIONSHIPS

Ready access to treatment or procedure room(s).

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Clean Utility

600229 90 .22.10 PERFORMANCE REQUIREMENTS/ DESCRIPTION AND FUNCTION

The Clean Utility Room is for the storage and preparation of clean and sterile stock, patient care items, drugs and intravenous fluids.

The room shall provide storage for dangerous drugs in accordance with relevant legislation.

Doors to the Clean Utility shall be Lockable.

500131 90 .23.00 LOCATION AND RELATIONSHIPS

The Clean Utility should be located adjacent to the Staff Station and be readily accessible from Inpatient Accommodation.

Depending on the configuration of the Unit, access may be from two sides.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Pharmacy policy at each facility will determine storage and handling requirements for general drugs and medications.

The Clean Utility Room should be 12 m2, unless accessed from both sides in which case it may be increased to 14 m2.

It should be lockable.

Consult Room

600230 90 .23.10 PERFORMANCE REQUIREMENTS

The Consult Room will provide for private consultation and examination of patients with or without support persons present. This room shall also be used for the examination of patients who are behaviourally disturbed, in which case emergency egress shall be provided.

Acoustic and visual privacy shall be provided.

500143 90 .24.00 DESCRIPTION AND FUNCTION

Consult rooms may be provided for a variety of purposes including:

+ Assessing gynaecological/obstetrics patients and sexual assault victims;

+ ENT/Ophthalmology;

+ Dental;

+ Paediatric use;

+ General or multifunctional purposes.

Equipment for each of these functions may differ. For each function provide

appropriate furniture and equipment, and toys for paediatric use.

A Consult Room should be 12 m2.

LOCATION AND RELATIONSHIPS

To be grouped with other Consult Rooms, where possible, and easily accessible from Entry, Waiting and Staff Areas. Close to Clean and Dirty Utility Rooms.

Two doors and duress alarms may be required for security reasons - refer Part C of these Guidelines for further information.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

CT Scanner-Control Room

600231 90 .24.05 PERFORMANCE REQUIREMENTS/ DESCRIPTION AND FUNCTION

The room provides for remote operation of CT equipment, observation of the patient and review of images.

A viewing window shall be provided to permit full view of the patient and the angle of the CT Unit shall permit the control operator to see the patient's head.

The Control Room shall be located directly outside the CT Scanning Room.

502078 90 .24.10 LOCATION AND RELATIONSHIPS

Ready access to film processing areas (laser printer).

CONSIDERATIONS

For additional room details and requirements refer to Room Description and Room Layout Sheets.

CT Scanner-Procedure Room

600232 90 .24.13 PERFORMANCE REQUIREMENTS

The Computerised Tomography (CT) Room provides an area and equipment for CT examinations.

502079 90 .24.15 DESCRIPTION AND FUNCTION

The rooms shall be sized to accommodate the equipment selected but the minimum area required will be 42 m2.

LOCATION AND RELATIONSHIPS

The CT Scanning Room should be located adjacent to the Control Room – and Equipment Room if separate.

A bed/trolley bay adjacent to each room in order for staff to observe patients whilst carrying out other duties and ready access to preparation area and patient toilet, change and recovery areas.

CONSIDERATIONS

Clinical scrub facilities immediately adjacent to the room.

May need to be serviced for general anaesthesia.

For additional room considerations and details refer to Room Data Sheet and Room Layout Sheet.

Darkroom

600233 90 .24.18 PERFORMANCE REQUIREMENTS

A room for processing light-sensitive radiographic film under light-controlled conditions.

502080 90 .24.20 DESCRIPTION AND FUNCTION

In Medical Imaging Units that have converted to a Computed Radiology (CR) or Digital Radiology (DR) system, the Dark Room will/may only be required as a back-up in the event of those systems' failure.

The processor may be either floor or bench-mounted.

Functions and activities include:
+ Receipt of exposed film
+ Loading/unloading cassettes
+ Film identification
+ Feeding film into processor in darkened conditions
+ Film copying
+ Film examination
+ Maintenance and quality control activities e.g. cleaning of equipment and fittings, temperature control of solutions, appropriate change/replenishment of solutions, processing of film strips.

LOCATION AND RELATIONSHIPS

The Dark Room should be easily accessible from the General Imaging Room work areas.

CONSIDERATIONS

The following will be required:
+ Safe light
+ Light-proof door seals
+ Exhaust system to deal with pungent chemical odours
+ Warning light outside room indicating processing active.

Means of silver recovery and chemical disposal will need to be established.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets

Dirty Utility

600234 90 .24.30 PERFORMANCE REQUIREMENTS

A Dirty Utility Room shall be provided in clinical areas for the functions as

described below.

A hand basin shall be provided.

Door opening mechanisms from the corridor shall be hands-free.

500147 90 .25.00 DESCRIPTION AND FUNCTION

The Dirty Utility Room provides for the following functions:

+ Disposal of clinical and other waste.

+ Holding of in-use linen skips.

+ Measuring, testing and disposal of patient specimens.

+ Decontamination and storage of utensils such as bed pans, urinals and wash bowls.

+ Cleaning and holding of used equipment and instruments for sterilisation elsewhere.

+ Hand hygiene

The Dirty Utility Room should be a minimum of 10sqm or 12 sqm when access is required from 2 sides of the room.

In smaller units, the Dirty Utility Room may be combined with a Disposal Room. The combined room should be a minimumof 14 sqm.

LOCATION AND RELATIONSHIPS

The Dirty Utility requires a central location with other utility rooms and direct access from the Unit corridor for ready access from the patient areas served.

CONSIDERATIONS

For additional details refer to Room Data and Room Layout Sheets.

Dirty Utility - Sub

600235 90 .25.05 PERFORMANCE REQUIREMENTS

The Sub-Dirty Utility provides the same functions as the main Dirty Utility Room with the possible exception of equipment for decontaminating washbowls etc.

502083 90 .25.10 DESCRIPTION AND FUNCTION

May act as a secondary support for the main Dirty Utility in large wards and departments or may all that is required in units such as Medical Imaging.

The Dirty Utility - Sub shall not be provided in Inpatient Units used for overnight accommodation; in these units a full sized Dirty Utility is required.

The Dirty Utility - Sub should be a minimum of 8m2.

LOCATION AND RELATIONSHIPS

The Dirty Utility - Sub should have ready access to patient areas and Unit corridor.

CONSIDERATIONS

Door opening mechanism must be hands-free.

For additional room considerations and details refer to Room Data Sheets and Room Layouts.

Disposal Room

600236 90 .25.20 FERFORMANCE REQUIREMENTS

The Disposal Room provides holding space for waste and soiled linen awaiting transfer to the Waste Handling Unit or Linen Handling Unit.

500155 90 .26.00 DESCRIPTION AND FUNCTION

Mobile containers of clinical and general waste and bagged soiled linen are to be accommodated.

Space is also required for separate containers for sharps, glass, paper and plastics (if recycling is practised).

The Disposal Room should be 8 m2 and lockable.

LOCATION AND RELATIONSHIPS

The room will be usually shared by two or more Units, and should be centrally located near main transport routes for collection.

CONSIDERATIONS

In some Units, space will be required for cytotoxic waste bins.

Refer to Operational Policies for the Unit Waste Management Policies.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Ensuite

600238 90 .26.10 PERFORMANCE REQUIREMENTS

An Ensuite is for a patient to wash, shave, groom themselves, shower, use the toilet, either independently or with assistance.

The area and layout shall accommodate an assisting nurse, patient lifter and wheelchair access.

500114 90 .27.00 DESCRIPTION AND FUNCTION

Water conservation should be considered in the selection of fittings and fixtures.

There are three main configurations for Ensuite Bathrooms:

A Inboard - placed on the corridor wall side of the room;

B Outboard - placed on the external wall of the room;

C Super - a larger ensuite to suit the needs of particular types of patients; see note below..

There are two standard sizes for Ensuites - Standard at 5m2 and 'Super' at 6m2.

A 5m2 Standard Ensuite will allow one carer or nurse to assist the patient ie 'partial' assistance.

A 6m2 Ensuite will allow two nurses to assist the patient, ie 'full' assistance.

LOCATION AND RELATIONSHIPS

Each 1 Bed Room will have a dedicated Ensuite. These will generally be Standard ie 5m2. The 1 Bed Room - Special will have a 'Super' 6m2 Ensuite.

The Ensuite must be adjacent to the entry door or directly accessible from each Bed Room.

Individual shower and toilet compartments may be used for patients in shared bedrooms. See Shower - Patient and Toilet - Patient.

Doors must open out and be fitted with emergency release function.

CONSIDERATIONS

Doors must open out and be fitted with emergency release function.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Ensuite - Birthing Room

600239 90 .27.03 PERFORMANCE REQUIREMENTS

A room for the patient in the Birthing Room to use the toilet and to shower or bath as required for hygiene and pain relief purposes, either independently or with assistance. Delivery may occur in this room.

502084 90 .27.05 DESCRIPTION AND FUNCTION

There are two types and sizes of room:
En suite with shower and toilet only – 7m2
En suite with shower, toilet and peninsula bath – 10m2

The bath will include steps and a seating platform at the bath edge.

LOCATION AND RELATIONSHIPS

Direct access from the Birthing Room.

CONSIDERATIONS

Two showerheads in the shower located to allow the labouring woman, when seated, to direct water onto both her front and back for pain relief.

No hobs to the shower recess.

Refer to Room Data and Room Layout Sheets for further details.

Feeding Room

600240 90 .27.10 PERFORMANCE REQUIREMENTS

The Feeding Room provides an area for mothers to feed their babies and express milk in privacy with or without nursing assistance. The room shall be used by the lactation consultant for education purposes. A clinical handbasin shall be provided and storage for breast pumps needs to be considered unless stored in the Formula Room.

502085 90 .27.15 LOCATION AND RELATIONSHIPS

Locate adjacent to the Nursery with ready access to the Formula Room. In small units, the Feeding and Formula Rooms may be combined.

CONSIDERATIONS
Ability to screen a small area for breast milk expression.

For additional details, refer to Room Data and Room Layout Sheets

Formula Room

600241 90 .27.16 PERFORMANCE REQUIREMENTS

Room for the preparation, storage and distribution of baby feeds.

A clinical handwashing basin shall be located within the room.

Film Processing

600242 90 .27.20 PERFORMANCE REQUIREMENTS

A room located within the Medical Imaging Unit to house the equipment and facilities necessary for traditional processing (daylight), viewing and reporting.

Formula Room

502086 90 .27.17 DESCRIPTION AND FUNCTION

The room will accommodate the following functions:

+ Preparation of formula
+ Refrigerated storage of baby feeds including expressed breast milk
+ Storage of dried goods
+ Washing, sterilisation and storage of baby bottles, teats and equipment
+ Demonstration to mothers on formula preparation.

The Formula Room should be a minimum of 7m2 with additional space for processing of bottles and teats.

LOCATION AND RELATIONSHIPS

The Formula Room should be located with direct access to a circulation corridor with ready access to Nursery areas. It may have direct access into the Feeding Room.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout sheets.

Film Processing

503377 90 .27.21 DESCRIPTION AND FUNCTION

In Units that utilise computed radiography (CR) and PACS, the equipment will be quite different, viewing will occur on PACS monitors and reporting stations will be in a separate area. Refer to the Medical Imaging Health Planning Unit for further information.

LOCATION AND RELATIONSHIPS

Direct access from the general imaging rooms.

CONSIDERATIONS

Refer to the Room Layout and Room Data Sheets for further details.

General X-Ray

600243 90 .27.23 PERFORMANCE REQUIREMENTS

A room for undertaking general radiographic procedures that include:

+ Skull x-rays
+ Erect and supine abdominal examinations
+ Chest x-rays
+ X-rays of the extremities and long bones e.g. hands, femur, etc.

The control unit zone shall be effectively shielded by a lead-lined screen with leadlined (continuous) vision panels for good patient observation.

502087 90 .27.25 DESCRIPTION AND FUNCTION

Where volumes are low, OPG, Mammography and Tomography may be added to the general room equipment. This will necessitate a slightly larger room.

Where the room is intended for mixed general or tomographic examination, additional tomographic attachments will be required but no re-arrangement of the space will be necessary.

Two similar rooms are recommended for a Level-4 service facility, one of which may service trauma cases transferred from the Emergency Unit.

Functions and activities include:
+ Preparation of room and equipment for procedure
+ Transfer of patient between trolley/bed and table, where required
+ Preparation, instruction and positioning of the patient
+ X-ray procedures
+ Cassette insertion and removal
+ Post x-ray instruction/assistance for patient

Minimum area - 30m2
Add 5m2 if Mammography included.

LOCATION AND RELATIONSHIPS

May be located in the Medical Imaging Department or within a satellite unit.

If no satellite room in the Emergency Unit, locate to facilitate frequent access from the Emergency Unit and from Outpatient Units as well as being readily accessible

from Inpatient Units.

Locate to provide ready access from the ambulant waiting area.

Direct access into the Processing Area (Computed Radiology assumed).

Direct Access is required to Change cubicles if adjoining the room or ready access from a central waiting area.

CONSIDERATIONS

Bed/trolley access to room and manoeuvrability within the room is essential

Allow required space around equipment for movement and servicing according to manufacturer's recommendations. N.B. If equipment selection not finalised, take advice from Electro-medical Consultants based upon known information.

For additional details, refer to Room Data and Room Layout Sheets

Goods Receipt - Pharmacy

600244 90 .27.28 PERFORMANCE REQUIREMENTS

The Goods Receipt area provides an area for receiving deliveries of pharmaceuticals and other goods, unpacking and checking them for storage in the appropriate storage area.

502088 90 .27.30 DESCRIPTION AND FUNCTION

Functions and Activities include:
+ receiving deliveries
+ unpacking items and checking them against the invoice
+ preparing the received items for storage
+ holding packing material and transport containers for disposal
+ holding rejected deliveries for return
+ holding order books, computer sheets, invoices, packing slips, etc.

LOCATION AND RELATIONSHIPS

This area should be located close to the delivery entrance into the Unit adjacent to the Active Store and/or to the Bulk Store.

CONSIDERATIONS

Intercom to alert staff of a delivery

Internal temperatures should not rise above 25 degrees Celsius.

Refer to Part C of these Guidelines for further information on security.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Gymnasium

600245 90 .27.32 PERFORMANCE REQUIREMENTS

A room for patient evaluation, rehabilitation exercise activities, ambulation training and group exercises and classes.

502089 90 .27.35 DESCRIPTION AND FUNCTION

Size of Gymnasium will depend on utilisation and occupancy.

LOCATION AND RELATIONSHIPS

The Gymnasium should be located close to other patient therapy areas with ready access to a disabled access toilet, cold water dispenser, the circulation corridor, Unit entry and waiting areas.

CONSIDERATIONS

For additional considerations, refer to Rehabilitation Allied Health Health Planning Unit in these Guidelines and Room Data Sheets.

Lounge - Patient

600237 90 .27.50 PERFORMANCE REQUIREMENTS

This room provides a change of environment, away from Clinical Areas for patients and visitors. It is an area where family groups can visit and patients can socialise.

500811 90 .28.00 DESCRIPTION AND FUNCTION

If the Inpatient Unit caters for paediatric patients, the Lounge - Patient may also be used as an activities space for children. Adolescent and paediatric inpatients have specific requirements for a lounge ie. play and schooling areas.

If the Inpatient Unit caters for paediatric patients, the Lounge shall contain games and activities suitable for children. Storage space will be necessary for play equipment. In small hospitals, the Paediatric Lounge can be part of the Paediatric Patient Bedroom.

The nominal floor area should be 20 m2.

An alternative method of determining the size of the Lounge for adult patients is by multiplying the number of beds by 0.8 m2. This takes into account that some adult patients:

+ Have shorter hospital stays;

+ Are non-ambulant;

+ Have a preference for privacy;

+ Have a preference for outdoor activities.

LOCATION AND RELATIONSHIPS

The Patient Lounge should be on an external wall to take advantage of natural light and outlook. Low sill heights promote access to a view from a seated position.

It should be away from the bed areas but staff should be able to observe and monitor its use by patients.

Direct access to an external space is also highly desirable. This ensures that patients' preferences for both indoor and outdoor activities are catered for. Where possible, direct access to a secure landscaped area offering partial cover against

sun, wind and rain should be provided.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Mammography

600246 90 .28.10 PERFORMANCE REQUIREMENTS

The Mammography Room provides specialised equipment for radiographic examinations of the breast – upright and prone, and for biopsies under ultrasound control. A change cubicle may be contained within the room.

502090 90 .28.20 DESCRIPTION AND FUNCTION

A Mammography Room should be a minimum of 16m2 (unless used exclusively for breast screening of ambulatory patients in which case 9m2 will be sufficient).

LOCATION AND RELATIONSHIPS

The Mammography Room will be usually be located in the Medical Imaging Unit but may occasionally be located in a dedicated Breast Unit.

Ready access to change cubicles if not located within the Mammography Room and to a discreet waiting area.

CONSIDERATIONS

Visual and acoustic privacy is required.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Meeting Room - 9 m2 or 12 m2

600247 90 .28.30 PERFORMANCE REQUIREMENTS

A multipurpose room for interviewing patients, consultation, grieving, small staff meetings and small scale teaching activities. It shall provide accommodation for relatives or for viewing of deceased patients.

All rooms shall be multi-functional, well-lit and appropriately furnished.

500221 90 .29.00 DESCRIPTION AND FUNCTION

In the 12 m2 version, space for a bed may be required and doors sized accordingly. Acoustic and visual privacy are required.

Where used for Telehealth, specific requirements for security, equipment storage and interior design should be incorporated and a minimun 12m2 will be required

A Meeting Room should be 9 m2 or 12 m2.

LOCATION AND RELATIONSHIPS

Near main Waiting Area with easy access to public amenities, Unit entry and

away from Treatment Areas.

Where used for accommodation of distressed relatives, it should be located in a quiet low traffic area.

In Emergency, it should be located near the Resuscitation Area.

Where the room is used after hours, access to other parts of the facility should be restricted.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Meeting Room - Medium/Large

600248 90 .29.10 PERFORMANCE REQUIREMENTS

The Medium and Large Meeting Rooms will accommodate staff and other meetings such as those held with the visiting Magistrate in a Mental Health Unit. It may also be used for training or educational purposes.

All rooms shall be multi functional, well lit and appropriately furnished.

500258 90 .30.00 DESCRIPTION AND FUNCTION

A Meeting Room for Seminar/Training purposes is used for the tutoring and supervision of students, of varying categories away from the bedside. It will also be used for teaching sessions involving patients and staff or patients and their relatives, group discussions and lectures. It may also be use for patient conferences, reporting, and consultations. It will be generally shared with other Units.

A Seminar/Training room should be 15 m2. It will accommodate 5 - 10 people.

A Medium Meeting Room should be 20 m2 and accommodate 12 - 15 people.

A Large Meeting Room should be 25 - 30 m2 and accommodate 15 - 25 people.

LOCATION AND RELATIONSHIPS

A Seminar/Training Room may be located in a low traffic area on the periphery of Unit, or between a number of Inpatient Units.

A Meeting Room should be close to the entry point for a Unit to enable ready access for people from outside the Unit and also shared use by other Units.

Where meeting rooms are accessed after hours, access to other parts of the facility should be restricted.

In a Mental Health Unit, a Magistrate's Room should be accessible from the Entry/Reception Areas as well as from Inpatient Areas. Discreet access from the Secure Unit should be provided for patients to attend magisterial sessions.

CONSIDERATIONS

Where used as a Magistrate's Room, two points of exit should be provided. Duress alarms will be required and more than one telephone outlet provided. Video, Telepsychiatry/Telemedicine and teleconferencing facilities may be

required. If so, sufficient space should be provided for storage and securing of equipment. For further information refer to 'Memorandum of Understanding for the Conduct of Review Hearings under the Mental Health Act by Magistrates of the NSW Local Court, December 1999', and to Part C of these Guidelines.

Where used for Telehealth, specific requirements for security, equipment storage and interior design should be incorporated.

For additional room considerations and details refer to Room Data Sheets.

Neonatal Bay - General Care

600249 90 .30.05 PERFORMANCE REQUIREMENTS

A single Bay for the care of well babies away from their mother's bed area which may include treatments such as phototherapy or in order to give a sick mother a period of respite.

A staff handwash basin (type A or B) should be provided for each four Neonatal Bays - General Care.

502091 90 .30.10 DESCRIPTION AND FUNCTION

The Neonatal Bay should be a minimum of 6 m2, which includes a circulation area of one metre between bays.

LOCATION AND RELATIONSHIPS

The Neonatal Bay - General Care may be be located either in the Neonatal Nursery or in the Postnatal Inpatient Unit observable for the Staff Station.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Neonatal Bay - Intensive Care

600250 90 .30.20 PERFORMANCE REQUIREMENTS/ DESCRIPTION AND FUNCTION

A single Bay or Room for Level 3 neonates requiring Intensive nursing and medical treatment.

The Bay (or room) will include provisions for charting, storage and a zone for parents.

In multi-bed rooms a minimum of 2.4 metres is required between infants' cots with an aisle of 1.2 metres between facing cots.

502092 90 .30.25 DESCRIPTION AND FUNCTION

The Neonatal Bay/ Room - ICU should be a minimum of 12m2 for low level 3 cots and high level 2 cots and 14m2 for high level 3 cots.

Provision of handbasins and additional storage is not included in the area for the cot.

LOCATION AND RELATIONSHIPS

The Neonatal Bay - ICU will be located within the Level 3 or high Level 2 zone of the Neonatal Unit with ready access from the Birthing Unit, Operating Suite and the Postnatal Maternity Inpatient Unit .

There will need to be a clear and rapid means of access from the Emergency Unit and Helipad for retrieved babies.

CONSIDERATIONS

A staff clinical handwash basin (Type A) is required in close proximity to each Neonatal Bay - ICU.

Each Bay shall be within six metres of a handwash basin. If a room is provided, the handbasin shall be located within the room.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Neonatal Bay - Special Care

600251 90 .30.29 PERFORMANCE REQUIREMENTS

A single Bay for neonates requiring Special Care nursing and medical treatment.

The Bay will include provisions for charting and storage and facilities for parents.

502093 90 .30.30 DESCRIPTION AND FUNCTION

The Neonatal Bay/ Room - ICU should be a minimum of 10 m2. In multi-bed Rooms, a minimum of 1.2 metres is required between infants' beds, with an aisle of 1.5 metres between facing cots.

LOCATION AND RELATIONSHIPS

The Neonatal Bay - Special Care will be located within the Intensive Care Unit - Neonatal/ Special Care, which will have ready access to the Maternity Inpatient Unit, Birthing Unit and Operating Unit.

CONSIDERATIONS

A staff clinical handwash basin (type A) is required in close proximity to each Neonatal Bay - Special Care.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Office - 2 Person Shared

600252 90 .30.40 PERFORMANCE REQUIREMENTS

The Office is where two staff can carry out administrative functions in a degree of privacy. This includes preparing rosters, reports, counselling, interviewing staff and patients.

500172 90 .31.00 DESCRIPTION AND FUNCTION

The Office should be 12 m2.

LOCATION AND RELATIONSHIPS

Away from clinical areas.

CONSIDERATIONS

The Office should be lockable.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Office - 3 Person Shared

600253 90 .31.10 PERFORMANCE REQUIREMENTS

A 3 Person Shared Office is for three persons to carry out administrative functions in a degree of privacy. This includes preparing rosters, reports, counselling, interviewing staff and patients.

500813 90 .32.00 DESCRIPTION AND FUNCTION

A 3 Person Shared Office should be 15 m2.

LOCATION AND RELATIONSHIPS

Away from Clinical Areas.

CONSIDERATIONS

The Office should be lockable.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

CONSIDERATIONS

The Office should be lockable.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Office - 4 Person Shared

600354 90 .32.10 PERFORMANCE REQUIREMENTS

Office space to be shared by four persons for carrying out administrative functions in a degree of privacy. This includes preparing rosters, reports, counselling, interviewing staff and patients.

500176 90 .33.00 DESCRIPTION AND FUNCTION

A 4 Person Shared Office should be 20 m2.

LOCATION AND RELATIONSHIPS

Away from Clinical Areas.

CONSIDERATIONS

The Office should be lockable.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Office - Clinical/Handover

600255 90 .33.10 PERFORMANCE REQUIREMENTS

An office for staff to write up notes, view digital imaging, hold confidential discussions and store records. It may also be used for handovers.

500249 90 .34.00 DESCRIPTION AND FUNCTION

Floor area should be 12 m2; although the actual size will be dictated by the number of staff using this space at any one time.

LOCATION AND FUNCTION

Adjacent to the Staff Station.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Office - Single Person 9 m2

600256 90 .34.10 PERFORMANCE REQUIREMENTS

A Single Person Office where Unit Managers can carry out administrative functions in a degree of privacy. This includes preparing rosters, reports, counselling, interviewing staff and patients.

500168 90 .35.00 DESCRIPTION AND FUNCTION

A Single Person Office should be 9 m2.

LOCATION AND RELATIONSHIPS

Close to the Staff Station in a quieter traffic area.

CONSIDERATIONS

The Office should be lockable.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Office - Single Person 12 m2

600257 90 .35.10 PERFORMANCE REQUIREMENTS

A Single Person 12 m2 Office is where a Director or other senior manager can carry out administrative functions in a degree of privacy. This includes preparing

reports, counselling, interviewing staff, patients and their families.

500815 90 .36.00 LOCATION AND RELATIONSHIPS

Away from Clinical Areas, preferably located with other Office Areas.

Office - Workstation

600258 90 .36.10 PERFORMANCE REQUIREMENTS

An area within an open plan arrangement designed for staff to carry out administrative functions.

500180 90 .37.00 DESCRIPTION AND FUNCTION

A Workstation should be between 4.4 and 5.5 m2 depending on occupant and function.

LOCATION AND RELATIONSHIPS

Within a shared open plan office area. Away from Clinical Areas.

Office - Write-up Bay

600259 90 .37.10 PERFORMANCE REQUIREMENTS

This bay provides an area for use by members of the patient care team to review and write-up patient records, enter patient data on computer and make telephone calls.

500817 90 .38.00 DESCRIPTION AND FUNCTION

The Write-up Bay should be a minimum of 3 m2.

LOCATION AND RELATIONSHIPS

The Write-up Bay should be located near patient care areas and.

CONSIDERATIONS

The Write-up Bay should be recessed sufficiently so that a seated staff member does not cause an obstacle to corridor traffic.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Operating Room - General

600260 90 .38.10 PERFORMANCE REQUIREMENTS

The Operating Room provides an aseptic environment in which to carry out surgical procedures, under local, regional or general anaesthetic.

It is essential at least one wall not only be free from door openings, but also free from those services which require frequent attention. This provides an area for sterile equipment and scrubbed personnel, which is not compromised by traffic in and out of the Operating Room or to and from the serviced item. It is preferable

for the adjacent wall to be free, or impinged upon only for exit from the Operating Room.

500821 90 .39.00 DESCRIPTION AND FUNCTION

A General Operating room should be 42 m2.

This theatre can be used for:

+ ENT;

+ Urology;

+ Gynaecology;

+ Ophthalmology;

+ General;

+ Plastics;

+ Any other procedures which do not require specialised bulky equipment.

Hours of operation: to suit Operational Policies - some may be available 24 hours per day.

The use of manual handling equipment may be required to move patients from/to the operating table. Sufficient space should be provided for use and storage of the equipment within the theatre complex.

LOCATION AND RELATIONSHIPS

The Operating Room is the focal point of the Operating Suite. A direct relationship with the following support areas is required:

+ Holding/Anaesthetic Bay;

+ Scrub Up Room;

+ Exit Area;

+ Instrument Trolley/Cart Assembly/Holding Area;

+ Sterilising Bay;

+ Clean-Up Area.

Direct access is required to the:

+ Associated Scrub Up Room;

+ Exit Area;

+ Instrument Trolley/Cart Assembly/Holding Area.

Ready access is required to:

+ Sterilising Bay;

+ Holding Bay;

+ Anaesthetic Room.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Operating Room - Large

600261 90 .39.10 PERFORMANCE REQUIREMENTS

The Operating Room provides an aseptic environment in which to carry out surgical procedures, under local, regional or general anaesthetic.

It is essential at least one wall not only be free from door openings, but also free from those services which require frequent attention. This provides an area for sterile equipment and scrubbed personnel, which is not compromised by traffic in and out of the Operating Room or to and from the serviced item. It is preferable for the adjacent wall to be free, or impinged upon only for exit from the Operating Room.

500825 90 .40.00 DESCRIPTION AND FUNCTION

A Large Operating room should be 50 m2.

This Operating Room can be used for:

+ Neurosurgery;

+ Orthopaedics;

+ Cardiac;

+ Any other procedures which require specialised bulky equipment.

Hours of operation: to suit Operational Policies - some may be available 24 hours per day.

LOCATION AND RELATIONSHIPS

The Operating Room is the focal point of the Operating Suite. A direct relationship with the following support areas is required:

+ Holding/Anaesthetic Bay;

+ Scrub Up Room;

+ Exit Area;

+ Instrument Trolley/Cart Assembly/Holding Area;

+ Sterilising Bay;

+ Clean-Up Area.

Direct access is required to the:

+ Associated Scrub Up Room;

+ Exit Area;

+ Instrument Trolley/Cart Assembly/Holding Area.

Ready access is required to:

+ Sterilising Bay;

+ Holding Bay;

+ Anaesthetic Room.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Operating Room - Minor Scopes

600263 90 .40.10 PERFORMANCE REQUIREMENTS

The Operating Room provides an aseptic environment in which to carry out surgical procedures, under local, regional or general anaesthetic.

It is essential at least one wall not only be free from door openings, but also free from those services which require frequent attention. This provides an area for sterile equipment and scrubbed personnel, which is not compromised by traffic in and out of the Operating Room or to and from the serviced item. It is preferable for the adjacent wall to be free, or impinged upon only for exit from the Operating Room.

500827 90 .41.00 DESCRIPTION AND FUNCTION

A Minor/Scopes Room shall be between 30 and 36 m2 depending on need.

This Operating Room can be used for:

+ Endoscopic procedures;

+ Reduction of fractures and application of plasters;

+ Bronchoscopy and sputum induction - in which case negative pressure HVAC will be required due to risk of TB infection.

+ Other minor procedures;

+ Any other procedures which do not require specialised bulky equipment.

Where endoscopic procedures are performed, space for cleaning of scopes is required within or adjacent to the Operating Room.

Hours of operation: to suit Operational Policies - some may be available 24 hours per day.

LOCATION AND RELATIONSHIPS

The Operating Room is the focal point of the Operating Suite. A direct relationship with the following support areas is required:

+ Holding/Anaesthetic Bay;

+ Scrub Up Room;

+ Exit Area;

+ Instrument Trolley/Cart Assembly/Holding Area;

+ Sterilising Bay;

+ Clean-Up/Clean-Up - Scopes Areas.

Direct access is required to the:

+ Associated Scrub Up Room;

+ Exit Area;

+ Instrument Trolley/Cart Assembly/Holding Area.

Ready access is required to:

+ Sterilising Bay;

+ Holding Bay;

+ Anaesthetic Room.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Overnight Stay - Bedroom

600264 90 .41.03 PERFORMANCE REQUIREMENTS

Domestic-style single bedroom for clinical staff or family needing to remain on close call overnight.

502094 90 .41.05 DESCRIPTION AND FUNCTION

There may be an adjoining en suite or access to shared showers and toilets in close vicinity.

LOCATION AND RELATIONSHIPS

The Overnight Stay Bedroom shall be located in a discrete area with ready access to the critical care areas.

CONSIDERATIONS

The room should be lockable and requires acoustic privacy.

Staff or parents using the Overnight Stay facilities need to be contactable using a telephone or paging system.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Overnight Stay - Ensuite

600265 90 .41.07 PERFORMANCE REQUIREMENTS/ DESCRIPTION AND FUNCTION

En suite or shower/toilet compartment for use by staff or families occupying Overnight Bedrooms.

502095 90 .41.10 LOCATION AND RELATIONSHIPS

If en suite, access will be from the Bedroom. If separate, access from a discrete corridor

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Parenting Room

600266 90 .41.20 PERFORMANCE REQUIREMENTS/ DESCRIPTION AND FUNCTION

A Parenting Room is provided for parents to feed and change babies.

501575 90 .42.00 LOCATION AND RELATIONSHIPS

A Parenting Room must be located with other child related facilities and have direct ready access to a Toilet and a Waiting Area.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets

Patient Bay

600267 90 .42.10 PERFORMANCE REQUIREMENTS

A Patient Bay may be used for the treatment or management of patients.

500829 90 .43.00 DESCRIPTION AND FUNCTION

The various types of treatment or holding spaces will accommodate appropriately assessed patients.

Depending on the type of space, the patient will receive clinical intervention ranging from resuscitation through critical, acute and non acute treatment, to observation or holding.

The options for Patient Bays are:

+ Resuscitation;

+ Critical;

+ Acute Treatment;

+ Non Acute Treatment;

+ Holding;

+ Recovery, Stage 1.

The size of the bay will depend on its type or purpose. Each bay will have an adult and a paediatric version.

LOCATION AND RELATIONSHIPS

Generally with other Patient Treatment Areas and near the Staff Station.

Patient Bays may be enclosed or unenclosed. This will affect the floor space required.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Pharmacy-Counter, 9m2

600268 90 .43.03 PERFORMANCE REQUIREMENTS

The Pharmacy Counter provides storage of prepared outpatient prescriptions awaiting collection and collection, receipt and secure storage of payments.

A hatch or hatches are required for across-counter delivery to patients that must be secured by a roller grille or shutter when not in use.

502077 90 .43.05 DESCRIPTION AND FUNCTION

Patients requiring further instruction/counselling re use of medications will be directed to the adjoining Interview Room.

LOCATION AND RELATIONSHIPS

The area should be located at the front of the Unit and adjacent to the waiting area and the Patient Counselling area.

Direct access is required into the Interview Room and into the Assembly/Preparation Area. This latter must however be screened from public view.

CONSIDERATIONS

Security of staff and privacy, including acoustic privacy, for the patient is of paramount importance.

A duress alarm must be located in the area.

An attention-seeking call device may be required to summon the staff when the counter is unattended.

A public address/intercom may be installed to summon the patient by name.

Wall storage is required for drug administration pamphlets.

Refer to Part C of these Guidelines for further information on security.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Plaster Room

600269 90 .43.10 PERFORMANCE REQUIREMENTS

The Plaster Room allows for the application of Plaster of Paris and for the closed reduction under sedative or regional anaesthesia, of displaced fractures or dislocations. General anaesthesia will not be administered in this room.

500831 90 .44.00 DESCRIPTION AND FUNCTION

Locate with ready access from both Waiting Area and Treatment Area.

A Plaster Room should be 14 m2.

LOCATION AND RELATIONSHIPS

Locate with ready access from both Waiting Area and Treatment Area.

CONSIDERATIONS

A Splint and Crutch Store will be accessible to the Plaster Room.

Clear access to the plaster trap is required for maintenance purposes

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Play Area

600270 90 .44.10 PERFORMANCE REQUIREMENTS

A Play Area is an area where children may play while parents wait or are attended to by community health staff.

Security of children is a primary consideration.

501576 90 .45.00 DESCRIPTION AND FUNCTION

Unless otherwise specified in the Operational Policies, staff of the facility will not be responsible for supervision of the children.

The Play Area should be designed to:

+ Enable children to be actively distracted;

+ Keep children within the area;

+ Minimise noise transfer;

+ Be observable from the Waiting Area;

+ Ensure the area and equipment provided within is safe.

Natural lighting is desirable.

LOCATION AND RELATIONSHIPS

The Play Area should be located immediately adjacent to the Waiting Area. An external area may also be provided.

The Play Area should relate to sub-waiting areas for Early Childhood, Child and Family and other child-related areas if these services are provided.

Preparation Room - Non Sterile

600271 90 .45.03 PERFORMANCE REQUIREMENTS

The Non-sterile Preparation area is a space where extemporaneous medications can be compounded.

502104 90 .45.05 DESCRIPTION AND FUNCTION

Functions and Activities include:

+ formulating / compounding lotions, mixture, ointments, creams, powders, suppositories and non-sterile drops.

+ making up mixtures for oral administration.

+ diluting antiseptic fluids.

LOCATION AND RELATIONSHIPS

Non Sterile Preparation Room should be located adjacent to the Assembly/Preparation area with ready access to the Active Store.

CONSIDERATIONS

This area is a wet area and attention should be paid to work benches and floor coverings to ensure safe and clean working conditions.

Task lighting will be required at each work station.

Internal temperatures should not rise above 25 degrees Celsius.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Preparation / Setup Room (Imaging)

600272 90 .45.07 PERFORMANCE REQUIREMENTS

The Preparation/Set-Up Room of the Medical Imaging Unit is an area where radiological media, sterile supplies and consumables and some pharmaceuticals including dangerous drugs are stored and where procedure trays and trolleys are assembled and set-up. (Latter function may occur in the Procedure Rooms).

Staff scrub facilities will be required.

502105 90 .45.10 DESCRIPTION AND FUNCTION

Size will be determined by the number of procedure rooms, the required stock levels of sterile supplies and consumables and more than one such room may be required in a large Medical Imaging Unit.

LOCATION AND RELATIONSHIPS

Locate adjacent to or between the related Procedure Rooms.

In an Interventional Suite, ready access from staff change areas.

Ready access to main corridor for delivery of supplies.

CONSIDERATIONS

No dirty articles should be returned to this room. No cleaning sink should be provided.

Controlled access for authorised staff only.

Consideration needs to be given to the shelving system – fixed, mobile or light-weight compactus. Whatever is selected it must have no projections or sharp edges that could damage goods.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Procedure Room

600273 90 .45.15 PERFORMANCE REQUIREMENTS

The Procedure Room may be required for the performance of procedures that do not require the full facilities of the Operating Suite.

General anaesthesia will not be administered in this room.

500833 90 .46.00 DESCRIPTION AND FUNCTION

This may include suturing of wounds and dressings, administration of local anaesthetics and use of medical gases in connection with procedures being performed.

Other procedures that may be carried out in a larger Procedure Room in a unit such as the Emergency Dept may include lumbar puncture, tube thoracostomy, thoracocentesis, abdominal paracentesis, bladder catheterisation, suturing and other minor procedures.

A Procedure Room should be 14 m2.

LOCATION AND RELATIONSHIPS

Adjacent to Resuscitation and Acute Treatment Bays.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Property Bay - Staff

600274 90 .46.10 PERFORMANCE REQUIREMENTS

The Staff Property Bay is for the secure storage of staff property including clothing, handbags and personal effects.

500205 90 .47.00 DESCRIPTION AND FUNCTION

Floor area should be 2m2, although final calculation of floor area will depend on the number of lockers required for staff numbers working in the Unit.

LOCATION AND RELATIONSHIPS

Staff Property Bays shall be located adjacent to Staff Stations or main Work Areas for security.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Pantry

600275 90 .47.03 PERFORMANCE REQUIREMENTS

The Pantry is for preparing and/or heating refreshments, snacks and some meals for patients, washing some utensils, storing food and drink and disposing of food waste. It may also provide space for a meal tray collection trolley.

502096 90 .47.05 DESCRIPTION AND FUNCTION

The Pantry should be a minimum of 8 m2. If food rethermalisation trolleys are to be located in the room during meal times, up to an additional 4 m2 should be added to the total area.

LOCATION AND RELATIONSHIPS

The Pantry should have ready access to patient areas and the Unit corridor.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets.

Reception

600276 90 .47.10 PERFORMANCE REQUIREMENTS

An area where visitors to the Unit or Facility can be received and either immediately directed to their destination or to a Waiting Area. May also act as the access control to the unit.

The reception counter should be welcoming and non threatening, but provide separation between patients/clients/visitors and staff and be capable of being secured after hours. The need for security barriers should be carefully considered in relation to the risk, the type of services to be provided from the unit/facility and the local community environment.

500266 90 .48.00 DESCRIPTION AND FUNCTION

Depending on the Unit, initial contact may be made here with clients/patients/carers for enquiries, appointments and intake, both personally and by telephone.

A Reception Area should be 10 m2, although this will vary according to Unit and

number of staff.

Where moveable barriers are used to secure the space after hours, safe manual handling practices should be ensured.

In some Units, this area may be combined with an Administration Office to create one larger space. Switchboard operation, computer operation, filing and other clerical duties may also be undertaken in this area.

LOCATION AND RELATIONSHIPS

The Reception should be near the entry point of the Unit or Facility and adjacent to the Waiting Area, with direct visual surveillance available of both these areas.

Clients and visitors should not be able to gain access to Treatment Areas or Staff Areas without presenting to Reception.

CONSIDERATIONS

Refer to Part C for information regarding counter heights, including access requirements.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Scrub-Up

600277 90 .48.10 PERFORMANCE REQUIREMENTS/ DESCRIPTION AND FUNCTION

Scrub Up provides an enclosed area for pre-operative scrubbing, gowning and gloving.

500835 90 .49.00 LOCATION AND RELATIONSHIPS

The Scrub Up area should be directly accessible from the Operating Suite corridor and from the associated Operating or Procedure rooms.

Access should be also be available from the Staff Change and Staff Lounge.

A floor area of 8 m2 should be allowed per Operating Room, or 10 m2 where one Scrub-Up Bay is shared between two Operating Rooms.

CONSIDERATIONS

The activities of scrubbing and gowning/gloving should be separated within the space.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Screening Room (Fluoroscopy)

600278 90 .49.05 PERFORMANCE REQUIREMENTS

The functions and activities of the Screening (Fluoroscopy) Room involve the administration to the patient of a contrast media which will suitably outline an organ or system, and subsequent radiological examination utilising fluoroscopic equipment.

Bed/trolley access and manoeuvrability is essential.

502097 90 .49.10 DESCRIPTION AND FUNCTION

With the general decline in use of barium contrast studies and advances in equipment technology, general screening and angiography may sometimes be appropriately combined in one room.

General procedures commonly involve the administration of:
+ Barium sulphate, in the form of a barium enema, barium meal or swallow for gastro-intestinal studies
and/or
+ Organic iodine compounds, e.g. T-tube cholangiography, cholecystogram, endoscopic retrograde cholangio-pancreatography (ERCP), percutaneous insertions, percutaneous double J stent insertions

Specialised procedures, e.g. angiography. The examination will additionally involve:

+ Aseptic procedural precautions.

+ Availability of in-room resuscitation equipment.

+ Complex and dedicated angiography equipment and power sources.

It is important that the intended scope of the Screening room be clarified early in the planning process.

There are alternative means of providing angiography. Recent developments in digital acquisition screening equipment have resulted in dedicated subtraction equipment only being justifiable when high numbers of angiograms are required.

Digital screening rooms, if correctly optioned at time of installation, are capable of performing a full range of peripheral angiograms and also the more general selective angiograms.

LOCATION AND RELATIONSHIPS

The space should be conveniently located with respect to the Emergency Unit.

Area: 36m2 standard room
Area: 42m2 minimum if digital angiography plus equipment/computer room and enlarged control room. Subject to user justification and manufacturer's requirements

Located adjacent to patient change cubicle/WC that should be accessible from within the room and the Unit corridor.

Ready access to Patient Holding/Recovery Area, Processing areas, Reporting Room and Waiting.

CONSIDERATIONS

Floor and ceiling structural capacity must be determined in line with equipment load. Refer to manufacturer's data.

Ceiling height minimum 2700mm, 3000mm preferable. Refer to trade data for equipment selected.

Where procedural work is to be carried out, a patient monitoring system should be considered with functional location appropriate to the trolley/table position.

Serviced for general anaesthesia.

Set-Up

600279 90 .49.15 PERFORMANCE REQUIREMENTS/ DESCRIPTION AND FUNCTION

More correctly, an “Assembly” Room – an area where trolleys for each case are assembled – i.e. loaded with sterile packs and required consumables, and held prior to delivery into the operating room where “set-up” will occur i.e. opening and laying out of the contents of packs.

502246 90 .49.20 LOCATION AND RELATIONSHIPS

Set-Up Room may be located in an area central to all operating rooms, or may be a number of smaller rooms either dedicated to a single operating room or shared between a pair of operating rooms. The decision will affect the size of the space.

If smaller, dispersed rooms, will require ready access from the Operating Unit’s main Sterile Stock Store.

CONSIDERATIONS

May additionally provide the location for a fluid warming cabinet.

Handbasin required but not scrub facilities.

Seclusion Room

600280 90 .49.25 PERFORMANCE REQUIREMENTS

The usage of this space will vary from Unit to Unit. However, it will generally be used to accommodate and to manage the behaviour of disturbed, aggressive or violent patients.

It will provide a safe and secure environment for a patient, and meet OHS Guidelines for staff safety.

It will be occupied for short periods of time, either on an involuntary or voluntary basis.

A patients should be able to be observed continually while in the Seclusion Room.

The Seclusion Room should be easily observable from the Staff Station and have no ‘blind spots’.

Two doors should be provided into the room for safe exit. Both doors should be able to be locked or unlocked from outside the room.

500837 90 .50.00 DESCRIPTION AND FUNCTION

A Seclusion Room should be 14 m2.

LOCATION AND RELATIONSHIPS

Acoustic treatment of the room is required to provide noise isolation.

CONSIDERATIONS

The Seclusion Room will require a door with an external swing and a viewing panel and be secure in construction with specific locks. The door shall be wide enough for three staff abreast and can be lockable inside and outside with a key.

The door to the seclusion room and walls must be capable of withstanding exterme force from inside the room in the event that the patient tries to force their way out.

Finishes, furniture fittings and fixtures must be robust and not provide an opportunity for shelf harm. The room must meet OH&S Guidelines for staff safety.

For additional room considerations and details refer to the Room Data Sheets.

Service Entry/ Loading Bay

600281 90 .50.10 PERFORMANCE REQUIREMENTS

A separate Service Entry should be provided in larger health facilities to allow deliveries and for the collection of waste, linen, etc without having to pass through the main entrance of the building.

501555 90 .51.00 DESCRIPTION AND FUNCTION

Design considerations include:

+ Adequate vehicle manoeuvring space;

+ Shelter from inclement weather;

+ Space for temporary storage of items such as trolleys, furniture and equipment.

LOCATION AND RELATIONSHIPS

Provide direct access to the Waste Holding Area and ready access to stores for therapy equipment and mobility aids if provided.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Shower - Patient

600282 90 .51.10 PERFORMANCE REQUIREMENTS

The Patient Shower is a room for patients to shower or wash either independently or with nurse assistance. Shower chair access is required.

500192 90 .52.00 DESCRIPTION AND FUNCTION

A Patient Shower should be 4 m2.

LOCATION AND RELATIONSHIPS

Immediately adjacent to or directly accessible from Bed Rooms, or to Unit corridor.

CONSIDERATIONS

The door must be fitted with escape hardware to allow staff access in an emergency.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Shower - Staff

600305 90 .52.10 PERFORMANCE REQUIREMENTS

The Staff Shower will be used for staff to shower, wash, shave, dry hair, etc.

500841 90 .53.00 DESCRIPTION AND FUNCTION

The floor area should be 2 m2.

LOCATION AND RELATIONSHIPS

The Staff Shower shall be near the Staff Toilet, Staff Change, and Staff Lounge Areas.

CONSIDERATIONS

A privacy latch is required.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Staff Room

600306 90 .53.10 PERFORMANCE REQUIREMENTS

The Staff Room is for staff to use for respite, rest and relaxation during tea or meal breaks, especially where it is difficult for staff to use centrally located facilities including at night. It may also be used for small meetings or tutorials and for the storage of staff resources or library materials.

500213 90 .54.00 DESCRIPTION AND FUNCTION

The size of the staff room will depend on the level of service and number of staff who will use the room. Floor area shall be 18sqm in a general Inpatient Unit, assuming it is shared between 2 units.

LOCATION AND RELATIONSHIPS

The Staff Room should be located away from the Patient Bed Rooms and main Treatment Areas. Where possible, the Staff Room should be shared between two Inpatient Units, or one per floor provided in a larger Facility.

It should be placed anywhere convenient in a quiet area, away from Patient and Visitor Areas.

CONSIDERATIONS

Facilities for food and beverage preparation and storage should be provided.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Staff Station

600307 90 .54.10 PERFORMANCE REQUIREMENTS

The Staff Station is the administrative base for the Unit.

This area is for observation plus the writing up of clinical notes, entering data into computers, making and receiving telephone calls.

500245 90 .55.00 DESCRIPTION AND FUNCTION

Floor area varies according to the Planning Unit and depends on its activity level, the number of full and part-time staff, the operational model and building layout.

For planning purposes, the floor area for a Staff Station in a 30 Bed IPU shall be 14 m2.

Also refer to the Room Data and Room Layout Sheets for 5 and 10 m2 Staff Stations.

LOCATION AND RELATIONSHIPS

At least one Staff Station shall be provided within an Inpatient Unit, central to Bed Rooms to allow observation.

CONSIDERATIONS

The model of care adopted will determine the need for additional stations and their placement within the Unit.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Store - Accountable Drug

600286 90 .55.03 PERFORMANCE REQUIREMENTS

The Accountable Drugs Store is a strongroom in the Pharmacy in which accountable drugs are stored, e.g. narcotics, which are required by law to be securely stored and a register kept of their use.

502099 90 .55.05 DESCRIPTION AND FUNCTION

The store may be a safe or a walk-in room depending on the quantity of drugs to be stored.

Refrigerated storage may also be required.

Facilities must comply with NSW Health Pharmaceuticals Branch Policy.

LOCATION AND RELATIONSHIPS

The Accountable Drugs Store should be located in a discrete area of the Unit, overseen by the Office of the Chief Pharmacist and accessible from the

Assembly/Preparation area. It should not be located on an outside wall or stairwell.

CONSIDERATIONS

The door to the room should be electronically monitored.

The temperature of the store should not exceed 25o C.

Refer to Part C of these Guidelines for further information on security.

For specific details regarding construction and security, refer to the Room Data and Room Layout Sheets.

Store - Bulk (Pharmacy)

600287 90 .55.07 PERFORMANCE REQUIREMENTS

The Bulk Store is a secure space (if separate from the Pharmacy proper) or part of the open plan space in the Unit for storage of bulk items that are either for use in the Pharmacy or that are dispensed by the Pharmacy. Includes such items as Intravenous and dialysis fluids.

If the Bulk Store is remote, it must not be used for storing pharmaceuticals that must be transferred to the Pharmacy immediately on receipt.

502100 90 .55.10 DESCRIPTION AND FUNCTION

Functions and Activities include:

+ sorting and binning bulk items

+ selecting and unpacking items to replenish the Active Store

+ selecting items not normally stored in the Active Store

+ checking and maintaining stock levels

+ inspecting stock for end of shelf life

+ preparing replenishment orders

+ storage of cardboard waste for disposal.

LOCATION AND RELATIONSHIPS

The Bulk Store should be located on the periphery of the Unit adjacent to the Goods Receipt Area and contiguous with the Active Store.

CONSIDERATIONS

The temperature of the store should not exceed 25o C.

Refer to Part C of these Guidelines for further information on security.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Store - Cleaner's

600288 90 .55.15 PERFORMANCE REQUIREMENTS

The Cleaner's Store is a bulk store provided for the central storage of large items of cleaning equipment, bulk containers of cleaning chemicals and a cleaner's trolley.

500805 90 .56.00 DESCRIPTION AND FUNCTION

The Cleaner's Store should be 12 m2.

LOCATION AND RELATIONSHIPS

The Cleaner's Store should be located with other storage areas, or in a central location where cleaning staff can easily access it in the course of their duties.

CONSIDERATIONS

Clean paper goods such as toilet paper and paper hand towels should be stored in an adjacent dry store or cupboard. The room must be lockable and comply with OHS and Infection Control Guidelines.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Store - Drugs

600289 90 .56.05 PERFORMANCE REQUIREMENTS

A room for secure storage of medications in wards and departments. A drug refrigerator, dangerous drug safe, small sink and space for a computer will be required.

502101 90 .56.10 DESCRIPTION AND FUNCTION

Depending on the operational policy, the facilities contained within the room may be incorporated into the Clean Utility Room.

Size will be determined by the size of the Unit in which the room is housed.

Consideration may need to be given to the possible future installation of automated dispensing systems and their spatial and data needs.

LOCATION AND RELATIONSHIPS

In a secure area of the Unit away from public view.

Direct access from a public corridor should be avoided.

CONSIDERATIONS

Alarms to door and refrigerator

Refer to the Section C of these guidelines for further security details and to Room Data and Room Layout Sheets.

Store - Equipment

600290 90 .56.15 PERFORMANCE REQUIREMENTS

The Equipment Store is used for the storage of medical equipment when not in use and recharging of electrical items. Space is required for parking of mobile equipment including IV poles, wheelchairs, lifting equipment, trolleys, cradles and commode chairs for the Unit.

500225 90 .57.00 DESCRIPTION AND FUNCTION

Size will vary depending on the Unit size and service profile and the use/provision of bays for mobile equipment.

LOCATION AND RELATIONSHIPS

Centrally located in a low traffic area, with access to all patient areas.

CONSIDERATIONS

The Equipment Store should be lockable

Doors and entries should be sized and located to facilitate handling.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Store - File

600291 90 .57.10 PERFORMANCE REQUIREMENTS

A secure room for the storage of confidential information.

The File Store should be lockable.

500262 90 .58.00 DESCRIPTION AND FUNCTION

Floor area should be 10 m2.

LOCATION AND RELATIONSHIPS

Adjacent to Office Areas served. A number of stores are required for the various administrative functions accommodated.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Store - General

600292 90 .58.10 PERFORMANCE REQUIREMENTS

This is a secure room for the storage of general supplies used within the department. Equipment may also be re-charged in this room.

500237 90 .59.00 DESCRIPTION AND FUNCTION

Floor area should be 9 or 10m2.

LOCATION AND RELATIONSHIPS

Centrally located within an HPU or group of departments when shared. Locate in a low traffic area with access to all patient areas.

CONSIDERATIONS

The General Store should be lockable

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Store - Medical Gases

600293 90 .59.10 PERFORMANCE REQUIREMENTS

A Medical Gas Store is required to provide a safe and secure environment for the storage of various gas cylinders, if used at a facility. Storage enclosures must be adequately ventilated.

501556 90 .60.00 LOCATION AND RELATIONSHIPS

Locate with loading and service areas.

Store - Photocopy/Stationery

600294 90 .60.10 PERFORMANCE REQUIREMENTS

A secure room for the storage of office stationery and for use of a photocopier.

500857 90 .61.00 DESCRIPTION AND FUNCTION

Floor area should be 8 m2.

LOCATION AND RELATIONSHIPS

Adjacent to Office Areas served.

CONSIDERATIONS

Exhaust from photocopier to be provided to meet OHS requirements.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Store - Sterile Stock

600295 90 .61.10 PERFORMANCE REQUIREMENTS

The Sterile Stock Store stores sterile stock for use in the Operating Suite or other Treatment Areas.

500843 90 .62.00 DESCRIPTION AND FUNCTION

Floor area should be 12 m2 per operating room.

LOCATION AND RELATIONSHIPS

The Sterile Stock Store for an Operating Suite (not CSSU) should be located near the Operating Rooms or other Treatment Areas.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Toilet - Disabled

600296 90 .62.10 PERFORMANCE REQUIREMENTS

A toilet and hand basin for use by disabled persons with or without assistance. The room shall comply with AS1428-1/2.

Doors shall open outwards and be fitted with emergency release function.

500197 90 .63.00 DESCRIPTION AND FUNCTION

The Disabled Toilet should be 5 m2.

LOCATION AND RELATIONSHIPS

Disabled toilets for public use should be readily accessible from Public Areas.

CONSIDERATIONS

The Disabled Toilet may also include facilities for baby change.

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

Toilet - Patient

600297 90 .63.10 PERFORMANCE REQUIREMENTS

A toilet and hand basin for patient use without assistance, or with the assistance of one or two nurse/carers - 'fully assisted'.

Doors should open outwards and be fitted with emergency release function.

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500201 90 .64.00 DESCRIPTION AND FUNCTION

A Patient Toilet should be 4 m2.

LOCATION AND RELATIONSHIPS

Immediately adjacent to, or directly accessible from Patient Bed Rooms, Unit corridor or Patient Areas served.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets.

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Toilet - Public

600298 90 .64.10 PERFORMANCE REQUIREMENTS

A toilet and hand basin for public or visitor use.

500847 90 .65.00 DESCRIPTION AND FUNCTION

The Public Toilet may also include facilities for baby change.

A Public Toilet should be 3 m2. If baby change facilities are included, the size may be increased to 4 m2.

LOCATION AND RELATIONSHIPS

Toilets for public use should be readily accessible from Public Areas.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets

Toilet - Staff

600299 90 .65.05 PERFORMANCE REQUIREMENTS

A toilet and hand basin for staff use.

500785 90 .66.00 DESCRIPTION AND FUNCTION

A Staff Toilet should be 3 m2.

LOCATION AND RELATIONSHIPS

Toilets for staff use should be readily accessible from staff Work Areas.

They should be located central to a Unit or in a location suitable for use by staff from adjoining Units.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets

Treatment Room

600300 90 .66.10 PERFORMANCE REQUIREMENTS

The Treatment Room provides a controlled environment, privacy and facilities for carrying out consultations, examinations and treatments. Wound dressings and minor treatments will also be carried out.

The door should be lockable.

500233 90 .67.00 DESCRIPTION AND FUNCTION

Operational policy for the Unit will determine the need for a Treatment Room. If patients are treated at the bedside, the Treatment Room may not be required.

Floor area should be 14 m2.

LOCATION AND RELATIONSHIPS

The Treatment Room should be located with other Patient Care Areas, near the Clean Utility Room.

Centrally located Treatment Rooms may serve more than one unit on the same floor/level of a facility.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets

Waiting

600302 90 .67.15 PERFORMANCE REQUIREMENTS

A Waiting Area may be for the use of the public, patients, families and other visitors to a Facility or Unit. Adequate space should be provided for patients as well as relatives/escorts.

500845 90 .68.00 DESCRIPTION AND FUNCTION

A range of occupants will require waiting space and these will include adults and children, both able-bodied and disabled. The needs of different groups of patients including those who may be behaviourally disturbed, mothers with babies and older people should be considered. Circulation requirements must cater for this.

The size of a Waiting Area will depend on the number of people to be accommodated but will generally require 1.2 m2 per able-bodied person or 1.5m2 per wheelchair occupant or other disabled person. Space for baby prams, wheelchairs, walking frames, sticks, etc, should be provided.

If provided, the area of a separate Paediatric Waiting Area will be additional to this area requirement.

Consultation with service providers may be required as to whether separate area(s) may be required for certain groups of patients, or for mothers with babies and young children.

Information displays may be located in the Waiting Area.

Refer Part C for further information.

LOCATION AND RELATIONSHIPS

Near the entry to the Facility or Unit and observable from the Reception Area.

Where a child play area is provided this should be adjacent to, and observable from the waiting area.

Where possible, consider locating the Waiting Area near a courtyard to meet the cultural needs of some community groups.

Access to disabled accessible public toilets, baby change facilities eg parenting room, outdoor areas, food and beverage facilities and a public telephone should be available.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets

Refer to Room Layout and Room Data Sheets for various size options.

Waste Holding

600303 90 .68.10 PERFORMANCE REQUIREMENTS

A Waste Holding Area is required for storing waste materials awaiting removal from the site, including general waste, clinical waste, recyclable waste and linen.

501558 90 .69.00 LOCATION AND RELATIONSHIPS

Locate with loading and service facilities.

Waste holding area may be internal and/or external to the building. Access routes to the holding area should be considered.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets

X-Ray Viewing and Reporting

600304 90 .69.10 PERFORMANCE REQUIREMENTS

This area is for clinical staff to review x-ray films and to write reports.

X-ray viewing boxes are required and suitable workbenches for clerical work.

500849 90 .70.00 DESCRIPTION AND FUNCTION

Floor area should be 12 m2.

LOCATION AND RELATIONSHIPS

Accessible from main Unit corridor; near other staff Work Areas.

CONSIDERATIONS

For additional room considerations and details refer to Room Data Sheets and Room Layout Sheets

120 ADMINISTRATION UNIT

INDEX

		Description
503380	120 .0.10	INTRODUCTION
		Preamble
		Introduction
		Policy Statement
		Description of Unit
		PLANNING
		Operational Models
		Operational Policies
		Planning Models
		Functional Areas
		Functional Relationships
		DESIGN
		Access
		Car Parking Requirements
		Disaster Planning
		Infection Control
		Environmental Considerations
		Space Standards and Components
		Safety and Security
		Finishes
		Fixtures and Fittings
		Building Services Requirements
		COMPONENTS OF THE UNIT
		Standard Components
		Non-Standard Components
		APPENDICES
		Schedule of Accommodation
		Functional Relationships Diagram
		Checklists

INTRODUCTION

Preamble

503381 120 .1.00 This Hospital Planning Unit for Administration has been developed in part as a vehicle for the NSW Policy Directive (refer 120.3.00) regarding sizes and allocation of offices, workstations and meeting rooms to ensure that the information is readily accessible.

503382 120 .1.05 This policy outlines the required spaces for office accommodation in all health care facilities and has been developed for architects, designers and health facility planners in the planning and design of those facilities.

The key objectives of this policy are to:
- maximise the utilisation of space;
- ensure that the functional and flexible office environment is delivered within the

standards set by the Building Code of Australia;
- ensure that the work environment supports new approaches to service delivery including increased collaboration between health professionals and a focus on multidisciplinary team work;
- maximise flexibility and minimise cost for future changes to office accommodation;
- provide a consistent approach to the design and planning of office accommodation; and
- provide accommodation that reflects changing patterns of work including part-time, job share, conjoint and multi-site appointments.

Introduction

503383 120 .2.00 The level and range of facilities provided for corporate, administrative and general office functions will vary greatly depending on the size of the proposed facility, the range of services required and the management structure that will apply. Project staff will need to ascertain the staffing mix and establishment early in the planning process.

Policy Statement

503384 120 .3.00 PD 2005_576 – Office Accommodation Policy – Public Health Organisations and Ambulance Service, 26-April-2005. Compliance with this policy directive is mandatory.

Architects, designers and health facility planners shall also comply with (the latest version) of current statutory obligations including:

- Building Code of Australia

- NSW Anti Discrimination Act 1977
http://www.austlii.edu.au/au/legis/nsw/consol_act/aa1977204/

- NSW Disability Services Act 1993
http://www.austlii.edu.au/au/legis/nsw/consol_act/dsa1993213/

- OH&S Act 2000 & OH&S Regulation 2001 - http://www.legislation.nsw.gov.au/

- Commonwealth Disability Discrimination Act 1992
http://www.austlii.edu.au/au/legis/cth/consol_act/dda1992264/

Description of the Unit

503385 120 .4.00 DEFINITION OF HOSPITAL PLANNING UNIT (HPU)

Regardless of size of unit, facilities will be required to accommodate the following administrative functions:

- General and/or individual office accommodation for appropriate corporate, administrative and clerical personnel
- Storage of office equipment, stationery and files
- Interviews, meetings and conferences as required.

Services to be provided and staff to be accommodated will/ may include:
- CEO/General Manager & support staff
- Nursing executive and support staff
- Medical / clinical executive and support staff
- Finance

- Human Resources and Payroll
- OH&S staff
- Learning & Development staff
- Facility Management.

503386 120 .4.05 SUPPORT AREAS

Support areas may include reception, waiting areas, meeting rooms, kitchens, staff amenities etc and wherever possible should be shared across a number of units.

Public amenities must be available for visitors either within the unit itself or readily accessible.

503387 120 .4.10 PRINCIPLES OF OFFICE ALLOCATION

The principles that underpin the provision of office accommodation in health care facilities include:

Office spaces shall only be provided on a demonstrated needs basis ie: the type of office / workspace considered in the planning and design phase will depend on the employment hours of staff, work undertaken and work patterns of staff;

Shared offices or workspaces shall be encouraged wherever possible, to promote cost effective office accommodation;

Single offices will only be provided where they can be justified by the nature of the work undertaken by the position. Considerations will include seniority, nature of supervisory role, productivity and time spent doing office-based duties;

Staff with multiple roles within or across an Area should not be allocated more than one dedicated office or workspace;

PLANNING

Operational Models

503388 120 .5.00 HOURS OF OPERATION

Generally the Unit will operate during business hours but many staff and visitors will require after-hours access either for work or for meetings, functions etc.

503389 120 .5.05 CONFIGURATION

In small facilities, a single unit may accommodate all functions; in large facilities, several discreet units may be required for specific staff and functions.

Operational Policies

503390 120 .6.00 CATERING

If catering for functions / meetings will be required, project staff will need to determine to what degree if any, refreshments etc will be prepared within the unit or brought directly from the main Kitchen so that need for catering facilities within the unit/s may be assessed.

Staff will need access to beverage bays for their personal use.

Operational Policies

503391 120 .6.05 OFFICE EQUIPMENT

Consideration will need to be given to location of facsimile machines, photocopiers, printers and other items such as laminators etc and the extent to which they will be shared and, in the case of printers, networked.

503392 120 .6.10 PAPER RECYCLING AND SECURITY

Despite attempts at paperless offices, vast quantities of waste paper will be generated. Confidential reports should be placed in a locked recycle bin for shredding and an additional bin will be required for general paper recycle.

Planning Models

503393 120 .7.00 Deep plan minimises the availability of daylight.

Functional Areas

503394 120 .8.00 FUNCTIONAL ZONES

Unless a single unit accommodating all functions, the following may be required:

Executive Suite – in addition to offices, may include Boardroom, function kitchen, central registry and visitor waiting

Clinical/Medical Services Unit

Nursing & Patient Services Unit

Finance Unit

HR and Payroll Unit (and may include OH&S staff)

Facilities Management Unit

Learning and Development

Functional Relationships

503395 120 .9.00 EXTERNAL

There are no critical functional relationships.

503396 120 .10.00 INTERNAL

In large health care facilities with multiple units, it may be appropriate to collocate the executive units and finance.

DESIGN

Access

503397 120 .11.00 The Executive Unit should be readily accessible from the Main Entry but does not necessarily have to occupy a ground floor location.

HR and Payroll must be easily accessible to staff.

Car Parking Requirements

503398 120 .12.00 For staff parking, refer to Part C, Clause 790 of these Guidelines for further information.

Disaster Planning

503399 120 .13.00 Refer to Part B Clause 80 and Part C of these Guidelines for further information.

Infection Control

503400 120 .14.00 There are no specific infection control issues.

Environmental Considerations

503401 120 .15.00 ACOUSTICS

AS/NZS 2107 - Acoustics–Recommended design sound levels and reverberation times for building interiors.

Recommends design sound levels and reverberation times for different areas of occupancy in various categories of buildings. Specifies methods of measuring the ambient sound level reverberation time. This Standard is intended for use in assessing the acoustic performance of buildings and building services. It does not apply to the evaluation of occupancy noise.

AS 2670 - Evaluation of human exposure to wholebody vibration
Part 1 - General requirements

Defines methods for the measurement of periodic, random and transient whole-body vibration and indicates the principal factors that combine to determine the degree to which vibration exposure will be acceptable. Informative annexes provide guidance based on current opinion on the possible effects of vibration on health, comfort and perception and motion sickness.

503402 120 .16.00 NATURAL LIGHT

Highly desirable where achievable, particularly for staff who occupy their offices/workstations for the majority of the working day.

503403 120 .17.00 PRIVACY

Essential for confidential conversations and interviews.

503404 120 .18.00 INTERIOR DESIGN

Refer to Part C of these Guidelines.

Space Standards and Components

503405 120 .19.00 ERGONOMICS

Refer Part C of these Guidelines for information.

503406 120 .20.00 HUMAN ENGINEERING

Refer Part C of these Guidelines for information.

503407 120 .21.00 ACCESS AND MOBILITY

Refer Part C of these Guidelines for information.

503408 120 .22.00 DOORS, WINDOWS AND CORRIDORS

Refer Part C of these Guidelines for information.

Safety and Security

503409 120 .23.00 SECURITY

All office doors should be lockable.

Open-plan workstations.

Rooms on the perimeter of Units such as meeting rooms should also be kept locked when not in use particularly and especially if equipment is stored.

Files – particularly personnel files

After-hours security for staff.

Finishes

503410 120 .24.00 WALL PROTECTION

Refer to Part C of these Guidelines

503411 120 .25.00 FLOOR FINISHES

Refer to Part C of these Guidelines

503412 120 .26.00 CEILING FINISHES

Refer to Part C of these Guidelines

Fixtures & Fittings

503413 120 .27.00 Refer to part C of these Guidelines and to the Room Data Sheets (RDS) and Room Layout Sheets (RLS) for further detailed information

Building Service Requirements

503414 120 .28.00 INFORMATION TECHNOLOGY / COMMUNICATIONS

Voice, data, teleconferencing, videoconferencing

503415 120 .29.00 ENGINEERING SERVICES

Refer to Part e of these Guidelines and TS11

COMPONENTS OF THE UNIT

Standard Components

503416 120 .30.00 Refer to Standard Components in Part B of these Guidelines and to Room Data and Room Layout Sheets.

Non-Standard Components

503417 120 .31.00 There are no non-standard components.

APPENDICES

Schedule of Accommodation

503418 120 .32.00 The following schedule of accommodation complies in all respects with the Policy Directive.

SUPPORT AREAS

ROOM/SPACE	Standard Component	Qty x m2					Remarks
WAITING AREA	yes	See Remarks					1.2m2 per person and 1.5m2 for wheelchairs as required.
TOILET - PUBLIC	yes	1 x 3					If not available nearby
TOILET - DISABLED	yes	1 x 5					If not available nearby
RECEPTION	yes	1 x 10					1 staff. May be replaced by a workstation.
STORE - PHOTOCOPY/STATIONERY	yes	1 x 8					
BEVERAGE PANTRY	yes	1 x 4					If no Staff Room
PANTRY	yes	1 x 8					Optional for functions
STAFF ROOM	yes	1 x 15					Optional; includes beverage bay
STAFF TOILET	yes	1 x 3					
CENTRAL REGISTRY		1 x 10					Room size will depend on size of unit/s. (For storage of board minutes etc.)
FILE STORE	yes	1 x 10					Personnel Files

503419 120 .33.00 OFFICES

Note 1: Office Type A
For Area CEO. 6m2 has been incorporated to provide a meeting area. These Executives may have multiple roles, but only one dedicated office space should be assigned within or across the Area Health Service.

Note 2: Office Type B
For Area Executive, General Managers. 3m2 has been incorporated to provide a meeting area. These staff may have multiple roles but only one dedicated office space should be assigned within the campus/Area Health Service.

Note 3: Office Type C
Clinical Stream/Divisional Executives, Academics Professors (full), Area Managers, Clinical Directors of Departments/Units, Health Service Managers (Rural Health) with significant staff supervisory responsibilities and the position is 0.8 FTE or higher. These staff may have multiple roles but only one dedicated office space should be assigned within the campus/Area Health Service.

Note 4: Office Type D
Nurse Unit Managers, Staff Specialists, Business Managers, and Department Heads with significant staff supervisory responsibilities and where the position is 0.8FTE or higher. A manager may be responsible for more than one Unit/Department, but should only have one office assigned within the campus / Area Health Service.

ROOM/SPACE	Standard Component	Area m2					Remarks
OFFICE TYPE A		18					See note 1
OFFICE TYPE B		15					See note 2
OFFICE TYPE C	yes	12					See note 3
OFFICE TYPE D	yes	9					See note 4
SHARED OFFICE TYPE A	yes	12					Shared office area for 2 persons with two workstations to undertake administrative duties
SHARED OFFICE TYPE B	yes	15					Shared office space for 3 persons with three workstations to undertake administrative duties
SHARED OFFICE TYPE C	yes	20					Shared office space for 4 persons with four workstations to undertake administrative duties

503420 120 .34.00 WORKSTATIONS

Note 5: Workstation A
For research assistants and staff who spend the majority of their time providing services in the community, such as Outreach, Community Health, Community Mental Health.

Note 6: Workstation B
For Research Fellows, Data Managers, Clinical Nurse Consultants, administration staff or any staff who require a workstation.

Note 7: Shared Workbase
Workroom with benches along wall perimeters of 750mm - 800mm in depth. This work base is designed to accommodate staff who due to area-wide responsibilities travel between health care facilities and may require workspace to perform administrative functions. This work base may also be suitable for staff entering data.

ROOM/SPACE	Standard Component	Area m2					Remarks

WORKSTATION A		4.4					See note 5
WORKSTATION B	yes	5.5					See note 6
SHARED WORKBASE		2.2					See note 7

503421 120 .35.00 MEETING ROOMS

Note 8: Meeting Room - A
For interview purposes for 2 – 3 people.

Note 9: Meeting Room - B
An area suitable for 4 - 6 people. For staff, patients and family members to conduct confidential discussions.

Note 10: Meeting Room - C
An area suitable for 8 -12 people to conduct meetings. This room is a shared facility and is to be accessed through a booking system.

Note 11: Meeting Room - D
Allows for up to 14 - 20 people to attend meetings or can be used as a small group room for Community Health. Where two such rooms are co-located, movable walls may be installed allowing greater flexibility in the possible use of these areas.

Note 12: Meeting Room - E
Allows for up to 50 people seated plus lecture area. The provision of non-fixed, stackable seating allows greater flexibility. Can be used as a large group room for Community Health. As lie down space for antenatal classes, the room will accommodate less people.

ROOM/SPACE	Standard Component	Area m2					Remarks
MEETING ROOM - A	yes	9					See note 8
MEETING ROOM - B	yes	12					See note 9
MEETING ROOM - C	yes	20					See note 10
MEETING ROOM -D	yes	30					See note 11
MEETING ROOM -E		55					See note 12
DISCOUNTED CIRCULATION		25% - 30%					Circulation will depend on size of unit/s

132 CHILD & ADOLESCENT MENTAL HEALTH UNIT

INDEX

		Description
502420	132 .0.10	INTRODUCTION

Preamble
Introduction
Policy Statement
Description of Unit

PLANNING

Operational Models
Models of Care
Operational Policies
Planning Models
Functional Areas
Functional Relationships

DESIGN

General
Access
Car Parking Requirements
Disaster Planning
Infection Control
Environmental Considerations
Space Standards and Components
Safety and Security
Finishes
Fixtures and Fittings
Building Services Requirements

COMPONENTS OF THE UNIT

General
Standard Components
Non-Standard Components

APPENDICES

Schedule of Accommodation
Functional Relationships Diagram
Checklists
Referenses and Further Reading

INTRODUCTION

Preamble

502421 132 .2.00

Child and Adolescent Mental Health (Inpatient Care) is a Core Integrated Community and Hospital Service in the NSW Guide to the Role Delineation of Health Services (Third Edition 2003). It defines 6 levels of service from 1 to 6. Levels 1 to 4 do not have dedicated beds but may access paediatric beds and/or a modified suite of beds within an adult mental health unit. This Guideline only addresses dedicated Child and Adolescent services at Levels 5/6 that have designated gazetted beds and provide a regional / supra-regional service.

It is essential to be aware of the impact on the Unit itself and associated facilities in other units of:
- Operational Policies
- Models of Care including provision or otherwise of an associated Day Hospital
- Family needs and
- Extent of Community-Based Services.

In addition, facility design, must, where appropriate, meet all necessary criteria to reach accreditation standards with regard to design and equipment.

Introduction

502422 132 .3.00

This Health Planning Unit is a resource to assist in the planning, design and construction of a Child and Adolescent Mental Health Unit that may or may not incorporate a Day Hospital. It should be read in conjunction with generic planning requirements and Standard Components described in Parts A, B, C and D of these Guidelines.

The original Health Building Guideline, DS-26 only addresses an Adolescent Inpatient Unit. This Guideline has been expanded to also address the needs of children and a Day Hospital.

Policy Statement

502423 132 .4.00

Mental Health Services in NSW are underpinned by the NSW Mental Health Act 1990 and the National Mental Health Strategy.
The National Mental Health Strategy … "provides a framework for national reform from an institutionally based mental health system to one that is consumer focused with an emphasis on supporting the individual in their community. The Strategy was reaffirmed in 1998 with the Second National Mental Health Plan and again in 2003 with the endorsement by all health ministers of the National Mental Health Plan 2003-2008.
Charter for Mental Health Care in NSW

NSW Health Frontline Procedures for the Protection of Children and Young People, NSW Health December 2000.
Policy Directive PD2005-037, Child & Adolescent Mental Health Policy, NSW Health, 25 Jan 2005.
Restraint, Seclusion and Transport Guidelines for Patients with Behavioural Disturbance – Version 10, NSW Health

Policy Directive PD2005_339, Protecting People and Property: NSW Health Policy and Guidelines for Security Risk Management in Health Facilities, NSW Health January 2005.

Policy Directive PD2005_576: Office Accommodation Policy – Public Health Organisations and Ambulance Service, NSW Health April 2005.

Description of the Unit

502 132 .5.00 DEFINITION OF HEALTH PLANNING UNIT (HPU)

The Child and Adolescent Mental Health Inpatient Unit describes facilities for the admission, assessment and treatment of children and young people up to 18 years where community approaches have proven (or are likely to prove) inadequate.

The unit will provide consultation, assessment, acute care management, discharge planning and evaluation of outcomes.

The design, layout and functionality of the Unit should meet their social, emotional and intellectual developmental needs.

The Unit should enable active family involvement in daily care, treatment and program activities but under current policy, child and family are no longer admitted as a unit although provision will be made for a parent to stay overnight on an as needs basis.

502425 132 .6.00 PATIENT CHARACTERISTICS

Patients will have a broad range of mental health problems and disorders and challenging behaviours that must be managed safely and effectively.

The unit may admit and treat patients who have:
- A risk of self injury, self-neglect or injury to others
- A severe affective disorder
- Psychosis including early onset schizophrenia
- Pervasive developmental disorders
- Eating disorders
- Severe anxiety disorders
- Obsessive compulsive disorder
- Tourette's syndrome
- Co-morbid drug and alcohol problems
- Severe family relationship difficulties.

503355 132 .6.05 PATIENT NEEDS

- Access to quiet areas at all times
- Adequate outdoor areas for physical activity as a release mechanism for agitation
- Bedrooms and activities areas that are home-like and allow for expression of ideas
- Ability to feel “safe” when other patients are “out of control”
- Access to staff that is free and open
- Access to phones
- Access to counsellor for family/relatives when necessary.
- Access to a designated smoking areas

- Space - It is important to recognise that children – despite their small size - and young people usually need more space than adults and this is reflected in the activity areas in the schedule of accommodation.

503356 132 .6.10 OPTIMUM UNIT SIZE

The number of beds will depend on the Service Plan. However, it has been suggested that between 8 and 12 beds is the optimum size to gain the benefits of economies of scale in staffing costs and enable rapid management of psychiatric emergencies. For the purposes of this Guideline, 12 beds have been assumed in

order to create a logical list of rooms/spaces. This number and bed mix will need to be amended on a project-by-project basis.

503357 132 .6.15 BED CONFIGURATION & UNIT LAYOUT

The design of the inpatient areas must facilitate safety and security for both patients and staff and allow for changing levels of patient acuity and models of care, both in the short and long term.

Rooms may be grouped into clusters that can be defined for distinct patient groups.

Consideration must be given to safe and supervised access for housekeeping, catering and other staff who may feel uncomfortable in the mental health environment.

PLANNING

Operational Models

502426 132 .7.00 HOURS OF OPERATION

The Inpatient Unit will operate 24 hours a day, 7 days a week. A Day Service where established will generally operate during business hours Monday to Friday.

502427 132 .8.00 ORGANISATION OF SERVICES

Refer Policy Directive PD2005-037, Child & Adolescent Mental Health Policy, NSW Health, 25 Jan 2005 that addresses primary care programmes and secondary and tertiary referral services.

502428 132 .9.00 MODELS OF CARE

There are several models of care including:
- Children and adolescents together in a fully integrated unit only separated by programme / activities (There is evidence to suggest that older children look after the younger children in this environment. Refer Nexus Unit, John Hunter Hospital)
- Children and adolescents in the same unit but separate “zones” designed to cater for their differing needs
- Separate units for children and adolescents and
- Dedicated “voluntary” unit that can be secured if necessary as part of a paediatric precinct that allows children – when considered able - to participate in activities with other children – school, play therapy, etc.

In NSW it is no longer policy to admit the parent/s and child as a “child and family” unit although facilities must be available for a parent to stay and extremely aggressive teenagers may be better in an adult unit.

502429 132 .10.00 DAY HOSPITAL

The current model of care for Child & Adolescent services also provides for day units to be established to minimise the need for undesirable hospitalisation. If collocated with the inpatient unit, it should be able to accommodate all non-24 hour functions such as offices and allow shut-down after hours. If the Day Hospital is developed in advance of the Inpatient Unit, layout should allow for easy and functional “add-on”.

Operational Policies

502430 132 .11.00 GENERAL

The development of Operational Policies is crucial to defining how the unit will operate within the hospital and the Area's mental health service.

Project staff are referred to Part B Section 80 of these Guidelines for further information regarding general policies. Specific policies for Child and Adolescent Units may include:

- Admissions – voluntary and involuntary
- Use of seclusion and restraint
- Educational needs and play therapy
- Accommodation for families
- Access to bedrooms during the day.

503358 132 .11.05 USE OF BEDROOMS

Generally patients are not allowed access to their bedrooms except to sleep, for approved time out or when medicated or recovering from sedation or other treatment and therefore bedroom doors should be lockable and access controlled by staff.

502431 132 .12.00 USE OF SECLUSION AND RESTRAINT

Project staff are referred to the NSW Health report – Restraint, Seclusion and Transport Guidelines for Patients with Behavioural Disturbances.

503359 132 .12.05 MANAGEMENT OF BARIATRIC (SEVERELY OBESE) PATIENTS

Obesity in children and adolescents is becoming an increasing problem. It is important to ensure that at least one bedroom and en suite can accommodate a larger bed if necessary and easy use of lifting equipment. It may also be necessary to consider provision of a larger-than-usual examination couch in at least one Consult / Exam Room. (Also need to consider that the parent of a child may be very obese.

Refer to NSW Health Guideline - GL2005_070, September 2005: Guidelines for the Management of OHS Issues Associated with the Management of Bariatric (Severely Obese) Patients.

502432 132 .13.00 SMOKING POLICIES

Smoking is a very controversial issue and some units ban it completely and provide assistance via nicotine substitutes. However, assuming smoking is permitted (in outdoor areas only), consideration needs to be given to management of lighters and containers for disposal of cigarette butts. It is assumed that matches are not allowed.

Consideration should be given to installing low voltage car-type lighters, or the use of no-flame lighters that can be secured to a wall or mounted onto a post in the designated smoking area – and that also require low voltage power.

503360 132 .13.05 FOOD SERVICES

Consideration should be given to the means by which meals are served. If patients are able to self-serve and make their own toast, sandwiches etc rather than having plated meals, this can encourage independence and act as part of ADL therapy. If this option is selected, the unit Kitchen will need to be sized and equipped to accommodate this and should open out onto the Dining Area with capacity to be locked after hours (e.g. roller shutter). There should be supervised refreshment facilities available at all times for patients to make their own drinks.

502433 132 .14.00 STAFFING

Staffing levels and mix will vary depending on the size and configuration of the Unit, service profile and case mix, patient profile and staff availability. However, care must be taken to ensure that staffing levels are adequate to meet emergency needs – particularly at night.

Offices and workstations are listed in the Schedule of Accommodation but actual numbers will depend on the staff establishment. Project staff should refer to the NSW Health Policy Directive – PD2005_576: Office Accommodation Policy – Public Health Organisations and Ambulance Service. This policy directive is available on the NSW Health web site.

Planning Models

502434 132 .15.00 LOCATION

A ground floor location is preferred.

Option of locating beds adjacent to a Paediatric Ward to allow children to be involved in activities with other medical patients. (Refer Westmead model).

Functional Areas

502435 132 .16.00 FUNCTIONAL ZONES

Functional zones comprise:
- Main Entry / Reception / Consult / Interview
- Acute admissions area including including police entry, high dependency & seclusion
- Inpatient areas – bedrooms and activities
- Clinical support facilities
- Staff offices and amenities
- Day Unit

If the Day Hospital is (or is to be) collocated with the Inpatient Unit, most of the offices may be included in the former to allow for after-hours shut-down.

502436 132 .17.00 MAIN RECEPTION/ ENTRY AREA

Ideally there should be one main entrance to the two units and one main Reception with diversion to the Inpatient Unit or Day Hospital.

Each component should incorporate a greeting/ waiting area for family, friends and others which is separated from all other functional areas.

Design of the area should assist staff to prevent unauthorised entry to the unit and to provide a safe and therapeutic environment for children and adolescents and their family members.

502437 132 .18.00 INPATIENT UNIT – GENERAL

502438 132 .19.00 PATIENT BEDROOMS

Single bedrooms shall be provided one or more of which must be larger than normal to accommodate a bariatric patient or a family member

Bedroom doors must be able to be locked from the outside only. Vision panels where installed should be impact-resistant glass.

Design and décor must permit personalisation of the space. Required fittings and furniture include:
- Built-in wardrobe (no lock)
- Built-in desk
- Mirror
- Lightweight, flexible chairs
- Pinboard for photos and posters.

Whilst a domestic bed may be the ideal, consideration must be given to the OHS needs of staff who have to make the beds.

Fittings must not provide opportunities for self harm and must have a breaking strain of less than 15 kg. Blinds to external windows are to be within double glazing.

Services will include the following:
- Two power outlets - RCD protected
- Optional Internet outlet
- Staff alarm system.
- Low wattage night light switched from outside the room

Medical gases will not be provided.

502439 132 .20.00 PATIENT ENSUITES

An en suite shall be provided to each non-secure bedroom to comply with Standard Components En Suite - Mental Health.

The fittings must ensure there are no opportunities for self harm and are to have a breaking strain of less than 15 kg.

They must be lockable from the outside so that staff can deny access if necessary (patients with eating disorders who may use the en suite to either dispose of food or induce vomiting).

Doors must open outwards and if occupancy indicators are used, the doors must be able to be opened by staff in an emergency.

Consideration may be given as to whether shower tracks and curtains are necessary.

502440 132 .21.00 ACTIVITY & RECREATIONAL AREAS

There must be a range of activity and recreation areas including

Lounge / TV room
Computer room
Dining room
Quiet room
Education room

502441 132 .22.00 EXTERNAL RELAXATION/ ACTIVITIES AREAS

Courtyards or terraces for programmed activities, play or relaxation are an essential component of the unit and may be zoned for different activities – barbecue, games etc.

As much design effort and attention to detail should be given to these areas as to internal spaces. Landscaping is essential to promote a feeling of space and tranquillity, and there are many imaginative solutions to creating a very special area for clients and staff within the boundaries of a safe and secure environment. Landscape features and plantings must be set back from the perimeter wall to avoid foot hold points which may permit the wall to be scaled and design should avoid blind spots for good observation

In this guideline courtyards or terraces are treated as therapeutic areas and are included in the schedules of accommodation

Patient access to and from the unit should be able to be easily observed and monitored by staff and staff should be able to prevent or control access at night.

502460 132 .22.05 PERIMETER FENCING

Special attention needs to be given to ensuring that all outdoor areas are as secure and safe as indoor areas. Attention should be given to detailing roof overhangs, guttering and drain pipes which may provide a means of escape but fencing should not be so high as to create a prison-like environment or to increase the possibility of falling injuries should an attempt be made.

Recommended height is a matter for debate that has as yet to be determined and varies from 2.7 to 4m The client profile and topography of the area should be taken into account (e.g. patient acuity, voluntary versus involuntary patients, the physical capabilities of the young and fit, land sloping away etc.).

502442 132 .23.00 STORAGE

Storage will be required for occupational therapy equipment and a range of age-appropriate, therapy, sport and recreation equipment, either in each inpatient zone or in a central shared area. Each patient should have a lockable cupboard for personal items and school work outside of their bedrooms.

502443 132 .24.00 HIGH DEPENDANCY INPATIENT ZONE

The Unit will require a lockable high dependency unit consisting of single bedrooms, at least one seclusion room (operated in accordance with the NSW Mental Health Act 1990) and separate toilets and shower opening onto a locked lounge area which in turn has immediate access to an external secure courtyard separate to other external recreation areas. Entry to this area directly from outside the Unit will be required for police-assisted admissions or where a young person is highly disturbed and at immediate risk of harm to themselves or others.

502444 132 .25.00 QUIET/TIME OUT ROOM

The unit will require a room that can be used for quiet time/ time out for agitated and distressed children. The room should be located in an area that will minimise disruption to other unit activities.

The room will be very plain and simple with unbreakable fittings and should have ready access to a toilet and washing facilities close by that does not require traversing the unit.

502445 132 .26.00 FAMILY LOUNGE

A small dedicated lounge should be available to parents requiring some time out.

502446 132 .27.00 CLINICAL SUPPORT AREAS

Will include:
- Staff Station
- Medication / Treatment Room
- Linen Store
- Dirty Utility
- Storage for general ward equipment.

503361 132 .27.05 STAFF STATION

The ideal design will enable one staff station to monitor all areas and provide an escape route/safe haven for staff, but location and site footprint may not enable this. A decision to provide a separate staff station in the High Dependency Unit should only be reached after serious consideration of planning options. There are obvious issues of safety and operational efficiency that will be compromised by such a division.

502447 132 .28.00 MEDICATION / TREATMENT ROOM

A lockable room will be required for the storage of drugs and clinical supplies. If also used for dispensing medications then the door to the corridor needs to have a medication dispensing hatch. This will be the only location for the secure holding of scheduled drugs in the unit.

The room may also serve as a Treatment Room for neurological examinations, administration of injections, dressings and other minor procedures in which case an examination couch and examination light and a second exit door will be required and discreet access for patients from the secure section of the Unit needs to be provided.

If used for parking of a medication trolley, the trolley MUST be locked and out of reach of patients undergoing treatment. May also be used to park the resuscitation and ECG trolleys for the unit that must also be out of reach of patients but easily accessible to staff. If used for trolley parking, the room size will need to be increased accordingly.

503362 132 .28.05 MEETING / EDUCATION / MAGISTRATE'S ROOM:

This room may be used for group therapy sessions, staff meetings, patient education and in-service educational sessions for staff, family and other carers. It will also be used for sittings of the Sessional Magistrate. The exact use of such

rooms will vary between units due to the different needs of patient groups and services provided. Their use should be determined early in the planning process to ensure adequate utilisation of space.

There will need to be a second egress door.

There needs to be discrete close access from the High Dependency Area for patient attendance at magisterial sessions.

503363 132 .28.06 ADMINISTRATION / STAFF OFFICES

Offices and workstations and staff amenities should be located away from inpatient areas with no patient access,

502448 132 .29.00 DAY HOSPITAL

Facilities will/may comprise:

- Shared Entry / Reception / Waiting Areas including Child Play and amenities
- Consulting Rooms
- Meeting rooms for individual, family and group therapy (with or without an adjoining observation room
- Staff offices and amenities

503364 132 .29.05 CONSULTATION ROOMS

The number of such rooms and their specific uses (i.e. inpatients only or inpatients and outpatients) will be determined by the services provided by the unit.

In the interests of staff safety and security, there must be sufficient rooms to prevent ad hoc use of offices or patient bedrooms for consultation purposes.

At times, six to seven people may be involved in the consultation process or the consultation may be limited to the patient and the health professional. All consultation rooms are to have two exit doors and duress alarms for safety. Refer Part C for further information.

Functional Relationships

502449 132 .30.00 The Child and Adolescent Acute Mental Health Unit has functional relationships with the following units, services and organizations:

- Emergency Unit
- Paediatric Services
- Child Protection Unit
- Departments of Education, Community Services, Juvenile Justice, Police
- and Ambulance
- Pathology Unit
- Allied Health Unit
- Early childhood services
- Child and family support services
- Other CAMHS community services including intensive outreach services
- and day programs
- Drug treatment services

502450 132 .31.00 INTERNAL

Two separate inpatient zones with a central shared support zone. If collocated with an Adult Mental Health Unit, authorised internal access between the units may be considered.

DESIGN

General

502451 132 .33.00 GENERAL

The following design aspects are mandatory requirements:

- Bedrooms should provide a domestic environment with comfortable, robust furniture and furnishings

- All glazing must be safety glass

- Where collocated, the Child and Family and Adolescent Acute Mental Health Inpatient Units should allow full independent operation and separation while enabling common use of appropriate facilities

- Rooms and equipment need to meet the therapeutic and educational requirements of the patient group, with provisions for video conferencing in at least one large family Meeting Room and video taping in at least one Interview Room or wet and dry Therapy/ Play Room.

Access

502452 132 .34.00 EXTERNAL

Ready access from main hospital for food, linen, supplies etc.

502453 132 .35.00 INTERNAL
- Access to the Unit must not be through other units, also the unit must not form a thoroughfare to any other unit

From adjoining units

Car Parking Requirements

502454 132 .36.00 Short-term parking for police vehicles.

Visitor parking

For staff parking, refer to Part C, Clause 790 of these Guidelines for further information.

Disaster Planning

502455 132 .37.00 Refer to Part B Clause 80 and Part C of these Guidelines for further information.

Infection Control

502456 132 .38.00 The infectious status of patients admitted to the Unit may be unknown. All body fluids should be treated as potentially infectious and adequate precautions should be taken, particularly with small children.

Handbasins will be provided in clinical areas such as treatment rooms and consultation rooms. Patients will have access to handbasins in en suites and handbasins will be provided in recessed bays in the corridors for staff use.

Refer to Part D of these Guidelines for further information.

Environmental Considerations

502457 132 .39.00 ACOUSTICS

Adequate acoustic treatment is required to ensure that patient privacy is maintained and that disruptive incidents do not compromise the operations of the unit or distress other patients. Areas requiring special attention are noted in the relevant Standard Components.

In acoustically treated rooms, return air grilles should be acoustically treated to avoid transfer of conversations to adjacent areas. Door grilles to these areas should be avoided.

503365 132 .39.05 AMBIENCE

- "Therapeutic" environment
- Scale appropriate to the development and its relationship to its surrounding environs
- Normalisation of the environment in looks, operation and functional content whilst not compromising clinical practice or safety
- Ease of client way finding and "identifiability" of rooms/spaces and a sense of identity for each sub-unit
- Privacy – visual & gender
- Interior design: patients allowed their own means of expression in nominated areas – graffiti walls etc.
-

502458 132 .40.00 NATURAL LIGHT

Wherever possible, the use of natural light is to be maximised. Current investigations support the fact that increased exposure to natural light improves service outcomes and reduces the length of stay especially for persons with mental illness. However, it must be noted that too much sunlight can adversely affects patients with medication-related photosensitivity

502459 132 .41.00 OUTDOOR AREAS

Courtyards or terraces with outdoor views are an essential component of a mental health unit. As much design effort and attention to detail should be given to these areas as to internal spaces. Dispensation should be sought from the NSW Department of Health for courtyard and terrace spaces in which smoking will be permitted.

In this guideline courtyards or terraces are treated as therapeutic areas and are included in the schedules of accommodation

502461 132 .43.00 INTERIOR DESIGN /DÉCOR

Decor is not just colour. It is furnishings, style, textures, ambience, perception and taste and can be very personal and subjective.

Decor can be used to prevent an institutional atmosphere. Cleaning, infection control, fire safety, patient care and the patient's perception of a professional, caring environment should always be considered when dealing with decor.

Interpretations and "research" on the use and value of colour in the clinical area differ; some issues are obvious, others less so and often not backed up by empirical evidence.

Consider the following:

- Some colours, particularly the bold primaries and green should be avoided as many people find them disturbing.
- Re-decoration is not a budgetary priority so care in selection of materials and colour is important.
- Extremes of colour should not be used.
- Colours and interior design should also be chosen to reflect the tastes and age of patients who will use the facility.

Space Standards and Components

502462 132 .44.00 ERGONOMICS

Refer Part C of these Guidelines for information.

502463 132 .45.00 HUMAN ENGINEERING

Refer Part C of these Guidelines for information.

502464 132 .46.00 ACCESS AND MOBILITY

Refer Part C of these Guidelines for information.

502465 132 .47.00 DOORS AND CORRIDORS

Doors will need to be reinforced including fire exit doors.

Refer Part C of these Guidelines for information.

502466 132 .48.00 WINDOWS AND GLAZING

In areas where damage to glass may be anticipated, avoid larger pane sizes as smaller panes are inherently stronger for a given thickness than larger panes.

Impact-resistant Grade A safety glass to comply with AS/NZS 2208:1996 – Safety Glazing Materials in Buildings is the recommended choice.

Polycarbonate is not recommended as it suffers from surface scratching and deteriorates thus reducing vision.

Where windows are openable, effective security features such as narrow windows that will not allow patient escape, shall be provided. Locks, under the control of staff, shall be fitted.

Also refer to Part C of the Guidelines

Safety and Security

503366 132 .48.05 GENERAL

Safety and security involves people and policies as well as physical aspects but the latter must be built in as part of overall design and not superimposed on a completed building and a safety audit via a risk analysis of potential hazards should be undertaken during the design process.

The Unit must not only be safe, it must feel safe. Security may be physical or psychological and barriers may be real or symbolic, but all must be unobtrusive. Within this context, the least restrictive environment should be the goal.

The following aspects need to be considered:
- Safety of both patients and staff
- Patients' legal rights
- The status of the hospital or part thereof under the Mental Health
- Legislation in force at the time of development.

Project staff should refer to the NSW Health manual – Protecting People and Property, NSW Health Policy and Guidelines for Security Risk Management in Health Facilities.

502467 132 .49.00 PHYSICAL SECURITY ASPECTS

Include:
- Access control
- Containment (if and when necessary)
- Good sight lines and avoidance of isolated spaces for both patient and staff safety (e.g. no unsupervised blind corridors)
- Fittings that minimise the opportunity for patient self-harm or injury to staff.
- Smooth finishes and rounded edges
- Use of impact-resistant glass
- Arrangement and design of rooms and furniture that prevents barricading.

502468 132 .50.00 ACCESS CONTROL

Design should assist staff to carry out their duties safely and to supervise patients by allowing or restricting access to areas in a manner which is consistent with patients' needs/skills. Staff should be able to view patient movements and activities as naturally as possible, whenever necessary.

Security features are required at all entrances and exits. These may include electronic locking, intercoms, and video surveillance.

Controlled and/or concealed access will be required as an option in a number of functional areas. Functionally the only difference in design between an open and a closed (locked) area should be the provision of controls over the flow to, from and throughout the facility. Such controls should be as unobtrusive as possible.

All Meeting, Counselling, Group Therapy, Family Therapy and Review Board Meeting rooms require two means of egress and a duress alarm.

502469 132 .51.00 ACCESS TO OUTDOOR AREAS

The perimeter security of the outdoor area surrounding the building is important in reducing staff anxiety in relation to patients movement and safety

When the Child and Adolescent Unit is located within a multi-storey building, access to external spaces above ground level such as balconies or roof is to be prevented.

502470 132 .51.10 Controlled and/or concealed access will be required as an option in a number of functional areas. Functionally the only difference in design between an open and a closed (locked) area should be the provision of controls over the flow to, from and throughout the facility. Such controls should be as unobtrusive as possible.

502471 132 .52.00 A communication system which enables staff to signal for assistance from other staff should be included.

502472 132 .53.00 When the Child and Adolescent Unit is located within a multi-storey building, access to external spaces above ground level such as balconies or roof is to be prevented.

502473 132 .54.00 The perimeter security of the outdoor area surrounding the building is important in reducing staff anxiety in relation to patients movement and safety.

Finishes

502474 132 .55.00 WALL PROTECTION

Wall linings need to be robust and resistant to abuse and physical damage.

Also refer to Part C of these Guidelines

502475 132 .56.00 FLOOR FINISHES

Strong patterns on floors such as geometric designs which may disturb perception should be avoided.

Refer to Part C of these Guidelines

502476 132 .57.00 CEILING FINISHES

In patient areas, ceiling linings need to be solid sheet - not ceiling tiles. In patient areas in secure zones, seclusion rooms and HDU/, ceilings need to be resistant to breakout.

Refer to Part C of these Guidelines

Fixtures & Fittings

502477 132 .58.00 Also refer to part C of these Guidelines and to the Room Data Sheets (RDS) and Room Layout Sheets (RLS) for further detailed information.

502478 132 .59.00 Fixtures and fittings should be safe, durable, heavy duty, concealed and tamper-proof. They must be flush with the surfaces to which they are attached or

designed in a way that prevents attachment of cords or belts.

Fittings, including hooks, curtain tracks, pelmets, bathroom fittings, should be plastic where possible and have a breaking strain of not more than 15kgs. Use of horizontal rails in toilets and showers is to be avoided; use vertical rails with infill.

502479 132 .60.00 Exposed services, for example, sink wastes which may be easily damaged should be avoided.

502480 132 .61.00 Fittings, including hooks, curtain tracks, pelmets, bathroom fittings, should be plastic where possible and have a breaking strain of not more than 15kgs. Use of horizontal rails in toilets and showers is to be avoided; use vertical rails with infill.

502481 132 .62.00 Fittings should avoid the potential to be used either as a weapon or to inflict personal damage. Paintings, mirrors and signage should be rigidly fixed to walls with tamper-proof fixings.

502482 132 .63.00 Mirrors shall be of safety glass or other appropriate impact-resistant and shatterproof construction but free from distortion. They shall be fully glued to a backing to prevent availability of loose fragments of broken glass.

502483 132 .64.00 Holland blinds and curtains should be avoided in patient areas.

502484 132 .65.00 Light fittings, smoke and thermal detectors and air-conditioning vents to secure areas, particularly the Seclusion Rooms should be vandal-proof and incapable of supporting a patient's weight.

Building Service Requirements

502485 132 .66.00 VIDEO SECURITY

The use of video surveillance may be useful for monitoring areas such as stairways and blind spots. It is not an appropriate alternative to observation of patients by clinical staff and staffing levels should be sufficient to ensure such surveillance is not electronic required.

When considering the use of video security, the following factors should be considered:
- Area Health Service policies
- Relevant NSW Health policies
- The rights of patients to privacy balanced against the need to observe activities for safety and security reasons
- The ability of the staff establishment to manage the level of observation required without video security
- The maintenance costs involved
- The ability to negate the need for video security with improved functional design.

Note that NSW Health has released an additional Chapter to the Manual – Protecting People and Property entitled "Workplace Camera Surveillance".

502486 132 .67.00 VOICE AND DATA

Communication systems may provide for:

- Alarm systems where necessary (eg. dangerous drug cupboard opening).

- Telephone services for staff, patients and visitors. The extent of provision, location, type (i.e. fixed or portable) and charging will need to be addressed in the Operational Policies. A separate telephone nook within the unit for use by patients should be considered.

- Computer and internet access for patients and staff.

Provision must be made at the outset for cabling and power outlets for computers.

502487 132 .68.00 TELEPSYCHIATRY

At least one room should be cabled and equipped to enable teleconferencing and videoconferencing to be used for staff education, management and patient telepsychiatry services.

502488 132 .69.00 NURSE / EMERGENCY

A patient-to-nurse call system is not recommended but there will need to be a means of staff-to-staff contact in the event of a medical emergency.

502489 132 .70.00 DURESS ALARM SYSTEM

The optimum approach is a combination of personal alarms with location finders and some fixed alarms particularly in areas where staff work in a relatively fixed position such as Reception to ensure there is a back-up system if one system fails.

Refer to NSW Health Manual “Protecting People and Property”, Section 2 Chapters 9-14 and Chapter 29 – Duress Response Arrangements.

Refer to Part C of these Guidelines.

COMPONENTS OF THE UNIT

General

502490 132 .71.00 The Child and Adolescent Mental Health Unit will consist of a combination of Standard Components and Non-Standard Components.

This section must be read in conjunction with Part B Standard Components Room Data Sheets and Room Layout Sheets.

The following text describes only specific requirements not covered by these documents.

Standard Components

502491 132 .72.00 Provide the Standard Components as identified in the Schedule of Accommodation.

Non-Standard Components

502492 132 .73.00 PLAY THERAPY ROOM (Child Unit Only)

DESCRIPTION AND FUNCTION

A Play Therapy Room may be provided for 'regressive' therapies such as artwork, doll play and clay modelling. The room shall be designed with the young child 10-12 years in mind.

LOCATION AND RELATIONSHIPS

The Play Therapy Room should be located within the patient treatment / therapy zone of the Unit.

CONSIDERATIONS

Fittings, fixtures and equipment will include:
- Bench, open under
- Storage cupboards for materials
- Whiteboard
- Chairs
- Handbasin with soap and paper towel fittings.

Finishes should be smooth and easily cleaned, flooring should be vinyl.

502493 132 .74.00 RECREATION / DAY AREA

DESCRIPTION AND FUNCTION

A Recreation / Day area shall be provided for a wide range of activities including watching TV, listening to music, computer and other activities.

LOCATION AND RELATIONSHIPS

The area requires ready access to the secured courtyard and must be overseen from the Staff Station

CONSIDERATIONS

Fittings and furniture should be suitable for children up to 10-12 years, for parents in residence in the Child and Family Unit and for teenagers and their visiting family members in the Adolescent Unit.

502494 132 .75.00 DINING ROOM / PANTRY

DESCRIPTION AND FUNCTION

An area for staff, older patients and family members of children to prepare meals and snacks.

LOCATION AND RELATIONSHIPS

Ready access is required between the Dining Room and Pantry but with the ability to secure the kitchen area if needed. Access and space will be required for food trolleys if a plated meal service is provided.

CONSIDERATIONS

Fittings, fixtures and equipment will include:
- Dining tables and chairs
- Bench with sink, cupboards and drawers
- Dishwasher
- Microwave oven - secured
- Domestic refrigerator.

APPENDICES

Schedule of Accommodation

502495 132 .76.00 Schedules of Accommodation are provided for a Child and Adolescent Acute Mental Health for Levels 5/ 6.

Note: (o) in Qty/xm2 column = Optional

Entry / Reception / Interview

ROOM/SPACE	Standard Component					L 5/6 Qty x m2	Remarks
ENTRY / RECEPTION / INTERVIEW							
ENTRY LOBBY / AIRLOCK	yes					1 x 8	
WAITING						1 x 10	
CHILD PLAY						1 x 9	Optional
TOILET - DISABLED/BABY CHANGE	yes					1 x 5	
CONSULTATION ROOM						2 x 14	

502496 132 .77.00 Patient / Family Areas x 8 Beds

PATIENT / FAMILY AREAS						8 Beds	
1 BED ROOM - MENTAL HEALTH	yes					6 x 14	
ENSUITE - MENTAL HEALTH	yes					6 x 5	1 per bedroom
1 BEDROOM - SPECIAL	yes					2 x 18	For bariatric patients and/or a child and parent
EN SUITE - SPECIAL	yes					2 x 7	For designated bariatric room only
BATHROOM - DOMESTIC						1 x 10	Standard domestic bath (optional) and raised shower bath for small children
MEDICATION / TREATMENT ROOM						1 x 16	Includes spatial allowance for Resuscitation Trolley (1m2) & exam couch (3m2).
BAY - HANDWASHING	yes					2 x 1	1 per 4 beds
MULTIPURPOSE ROOM						1 x 20	Classroom, crafts, magistrate sessions. Include lockers for patients' personal items/schoolwork
RECREATION / DAY AREA						1 x 42	Recreation/Dining Areas based on 7m2 per person x 6
PLAY THERAPY ROOM						1 x 12	

DINING ROOM						1 x 24	Assumes 8 patients plus 4 family members
PANTRY / KITCHEN						1 x 12	Collocated with Dining Room
QUIET / TIME OUT ROOM						1 x 9	
COMPUTER ROOM						1 x 12	
STORE - PATIENT PROPERTY	yes					1 x 6	
LAUNDRY - SELF-CARE	yes					1 x 6	Optional
GYMNASIUM						1 x 20	Optional
PARENT LOUNGE						1 x 12	
COURTYARD						1 x 40	Based on 5m2 per paerson

502497 132 .78.00 High Dependency Unit x 4 Beds

HIGH DEPENDENCY UNIT						4 Beds	
SECURE ENTRY / WAITING						1 x 8	
EXAM / ASSESSMENT						1 x 16	
STAFF BASE						1 x 6	Optional depending on planning layout
SECLUSION ROOM	yes					1 x 15	
1 BED ROOM - MENTAL HEALTH	yes					4 x 14	
PATIENT TOILET	yes					2 x 3	
PATIENT SHOWER	yes					1 x 3	
BAY - HANDWASH	yes					1 x 1	
LOUNGE/DINING/ACTIVITY						1 x 30	7.5m2 per person
COURTYARD						1 x 40	10m2 per patient

502498 132 .79.00 CLINICAL SUPPORT AREAS

CLINICAL SUPPORT AREAS							
BAY - LINEN	yes					1 x 2	Enclosed & lockable
DIRTY UTILITY	yes					1 x 10	
STAFF STATION	yes					1 x 14	
OFFICE - CLINICAL / HANDOVER	yes					1 x 9	

STORE - EQUIPMENT	yes					1 x 14	
STORE - GENERAL	yes					1 x 9	
CLEANER'S ROOM	yes					1 x 5	Share with Day Unit
DISPOSAL ROOM	yes					1 x 8	Share with Day Unit
DISCOUNTED CIRCULATION &						32%	

502499 132 .80.00 OFFICES & STAFF AMENTIES

OFFICES & STAFF AMENITIES							May be located at the Inpatient Unit / Day Unit interface
OFFICE - CLINICAL DIRECTOR	yes					1 x 12	
OFFICE - PSYCHIATRIST	yes					1 x 9	
OFFICE - NURSE MANAGER	yes					1 x 12	
WORKSTATION - NURSING STAFF	yes					5.5	
WORKSTATION - ALLIED HEALTH	yes					5.5	
WORKSTATION - CLERICAL	yes					5.5	
WORKSTATION - VISITING PROFESSIONSL						4.4	
MEETING ROOM	yes					1 x 15	
STORE - PHOTOCOPY/STATIONERY	yes					1 x 8	
STAFF ROOM	yes					1 x 15	With Beverage Bay
STAFF PROPERTY BAY	yes					1 x 2	
SHOWER - STAFF	yes					1 x 2	
TOILET - STAFF	yes					2 x 3	

502500 132 .81.00 DAY UNIT

DAY UNIT							
RECEPTION / CLERICAL	yes					1 x 12	
STORE - PHOTOCOPY/STATIONERY	yes					1 x 8	
STORE - FILES	yes					1 x 8	
WAITING	yes					1 x 12	
CHILD PLAY	YES					1 x 12	

TOILET / BABY CHANGE - DISABLED	yes					1 x 5	
TOILET - PUBLIC	yes					1 x 4	
CONSULT ROOM	yes					12	No. to be determined by utilisation
OBSERVATION ROOM						1 x 6	One-way observation window
STORE - GENERAL	yes					1 x 9	
DISCOUNTED CIRCULATION &						32%	

Functional Relationships

502502 132 .83.00 A diagram of key functional relationships is attached.

Checklists

502503 132 .84.00 A Security Checklist is appended to this document. For planning checklists refer to Part A,B,C&D of these Guidelines.

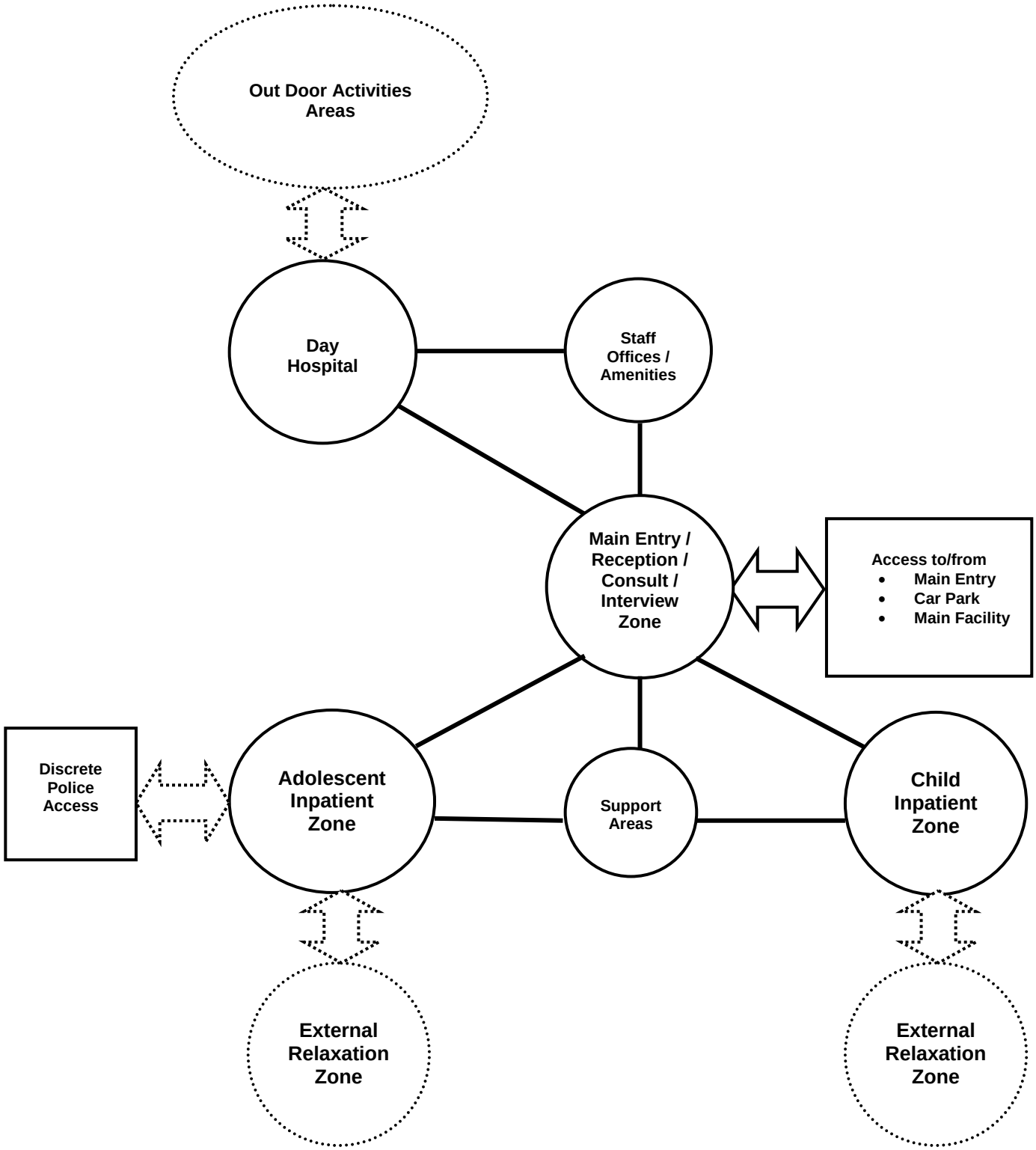
References and Further Reading

502504 132 .85.00 Design Series DS-26 – Mental Health Facility Planning Guideline, Volume 1, Adult and Adolescent Mental Health Acute Inpatient Units, NSW Health Department 2002.

Design Guidelines for Hospitals and Day Procedure Centres: HPU 132 – Adolescent / Child and Family Acute Mental Health Units, Department of Human Services, Victoria, November 2004.

FUNCTIONAL RELATIONSHIP DIAGRAM –CHILD AND ADOLESCENT MENTAL HEALTH UNIT

The following diagram sets out the relationships between zones in a Child and Adolescent Mental Health Unit:



SECURITY ISSUES TO BE CONSIDERED IN CHILD AND ADOLESCENT MENTAL HEALTH UNIT

GENERIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Entry by all relevant personnel visiting or working within the Hospital.	1. CCTV monitoring of Ward entry and exit doorways. 2. After hour's remote switch and intercom on entry doors. 3. Use of reed switches on all external doors and swipe card entries.

SPECIFIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Relatives / Visitors	1. Good visibility from staff station to ward. 2. Manage relatives/visitors admittance in the area by restricting visiting hours and/or number of visitors.
2. Furniture fittings and equipment including Computers, Office and Medical Equipment	1. Non-removable 'Asset No.' on all equipment above a predetermined value. 2. Keep equipment in lockable area.
3. Hospital personnel safety	1. Staff working in this area to have knowledge of where the fixed duress system is located and/or use a mobile duress pendant. 2. Design shape of interview rooms and location of desks, etc, in such a way that minimises risk to health personnel. 3. Provide storage and store items not in constant use that could be used as weapons. (Operational Policy). 4. Minimise furniture that can be used as a weapon, ie, picked up and thrown.
4. Staff personal effects	1. Provision for lockers in staff areas and lockable desk drawer to keep small personal effects.
5. Drugs storage	1. Drugs safe to be located in area that can be monitored by staff.

SECURITY CHECKLIST –CHILD AND ADOLESCENT MENTAL HEALTH UNIT

FACILITY:	**DEPARTMENT: Child and Adolescent Mental Health Unit**
RISK ISSUE	**DESIGN RESPONSE**
1. How is 'after hours' access provided for patients and how is this access point monitored?	
2. Do staffs have access to both fixed and mobile duress systems?	
3. Is access to patient records restricted to staff entitled to that access?	
4. Is a system implemented to prevent theft of equipment, files, personal possessions, etc ?	
5. Are drug safes installed in accordance with current regulations?	
6. How is after hours access provided for staff?	
7. How are the offices secured during and after hours?	
8. Are there lockable storage areas available for specialised equipment?	
9. Is lockable furniture provided for storage of staff personal effects?	
10. What system has been implemented to prevent the illegal removal of children?	
11. Are interview rooms appropriately designed with specific reference to staff egress, furniture selection, furniture location, provision for storage of equipment, etc.	
12. What surveillance/monitoring system will be implemented to monitor access to rooms/wards?	

DESIGN COMMENTARY /NOTES	**DESIGN SIGN-OFF**
	Name: …… Position: …….. Signature: …….. Date: ……..
	Name: …… Position: …….. Signature: …….. Date: ……..
	Name: …… Position: …….. Signature: …….. Date: ……..

133 PSYCHIATRIC EMERGENCY CARE CENTRE (PECC)

INDEX

		Description
502520	133 .0.10	INTRODUCTION
		Preamble
		Introduction
		Policy Statement
		Description of Unit
		PLANNING
		Operational Models
		Models of Care
		Operational Policies
		Planning Models
		Functional Areas
		Functional Relationships
		DESIGN
		Access
		Car Parking Requirements
		Disaster Planning
		Infection Control
		Environmental Considerations
		Space Standards and Components
		Safety and Security
		Finishes
		Fixtures and Fittings
		Building Services Requirements
		COMPONENTS OF THE UNIT
		General
		Standard Components
		Non-Standard Components
		APPENDICES
		Schedule of Accommodation
		Functional Relationships Diagram
		Checklists
		Referenses and Further Reading

INTRODUCTION

Preamble

502521 133 .1.00

The establishment of Psychiatric Emergency Care Centres (PECCs) in Emergency Departments is a NSW Health initiative to improve the health system's responsiveness to persons with mental health illness/disorders requiring acute intervention, by aligning acute mental health services with emergency services.

Emergency Departments have not previously been comprehensively designed to serve the mental health patient group particularly those with acute mental health illness / disorder, and behavioural risk (eg, aggression, self harm). There is therefore an urgent need to develop clinical models of service delivery and facilities that can provide more effective, efficient and safe care to this population.

The clinical needs of the patients include:
- appropriate screening for serious medical or surgical co-morbidity
- timely access to mental health assessment
- safe and effective management of mental health emergencies
- safe and effective management of their presenting symptoms, disorder, and any behavioural risk

Design needs to be flexible to meet local needs or in response to operating units over time.

Introduction

502522 133 .2.00

This Health Planning Unit has been developed as a resource to assist project teams in the planning, design and construction of a Psychiatric Emergency Care Centre (PECC). It should be read in conjunction with generic planning requirements and Standard Components described in Parts A, B, C & D of these Guidelines, the Preferred Operational Model of Care and the Health Facility Guideline for Acute Adult Mental Health Units. The latter provides some of the more detailed information on design.

This PECC model is intended for hospitals with:
- Level 4 to 6 Emergency Departments
- gazetted Mental Health Inpatient Units
- acute assessment and treatment capacity by the Mental Health service within the Emergency Department

Policy Statement

502523 133 .3.00

Psychiatric Emergency Care Centres are part of a broader statewide mental health emergency care (MHEC) program that aims to provide, for people presenting to the hospital Emergency Department (ED) with acute mental health illness or disorder and behavioural risk, and/or substance abuse co -morbidity:
(i) timely access to specialised mental health care
(ii) safety for consumers, service providers, and the public
(iii) appropriate roles for the service providers (including Police and Ambulance).

PECCs are a response to the overall NSW priority policy issue of improved access to mental health care.

PECC units are a new service model developed in response to changes in the service delivery environment of recent years, including:
(i) a policy context featuring the continuing move to mainstreaming, whereby mental health consumers have service entry and delivery at sites in common with other health consumers
(ii) the demand features of the increasing population burden of mental disorder, and the increasing acuity and co-morbidity of presentations to hospital.

PECC units operate in the hospital ED as an extension to the mental health triage and assessment service offered by the existing Consultation Liaison psychiatry services and mental health CNC ED services. They extend service by offering:
(i) permanent presence in the ED
(ii) full clinical assessment at the point of intake, and active discharge planning from the outset
(iii) increased capacity to manage mental health-related behavioural risk in the ED
(iv) bed capacity for overnight and short stays.

The NSW Centre for Mental Health has detailed the operational policies in its document "The Preferred Operational Model of Care".

Restraint, Seclusion and Transport Guidelines for Patients with Behavioural Disturbance – Version 10, NSW Health

Policy Directive PD2005_339, Protecting People and Property: NSW Health Policy and Guidelines for Security Risk Management in Health Facilities, NSW Health January 2005.

Policy Directive PD2005_576: Office Accommodation Policy – Public Health Organisations and Ambulance Service, NSW Health April 2005.

Description of the Unit

502524 133 .4.00 DEFINITION OF HOSPITAL PLANNING UNIT (HPU)

The Psychiatric Emergency Care Centre will be a discreet Unit collocated with an Emergency Department with appropriate space, staffing and security for management of patients presenting with an underlying mental health illness or disorders and behavioural risk. It will not however have its own discreet police/ambulance entry but will share these facilities with ED.

Mental Health patients with non-acute co-morbidities (eg diabetes) can be managed in the PECC.

However, mental health patients with emergency or life-threatening medical conditions, (including acute severe intoxication, delirium and head injury), will be treated in the main Emergency Department until their condition has stabilised and is deemed capable of being safely managed in the PECC.

Services will include assessment, crisis stabilisation, up to 48 hours extended observation and care and discharge planning, (including social welfare arrangements), and disposal.

The PECC will be a gazetted facility under the Mental Health Act, giving it capacity to manage involuntary patients.

The PECC must be designed and resourced to manage patients whose condition/behaviour creates risk of harm to themselves or others.

PLANNING

Operational Models

502525 133 .5.00 HOURS OF OPERATION

The PECC will operate 24 hours/ day, 7 days / week.

Operational Models

503266 133 .6.00 PATIENT CHARACTERISTICS

The patient demographic such as cultural expectations, male to female ratios, age etc needs to be defined in order to create the most appropriate environment with particular reference to single bedrooms versus multi-bed bays.

502526 133 .6.00 The operational model will be based on an agreed clinical governance structure between the Emergency Department and the Area Mental Health Service.

Operational Policies

503267 133 .7.05 LENGTH OF STAY

48 hours maximum before either admission, discharge or transfer to community mental health services.

502528 133 .8.00 EMERGENCY SEDATION AND MEDICATION

Emergency sedation may be handled within the Unit but protocols will include consideration of the circumstances in which it may be preferable that sedation occur in the Emergency Department resuscitation room.

Clinical monitoring, when indicated, will be via portable monitors.

502529 133 .9.00 SECLUSION AND RESTRAINT

No seclusion room will be provided in the PECC.

The PECC will be fitted with a personal duress alarm system consistent with the guidelines in the Protecting People and Property Manual. The facility must also have an organised duress response to deal with any emergencies.

Project staff should refer to NSW Health policies regarding the management of violence and aggression and use of restraint whether physical, mechanical, seclusion or sedation.

502530 133 .10.00 MEDICATIONS

As the range of pharmaceuticals required is quite specific and may be required at short notice, the PECC will have its own supply rather than sharing with ED. Quantity cannot justify a separate room, so secure storage cupboards in the Staff Station are recommended.

502531 133 .11.00 MANAGEMENT OF AGRESSION AND AGITATION

Emergency sedation will be available in the PECC and there needs to be a Hospital Policy whereby help can be summoned when necessary via duress alarms or similar.

PECC staffing profile may include trained Health Security Assistants to assist with de-escalation and management of behavioural disturbance. Therefore policies applying to their function needs to be incorporated in any general hospital security policy.

502532 133 .12.00 PATIENT VALUABLES

Valuables will be handled according to existing Emergency Department protocols in accordance with Hospital Policy.

502533 133 .13.00 MEDICAL RECORDS

Records will be retrieved/generated in accordance with ED systems and patients will be tracked via the Emergency Department Information System (EDIS).

502534 133 .14.00 SMOKING

Smoking may be permitted in the secure courtyard only if the Hospital Policy permits.

502535 133 .15.00 SUPPORT PERSONS / VISITORS

The presence of a support person and / or visitors should be encouraged but numbers will be restricted according to safety and space availability as necessary.

502536 133 .16.00 STAFFING

Adequate staffing levels and skill mix are required to ensure immediate verbal intervention and other de-escalation techniques applied when a patient shows signs of agitation, with sufficient staff to handle an emergency particularly at night. The establishment will include medical, nursing and social work staff.

Planning Models

502537 133 .17.00 LOCATION

Location may depend on whether an entirely new facility or an addition to an existing Emergency Department but ground floor access is essential.

Functional Areas

502538 133 .18.00 FUNCTIONAL COMPONENTS

The following form the main functional components of the PECC:
- inpatient beds (4 – 6) –open bays or in combination with a minority of single rooms
- patient amenities
- small patient/visitor lounge
- access to a secure courtyard
- Interview / Consult / Exam Room/s
- Clinical Support Areas (Staff Station with double egress etc)
- Office space

The following will/may be shared with the Emergency Department depending on accessibility:
- Dirty Utility (only if readily accessible)
- Disposal Room
- Cleaner's Room
- Staff Amenities. (May be necessary/appropriate to locate a Staff Toilet inside the PEC depending on accessibility)

Functional Relationships

502539 133 .20.00 EXTERNAL

Ready access to a Mental Health Inpatient Unit/s.

Close proximity to hospital security service desirable

Access to the Magistrate's Room in the Mental Health Inpatient Unit/s, to attend Magistrate's Hearings.

Capacity for official visitor to conduct interviews and review legal documentation.

502540 133 .21.00 INTERNAL

Collocated with ED with direct internal access to/from Triage and Resuscitation Bays.

Close proximity to Ambulance / Police vehicle bays

Staff will need access to amenities etc.

Capacity to accommodate a Health Security Assistant / security staff presence in the PECC.

DESIGN

Functional Relationships

502541 133 .22.00 EXTERNAL

No direct external access required if all patients are triaged in ED but consideration must be means of transfer to a Mental Helath Inpatient Unit without re-accessing the ED.

502542 133 .23.00 INTERNAL

Direct from ED Triage

Direct to secure outdoor area

Direct from ED Reception into Unit for support persons without having to travel through the ED.

Car Parking Requirements

502543 133 .24.00 Required for police vehicles as generally provided for the Emergency Department.

Disaster Planning

502544 133 .25.00 Refer to Part C of these Guidelines. Planning for the PECC should be incorporated into the Disaster Plan for the Emergency Department.

Infection Control

502545 133 .26.00 Refer to Part D of these Guidelines.

Environmental Considerations

502546 133 .27.00 GENERAL

Pleasant, safe and secure environment.

Colour may be used to differentiate different “zones” of the Unit.

502547 133 .28.00 ACOUSTICS

Sound attenuation required in:
- Single bedrooms, if provided
- Interview / Consult Rooms
- Small lounge
- Showers & toilets and
- Staff Offices

502548 133 .29.00 NATURAL LIGHT

Essential in bedrooms / bed bays and waiting areas.

Space Standards and Components

502549 133 .30.00 ERGONOMICS

Refer Part C of these Guidelines for information.

502550 133 .31.00 HUMAN ENGINEERING

Refer Part C of these Guidelines for information.

502551 133 .32.00 ACCESS AND MOBILITY

Refer Part C of these Guidelines for information.

502552 133 .33.00 DOORS, WINDOWS AND CORRIDORS

Refer Part C of these Guidelines for information.

Safety and Security

502553 133 .34.00 SAFETY

Design and management must ensure there are no dangerous materials accessible to patients including medications, sharp objects, weapons, material / fittings that may be used for self-harm or harm to another person.

502554 133 .35.00 SECURITY

Both fixed and personal duress alarms systems should be installed.

High visibility security presence as part of routine coverage of the ED.

Consult / exam / interview rooms must have a second point of egress.

Bedroom doors must have a viewing panel to allow for patient observation particularly when asleep. The shape of the room and the location of the door/viewing panel should allow the head of the sleeping patient to be visible from the door.

Video intercom at Unit entries and proximity access cards.

503268 133 .35.05 LAYOUT

Layout should, wherever possible, avoid corners or bends in patient areas that restrict patient observation. Where this cannot be achieved, security cameras will need to be installed.

Finishes

502555 133 .36.00 GENERAL

All finishes durable and easily cleaned.

502556 133 .37.00 WALL PROTECTION

Refer to Part C of these Guidelines and also to the HFG – Adult Acute Mental Health Units

502557 133 .38.00 FLOOR FINISHES

Refer to Part C of these Guidelines

502558 133 .39.00 CEILING FINISHES

Refer to Part C of these Guidelines

Fixtures & Fittings

502559 133 .40.00 Refer to part C of these Guidelines and to the Room Data Sheets (RDS) and Room Layout Sheets (RLS) for further detailed information

502560 133 .41.00 BEDSIDE SERVICES

Medical service panels must be recessed, concealed and secured so as to prevent patient access and potential for self harm.

Services will comprise:
- Nurse call
- Staff assist & emergency call
- GPOs x 4
- Examination, reading and night lighting switches
- Voice/data outlet

Curtains on flush to ceiling, non-weight bearing tracks to ensure privacy / dignity for patients during examination

Oxygen and suction if needed will be provided via portable units (also refer 133.44.00 following).

Building Service Requirements

502561 133 .42.00 INFORMATION TECHNOLOGY / COMMUNICATIONS

Compatible with Hospital systems.

503269 133 .43.05 MEDICAL GASES

For future flexibility of use, consideration may be given to reticulation of oxygen and suction to the beds. However, even if the outlets are sealed and concealed, they will still need to be purged when put into commission at some future date and the disruption this may cause to any / all connected services (in adjoining Emergency Department rooms for example) must be taken into account.

COMPONENTS OF THE UNIT

Standard Components

502563 133 .44.00 Standard Components must comply with details in Standard Component Descriptions in these Guidelines. Refer also to Room Data Sheets and Room Layout Sheets.

Non-Standard Components

502564 133 .45.00 There are no Non-Standard Components in this Guideline.

Schedule of Accommodation

502565 133 .46.00 A Generic Schedule of Accommodation for a Psychiatric Emergency Centre with 4 Beds or 6 Beds follows.

Note : (o) in Qty x m2 column = Optional.

Note 1 : Beverage Bay
May be incorporated into Lounge depending on meal / refreshment needs for patients if length of stay extended up to 48 hours

ROOM/SPACE	Standard Component				4 Beds Qty x m2	6 Beds Qty x m2	
WAITING AREA	yes				1 x 8	1 x 10	6 & 8 seats respectively. Family, police etc
TOILET - PUBLIC	yes				1 x 3	1 x 3	Optional depending on access to ED public amenities
CONSULT / INTERVIEW ROOM	yes				1 x 14	1 x 14	Dual access for staff safety
CONSULT / EXAMINATION ROOM					1 x 14	1 x 14	Dual access for staff safety
STAFF STATION / MEDICATIONS	yes				1 x 14	1 x 14	Secured
OFFICE - NUM	yes				1 x 9	1 x 9	
OFFICE - WORKSTATION	yes				5.5	5.5	Workroom for medical & nursing staff. Size will depend on Staff Establishment
DIRTY UTILITY - SUB	yes				1 x 8	1 x 8	Unless ready access to ED
BAY - LINEN TROLLEY	yes				1 x 2	1 x 2	With lockable doors
1 BED ROOM - MENTAL HEALTH					1 x 12	2 x 12	Reduced from 15 sqm. (*Updated 03/07/06)
EN SUITE SHOWER / TOILET	yes				1 x 5	2 x 5	(*Updated 03/07/06)
BED BAY - CURTAINED	yes				3 x 10	4 x 10	
PATIENT SHOWER	yes				1 x4	1 x 4	
PATIENT TOILET					1 x 3	2 x 3	
LOUNGE - PATIENT / VISITOR	yes				1 x 15	1 x 20	Access to Courtyard
BEVERAGE BAY	yes				1 x 4	1 x 4	See note 1.
MEETING ROOM	yes				1 x 12	1 x 14	
PROPERTY BAY - STAFF	yes				1 x 2	1 x 2	
TOILET - STAFF	yes				1 x 3	1 x 3	May be shared with ED.
COURTYARD - SECURE					1 x20	1 x 30	Based on 5m2 per person
DISCOUNTED CIRCULATION					32%	32%	

502566 133 .46.05 Shared with Emergency Department:

502566 133 .46.05

-Disposal Room
-Cleaner's Room
-Staff Lounge & Amenities

Functional Relationships

502567 133 .47.00 A diagram of key functional relationships is attached.

Checklists

502568 133 .48.00 For planning checklists refer to Part A,B,C & D of these Guidelines.

References and Further Reading

502569 133 .49.00 The following documents were used in the development of this Health Facility Guideline:

Psychiatric Emergency Care Centres: The Preferred Operational Model of Care (draft). Centre for Mental Health, NSW Department of Health. Sydney. 2005

Proposed Model of Care for Mental Health & Substance-Related Behavioural Emergencies within Level 4 to 6 Emergency Departments – Draft 6 - Centre for Mental Health, NSW Department of Health – 11 February 2005.

Restraint, Seclusion and Transport Guidelines for Patients with Behavioural Disturbances, Version 10, Centre for Mental Health, NSW Health.

HPU 134 – Acute Adult Mental Health Unit (Based on DS-26)

Psychiatric Emergency Centre, Model of Care, Service Delivery Design Brief & Operational Policies, Northern Sydney Health - Hornsby & Ku-ring-gai Redevelopment Project, November 2004

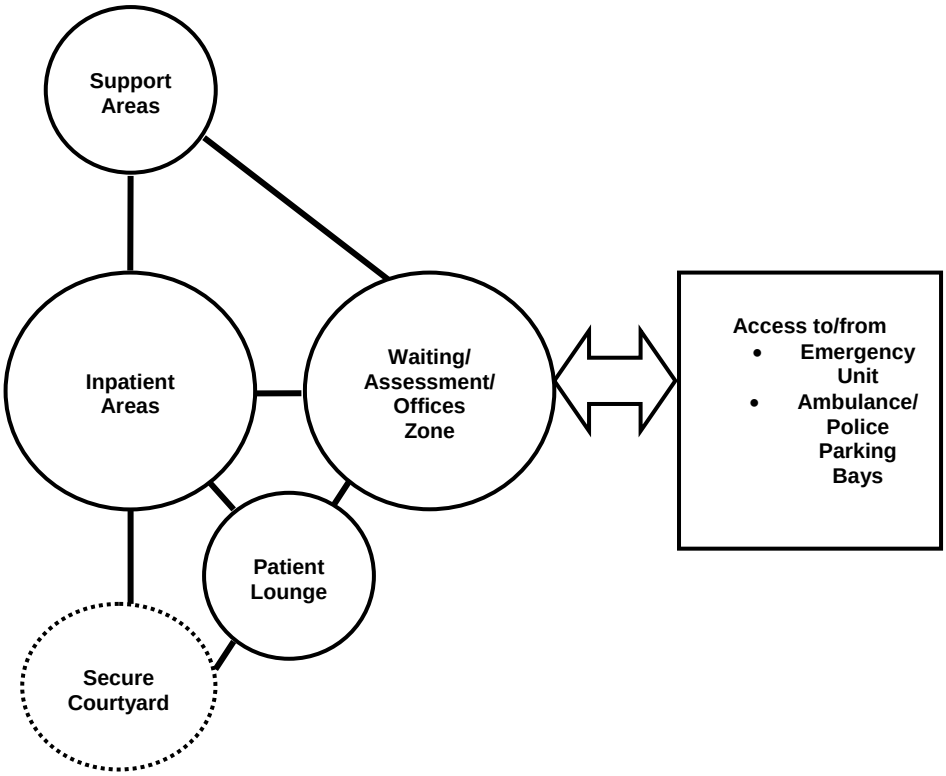
Wyong Hospital Redevelopment Proposal for Psychiatric Emergency Centre (Draft), Central Coast Health, Version 9, 5th May 2005.

Liverpool Hospital Design Brief & Floor Plan - 2005

Royal Brisbane Hospital Psychiatric Emergency Centre - Scheme Design 1:100 Floor Plan (1996)

FUNCTIONAL RELATIONSHIP DIAGRAM –PSYCHIATRIC EMERGENCY CARE CENTRE (PECC) UNIT

The following diagram sets out the relationships between zones in a Psychiatric Emergency Care Centre (PECC) Unit:



134 ADULT MENTAL HEALTH ACUTE INPATIENT UNIT (INCLUDING PICU)

INDEX

Description

502580 134 .0.10 INTRODUCTION

Preamble
Introduction
Policy Statement
Description of Unit

PLANNING

Operational Models
Models of Care
Operational Policies
Planning Models
Functional Areas
Functional Relationships

DESIGN

General
Access
Car Parking Requirements
Disaster Planning
Infection Control
Environmental Considerations
Space Standards and Components
Safety and Security
Finishes
Fixtures and Fittings
Building Services Requirements

COMPONENTS OF THE UNIT

General
Standard Components
Non-Standard Components

APPENDICES

Schedule of Accommodation
Functional Relationships Diagram
Checklists
Referenses and Further Reading

INTRODUCTION

Preamble

502581 134 .2.00 This Guideline reflects advances in the understanding of optimal environments for care, advances in assessment and treatment, and changing practices in the delivery of mental health services. Inpatient care may be required because the person is acutely ill, highly distressed and requiring further assessment and diagnosis or is not responsive to current treatments or to treatment in a community setting.

Some patients may be agitated, aggressive and potentially a risk to themselves or others, including staff. The Unit must therefore provide an environment where there is a high level of security and the capacity for observation and even temporary containment. However, this should be achieved with a therapeutic focus so that while necessary measures for safety and security are in place, they are non-intrusive and do not convey a custodial ambience.

Optimal physical environments are associated with shorter lengths of stay, lower levels of aggression and critical incidents, better client outcomes and better staff conditions and satisfaction. Recurrent costs will be substantially reduced and client services and outcomes improved in such settings.

Introduction

502582 134 .3.00 The ultimate size and function of the unit will vary according to the role delineation of the service and the operational policies.

This document outlines the specific requirements for the planning of an Acute Adult Mental Health Unit and must be read in conjunction with generic requirements and Standard Components as described in Parts A, B, C and D of the Guidelines

It also addresses a Psychiatric Intensive Care Unit (PICU). This is tertiary level service that admits acutely unwell mental health patients requiring containment, security and intensive clinical management and observation. These patients are those that cannot be managed in the secure section of a general mental health unit. As a tertiary unit, it admits patients from across an Area Health Service, not just a local sector.

Facility design, must, where appropriate, meet all necessary criteria to reach accreditation standards with regard to design and equipment.

Child and Adolescent Units, Ambulatory Care Units and Psychiatric Emergency Care Centres (PECC) are covered in separate sections of these Guidelines.

502583 134 .4.00 ELECTROCONVULSIVE THERAPY (ECT)

ECT should only be undertaken in a dedicated ECT Suite, Day Procedures Unit or Operating Unit. No facilities for ECT are provided in the Unit.

Policy Statement

502584 134 .5.00 Mental Health Services in NSW are underpinned by the NSW Mental Health Act 1990 and the National Mental Health Strategy.
The National Mental Health Strategy … "provides a framework for national reform from an institutionally based mental health system to one that is consumer focused with an emphasis on supporting the individual in their community. The Strategy was reaffirmed in 1998 with the Second National Mental Health Plan and again in 2003 with the endorsement by all health ministers of the National Mental Health Plan 2003-2008".

Also refer: “Charter for Mental Health Care in NSW” and

Restraint, Seclusion and Transport Guidelines for Patients with Behavioural Disturbance – Version 10, NSW Health

PD2005_339. Manual – “Protecting People and Property: NSW Health Policy and Guidelines for Security Risk Management in Health Facilities”.

PD2005_576: Office Accommodation Policy – Public Health Organisations and Ambulance Service.

Description of the Unit

502585 134 .6.00 DEFINITION OF HEALTH PLANNING UNIT (HPU)

The function of the Adult Acute Mental Health Unit is to provide – in a safe and therapeutic environment - appropriate facilities for the reception, assessment, admission, diagnosis and treatment of adult patients presenting with known or suspected psychiatric conditions and behavioural disorders. In a gazetted unit, patients may be admitted on a voluntary or involuntary basis. (Refer Mental Health Act 1990).

Depending on the Service Plan, it may also include a Psychiatric Intensive Care Unit (PICU).

The Unit must also provide facilities and amenities to meet the needs of families and staff.

502586 134 .7.00 OPTIMUM UNIT SIZE

The number of beds – with or without Psychiatric Intensive Care beds will depend on the Service Plan. However, it has been suggested that a complex comprising a PICU and acute ward should aim to have at least 6 staff on duty at any time including the night shift in order to facilitate rapid management of psychiatric emergencies and to gain the benefits of economies of scale in staffing costs.

In the interests of staff safety, a Psychiatric Intensive Care Unit (PICU) attached to an acute mental health unit needs to have at least 2 staff on duty at all times including night shift to gain economies of scale with regard to recurrent staffing costs.

Also refer to UK literature - Not Just Bricks & Mortar - that proposes 15 bed modules up to a maximum of 3 x 15 bed units. Based on need for up to 6 staff to deal with violent situations. Also suggests bed occupancy should not exceed 85% if a safe environment is to be maintained and pressure for premature discharge avoided.

502587 134 .8.00 PSYCHIATRIC INTENSIVE CARE UNIT (PICU)

Individual rooms/spaces are identical in most respects to the main unit. Refer Schedule of Accommodation.

Bed numbers will depend on the catchment served and will need to be agreed at an early planning stage.

It is envisaged that a single Reception will serve the entire unit.

It is also envisaged that PICU will share the Secure Entry with the Secure Zone of the main Unit.

All efforts should be made in planning to avoid duplication of shared support areas such as Staff Station, Utilities etc. However, sharing of services must not compromise the ability of staff to observe patients in PICU and must not compromise security and safety of staff and patients.

502588 134 .9.00 POPULATION PROFILE

Patients: Depending on the availability of age-specific facilities in the mental health network (child & adolescent and psychogeriatric units), age may range from 16 to 85 years particularly in rural and fringe metropolitan areas.

Staff include Medical, Nursing, Allied Health, Official Visitors, Legal and Mental Health Advocates.

Families / Carers

PLANNING

Description of the Unit

502610 134 .7.05 BED CONFIGURATION & UNIT LAYOUT

The design of the inpatient areas must facilitate safety and security and allow for changing levels of patient acuity and models of care, both in the short and long term.

Rooms may be grouped into clusters that can be defined for distinct patient groups such as male and female patients who may feel threatened if in close proximity to the opposite sex. Small groups of bed rooms with an adjacent recreational space will allow better management of changing patient needs and flexibility of use.

Dead-end corridors where patients may be unable to be seen must be avoided and consideration must be given to safe and supervised access for housekeeping, catering and other staff who may feel uncomfortable in the mental health environment.

Operational Models

502589 134 .10.00 HOURS OF OPERATION.

The Unit will operate 24 hours per day, 7 days per week.

502590 134 .11.00 FLEXIBILITY

Patterns of care frequently change, as do the needs of the populations served. Thus it is critical that physical environments are also flexible and can adapt over time in response to changes in practice and treatment. This flexibility should be provided in ways that will maintain a positive and therapeutic physical environment.

In many instances, facilities – particularly public areas, staff amenities and clinical support rooms may be shared between zones. However, each section of the Unit should have its own lounge/dining and activities area. It is neither safe nor practical to move patients between secure and open areas of the facility to access lounge, dining, interview, activities, treatment etc areas.

Encouraging part-time service providers to share common office and treatment

spaces also increases utilisation and reduces operating costs.

503350 134 .11.05 BUILDING DESIGN

Health facility design involves compromise between the desire to provide the patients, visitors and staff with a safe, pleasant and comfortable environment and the ability to operate the unit efficiently. Health facility design embodies varying solutions to satisfy the most commonly accepted design requirements:
- Compliance with fire safety and building regulations
- Privacy
- Supervision
- Comfort
- Convenience
- Efficiency
- Adaptability
- Ease of access

Factors that can influence these requirements include:
- Surrounding environment
- Building footprint
- Security issues
- Sight lines
- Travel distances
- Occupational Health and Safety requirements for patients, staff and the public
- Noise control
- Infection control

503351 134 .11.06 LAYOUT

Consideration should also be given to the following issues when planning the layout of a mental health unit:

- Prevalence of violence and theft
- Availability of qualified staff
- Need for space, light and a functional layout
- Changes in the composition of the patient population
- Rapid changes in technology
- Maximising efficiencies in recurrent/operating costs.

The final layout of a mental health unit will reflect the interplay between the following factors:
- The interplay between inpatient and ambulatory care services in the Area Health Service model of service delivery
- Special needs of potential patients
- The effect of mixing mental health and non-mental health clients

Operational Policies

502591 134 .12.00 GENERAL

Operational Policies have a major impact on the design and the capital and recurrent costs of health facilities. Policies will vary from Unit to Unit depending on a wide range of factors but the cost implications of proposed policies must be fully evaluated to ensure the most cost-effective and efficient design solutions are developed.

The development of Operational Policies is crucial to defining how the unit will operate within the hospital, the Area Health Service's mental health service as

well as in relation to adjoining Area Health Services from which patients may be referred. Users must define their own policies - refer to Part B Section 80 of these Guidelines for further information.

502592 134 .13.00 USE OF SECLUSION AND RESTRAINT

Project staff are referred to the NSW Health report – Restraint, Seclusion and Transport Guidelines for Patients with Behavioural Disturbances.

502593 134 .14.00 SMOKING

Smoking is a very controversial issue and some units ban it completely and provide assistance via nicotine substitutes. However, assuming smoking is permitted (in outdoor areas only), consideration needs to be given to management of lighters and containers for disposal of cigarette butts. It is assumed that matches are not allowed.

Patient and staff safety is of paramount importance but to provide a facility that prevents staff from being seen in a 'custodial" light may improve therapeutic relationships & patient independence. Consideration may be given to installing low voltage car-type lighters, or the use of no-flame lighters that can be secured to a wall or mounted onto a post in the designated smoking area – and that also require low voltage power.

502594 134 .15.00 PROVISION OF SINGLE GENDER AREAS

Provision of a female-only sitting room to give women a greater sense of security may need to be considered.

There should also be separate male and female toilets in each zone of the Unit.

502595 134 .16.00 FIREARM SECURITY

When planning firearm security arrangements, refer to the operational policy for Admissions. If patients are admitted through the Emergency Department and Psychiatric Emergency Care Centre (PECC), police may not present to the Adult Acute Mental Health Unit and firearm security may not be required.

If however patients are admitted directly to the Adult Acute Mental Health Unit, police officers visiting the unit and/or accompanying a patient to the unit must disarm at the Entry.

A recessed bay in the Entry Lobby for the firearms safe may be considered to provide a protected disarm area.

It is important that contact be made in the first instance with the Duty Officer of the local police station to ascertain current requirements. Each station has a Weapons Officer who can provide advice in the design phase on access requirements and the type of firearm security cupboard, etc. that may be required by any police officers attending the mental health unit.

502596 134 .17.00 STAFFING

Staffing levels and mix will vary depending on the size and configuration of the Unit, service profile and case mix, patient profile and staff availability.

However, care must be taken to ensure that staffing levels are adequate to meet

emergency needs – particularly at night - and there must always be at least 2 staff in a PICU.

Overall, the unit should have a total of at least 5-6 staff at any time to expedite management of emergencies. The size of the unit should reflect desirable minimum staffing levels – see clause 502586 Description of the Unit – Optimum Unit Size.

Planning Models

502597 134 .18.00 CONFIGURATION

The Adult Acute Mental Health Unit may be developed as:
- a stand-alone unit or group of units as part of a Mental Health complex
- a dedicated Adult Acute Mental Health Unit within a general hospital
- a number of dedicated patient bedrooms as an annexe to an Acute Inpatient Unit.

502598 134 .19.00 BUILDING DESIGN

Patients may at times exhibit disturbed or high risk behaviour. Appropriate planning and use of materials (for example impact-resistant glass, low maintenance/ resilient surface etc) can achieve an environment where all patients can co-exist with minimal disruption to each other. The building should be able to accommodate patients of all levels of disturbance without taking on custodial, prison-like characteristics. The building should consciously have a public face with service entry to back of house zone

The design of external spaces, as for the building, should be domestic in nature, rather than formal or monumental and should have the following features:
- It should provide opportunities for privacy, recreation and self expression
- It should provide opportunities for movement/ambulation both indoors and outdoors with unobtrusive environmental boundaries and with appropriate safety provisions.

Functional Areas

502599 134 .20.00 GENERAL

Individual spaces combine to form functional zones or groups of spaces with a similar purpose.

The Adult Acute Mental Health Inpatient Unit will consist of a number of functional zones. Some of the rooms/spaces within those zones are Standard Components as defined in Section B of the Guidelines but are discussed here to highlight the special needs in a Mental Health Unit.
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502600 134 .21.00 MAIN ENTRY / RECEPTION / CLERICAL AREA

For reception of all persons entering the Unit with the exception of involuntary admissions who will access the unit via the Secure Entry.

A safe environment must be provided for staff in this workspace while providing a welcoming ambience for patients and others. Direct access for reception staff to a safe retreat in an adjacent secure area should be provided in the case of any threat to staff safety from persons arriving at the main entry and duress alarms – personal and/or fixed must be available.

A general admissions area for booked patients – as distinct from the Secure Unit - with its own direct access door in close proximity to the main public entry is now becoming common practice where patients can be received and processed in a more discrete environment.

Refer to Part C 5.90 for additional information.

502601 134 .22.00 CONSULTATION ROOMS

The number of such rooms and their specific uses (i.e. inpatients only or inpatients and outpatients) will be determined by the services provided by the unit and whether or not there is an associated Ambulatory Care Mental Health Unit. In the interests of staff safety and security, there must be sufficient rooms to prevent ad hoc use of offices or patient bedrooms for consultation purposes. Assuming for inpatient use only, a minimum of one room for every 5-6 beds is suggested.

At times, six to seven people may be involved in the consultation process or the consultation may be limited to the patient and the health professional. All consultation rooms are to have two exit doors and duress alarms for safety. Refer Part C for further information.

502602 134 .23.00 STAFF STATION

The ideal design will enable one staff station to monitor all areas and provide an escape route/safe haven for staff, but location and site footprint may not enable this. A decision to provide more than one staff station to enable coverage of all inpatient areas should only be reached after serious consideration of planning options. There are obvious issues of safety and operational efficiency that will be compromised by such a division.

502603 134 .24.00 MEDICATION / TREATMENT ROOM

A lockable room will be required for the storage of drugs and clinical supplies. If also used for dispensing medications then the door to the corridor needs to have a medication dispensing hatch. This will be the only location for the secure holding of scheduled drugs in the unit and is shared between Observation (Secure) and General Inpatient Areas.

The room may also serve as a Treatment Room for administration of injections, dressings and other minor procedures in which case an examination couch and examination light and a second exit door will be required and discreet access for patients from the secure section of the Unit needs to be provided.

If used for parking of a medication trolley, the trolley MUST be locked and out of reach of patients undergoing treatment. May also be used to park the resuscitation and ECG trolleys for the unit that must also be out of reach of patients but easily accessible to staff. If used for trolley parking, the room size will need to be increased accordingly.

502604 134 .25.00 STAFF OFFICES

These spaces have been zoned separately to allow offices to be in a location away from patient areas and that may be locked off ‘after hours’ and at weekends whilst still giving after-hours staff the necessary access to amenities, photocopier etc.

The practice of seeing patients in offices can seriously compromise staff security and safety. There should be no patient access to the area and sufficient Consultation Rooms must be provided to ensure that ad hoc consultations do not occur in offices.

The office for the NUM and registrars' workroom should be located close to the Staff Station so as to be readily available to offer support to and supervise staff and have ready access to clinical information.

The size of the unit and the staff establishment will determine the number of offices and workspaces. Refer to NSW Policy Directive PD2005_576 – Office Accommodation Policy.

502605 134 .26.00 STAFF AMENITIES

Comprises Staff Room, Property Bay, Toilets and Shower.

The size of the unit and the number of staff employed will determine the number and configuration of spaces in this zone.

It should provide a quiet space for staff to withdraw from the patient environment. Access to a courtyard or external space is important for the well being of staff who work in demanding clinical environments.

Rooms will need to be accessible twenty-four hours per day, seven days a week and are for the use of all staff including clerical, cleaning and administrative staff.

502606 134 .27.00 ASSESSMENT / PROCEDURAL AREA

The ideal location for this zone is adjacent to the Main Entry/Reception Zone with easy access to the inpatient areas. Its location should allow easy access for inpatients as well as for family and/or significant others and community groups. Access to/from the Observation (Secure) Inpatient Area, if required, needs to be discrete.

The zone may need to be locked off for security after hours and at weekends. There should be the ability to also shut down the air conditioning system to this area when it is not in use.

502607 134 .28.00 CONSULT ROOMS:

The number of such rooms and their specific uses will be determined by the services provided by the unit and the patient population.

At times, six to seven people may be involved in an interview or the interview may be limited to the patient and the health professional. All consult /examination rooms are to have two exit doors and duress alarms for safety. Refer Part C for further information.

502608 134 .29.00 MEETING / MAGISTRATE'S ROOM:

Used for group therapy sessions, staff meetings and in-service educational sessions for staff, family and other carers. It will also be used for sittings of the Sessional Magistrate. The exact use of such rooms will vary between units due to the different needs of patient groups and services provided. Their use should be determined early in the planning process to ensure adequate utilisation of space.

Mainly accessed by patients from general inpatient area for activities, and by staff, carers and possibly others from the Community. However, there needs to be discrete close access from the Observation (Sec ure) Zone for patient attendance at magisterial sessions.

502609 134 .30.00 For safety reasons two points of egress are essential.

A system of personal duress alarms with location finders should operate throughout the unit so that there may be limited need for fixed duress alarm points. Visiting officers and staff such as magistrates and VMOs should be provided with and trained in the use of personal duress alarms.

Furnishings such as tables and chairs should be appropriate for the various activities in the room but be heavy enough to eliminate their potential use as weapons. The design and/or set-up of tables for magistrate sessions should ensure that the distance between magistrate and patient does not allow the latter to reach across.

This room should be considered for video, telepsychiatry and teleconferencing facilities for consultations, education, and a possible future link to the Law Courts.

Refer to:
Memorandum of Understanding for the Conduct of Review Hearings Under the Mental Health Act by Magistrates of the NSW Local Court, December 1999

502611 134 .32.00 SINGLE BEDROOMS

Single rooms provide gender and age-separable accommodation, a haven for the patient and privacy for visitors; however use as a de facto consultation rooms should be discouraged / avoided on staff safety grounds.

It is recognised that patients with mental illnesses need increased personal and ambulatory space. An external outlook coupled with high ceilings adds to the perception of light and space and is a positive contribution to treatment.
There should be no ‘blind spots’ in the rooms particularly any created by open doors and the rooms should be key-lockable from the outside.

Doors should be able to be opened from the corridor should a patient attempt to blockade him/herself in. This is of particular importance in the Observation (Secure) Inpatient and PICU bedrooms.
Viewing panels should be provided in bedroom doors in the Secure Unit and PICU but their installation in open unit bedrooms may be a decision made on a project-by-project basis. Their positioning should ensure that should the glass be broken or removed, a patient cannot put an arm through and operate the door lock.
Consider low wattage night light over the bed space for use by staff when carrying out night time observations of patients.
Measures should be taken with acoustics to minimise transference of noise between adjoining bedrooms.
Whilst domestic-style beds may be preferred for ambience, the needs of the staff who may still have to make beds must be considered.

502612 134 .33.00 TWO BED ROOMS

Two bed rooms may be included in the General Inpatient Zone providing an option for sharing, or the accommodation of a mother and child (although 15m2 will comfortably accommodate a cot). They can however be restrictive, result in the disruptive movement of patients to other rooms in order to accommodate new

admissions and are generally not recommended; and they are not suitable in the secure unit or PICU.

502613 134 .34.00 BEDROOM EN SUITE – OPEN UNIT

Each bedroom in the open unit is to have its own en suite. There are a number of configurations – inboard, outboard and between rooms. The latter option is preferred as it maximises bedroom use and patient observation. The inboard option provides privacy and dignity but care must be taken that a narrow passage is not created at the entrance to the bedroom that might minimise good observation through the vision panel in the door where provided, create blind spots inside the bedroom, facilitate barricading and that may compel staff to enter the room in single file.

Doors must be lockable but be able to be opened by staff in an emergency and also be lockable by staff to deny access to patients with eating disorders who may attempt to dispose of food or self-induce vomiting.

The door to en suites should open in a way that does not create a blind spot when open or – with inboard en suites - enable the en suite door and bedroom door to be tied together thus creating a barricade.
Consideration should be given to having separate toilets and showers in the Secure Unit and PICU with access able to be controlled by staff.
Some additional considerations for en suites, showers and toilets include:
- fixed toilet brush with container
- recessed area for garbage bins
- durable toilet roll holders
- ensuring the shower water drains away from the door even with heavy water pressure (consider flow restrictors).
- collapsible hooks for clothing and towels
- in-fill hand rails
- soap and shampoo dispensers
- solid surfaces to vanity benches that will resist water spray
- shower curtains (and tracks) may not be required rooms have good floor-to-fall drainage

502614 134 .35.00 SECLUSION ROOM

The usage of this space will vary from unit to unit. The room is usually occupied for short periods of time, either on an involuntary or voluntary basis. It must provide a safe and secure environment for the client, and must meet all OH&S Guidelines for staff safety.

Acoustic treatment is of the utmost importance for noise isolation. When used on a voluntary basis for “time out” it provides the ‘quiet space’ needed by the patient.

502615 134 .36.00 The following design features include edited extracts from “Restraint, Seclusion and Transport Guidelines for Patients with Behavioural Disturbances” – NSW Health 2005

- Seclusion rooms should be 15 sqm in size with a minimum ceiling height of 3.0m.
- Location of the room must provide for patient privacy from passing staff/patients/visitors
- Ideally an external window with impact-resistant glass with an external view and natural light should be provided
- The environment should ensure an agreeable impact on the patient’s senses (décor, colour, sound, etc)

- Convenient access to toilet and shower facilities if the patient is in seclusion for extended periods
- Door with an observation panel wide enough to admit a very disturbed patient being escorted by a number of staff.
- Door locks must be strong, multipoint locking. Allow for rapid locking with minimal risk of finger of limb entrapment/injury
- A large clock outside the room visible to patients with time, day of week, month and year.

As a minimum, the room must have:
- good clinical lighting to carry out medical emergency procedures with dimmer switch to control lighting as required to reduce stimulus to the agitated sleep-deprived patient (switches outside)
- low voltage night light (switches outside) for observation
- comfortable temperature (thermostats outside)
- above standard ventilation (particularly if patient's hygiene is poor)
- no smoke detector.
- seamless, easily cleaned wall and floor surfaces

In addition there should/may be:
- Comfortable bed and bedding
- Intercom to Staff Station
- Music system (speakers)
- CCTV camera (optional) positioned so that the patient can be observed at all times – no blind spots.

502616 134 .37.00 DINING ROOM/KITCHEN

Provides a defined space for clients to eat at tables seating four and may be used for general activities outside of meal times.

There should be a direct access from the hospital corridor to the Kitchen/Servery (located in the General Zone) for delivery of food supplies and meals.

Depending on service arrangements, meals may be delivered 'plated' or served from the Unit Kitchen/Servery.

Self-serve beverage facilities including a refrigerator should be included in a large scale dining room – or in a centrally located 'domestic scale' kitchenette and may be used to promote activities of daily living (ADL). These beverage facilities should be accessible by patients 'after hours' and at weekends.

There should be external outlooks and access to outdoor space, which can be used in all weather. High ceilings and the use of skylights as well as windows can promote the perception of light and space. Décor should reflect a 'home like' environment.

502617 134 .38.00 LOUNGE / ACTIVITY AREA

These areas may be used twenty four hours a day and cater for a variety of activities. They may form part of smaller group areas for relaxation or television viewing, or a large space used by all patients in the Zone. The space is sized in accordance with patient numbers and the projected service need.

The areas should overlook and open onto an outdoor area. They should be clearly observable from the Staff Station with transparency and the flow of passing staff aiding activity monitoring.

There should be careful selection of furniture and décor, comfortable but heavy

lounges and the use of non-institutional colours to promote a welcoming and safe environment for companionship, the opportunity to be alone, or to be with visitors. The finishes and soft furnishings are to be washable and easily maintained or restored. Cupboards should be lockable and have adjustable shelving.

The space is sized in accordance with patient numbers and the projected service need.

502618 134 .39.00 OUTDOOR AREAS (COURTYARD OR TERRACE)

Courtyards or terraces with outdoor views are an essential component of a mental health unit and as much design effort and attention to detail should be given to these areas as to internal spaces. In this guideline, they are treated as therapeutic areas and are included in the schedules of accommodation

There should be separate courtyards for the secure zone and PICU. Patients in the open unit need access to outside areas but they do not need to be secured.

These areas provide external space for patients and are essential to their well being. Nature and sky should be a priority without exposure to too much sunlight which adversely affects patients with medication-related photosensitivity. (Planners could consider wall-mounted sun screen dispensers). Shading and seating with protection from heat and brightness means that summer does not render courtyards useless, and in winter there is protection from winds and rain.

Landscaping is essential to promote a feeling of space and tranquillity, and there are many imaginative solutions to creating a very special area for clients and staff within the boundaries of a safe and secure environment.
Courtyards should be designed to reduce the patient's sense of being contained and provide some form of sensory stimulus. Suggestions include textured ground surfaces, resilient plants, shaded areas and attractive but sturdy seating.

Landscape features and plantings must be set back from the perimeter wall to avoid foot hold points which may permit the wall to be scaled and design should avoid blind spots for good observation

Opening off the Lounge/Dining/Activity spaces, the courtyards should be clearly observable from the Staff Station.

502619 134 .40.00 GROUP THERAPY

Space for group therapy shall be provided. This may be combined with the dining area described above, provided that an additional 0.7 m2 per patient is added and a minimum room area of 21 m2, enclosed for privacy, is available for therapy activities

502620 134 .41.00 BATHROOM

Inclusion of a Bathroom will depend on the patient population. It should comply with the needs of the disabled and provide a safe, secure environment for all clients and staff in accordance with OH&S Guidelines. The room must be lockable so that staff can control access and the design of the bath must be compatible with existing, or proposed, lifting equipment.

502621 134 .42.00 OBSERVATION (SECURE) INPATIENT ZONE & PICU

These zones should be capable of secure separation from the remainder of the unit. There should be defined areas for male and female patients some of whom may feel threatened if in close proximity to the opposite sex.

Design should facilitate controlled movement of staff and patients between the Observation, PICU and General Inpatient zones so that all sections may use support facilities.

There should be the ability to increase, or decrease, the number of patient bed rooms between the zones depending on the acuity level of patients and the clinical needs of the unit.

Patients should be accommodated in an appropriate physical environment conducive to the treatment of mental illness. They should feel safe and have staff accessible. Equally, staff must be able to carry out their work in a safe and secure environment.

The components of these zones are – in most respects - identical to the General Unit except for size of patient support areas that will be compatible with patient numbers and provision of toilets and showers instead of en suites. (Refer Section 134.34.00.

502622 134 .43.00 EXAMINATION/ASSESSMENT ROOM

This room should be located adjacent to the Secure Entry and the Seclusion Room and should have two egress points and duress alarm point/s. (Personal alarm system is assumed – Refer Section 134.77.00)

Locked cupboards (keyed alike) are required for the storage of clinical equipment, dressings, syringes/needles and other possibly hazardous materials within this room. 'Sharps' containers need to be securely enclosed so the sharps can be easily disposed of and not used as weapons or for self-harm.

Functional Relationships

502623 134 .44.00 The following are probably the most critical relationships:

- Other Units that may form part of a Mental Health Precinct
- Emergency Department and Psychiatric Emergency Care Centre (PECC)
- Operating Suite or Day Procedure Unit (for ECT)
- Security Base

Access

502624 134 .45.00 EXTERNAL

The policy of mainstreaming Mental Health and associated facilities requires that the Mental Health Unit is perceived as an integral and equal part of the health precinct. Its location should afford easy access to the shared services and facilities that will/may be used by the patients and staff of the Mental Health Unit. These services include:
- Diagnostic Services
- Operating Suite or Day Procedure Unit for ECT
- Visitor amenities
- Staff and visitor parking
- Staff education facilities
- Deliveries for meals, laundry, medical records, stores and supplies and waste collection

Car Parking Requirements

502625 134 .46.00 All-weather drop-off parking for patients

Discreet ambulance access and parking at the Secure Entry.

Refer to Part C, Section 790 for further information.

Disaster Planning

502626 134 .47.00 There must be careful evacuation plans in place in the event of a fire or other emergency to ensure the safety of staff and patients.

Refer to Part B Section 80 for further information.

Infection Control

502627 134 .48.00 The infectious status of many patients admitted to the Unit may be unknown. All body fluids should be treated as potentially infectious and adequate precautions should be taken.

Handbasins will be provided in clinical areas such as treatment rooms and consultation rooms. Patients will have access to handbasins in en suites and handbasins will be provided in recessed bays in the corridors for staff use.

Refer to Part D of these Guidelines for further information.

Environmental Considerations

502628 134 .49.00 ACOUSTICS

Adequate acoustic treatment is required to ensure that patient privacy is maintained and that disruptive incidents do not compromise the operations of the unit or disturb other patients. Areas requiring special attention are noted in the relevant Room Data Sheets.

In acoustically-treated rooms, return air grilles should be acoustically treated to avoid transfer of conversations to adjacent areas. Door grilles to these areas should be avoided.

Environmental Considerations

502629 134 .50.00 NATURAL LIGHT

Wherever possible, the use of natural light is to be maximised. Current investigations support the fact that increased exposure to natural light improves service outcomes and reduces the length of stay especially for persons with mental illness. However, it must be noted that too much sunlight can adversely affects patients with medication-related photosensitivity

502630 134 .51.00 PERIMETER FENCING

This only applies to the outdoor areas for the Secure Unit and PICU. There is no requirement to “secure” open areas for patients in the General Unit.

Where required, fence design must avoid foot hold points to avoid scaling the wall.

Attention should be given to detailing roof overhangs, guttering and drain pipes which may provide a means of escape but fencing design and height should not be such as to create a prison-like environment or to increase the possibility of falling injuries should an attempt be made.

Recommended height is a matter for debate that has as yet to be determined and varies from 2.7 to 4m The client profile and topography of the area should be taken into account (e.g. young and fit, elderly, land sloping away etc.).

502631 134 .52.00 INTERIOR DESIGN /DÉCOR

Decor is not just colour. It is furnishings, style, textures, ambience, perception and taste and can be very personal and subjective.

Decor can be used to prevent an institutional atmosphere. Cleaning, infection control, fire safety, patient care and the patient's perception of a professional, caring environment should always be considered when dealing with decor.

Interpretations and "research" on the use and value of colour in the clinical area differ; some issues are obvious, others less so and often not backed up by empirical evidence. Consider the following:

- Some colours, particularly the bold primaries and green should be avoided as many people find them disturbing.

- Extremes of colour and pattern such as geometric designs which may disturb perception should be avoided. However, strong colours on floors may assist in orienting patients to their bedroom cluster etc

- Colours and interior design should also be chosen to reflect the tastes and age of patients who will use the facility.

- Re-decoration is not a budgetary priority so care in selection of materials and colour is important in the first instance.

- Wall colour should be different to floor colour to define floor plane

- Consider use of colour and stepping of ceiling heights to provide node points along corridors and to define seating alcoves.

Space Standards and Components

502632 134 .53.00 SIZE OF UNIT

The schedule of accommodation has been developed for a 20 and 30 Bed Adult Acute Mental Health Inpatient Unit.

If the proposed unit is to differ from this configuration the following methods should be used to allocate space for key areas:

502633 134 .54.00 Lounge/dining/activity areas – Secure Observation - 7.5m2 per person

Lounge/dining/activity areas - General - 5.5m2 per person

Outdoor areas (courtyards and terraces) – Secure - 10 m2 per person

Outdoor areas (courtyards and terraces) – General - 5 m2 per person

Courtyard and Terrace – minimum area - 20 m2

Consultation rooms - 1 per 5 beds

Examination/assessment rooms - 1-2 per unit

502634 134 .55.00 These spatial allocations are higher than those usually allocated for health capital projects. They have been estimated using benchmarks from past capital planning projects, current standards and guidelines and advice provided by the Centre for Mental Health regarding the special requirements of persons with a mental illness.

502635 134 .56.00 ERGONOMICS

Refer to Part C of these Guidelines for information.

502636 134 .57.00 HUMAN ENGINEERING

Includes reference to access and mobility. Refer Part C of these Guidelines for information.

502637 134 .58.00 DOORS

Secure Unit and PICU bedroom doors should have a viewing panel
All bedroom, bathroom and toilet doors should be able to be opened outward in an emergency without the use of special tools
The seclusion room needs to have at least one wide door that should open outwards.

Refer to Part C, of the Guidelines with specific reference to Secure Rooms (Clause 710).

502638 134 .59.00 WINDOWS AND GLAZING

In areas where damage to glass may be anticipated, avoid larger pane sizes as smaller panes are inherently stronger for a given thickness than larger panes.

Impact-resistant Grade A safety glass to comply with AS/NZS 2208:1996 – Safety Glazing Materials in Buildings is the recommended choice.

Polycarbonate is not recommended as it suffers from surface scratching and deteriorates thus reducing vision.

Where windows are openable, effective security features such as narrow windows that will not allow patient escape, shall be provided. Locks, under the control of staff, shall be fitted.

Also refer to Part C of the Guidelines

Safety and Security

502639 134 .60.00 Safety and security within the facility and the surrounding outdoor area as it relates to patient movements requires careful consideration from the start of the planning process. It should be an integral factor of the building and not an add-on at the end.

502640 134 .61.00 The following additional aspects should be considered:
- Safety of staff and visitors
- Patients' legal rights
- The status of the hospital or part thereof under the Mental Health
- Legislation in force at the time of development.

502641 134 .62.00 Design should assist staff to carry out their duties safely and to supervise patients by allowing or restricting access to areas in a manner which is consistent with patients' needs/skills. Staff should be able to view patient movements and activities as naturally as possible, whenever necessary.

502642 134 .63.00 Controlled and/or concealed access will be required as an option in a number of functional areas. Functionally the only difference in design between an open and a closed (locked) area should be the provision of controls over the flow to, from and throughout the facility. Such controls should be as unobtrusive as possible.

502643 134 .64.00 A communication system which enables staff to signal for assistance from other staff will be required via personal and fixed duress alarms.

502644 134 .65.00 The Adult Acute Mental Health Unit is best located at ground level but where this cannot be achieved, unauthorised access to external spaces such as balconies or roof is to be prevented. This does not however prevent provision of carefully designed external courtyards for patient use.

502645 134 .66.00 Refer to Section C of these Guidelines and to the NSW Health Manual – Protecting People and Property.

Finishes

502646 134 .67.00 WALL PROTECTION

Wall linings need to be robust and resistant to abuse and physical damage.

Also refer to Part C of these Guidelines

502647 134 .68.00 CEILING FINISHES

502647 134 .68.00

Ceiling linings need to be solid sheet - not ceiling tiles. In patient areas in secure zones, seclusion rooms and HDU/PICU, ceilings need to be resistant to breakout.

Refer to Part C of these Guidelines

Fixtures & Fittings

502648 134 .69.00 A list of harm-minimisation compliant hardware i.e. door furniture, coat hooks and towel rails, curtain tracks, plumbing fixtures and fittings should be produced and approved by the Client
BCA approval to depart from the Deemed to Satisfy provisions will be required for handrails and grab rails.

Also refer to part C of these Guidelines and to the Room Data Sheets (RDS) and Room Layout Sheets (RLS) for further detailed information

502649 134 .70.00 Fixtures and fittings should be safe, durable, heavy duty, concealed and tamper-proof.

Exposed services, for example, sink wastes which may be easily damaged should be avoided.

Fittings, including hooks, curtain tracks, pelmets, bathroom fittings, should be plastic where possible and have a breaking strain of not more than 20kgs.

Fittings should avoid the potential to be used either as a weapon or to inflict self-harm. Paintings, mirrors and signage should be rigidly fixed to walls with tamper-proof fixings.

502650 134 .71.00 Mirrors shall be of safety glass or other appropriate impact-resistant and shatterproof construction free from distortion. They shall be fully glued to a backing to prevent availability of loose fragments of broken glass.

502651 134 .72.00 Holland blinds, Venetian blinds and curtains should be avoided in patient areas

502652 134 .73.00 Light fittings, smoke and thermal detectors and air-conditioning vents to secure areas, particularly the Seclusion Rooms should be vandal-proof and incapable of supporting a patient's weight.

Building Service Requirements

502653 134 .74.00 VIDEO SECURITY

The use of video surveillance may be useful for monitoring areas such as stairways and blind spots. It is not an appropriate alternative to observation of patients by clinical staff and staffing levels should be sufficient to ensure such surveillance is not electronic required.

When considering the use of video security, the following factors should be considered:
- Area Health Service policies
- Relevant NSW Health policies

- The rights of patients to privacy balanced against the need to observe activities for safety and security reasons
- The ability of the staff establishment to manage the level of observation required without video security
- The maintenance costs involved
- The ability to negate the need for video security with improved functional design.

Note that NSW Health have released an additional Chapter to the Manual – Protecting People and Property entitled "Workplace Camera Surveillance".

503353 134 .74.05 MOTION SENSORS

Motion sensors in bedroom corridors can be a useful adjunct to observation of patients at night between nursing rounds. They can be used to alert staff to patients who have left their bedroom at night and who may be in distress or who may try to gain access to other patient's rooms.

502654 134 .75.00 VOICE AND DATA

Communication systems may provide for:

- Alarm systems where necessary (eg. dangerous drug cupboard opening).

- Telephone services for staff, patients and visitors. The extent of provision, location, type (i.e. fixed or portable) and charging will need to be addressed in the Operational Policies. A separate telephone nook within the unit for use by patients should be considered.

- Computer and internet access for patients and staff.

- Teleconferencing, videoconferencing and telepsychiatry facilities that are used for staff education, management and patient services.

Provision must be made at the outset for cabling and power outlets for computers.

502655 134 .76.00 NURSE CALL

The need for and type of patient call system should be reviewed. In bedrooms, it will need to be a call button that may not always be in easy reach, systems can be abused and most patients are ambulant and capable of asking for assistance.

Staff assist and psychiatric emergencies can be handled via personal duress alarms. Medical emergencies will need access to the hospital's cardiac arrest system.

Refer Part C 5.790 for further information.

502656 134 .77.00 DURESS ALARM SYSTEM

The optimum approach is a combination of personal alarms with location finders and some fixed alarms particularly in areas where staff work in a relatively fixed position such as Reception to ensure there is a back-up system if one system fails.

A discreet duress alarm system will be required at all Reception Points and Client Treatment Areas, where a staff member may be alone with a client.

Refer to NSW Health Manual "Protecting People and Property" and Part C of these Guidelines

503354 134 .77.05 VENTILATION AND AIR HANDLING

Newly admitted and very disturbed involuntary patients may have little regard for bodily hygiene and may overwhelm with alcohol fumes etc. It is suggested that the ventilation systems in the Secure Unit be such as to make the environment more comfortable for staff working in the area – and other patients and visitors - by increasing air changes and ensuring fresh rather than recycled air air handling systems.

COMPONENTS OF THE UNIT

General

502657 134 .78.00 The Adult Acute Mental Health Inpatient Unit will consist of a combination of Standard Components and Non-Standard Components.

This section must be read in conjunction with Part B Standard Components Room Data Sheets and Room Layout Sheets.

The following text describes only specific requirements not covered by these documents.

Standard Components

502658 134 .79.00 Provide the Standard Components as identified in the Schedule of Accommodation.

Non-Standard Components

503352 134 .80.00 Provide the Non-Standard Components as identified in the Schedule of Accommodation according to the Operational Policy and service demand.

502660 134 .81.00 SECURE ENTRY AREA

DESCRIPTION AND FUNCTION

The Secure Entrance provides direct access to the unit for patients referred for admission as involuntary patients arriving either via police or ambulance and alternative access to the unit for patients arriving via the Emergency Unit of the main hospital. There should be an entry airlock and consideration could be given to providing a secure, ventilated area for agitated patients to smoke.

To offer this facility, will at times help the patient brought in under the mental health act who is agitated/disturbed demanding access to cigarette to settle and cooperate with treatment reducing/minimising the need for medical intervention.

LOCATION AND RELATIONSHIPS

The Entrance should be capable of direct approach by ambulance/ police vehicles and should have provide protect from the elements for patient transfer. The Entrance should have an airlock capable of accepting an ambulance trolley with ease.

There should be easy access to the Examination/Assessment Room and to the

Seclusion Room within the Secure Zone. A small waiting area is required for use by the escorting officers to complete required paperwork

CONSIDERATIONS

There should be provision for a video intercom between the Emergency Entrance and the Staff Station

Provision should be made for a gun safe (that complies with relevant firearms legislation) that allows police to deposit firearms when they are in attendance at the Inpatient Unit.

This area should have adequate soundproofing so that noisy incidents do not disrupt the usual operations of the remainder of the unit.

502661 134 .84.00 MULTIFUNCTIONAL ACTIVITY SPACES

DESCRIPTION AND FUNCTION

A room suitable for television viewing, listening to music, using computers, 'quiet time' or other activities as determined by the nature and service needs of the Unit. There should be at least one "noisy/active" area and one "quiet/passive" area.

In addition, each Adult Acute Mental Health Inpatient Unit shall contain 1.5 m2 of separate space per patient for Occupational Therapy with a minimum total area of 20.0 m2.

LOCATION AND RELATIONSHIPS

The room should be clearly observable from the Staff Stations and have access to internal or external courtyards or terraces.

CONSIDERATIONS

Lockable storage with adjustable shelving is essential. Surfaces should be washable and finishes and furnishings easily maintained/restored. Bulletin boards and wall spaces for posters, etc. provide atmosphere and may reduce maintenance costs.

Colours and finishes should be carefully selected, the décor reflecting a domestic environment conducive to continued participation in community life and activities of daily living (ADL).

The space shall include provisions for:
- Hand-washing
- Workbenches
- Storage
- Displays.

502662 134 .86.00 FOOD SERVERY/TROLLEY HOLDING

DESCRIPTION AND FUNCTION

A shared facility for the receipt and serving of meals. Design will depend on the method of service delivery – i.e. plated or bulk meals, and the management of used crockery and utensils. Facilities for producing light refreshments should be included.

There should be hatch access to the Secure Lounge/Dining/Activity areas for the transfer of plated meals and mid-meal supplies. Counter access, with an 'after hours' grille, is an option for the General Zone main dining area.

LOCATION AND RELATIONSHIPS

Located adjacent to dining spaces in the General Zone. Access should be via the Main Entry.

CONSIDERATIONS

It must be a safe, secure environment for staff in compliance with OH&S and Infection Control Guidelines with plenty of bench tops, open shelving and lockable cupboards for sharps, supplies, etc., and adequate secure storage for food and equipment and sufficient space to store food tray and distribution trolleys. A dedicated power outlet for heating/cooling food trolleys may be required.

This Servery is not suited for patient use for the 'activities of daily living'. The inclusion of a 'domestic scale' well designed kitchenette as part of the Dining Room/Beverage Pantry lends itself to client use and the continued promotion of daily living skills.

502663 134 .89.00 STORE – CLEAN LAUNDRY

DESCRIPTION AND FUNCTION

Lockable storage for clean laundry trolley(s) and extra blankets, pillows and bed linen.

LOCATION AND RELATIONSHIPS

This space may be a corridor alcove with lockable doors. Roller shutters are not recommended on OH&S grounds.

CONSIDERATIONS

A cupboard with adjustable shelving wide enough to take sheets, towels, blankets, pillows, etc. may be used as part of the 'activities of daily living' whereby clients may assist in transferring laundry from delivery trolley to the shelves.

502664 134 .92.00 LAUNDRY – PATIENT

DESCRIPTION AND FUNCTION

A space to encourages activities of daily living by providing the facility for washing, drying and ironing of clothing by patients. The scale should be domestic with a laundry tub, washing machine and drier and lockable cupboard for iron and ironing board. There should also be access to an external space with a collapsible and/or low hung clothesline.

LOCATION AND RELATIONSHIPS

Part of the General Inpatients Zone

CONSIDERATIONS

Equipment such as a washing machine and drier should be 'heavy duty' in view of the number of persons using this facility. Adequate ventilation and extraction must be provided to cope with the constant generation of heat and moisture.

Additional exhaust may be required if commercial equipment is selected.

Consider a recessed fold-down ironing board and iron unit to minimise loose equipment.

May require space for individual patient laundry baskets.

The door should be lockable to enable staff to control access.

502665 134 .95.00 GYMNASIUM (OPTIONAL ADDITIONAL AREA)

DESCRIPTION AND FUNCTION

This space is included as an optional extra as the use of programmed physical exercise as an adjunct to treatment is being included in many facilities both in Australia and overseas. Careful consideration should be given to the degree of supervision required to safely provide these services.

LOCATION AND RELATIONSHIPS

This room should be located in a space clearly observable from the recreational and therapy areas. Transparent walling and the flow of passing traffic can also be used to aid in the monitoring of supervised activities within this room. It should overlook, and preferably open onto, accessible outdoor space.

CONSIDERATIONS

The environment must provide safety and security for all staff and patients and comply with OH&S guidelines. Equipment should be carefully selected to provide appropriate activities for therapy and/or recreation without affording opportunities for injury to self or others. All equipment must be securely bolted to the floor and walls. This facility would be used only under supervision and would be locked at other times.

Schedule of Accommodation

502666 134 .98.00 A Generic Schedule of Accommodation for an Adult Mental Health Inpatient Unit with 20Beds or 30 Beds follows.

Note : (o) in Qty/x m2 column = Optional.

					20 Beds	30 Beds	Note: Not all units will include PICU & bed mix may be adjusted to suit the circumstances
					16 Open, 4 Secure	24 Open, 6 Secure	
ROOM/SPACE	Standard Component				Qty x m2	Qty x m2	Remarks
MAIN ENTRY / RECEPTION							
ENTRY LOBBY / AIRLOCK					1 x 10	1 x 10	
RECEPTION	yes				1 x 10	1 x 12	
PHOTOCOPY / STATIONERY	yes				1 x 8	1 x 8	
FILE STORE	yes				1 x 10	1 x 10	

WAITING	yes				1 x 10	1 x 15	
TOILET - DISABLED	yes				1 x 5	1 x 5	
CONSULTATION/INTERVIEW ROOM	yes				4 x 14	6 x 14	Plus 2m2 for 2nd door. Based on 1 per 10 beds excluding PICU.
MEETING ROOM (& REVIEW BOARD)	yes				1 x 20	1 x 30	Also used for Group / Family Therapy

502667 134 .99.00 GENERAL (OPEN) UNIT
Patient Areas

GENERAL (OPEN) UNIT					16 Beds	24 Beds	
PATIENT AREAS							
1 BED ROOM - MENTAL HEALTH	yes				14 x 14	22 x 14	
2 BED ROOM - MENTAL HEALTH	yes				1 x 28	1 x 28	Optional. May be 2 extra single rooms. Note that 15m2 will accommodate a mother and baby
ENSUITE - MENTAL HEALTH	yes				15 x 5	23 x 5	
SECLUSION / QUIET ROOM	yes				1 x 14	1 x 14	Optional room in General Care Zonee.
BAY - HANDWASHING	yes				4 x 1	6 x 1	
DINING ROOM					1 x 30	1 x 50	Overall size of recreational areas based on 5.5m2 per person. These rooms may be resized..
PANTRY (WITH SERVERY COUNTER)	yes				1 x 8	1 x 8	Standard Component modified with counter
LOUNGE / ACTIVITY AREA					1 x 30	1 x 50	
MULTIFUNCTION ACTIVITY AREA					1 x 28	1 x 32	
GYMNASIUM					1 x 20	1 x 20	Optional
COURTYARD					1 x 70	1 x 100	Based on 5m2 per person
LAUNDRY - SELF-CARE	yes				1 x 6	1 x 8	Lockable; May be combined or devolved to bed clusters
BAY - LINEN	yes				2 x 2	3 x 2	
STORE - PATIENT PROPERTY					1 x10	1 x 14	
BATHROOM	yes				1 x 15	1 x 15	Optional
TOILET - STAFF	yes				1 x 3	1 x 3	

502668 134 .100.00 Clinical Support Areas (Shared With Secure Unit & PICU)

CLINICAL SUPPORT AREAS							
STAFF STATION					1 x 16	1 x 20	Sized to enable a design that can oversee all sub-units. May be necessary to sub-divide if this
OFFICE - CLINICAL HANDOVER	yes				1 x 12	1 x 12	

MEDICATION / TREATMENT ROOM					1 x 16	1 x 16	Includes spatial allowance for Resuscitation Trolley (1m2) & exam couch (3m2).
DIRTY UTILITY	yes				1 x 10	1 x 10	
STORE - EQUIPMENT	yes				1 x 12	1 x 16	
BACK-OF-HOUSE							
CLEANER'S ROOM	yes				1 x 5	1 x 5	Includes recycling bins
DISPOSAL ROOM					1 x 10	1 x 10	
STORE - GENERAL	yes				1 x 9	1 x 9	

502669 134 .101.00 OBSERVATION (SECURE) UNIT

OBSERVATION (SECURE) UNIT					4 Beds	6 Beds	
ENTRY - SECURED					1 x 6	1 x 6	Shared with PICU. Include safe for police firearms
EXAM / ASSESSMENT ROOM					1 x 15	1 x 15	Shared with PICU.
EN SUITE SHOWER / TOILET					1 x 5	1 x 5	Shared with PICU.
1 BED ROOM - MENTAL HEALTH					4 x 12	6 x 12	
TOILET - PATIENT	yes				2 x 4	3 x 4	
SHOWER - PATIENT	yes				2 x 4	3 x 4	
BAY - HANDWASH	yes				2 x1	3 x 1	
LOUNGE / DINING / ACTIVITIES ROOM					1 x 30	1 x 45	Based on 7.5m2 per person
MULTIFUNCTION ACTIVITY AREA					1 x 28	1 x 32	
SECLUSION ROOM	yes				1 x 15	1 x 15	NSW-HFG recommended 15m2, VIC-DGHDP shown as Standard Component 14m2.
SECURED COURTYARD					1 x 40	1 x 60	Based on 10m2 per person
TOILET - STAFF	yes				1 x 30	1 x 3	

502670 134 .102.00 PSYCHIATRIC INTENSIVE CARE UNIT (PICU)

PSYCHIATRIC INTENSIVE CARE UNIT (PICU)					6 Beds	8 Beds	Optional in Tertiary Service only
1 BED ROOM	yes				6 x 14	8 x 14	Sub-divided into "pods" each with its own sitting area.
TOILET - PATIENT	yes				3 x 4	4 x 4	May be combined and shared between bedrooms
SHOWER - PATIENT	yes				3 x 4	4 x 4	May be combined and shared between bedrooms
BAY - HANDWASH					3 x 1	4 x 1	Recessed in corridor

SITTING AREA					6 x 3	8 x 3	Combine as appropriate depending on bedroom arrangements
QUIET / SECLUSION ROOM	yes				1 x 14	1 x 14	
DINING / ACTIVITIES ROOM					1 x 25	1 x 30	Lounge / Dining / Activity in total based on 7.5m2 per person
MULTIFUNCTIONAL ACTIVITY ROOM					1 x 23	1 x 33	Includes 3m2 of storage
TOILET - DISABLED (PATIENT)					1 x 5	1 x 5	
MEETING (INTERVIEW) ROOM					1 x 12	1 x 12	Optional; may also be used as family room
EXAM / ASSESSMENT ROOM					1 x 12	1 x 12	Optional
BAY - LINEN (LOCKED)					2 x 2	1 x 2	
STORE - GENERAL					1 x 9	1 x 9	
STORE - PATIENT PROPERTY					1 x 6	1 x 4	
SECURED COURTYARD					1 x 60	1 x 80	Based on 10m2 per person. Possibility of combining with Secure Area.
STAFF TOILET					1 x 3	1 x 3	
DISCOUNTED CIRCULATION					35%	35%	Based on single rooms

502671 134 .103.00 STAFF OFFICES & AMENITIES

STAFF OFFICES & AMENITIES							
OFFICE - SINGLE 12M2 (DIRECTOR)	yes				1 x 12	1 x 12	
OFFICE - SINGLE 9M2 (NURSE MANAGER)	yes				1 x 9	1 x 9	
OFFICE - SINGLE 12M2 (PSYCHIATRIST)	yes				12	12	
OFFICE - SHARED - MEDICAL STAFF	yes				5.5	5.5	No. determined by Staff Establishment
OFFICE - SHARED - NURSING STAFF	yes				5.5	5.5	No. determined by Staff Establishment
OFFICE - SHARED - ALLIED HEALTH	yes				5.5	5.5	No. determined by Staff Establishment
STORE - PHOTOCOPY / STATIONERY	yes				1 x 8	1 x 8	
MEETING ROOM	yes				1 x 20	1 x 30	
STAFF ROOM	yes				1 x 15	1 x 20	
PROPERTY BAY - STAFF	yes				1 x 2	1 x 2	
SHOWER - STAFF	yes				1 x 2	1 x 2	
TOILET - STAFF	yes				2 x 3	2 x 3	

DISCOUNTED CIRCULATION					30%	30%	

502672 134 .104.00 NOTES:
PICU: Bed numbers are arbitrary at this stage and do not bear any relationship to the main unit but will depend on catchment area.
Size and layout may preclude being able to share all Clinical Support Rooms; there may then need to be a second Staff Station, Clean & Dirty Utilities to be shared between Secure Unit & PICU.

Functional Relationships

502673 134 .105.00 A diagram of key functional relationships is attached.

Checklists

502674 134 .106.00 For Planning Checklists refer to Part A,B,C & D of these Guidelines.

References and Further Reading

502675 134 .107.00 Design Series DS-26 – Mental Health Facility Planning Guideline, Volume 1, Adult and Adolescent Mental Health Acute Inpatient Units, NSW Health Department 2002.

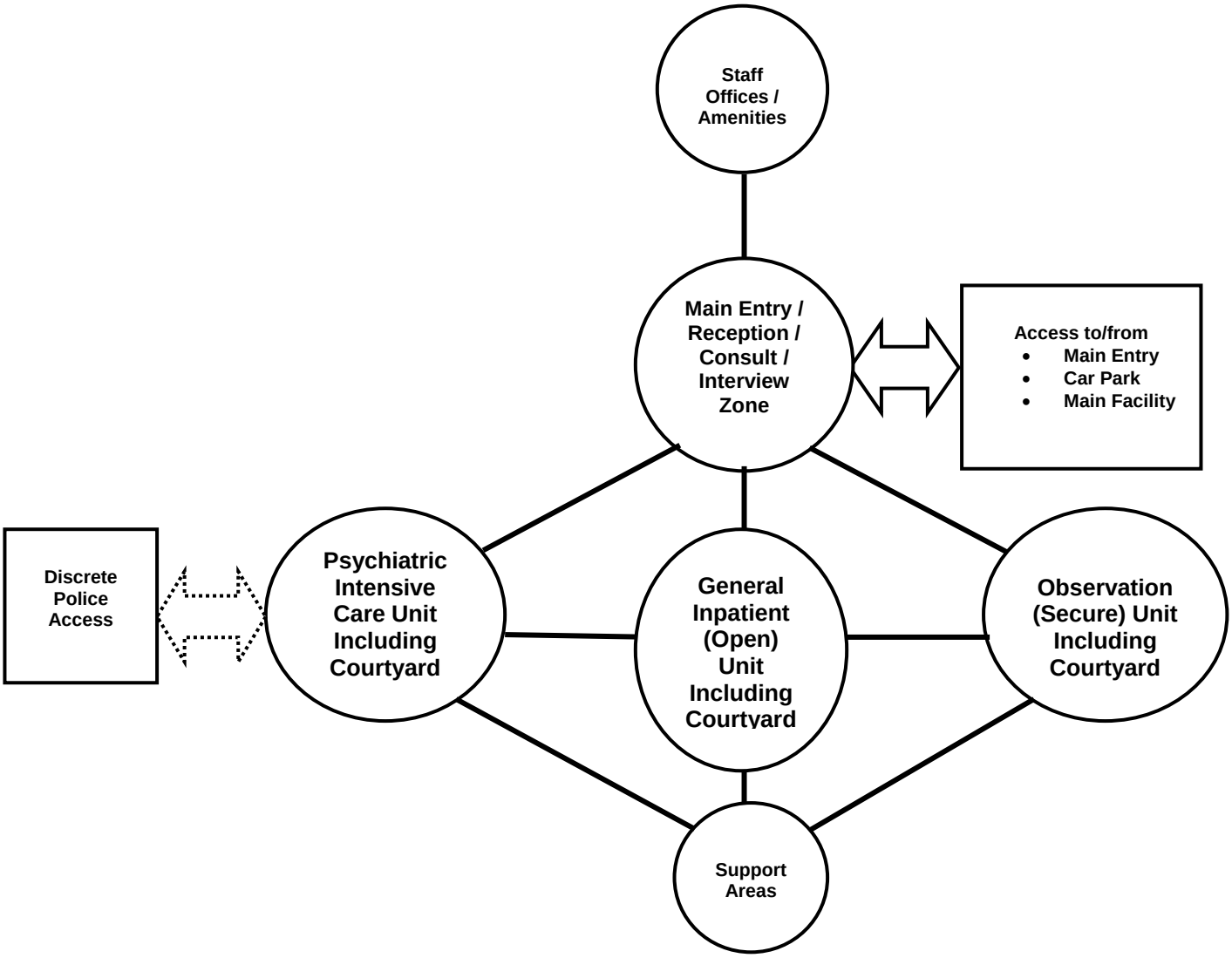
Design Guidelines for Hospitals and Day Procedure Centres: HPU 134 – Adult Acute Psychiatric Unit, Department of Human Services, Victoria, November 2004.

“Not Just Bricks and Mortar”, Council Report CR62, January 1998, Royal College of Psychiatrists, London.

Safety, Privacy and Dignity in Mental Health Units – Guidance on Mixed Sex Accommodation for Mental Health Services. NHS Executive, June 1999.

FUNCTIONAL RELATIONSHIP DIAGRAM –ADULT MENTAL HEALTH ACUTE INPATIENT UNIT (INCLUDING PICU)

The following diagram sets out the relationships between zones in an Acute Mental Health Acute Inpatient Unit (including PICU):



140 REHABILITATION / ALLIED HEALTH UNIT

INDEX

	Description
502760 140 .0.10	INTRODUCTION
	Preamble
	Introduction
	Policy Statement
	Description of Unit
	PLANNING
	Operational Models
	Operational Policies
	Planning Models
	Functional Areas
	Functional Relationships
	DESIGN
	Access
	Car Parking Requirements
	Disaster Planning
	Infection Control
	Environmental Considerations
	Space Standards and Components
	Safety and Security
	Finishes
	Fixtures and Fittings
	Building Services Requirements
	COMPONENTS OF THE UNIT
	General
	Standard Components
	Non-Standard Components
	APPENDICES
	Schedule of Accommodation
	Functional Relationships Diagram
	Checklists
	References and Further Reading
	Space requirements for Gym Equipment

INTRODUCTION

Preamble

502761 140 .1.00

The Australasian Faculty of Rehabilitation Medicine defines Rehabilitation Medicine as "… that part of the science of medicine involved with the prevention and reduction of functional loss, activity limitation and participation restriction arising from impairments; and the management of that disability in physical, psychosocial and vocational dimensions" (Draft Standard 2005).

Before commencing planning, it is critical that the following is clarified:

- Whether the unit is to be built as a dedicated treatment unit in support of a formal Rehabilitation Medicine service/programme or a Pathway Home programme – with or without additional therapy facilities for acute hospital services

- Whether it will be a hospital-based unit or cluster of units of individual therapy services predominantly supporting the acute medical and surgical services, or

- Whether the Unit will fulfil both functions.

This differentiation is important as facilities and equipment will / may differ and there may be considerable impact on the location of the unit/s.

It is recommended that the design and location of a Rehabilitation Inpatient Unit - if provided - be considered at the same time as the Rehabilitation Allied Health Unit as these units, although separate for the purpose of these Guidelines will share operational policies, staffing philosophies and facilities

If the services provided are predominantly acute hospital oriented, facilities will be better located near those units that generate the most attendances e.g. Orthopaedics, Neurosciences, and Vascular Surgery etc. This may also avoid any consideration of satellite therapy facilities.

The extent of general outpatient services also needs to be quantified and whether or not the Hospital has an Operational Policy in this regard. Referrals may be from GPs and other community-based health professionals - particularly if private practice is unavailable or unaffordable. (Back pain, sports injuries etc.)

Most units will be involved with student training and the spatial impact of this must be taken into consideration with regard to lockers and write-up areas.

Introduction

502762 140 .2.00

This Health Planning Unit (HPU) is a resource to assist project teams with the planning, design and construction of a Rehabilitation Allied Health Unit. It should be read in conjunction with generic requirements in Parts A, C and D and Standard Components (Room Descriptions, Room Data & Room Layout Sheets (RDS/RLS) in Part B of these Guidelines.

This Guideline primarily addresses the disciplines of:
- Physiotherapy – including Hydrotherapy
- Occupational Therapy and
- Speech Pathology.

Units will/may also incorporate facilities for other Allied Health professionals such as Social Work, Clinical Psychology, Neuropsychology, Podiatry, Audiology and Nutrition and Dietetics.

Policy Statement

502763 140 .3.00

NSW Health Department. NSW Policy Standards for Cardiac Rehabilitation. NSW Health Department 1997.

PD2005_339. Manual – "Protecting People and Property: NSW Health Policy and Guidelines for Security Risk Management in Health Facilities".

PD2005_576: Office Accommodation Policy – Public Health Organisations and Ambulance Service.

Project staff are also referred to the following document:
Standards for Rehabilitation Medicine Services for Public and Private Hospitals, Australasian Faculty of Rehabilitation Medicine, 1995 (in revision 2005).

503370 140 .3.05

PATHWAYS HOME PROGRAM

The Pathways Home Program is a program funded by the Australian Government [Department of Health and Ageing]) under the 2003-08 Australian Health Care Agreements. Over five years, the Australian Government will provide funding to the states and territories to increase the rehabilitation and stepdown / transition services provided to patients following an acute hospital admission - particularly those patients who are older or who have some form of mental disability, as a means of expediting their return to optimal functionality as soon as possible.

Description of the Unit

502764 140 .4.00

DEFINITION OF HPU

The Rehabilitation Allied Health Unit is a discrete unit of a hospital providing rehabilitation services to inpatients and outpatients.

Facilities for Physiotherapy and Occupational Therapy will vary greatly, ranging from large, purpose-designed, central facilities for inpatients and/or outpatients, to basic on-ward or bedside services. Extent, design and location of facilities will be affected by presence or otherwise of the following services (not inclusive):

- Rehabilitation Medicine
- Aged Care
- Spinal Cord Injury Service
- Orthopaedic Services
- Neurosciences – General (strokes, MS etc)
- Neurosciences – Traumatic Brain Injuries
- Amputees
- Hand Surgery / Plastic Services.

Speech Pathology plays a major role in Neonatal, Paediatric, ENT / Maxillofacial and neurological services; in the absence of these, Speech Pathology may be provided on a part-time basis.

Children's Hospitals or major Paediatric Services generate their own specific spatial needs.

At Levels 5 and 6 it is possible that each discipline may have its own discrete department but every attempt should be made to co-locate the therapy units to maximise the potential for sharing and to facilitate multidisciplinary care.

The rehabilitation services will be supported by full time Social Work services. At Level 4, Dietetics and Podiatry are generally provided as part time services and can be incorporated into the Unit. At Levels 5 & 6 they will have their own discrete Units and are excluded form the Schedule of Accommodation at those levels. Clinical Psychology and Neuropsychology also play an important role in some aspects of service provision and will need their own or access to

office/treatment areas.

502765 140 .5.00 PATIENT CHARACTERISTICS

All ages from children to the frail aged. Almost all patients attending for physiotherapy are physically incapacitated to some extent many of whom use wheelchairs or walking aids and - increasingly - motorised chairs that have implications for parking and recharging. Many patients may be disfigured (burns, throat surgery etc) and require a non-threatening, private environment.

Many patients will require access to Interpreter Services.

PLANNING

Operational Models

502766 140 .6.00 HOURS OF OPERATION

The Unit will generally operate during business hours Monday to Friday with after-hours on-call physiotherapy services available for wards as required. Some departments may provide a limited service at evenings and week-ends.

If used for health education classes (e.g. antenatal classes), after-hours access will be required.

If a hydrotherapy pool is part of the facility, this too may be made available to the community after hours and at week-ends and therefore careful consideration will need to be given to location, controlled access and security.

502767 140 .6.05 FLEXIBILITY

The facilities of the Unit will be utilised by inpatients and outpatients. It is expected that the majority of inpatients accommodated in the Rehabilitation Inpatient Unit will attend the Unit on a daily basis. The function of these two units is inter-related and the design of the Rehabilitation Unit could provide areas common to both units.

As with other areas of health care, rehabilitation services are constantly evolving. This is manifest in terms of:

- clinical development - many more categories of patient are able to be rehabilitated than was previously considered feasible

- organisational development - the interrelationship of the various medical, nursing and allied health services that participate in the rehabilitation process is of paramount importance

- technological development - advances in technology have developed techniques which will ultimately become routine aspects of rehabilitation. Such developments include kinematic analysis, electromyography and ergometry.

502768 140 .6.10 MODELS OF CARE

Traditionally the model of care has been one-to-one, therapist to patient.

Increasingly an educative model is being used that assumes a staff to patient ratio of 1:4 or more and incorporates:
- group sessions for peer support
- group exercise classes

- involvement of carers so that they can learn how much activity the patients can safely tolerate at home and how best to support them
- education programmes.

There may need to be separate areas for Respiratory and Cardiac Rehabilitation and general rehabilitation as the patients have differing needs and sometimes equipment. However this will depend on the number of sessions and every opportunity should be made to share areas between programmes.
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502769 140 .6.15 SATELLITE UNITS

One of the problems of providing therapy services for inpatients within the Unit itself is transport to and from wards, particularly, for example, neuroscience patients whose attention span may be limited and who need a quiet environment. It also requires either a portering service or use of valuable therapist time in transport functions. If distance from wards to the Therapy Units is considerable and throughput can justify, provision of a small satellite unit may be considered – mainly for physiotherapy – near the wards most affected, usually Neuroscience & Orthopaedics. Or alternatively, a small therapy / multipurpose room in a ward may serve such a purpose. However, satellite units should probably be avoided wherever possible.

502770 140 .6.20 HYDROTHERAPY

Whilst there are differing opinions as to the therapeutic benefits of hydrotherapy, a designated Rehabilitation service will probably require access to a hydrotherapy pool. However, in other circumstances, the need for a pool should be carefully considered as the cost per unit of treatment is high and conditions for which hydrotherapy is the only appropriate treatment are limited. In many projects provision of a pool will be a matter for a separate business

Hydrotherapy pools should only be provided where patient numbers can justify and where the pool is required for a minimum of four hours each days, five days a week. Utilisation of the pool may be extended by making the pool available to groups within the community for their use at times when it is not required for specific therapeutic purposes.

Alternatively, use of a pool already established in the community may be used.

502832 140 .6.21 GAIT ANALYSIS LABORATORY

Quantitative gait analysis is useful in objective assessment and documentation of walking ability as well as identifying the underlying causes of walking abnormalities in patients with cerebral palsy, stroke, head injury and other neuromuscular problems. The results of gait analysis have been shown to be useful in determining the best course of treatment in these patients.

However, full scale, often research laboratories are extremely costly, few and far between and outside the scope of this Guideline. However, equipment for gait analysis on a smaller scale may be incorporated into a gymnasium and is addressed in a future section.
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502771 140 .6.25 OUTDOOR GAIT AREA

Essential to provide mobility training on a range of uneven surfaces necessary for

community integration.

503371 140 .6.30 DIVERSIONAL THERAPY

Rehabilitation Units may wish to provide diversional therapy services by a qualified diversional therapist.

“Diversional therapy practitioners work with people to provide, facilitate and co-ordinate leisure and recreational activities. These activities are designed to support, challenge and enhance the psychological, spiritual, social, emotional and physical well-being of individuals who experience barriers to participation in leisure and recreational pursuits affecting their quality of life.”
Source: The Diversional Therapy Association of NSW web site. www.diversionaltherapy.com.au

Service provision will require office space for the therapist, storage space and space for group activities. This latter may also serve as a dining / refreshment area for day patients.

Operational Policies

502772 140 .7.00 GENERAL

Depending upon the needs of the individual hospital, it may be decided that the Rehabilitation Allied Health Unit will provide the location for the hospital's Acute Therapy Services. If such a Policy is adopted it may be necessary to upgrade the accommodation to provide:
- additional therapy spaces for general acute inpatient and outpatient therapy
- additional group office space for physiotherapists to write up notes
- additional staff amenities.

The Guideline defines functional spaces as discrete areas for defined activities. The Operational Policy of a facility may compel the design team to view the various functions and activities within the Unit from the framework of a team philosophy. Accordingly, patient flow would determine the definition of spaces rather than individual allied health discipline.

A list of general operational policies to be developed – e.g. linen handling, waste management - can be found in Section B of the Guidelines and should be developed as early as possible in the planning process.

503372 140 .7.02 OUTPATIENTS VERSUS DAY PATIENTS

The original “Day Hospital” concept often accommodated patients for respite care; in modern units patients are admitted for treatment, not respite.

Patients attending for a single treatment by a single therapist are classified as outpatients. Patients attending for a series of treatments by different therapists will be admitted as day patients where stay is in excess of 4 hours. This latter category will need an area for rest and refreshment between treatments. A Diversional Therapy Room may be appropriately used for this purpose.

It is important to note the difference between day admissions for treatment and respite care as the latter is Commonwealth funded.

502773 140 .7.05 MANAGEMENT OF RESPIRATORY PATIENTS

Some patients with respiratory conditions will require access to a dedicated room for privacy and for infection control reasons. To minimise cross-infection risks, appointments should ideally be scheduled for the end of the day. Individual units will need to determine whether there is a need to provide negative pressure ventilation.

There will need to be access to oxygen for patients who may be on continuous oxygen therapy via wall-mounted gases or portable cylinders on carriers close to the equipment being used. Care needs to be taken to ensure that oxygen tubing does not trail across the floor and create an occupational health and safety hazard.

502774 140 .7.10 MEDICAL RECORDS & X-RAYS

Assuming a hard copy system, it is usual for non-inpatient records to be kept in the Unit for the duration of treatment.

When records become electronic, there will be direct data entry and design should indicate likely locations for computers and allow for appropriate power and cabling.

Assuming a digital PACS system, X-ray films available on screen so viewing monitors will be needed. If still hard copy, x-ray viewing boxes will be required and films requested from the Medical Imaging Unit.

503373 140 .7.11 PATIENT LIFTING / TRANSFERS

Ceiling hoist system for transfers from wheelchair to plinth, or mobile lifters. If the latter, a bay or bays will be required with power for recharging, either part of or outside the Gymnasium; but if inside the additional space must be added to the overall gymnasium size.

503374 140 .7.12 RECHARGING OF ELECTRICAL WHEELCHAIRS

Inpatients normally using electric wheelchairs or motorised chairs may need somewhere to park and recharge their equipment whilst in hospital.

Facilities to recharge patients' electric wheelchairs and motorised chairs overnight. In rehabilitation units with a lot of wheelchair-dependent patients it is a logistic problem at night finding sufficient power points to plug in batteries. Ideally there should be a large space with docking stations so the rechargers and power extension cords are not spread out across the gymnasium each night, only to be collected up the next morning

502775 140 .7.15 SPECIFIC NEEDS IN INPATIENT UNITS

To avoid unnecessary transport to and from the main unit, space and facilities for ward-based therapy could be considered. Include but not confined to:

- 10m corridor length for walking tests
- Storage for equipment & mobility aids
- Ward-based treatment space larger than the area around a patient's bed
- Access to stairs for practising crutches
- Access to write-up area and storage of resource material.

Facilities will be addressed in detail in the Guideline for the Rehabilitation Inpatient Unit.

502776 140 .7.20 STAFFING

The staffing operational policy assumptions made in this guideline are:

- Office space will be provided where required for clerical and allied health staff including workstations in open treatment areas for immediate documentation.
- "hot" desks will be available for students and visiting staff
- Staff wearing uniforms will arrive at the Unit in uniform however shower / change facilities will be required for comfort reasons as much of the work is labour-intensive.

The number of staff will depend on the needs of the individual hospital / service. Planners are referred to the Australasian Faculty of Rehabilitation Medicine Standards (Draft 2005) that provides staff to patient ratios for every 10 inpatients and outpatients. Staff mix may include – either permanently or when required by referral:

- Director of Rehabilitation Medicine and/or the head of each therapy discipline
- Medical staff
- Nursing staff
- Physiotherapists
- Occupational therapists
- Social workers
- Speech pathologist
- Neuropsychologist (where brain impairment is an issue)
- Clinical psychologist (for treatment of complex behavioural disturbances)
- Prosthetists / Orthotists
- Aides
- Podiatrist
- Sport & Recreational Officers
- Dietitians
- Diversional Therapist
- Vocational Trainers
- Case Co-Ordinators
- Rehabilitation Engineers
- Clerical staff
- Housekeeper and cleaning staff
- Artisan and transport staff.
- Students of various disciplines

503375 140 .7.21 TEACHING

Most units will be involved with undergraduate and / or postgraduate training. Attendance will be variable. Students will need write-up space near the area of activity and numbers will need to be ascertained. Facilities will include a workstation for the supervisor and student lockers.

502777 140 .7.25 EMERGENCY EQUIPMENT

- Oxygen (wall panels or cylinders) for oxygen-dependent patients
- Cardiac monitor for cardiac patients
- Resuscitation trolley/s
- Medical gas service panels in selected locations for emergency use.

Planning Models

502778 140 .8.00 LOCATION

A Rehabilitation Unit should be in a ground floor location for ease of access by disabled patients, especially outpatients, and also have access to an external area for retraining purposes. The unit should be located immediately adjacent to the Rehabilitation Inpatient Unit.

This location is less critical for acute units if separate from the Rehabilitation Allied Health Unit. A ground floor access is desirable for access by outpatients but may create problems with regard to inpatient access.

Functional Relationships

502779 140 .9.00 The most critical relationship in circumstances where Rehabilitation Medicine is an established service is with its own Inpatient Unit/s.

However, consideration must also be given to necessary relationships with those wards most utilising therapy services in terms of the logistics of patient travel and transport. In some instances there may need to be duplication of facilities.

The Unit should have ready access to allied health units such as speech pathology, social work and the like where those units are not represented or located within the Unit itself.

Ready access to Orthopaedic Clinics by Physiotherapy.

Functional Areas

502780 140 .10.00 FUNCTIONAL ZONES

The Unit will / may comprise the following zones:
- Entry / Reception / Waiting
- Therapy Areas for Physiotherapy and Occupational Therapy with or without Speech Pathology and Podiatry
- Psychosocial Therapy Areas – Social workers, psychologists, Specch Pathologists, Diversional Therapist
- Assessment / Consulting Areas for primary services
- Patient Areas – Resource Room/Library, Dining, Hairdressing
- Shared non-clinical Support Areas – Stores, Loan Equipment, Utilities, Linen, Disposal
- Staff Offices and Amenities.

Additional / optional facilities may include:
- Hydrotherapy Pool
- Gait Analysis Laboratory
- Orthotics / Prosthetics.

502781 140 .10.05 ENTRY / RECEPTION / WAITING

Waiting will generally be for outpatients and supporters; inpatients will mostly be taken directly to the treatment areas. Numbers will need to be ascertained based on appointment systems.

Child play area may need to be considered for paediatric patients and siblings, oversighted by Reception.

Chairs should have arm support, be comfortable and resistant to damage and there should be space for a number of wheelchairs and patients with walking aids.

Doors should be automatic opening.

Patients and supporters will need access to one disabled toilet as a minimum, a

cold water fountain / dispenser and possibly a public phone.

Depending on the size of individual sub-units (Physiotherapy, Occupational Therapy, Speech Pathology, Social Work etc), one Reception will ideally serve the whole department.

502782 140 .10.10 ASSESSMENT / CONSULTING AREAS

A room or rooms will be available for initial assessment, consultations, interviews. May be shared between therapy disciplines. If rehabilitation clinics are conducted in the Unit, there must be sufficient rooms to accommodate throughput and rooms with dual access from corridor and also opening onto the gymnasium may facilitate gait analysis etc.

The zone may include office / consulting rooms for Social Workers, Clinical Psychologists, Dieticians etc (full time staff)

502783 140 .10.15 OCCUPATIONAL THERAPY

The following specific facilities will be required:
- Therapy rooms – for individuals and groups for static & dynamic activities
- Facilities for Activities of Daily Living (ADL)
- Storage for equipment and materials
- Loan Equipment Store if provided.

Depending on the service profile, additional areas may include:
- Facilities for splint making & hand therapy
- Dedicated paediatric treatment room
- Space for fitting and manufacture of pressure garments
- Heavy duty workshop
- Computer and vocational retraining
- Wheelchair storage & modification
- Garden therapy area.

It must be noted that a considerable amount of Occupational Therapy assessment of inpatients such as toileting and showering may be conducted at ward level if facilities are available and appropriate

502784 140 .10.20 ADL (ACTIVITIES OF DAILY LIVING) FACILITIES

Depending upon the specific Operational Policies of the Unit, these spaces will be fitted out in such a way as to demonstrate to patients the options available to them to modify their home environment to suit their particular disabilities. For example, different bench heights and leg space under benching to allow for wheelchair access. (Note that not all patients are in wheelchairs but may be ambulatory). Specially adapted equipment may also be demonstrated by occupational therapists. Functions and activities will include education and assessment.

Facilities may comprise:
- Domestic bathroom
- Toilet / shower cubicle
- Kitchen
- Lounge Room
- Bedroom (May or may not be combined with the Lounge Room)
- Domestic Laundry.

502785 140 .10.25 DAY ROOM / DIVERSIONAL THERAPY

Day patients and families / supporters will need access to a Day Room for meals and refreshments. Operational policies will determine whether this area can / will also be used by inpatients attending the Unit or whether inpatients will return to their wards.

In between meals, this room may also be used by patients and carers during periods between treatments, for education sessions and other patient activities including diversional therapy.

If located adjacent to the open Occupational Therapy Area and sharing an operable wall, it will enable the creation of a larger space when required. Such a room is not required in a hospital acute unit.

502786 140 .10.30 PHYSIOTHERAPY – ACTIVITIES

Individual activities may include
- "… exercise programmes on mats or raised mats
- … exercises on plinths using slings & springs attached to mesh
- pulley work
- gait training on bars, frame, crutches or stick
- tilt table work
- balance re-education
- climbing steps / stairs
- electrotherapy
- games."

Treatments may include:
- Wax treatment
- Hand therapy
- Plastering & splinting – limbs and body casts.

There are categories of patients that benefit from group / class work including:.
- Stroke and other neurologically impaired patients
- Spinal cord injured patients
- Amputees and orthopaedic patients
- Cardiac and pulmonary rehabilitation
- Rheumatology or back exercises.

Open spaces may also effectively be used for health education programmes, e.g. diabetic, cardiac or asthma patients.

(Source: Physiotherapy Department Design Guide 1981):

502787 140 .10.35 PHYSIOTHERAPY – FACILITIES

The following facilities will be required:
- Individual treatment areas – curtained bays and some enclosed rooms for patient privacy
- respiratory treatment room – well-ventilated. Medical gases. ?? Negative pressure
- open exercise area/s with equipment appropriate to the level and range of intended services (acute treatment & remedial)
- storage for equipment and supplies
- facilities for splint making / hand therapy (may be shared with Occupational Therapy)
- access to appropriate outdoor therapy areas.

Optional areas may include:
- PUVA treatment (unless in a Dermatology Unit)
- Hydrotherapy – if provided – will be managed by the Physiotherapy service and will require patient showering, toilet and change facilities with secure storage for clothing and valuables
- Consult / Exam Rooms opening onto a Gymnasium to enable appropriate mobility assessment during the course of a clinic.

Part of Physiotherapy services will be ward-based especially in critical care units.

502788 140 .10.40 GYMNASIUMS

There are two basic types of gymnasiums:

- Exercise Gym for group strength and fitness training with the major equipment (noisy); sprung floor, high ceiling. Used for acute rehabilitation, cardiac rehab etc. May also be used for recreational activities such as ball games.

- Open Gym for 1:1 skill training with plinths, stairs, parallel bars etc. Used for slow stream rehabilitation and for inpatients who may require a greater degree of privacy. May need lifting equipment and/or hoists. Will need access to oxygen and suction. Sufficient wall space capable of supporting the attachment of heavy equipment such as pulleys and wall bars. Will include curtain treatment bays – often with double plinths and wall and ceiling mesh screens for attaching accessories.

Ideally the rooms should have a northern aspect to assist in temperature control and one of the rooms should have direct access to an outdoor exercise area if provided.

All equipment must be wheelchair accessible.

Consider an overhead track system that runs the length of the gymnasium to enable patients to walk in a harness system without fear of falling (requires a reinforced ceiling)

502789 140 .10.45 WORKROOM

“Wet” area used for manufacture of limb supports, body casts and splints using a variety of materials and for preparing ice packs, heat packs and wax baths.

Will need plaster traps to sinks.

502790 140 .10.50 SPEECH PATHOLOGY

Speech Pathology utilizes acoustically-treated combined office / consulting / treatment rooms for treatment of adults and children with a range of speech and swallowing disorders.

May also require access to space on a Neonatal Unit for management of feeding problems, cleft palates etc. where the babies cannot be removed from the Unit and access to an acoustically- treated room in wards allows for ward-based treatment.

502791 140 .10.55 PODIATRY

Unless a full-time position (which is rare), the room should be able to be used for

other purposes when not occupied by the Podiatrist providing equipment can be secured – either in the room or elsewhere. Consideration will need to be given to sterilization of podiatry instruments.

502792 140 .10.60 SHARED AREAS

- Dirty Utility
- Linen
- Resuscitation trolley
- General stores

502793 140 .10.65 STAFF OFFICES & AMENITIES

Offices and workstations will depend on Staff Establishment and will be allocated in accordance with NSW Health Policy Directive PD2005-576 – Office Accommodation Policy – Public Health Organisations and Ambulance Service.

Staff rostered to ward work will need access to workstations in the main unit; these should be allocated on the basis of approximately two thirds of FTE staff.

There will need to be work areas within the gymnasiums and in the open plan treatment cubicle area for write-up / access to computers.

502794 140 .10.70 HYDROTHERAPY

AS 3979-1993 (Under revision DR 05261) Hydrotherapy Pools sets out requirements and recommendations for the design, construction and operation of pools for use in the treatment of conditions requiring hydrotherapy. Does not apply to pools with a water capacity of 7500 L or less, nor to small tanks of the type which may incorporate fixed or rotating water jets.

Some specific design requirements for patient and staff safety include:

- Adequate change facilities for patients and staff including disabled access showers and toilets. And open shower on the pool concourse

- Adequate emergency call points including ceiling-suspended call points for therapists in the water.

- Recovery area comprising resuscitation trolley and bed or plinth should a patient collapse in the pool.

502795 140 .10.75 GAIT / MOTION ANALYSIS

A gait analysis laboratory is outside the scope of this guideline. However facilities for gait analysis comprising a force plate, computer equipment and camera may be incorporated into a Gymnasium. It is preferable that the computer equipment and camera are locked away when not in use.

There must be sufficient space lengthways (minimum 5m) and widthways (full arm span) to film the sagittal and coronal views of a walking patient and access to a treadmill.

Will be used by medical clinicians, Physiotherapists, Podiatrists and Orthotists in support of various medical / surgical clinical services, particularly neurosciences and Orthopaedics.

502796 140 .10.80 ORTHOTIC / PROSTHETIC SERVICES

An Orthotics Unit provides a comprehensive range of custom made and ready to fit orthoses for patients either as an outpatient service or an inpatient service. This includes the following functions:
- in/outpatient assessment
- prescription advice
- orthotic treatment
- treatment planning and review
- measurement, casting, design manufacture, fitting and adjustment of
- orthoses.

Orthotists attend Outpatient Clinics, team meetings, ward rounds and other activities to enhance patient care. The Orthotics Unit will also provide in-service training and lectures to other health care personnel and raise awareness of orthotics in the local community.

It is frequently collocated with other Therapy Units particularly Physiotherapy with which it has very close synergies but is outside the scope of this Guideline.

DESIGN

Access

502797 140 .11.00 EXTERNAL

If at ground floor unit with its own entry, an undercover set-down bay should be provided at the entrance to the Unit for those outpatients who arrive by bus or car and for return of loan equipment with disabled parking.

Access to:
- Medical Imaging
- Pharmacy
- Ophthalmology
- Audiology.

502798 140 .11.05 INTERNAL

The Unit should be accessible from the inside hospital's main entrance.

Wheelchair access is required to all patient-accessed areas of the Unit.

Access for large items of equipment.

Car Parking Requirements

502799 140 .12.00 Drop-off and disabled parking.

For staff parking, refer to Part C, Clause 790 of these Guidelines for further information.

Disaster Planning

502800 140 .13.00 Refer to Part B Clause 80 and Part C of these Guidelines for further information.

Infection Control

502801 140 .14.00 Staff hand-washing facilities must be provided close to each therapy treatment space and in all Speech Pathology Treatment Rooms.

Consideration will need to be given to means of sterilizing podiatry instruments.

Consideration also to be given to storing and cleaning of returned loan equipment prior to returning to the Loan Store.

Refer to Part D of these Guidelines for further information.

Environmental Considerations

502802 140 .15.00 ACOUSTICS

The majority of the therapy areas of the Unit are open space. Further, the activities undertaken therein require hard, impervious flooring (timber or sheet vinyl) and generate noise.

Other areas within the Unit require acoustic privacy in order to be effective or prevent embarrassment such as Respiratory Treatment Rooms and rooms used for women's health disorders.

Account should be taken of the potential sources of noise within as well as from outside the Unit.

Solutions to the various acoustic characteristics and requirements include:
- use of curtains and other soft fabrics
- use of solid core doors
- co-locate potentially noisy areas
- strategic positioning of storage areas to create a sound buffer

Carpet in patient areas is not recommended.

Speech Pathology rooms have specific requirements in order to operate effectively.

502803 140 .15.05 LIGHTING

Natural lighting is essential in large treatment areas such as gymnasiums and in Staff Rooms.

Consideration should be given to lighting levels for patients who are visually impaired.

502804 140 .15.10 CLIMATE CONTROL

Good temperature control and ventilation in treatment areas as work can be arduous for both patients and staff.

It is important to remember that certain patients such as those with spinal cord injuries are unable to regulate their body temperature. It is therefore imperative that the gymnasium is air-conditioned.

Regardless of orientation, there must be means of sun control.

502805 140 .15.15 INTERIOR DESIGN

The rehabilitation process is often a long one with patients commencing attendance at the Unit as inpatients and continuing as outpatients. C Consequently, the Unit should seek to provide a welcoming and supportive environment as it is essential that patients feel positive about returning to the Unit on a regular basis

Space Standards and Components

502806 140 .16.00 ERGONOMICS

Refer Part C of these Guidelines for information.

502807 140 .16.05 HUMAN ENGINEERING

Refer Part C of these Guidelines for information.

502808 140 .16.10 ACCESS AND MOBILITY

Refer Part C of these Guidelines for information.

502809 140 .16.15 DOORS, WINDOWS AND CORRIDORS

Patient-accessed doors should be automatic and sized for wheelchairs.

Refer Part C of these Guidelines for information.

Safety and Security

502810 140 .17.00 SAFETY

The patient population of this unit in particular requires special consideration in terms of safety as they will be at once disabled or incapacitated and yet are being encouraged to be mobile and self-sufficient.

“Unless otherwise approved, a Rehabilitation Unit shall provide rails and hand holds in all corridors, ramps, stairs, bathrooms and toilets to ensure safe movement of disabled people.” Source - Standards for Rehabilitation Medicine Services in Public and Private Hospitals, 1995 in revision

Every aspect of unit design with regard to finishes, surfaces and fittings must be assessed to determine the potential for accidents or hazards to both patients and staff.

Sanitary facilities are where most accidents or mishaps occur, to both patients and staff. In particular, consider:
- slippery or wet floors
- protrusions or sharp edges
- stability and height of equipment or fittings
- choice of floor covering

Handrails and wheelchair access are mandatory.

502811 140 .17.05 SECURITY

After hours access control if used by the general public for classes, hydrotherapy.

Finishes

502812 140 .18.00 WALL PROTECTION

Refer to Part C of these Guidelines

502813 140 .18.05 FLOOR FINISHES

Essential that they are non-slip and do not create “drag” for patients using walking aids and wheelchairs.

Also refer to Part C of these Guidelines

502814 140 .18.10 CEILING FINISHES

Gymnasium ceiling heights minimum of 3.3m.

Refer to Part C of these Guidelines

Fixtures & Fittings

502815 140 .19.00 Height of light switches

Handrails on both sides of corridors

Also refer to part C of these Guidelines and to the Room Data Sheets (RDS) and Room Layout Sheets (RLS) for further detailed information

Building Service Requirements

502816 140 .20.00 INFORMATION TECHNOLOGY AND MANAGEMENT

IT infrastructure must be compatible with overall hospital systems. There must be sufficient data points and power for computers and student laptops for direct entry of electronic records in the future and for viewing of digital images. (PACS).

502817 140 .20.05 DURESS ALARM SYSTEM

Locate at Reception and in Treatment Areas.

502818 140 .20.10 NURSE & EMERGENCY CALL SYSTEMS

Nurse call systems in all individual rooms and cubicles including those in Gymnasiums.

Staff Assist and Emergency Call at regular intervals.

Annunciators (non-scrolling) located in Reception, corridors, treatment areas and Staff Room.

General

502819 140 .21.00 Allied Health Units will consist of a combination of Standard Components and Non-Standard Components.
Standard Components must comply with details in Standard Components described in these guidelines. Refer also to Standard Components Room Data Sheets.

Standard Components

502820 140 .22.00 Provide the Standard Components as identified in the Generic Schedule of Accommodation. Provision of accommodation for Allied Health will be dependant on the Operational Policy and service demand.

Non-Standard Components

502821 140 .23.00 Provide the Non-Standard Components as described in this section, according to Operational Policy and service demand.

502822 140 .23.05 ADL LOUNGE

DESCRIPTION AND FUNCTION

The ADL Lounge is a domestic style lounge for patient assessment and training purposes. It may effectively be combined with the ADL Bedroom.

LOCATION AND RELATIONSHIPS

The ADL Lounge may be located with other ADL facilities, in the Occupational Therapy patient treatment zone, with ready access to waiting and amenities areas.

CONSIDERATIONS

The ADL Lounge will require the following fittings and furniture
- seating of varying heights and types
- access for wheelchairs and other mobility aids.

The area may be carpeted – wholly or in part.

502823 140 .23.10 AUDIOLOGY ROOM

DESCRIPTION AND FUNCTION

The Audiology Room is an acoustically isolated room containing an audiology booth and workstation area to undertake audiology testing and assessment.

LOCATION AND RELATIONSHIPS

The Audiology Room should be located in a quiet zone within the Allied Health patient consult and treatment areas. It should have ready access to waiting and amenities areas.

CONSIDERATIONS

The following fittings and equipment will be required:
- Soundproof booth
- Desk and chairs
- Microphone

502824 140 .23.15 OCCUPATIONAL THERAPY AREA

DESCRIPTION AND FUNCTION

The Occupational Therapy area is a large open space to enable a range of static and dynamic activities to take place. The area may include space for table based activities, such as upper limb activities or functional mobility activities such as woodwork or splinting activities.

The area will be sized according to the number of patients to be accommodated and will be dependant on Operational Policy and service demand.

LOCATION AND RELATIONSHIPS

The Occupational Therapy area may be located adjacent to other therapy areas, with ready access to waiting and amenities areas.

If a Day Room is provided, collocation with this room and an operable wall will allow the increased flexibility of space.

CONSIDERATIONS

Fittings and equipment required in this area may include:
- Benches with inset sink, wheelchair accessible
- Shelving for storage of equipment or tools
- Tables, adjustable height
- Chairs, adjustable height
- Pinboard and whiteboard for displays
- Sufficient GPOs for equipment or tools to be used in activity areas

502825 140 .23.20 PODIATRY TREATMENT

DESCRIPTION AND FUNCTION

A Treatment Room with a podiatry chair for a Podiatrist to undertake assessment and treatment of the feet.

LOCATION AND RELATIONSHIPS

The Podiatry Treatment Room should be located within the patient treatment zone, with ready access to waiting and amenities areas.

CONSIDERATIONS

The following fittings and services will be required:
- Bench with sink, cupboards and drawers for preparation, storage and cleaning
- Podiatry chair (may be electric and adjustable)
- X-ray viewing boxes (optional)
- Examination light to chair area
- Staff handbasin with liquid soap and paper towel fittings
- Workstation for writing-up with clerical chair
- GPOs for treatment and workstation areas
- Telephone and computer outlets

Note that electronic worktables are available to which are attached the various electrical instruments used in the course of treatment.

502826 140 .23.25 STORE - LOAN EQUIPMENT

DESCRIPTION AND FUNCTION

A secure room for the storage of equipment and aids for loan to patients of the Unit in their homes.

Depending upon the Operational Policies of the Unit, the administrative control of the loan equipment may be performed in the store.

Functions and activities in the Loan Store may include:
- storage of items of equipment and aids
- distribution of equipment and aids
- receipt of equipment and aids returned to the Unit
- cleaning of returned items.

Detailed consideration should be given to storage capacity that will depend upon many factors including the size of the catchment area and the relationship which exists between the Unit and other facilities in respect of loan equipment.

The Store may be either be divided into “clean” and “dirty” zones or preferably a discrete holding area provided for returned items that will need cleaning associated with a Clean-Up Area. This may be a partitioned section of the main Store but it may be necessary to provide a hose.

LOCATION AND RELATIONSHIPS

Access to a loading dock is highly desirable car parking for collection and return of loan items to avoid double handling. If this cannot be achieved within the main Unit, consideration should be given to an alternate location that fulfils these criteria.

If within the Unit, direct access is required to the Unit Corridor.

Ready access to a cleaning area is required for cleaning equipment.

CONSIDERATIONS

Fittings and services shall include:
- Shelving, heavy duty
- Hooks, for hanging equipment such as walking frames

502827 140 .23.30 STORE - OCCUPATIONAL THERAPY

DESCRIPTION AND FUNCTION

Secured room for storage of splinting equipment, mobility aids, adaptive equipment, demonstration equipment and appliances.

The room will be sized according to the amount of equipment and consumables to be accommodated.

LOCATION AND RELATIONSHIPS

The Store should be located adjacent to the Occupation Therapy Room.

CONSIDERATIONS

Fittings and services shall include:
- Shelving, heavy duty

- Hooks, for hanging equipment such as walking frames
- GPOs for recharging of equipment.

502828 140 .23.35 STORE – PHYSIOTHERAPY

DESCRIPTION AND FUNCTION

There are two types of storage required:

1. A secured room for storage of general equipment and mobility aids including crutches, and consumables used for physiotherapy treatment. The room will be sized according to the amount of equipment to be accommodated.

2. Electromedical equipment ideally needs to be in a bay adjacent to the outpatient cubicles so as to be readily accessible. Project staff should ascertain the type, quantity and dimension of the machines in order to ensure parking is adequate.

LOCATION AND RELATIONSHIPS

The Physiotherapy Store will be located with close access to the Gymnasium and other Physiotherapy treatment areas. The electromedical equipment should be immediately accessible from the outpatient cubicles.
CONSIDERATIONS

Fittings and services will include:
- Shelving, heavy duty
- Hooks, for hanging of equipment such as walking frames
- GPOs for recharging of equipment.

502829 140 .23.40 PHYSIOTHERAPY TREATMENT CUBICLES

DESCRIPTION AND FUNCTION

Individual treatment cubicles are required that provide visual privacy for the patient. If student training is undertaken a number of larger cubicles may be required and cubicles accommodating traction plinths will/may need additional length depending on the configuration of the cubicles.

There must be adequate space between plinths to enable patients to “park” their wheelchairs whist practising transferring between wheelchair and plinth and sufficient personal screening around each plinth to ensure patient privacy if they are incontinent.

LOCATION AND RELATIONSHIPS

Treatment Cubicles may be located in close proximity to the Gymnasium and other patient treatment areas. Close access to patient amenities, handbasins and regularly used electrotherapy equipment is required

A small staff Workbase should be provided for access to computers for patient records and x-ray films (if PACS).

CONSIDERATIONS

Fittings and equipment include:
- Plinth - may be electric and/or adjustable height
- Patient chair
- Hooks for patient clothing

- Cubicle screen track and curtains
- Patient/nurse call point and access to an emergency call point
- Body protected power outlets.

Optional:
- Storage for pillows, linen
- Write-up bench
- Access to handbasins.

502830 140 .23.45 VIEWING / OBSERVATION ROOM

DESCRIPTION AND FUNCTION

A discrete room with one-way glass for unobserved viewing of patients undergoing therapy in an adjoining room.

LOCATION AND RELATIONSHIPS

The Viewing Room may be located adjacent to Speech Pathology Consult/ Treatment Rooms, Group Rooms as required.

CONSIDERATIONS

The efficiency of one-way glass is compromised if the viewing side is illuminated. Accordingly, the viewing side should:
- be separately light controlled
- have a light proof curtain around the doorway to allow entry/exit without filling the room with borrowed light
- have a light proof curtain which can be drawn over the viewing window if required
- be sound-proof so as to allow talk among the viewers without intruding into the viewed activity

The viewed room should contain a curtain which can be drawn over the viewing window when privacy is required.

An electronic sound system is required to transmit sound into the Viewing Room from the room being viewed. The microphone(s) should be removable when not in use so as to ensure peace of mind to other users of the room.

502831 140 .23.50 OT WORKSHOP

DESCRIPTION AND FUNCTION

The Workshop is an artisan/industrial area with defined areas of function and activities that may include:
- manufacture and repair of independent living aids;
- occupational therapy and retraining in physical skills for patients, e.g. - woodwork, metal work, plastic moulding
- materials and equipment storage

The area requirements of this space will depend upon its particular function and range of activities.

LOCATION AND FUNCTIONAL RELATIONSHIPS

Being an industrial type environment, this area may:
- generate excessive noise
- require extreme ventilation provisions

- require direct delivery of materials

In order to allow for these characteristics it may be necessary for the location of the Workshop (including support areas) to be either a perimeter location or constructed separately from the main Unit.

CONSIDERATIONS

Special exhaust or dust extraction may be required.
Acoustic treatment may be required to reduce excessive noise transmission from the area.

An adequate level of general lighting including natural lighting is required.

Storage is required for:
- tools & equipment accessories
- materials in use
- safety goggles and other clothing
- timber and metal
- screws, bolts and other fasteners
- glue
- spare parts
- loose/mobile artisan equipment
- items in production

Major equipment requiring servicing will depend upon the activities planned and may include:
- pedestal drilling machinery
- woodworking lathe
- grinder
- band saw or drop saw.

Schedule of Accommodation

502833 140 .24.00 A Generic Schedule of Accommodation for a Rehabilitation / Allied Health Unit at Level 4, 5, and 6 follows.

The following Schedule of Accommodation is based on the premise that at Levels 5 and 6, Social Work, Clinical Psychology and Dietetics will be discreet departments in their own right, and that Audiology will also be a discreet unit or form part of an ENT Department/Clinic.

Services at Level 3 may be modified from Level 4 (Refer Role Delineation)

Note: (o) in Qty/xm2 column = Optional

ENTRY/RECEPTION

ROOM/SPACE	Standard Component			Level 4 Qty x m2	Level 5 Qty x m2	Level 6 Qty x m2	Remarks
ENTRY/RECEPTION							
RECEPTION	yes			1 x 10	1 x 12	1 x 12	2 staff
STORE - PHOTOCOPY/STATIONERY	yes			1 x 8	1 x 8	1 x 8	
STORE - FILES	yes			1 x 4	1 x 6	1 x 6	
WAITING	yes			1 x 12	1 x 21	1 x 32	Based on 1.2m2 per person, 1.5m2 for wheelchairs. Modify to circumstances
BAY - PATIENT HOLDING				0	1 x 4	1 x 4	Part of Waiting space
BAY - DRINKING FOUNTAIN	yes			1 x 1	1 x 1	1 x 1	
BAY - PUBLIC PHONE				Share	1 x 2	1 x 2	
BAY - STROLLER / WHEELCHAIR PARK	yes			1 x 4	1 x 4	1 x 4	
TOILET - PATIENT/PUBLIC	yes			0	1 x 4	1 x 4	Or access to same
TOILET - DISABLED	yes			1 x 5	2 x 5	2 x 5	

502834 140 .25.00 Allied Health

ALLIED HEALTH							
AUDIOLOGY BOOTH	yes			1 x 10	0	0	2.7 x 3.4 Refer Notes below
AUDIOLOGY OBSERVATION				1 x 9	0	0	Separate Unit
OFFICE/TREATMENT - SPEECH PATHOLOGY	yes			1 x 15	15	15	No depends on service level
OBSERVATION ROOM - SPEECH PATOLOGY				1 x 5 (o)	5	5	
STORE - SPEECH PATHOLOGY	yes			1 x 4 (o)	1 x 4	1 x 4	
OFFICE/CONSULT - CLINICAL PSYCHOLOGY	yes			1 x 12 (o)	12	12	No depends on service level. 16m2 Neuropsychology

OFFICE - DIETETICS	yes			1 x 9	0	0	No depends on service level. Unit Manager = 12m2 in large Department
STORE - DIETETICS	yes			1 x 4 (o)	0	0	
OFFICE - S/WORKER	yes			1 x 9	9	9	No depends on service level. Assumes access to Interview & Group Rooms. Unit Manager =
PODIATRY TREATMENT				1 x 14	1 x 14	1 x 14	May be multipurpose. If podiatry only, 10m2. At Level 5/6 may be located elsewhere.
GROUP ROOM				0	1 x 16	1 x 16	
OBSERVATION ROOM				0	1 x 8	1 x 8	Optional

502835 140 .26.00 Occupational Therapy

OCCUPATIONAL THERAPY							
ADL BATHROOM	yes			1 x 12	1 x 12	1 x 12	Optional
ADL LOUNGE					1 x 12	1 x 12	Optional
ADL BEDROOM	yes				1 x 13	1 x 13	Optional
ADL BEDROOM / LIVING				1 x 18	0	0	
ADL COMPUTER ROOM				1 x 10 (o)	1 x 10	1 x 10	2 patients. Optional
ADL KITCHEN	yes			1 x 12	1 x 22	1 x 22	Size allows for a number of patients
ADL LAUNDRY	yes			1 x 8	1 x 11	1 x 11	Optional
LOAN POOL EQUIPMENT				1 x 14	1 x 20	1 x 20	Size will depend on extent of service
CLEAN-UP ROOM					1 x 6	1 x 6	For returned loan equipment
SPLINT ROOM					1 x 16 (o)	1 x 16 (o)	Specifically hand splinting. 2-3 patients plus wet prep area
OCCUPATIONAL THERAPY ROOM - LIGHT - ADULT				1 x 28	1 x 42	1 x 70	Approx 7m2 per patient
OCCUPATIONAL THERAPY ROOM - LIGHT - PAED.					1 x 40 (o)	1 x 40 (o)	10m2 per patient
OCCUPATIONAL THERAPY ROOM - WORKSHOP				0	1 x 50 (o)	1 x 50 (o)	5 patients. Optional
STORE - ONGOING WORK				1 x 4	1 x 7	1 x 7	
STORE - MATERIALS & EQUIPMENT				1 x 12	1 x 14	1 x 20	
STORE - TIMBER & METAL				0	1 x 20	1 x 20	If workshop provided
STORE - ASSESSMENT WHEELCHAIRS				1 x 10 (o)	1 x 15	1 x 15	

502836 140 .27.00 Physiotherapy

PHYSIOTHERAPY							

GYMNASIUM - INDIVIDUAL TREATMENT				1 x 80	1 x 100	1 x 120	Approx 6m2 per patient.May need 2 gyms to separate ortho/vascular patients from neuro
GYMNASIUM - GROUP CLASSES				0	1 x 50	1 x 80	Treadmills, Bikes etc
STORE - GYM EQUIPMENT				1 x 8	1 x 10	1 x 12	
BAY - WATER FOUNTAIN				1 x 1	1 x 1	1 x 1	Disabled access. In / near gymnasium
OFFICE - WRITE-UP BAY	yes			1 x 6	1 x 9	1 x 12	Part of Gymnasium
TOILET - DISABLED	yes			1 x 5	1 x 5	1 x 5	Access from Gymnasium
PATIENT BAY - TREATMENT - SINGLE				7.5	7.5	7.5	Outpatient Area; single plinths. No. will depend on utilisation and throughput. 2.7 x 2.7
PATIENT BAY - TREATMENT - SINGLE				10	10	10	Extra length for traction plinths. 2.7 x 3.6. Minimum of 1.8m aisles between facing cubicles
TREATMENT ROOM	yes			1 x 12	12	12	Respiratory & other conditions requiring privacy. No. will depend on service profile
BAY - MOBILE EQUIPMENT	yes			1 x4	1 x 10	1 x 10	Parking for various items of electrotherapy equipment near Outpatient Area
BAY - HANDWASH - TYPE B	yes			2 x 1	4 x 1	4 x 1	
PLASTER / SPLINT ROOM	yes			0	1 x 16	1 x 16	2 & 3 patients
WORKROOM				0	1 x 14	1 x 14	"Wet" area for manufacturing splints, ice machine, hydrocollator etc
OFFICE - WORKSTATION				1 x 4.4	4.4	4.4	Near treatment bays/rooms. Collocate with handbasins
STORE - EXERCISE EQUIPMENT	yes			1 x 14	1 x 20	1 x 20	
OUTDOOR GAIT ASSESSMENT							Optional
DISCOUNTED CIRCULATION %				30%	32%	32%	

502837 140 .28.00 Shared Clinical Support Areas

SHARED CLINICAL SUPPORT AREAS							
ASSESSMENT / INTERVIEW ROOM				1 x 10	10	10	No. will depend on operational policy re clinics
CONSULTING/EXAMINATION ROOM	yes			1 x 12	12	12	No. will depend on operational policy re clinics
SPLINT ROOM				1 x 14			Shared Physio / OT at Levels below Level 5
BAY - LINEN	yes			1 x 2	2 x 2	2 x 2	
BAY - RESUSCITATION TROLLEY	yes			Shared	1 x 2	1 x 2	
CLEAN UTILITY (NO DRUGS)				0	1 x 9	1 x 9	
DIRTY UTILITY - SUB	yes(draft)			1 x 8	1 x 8	1 x 8	
DISPOSAL ROOM	yes			Shared	1 x 8	1 x 8	

CLEANER'S ROOM	yes			1 x 5	1 x 5	1 x 5	

502838 140 .29.00 Staff Areas

STAFF AREAS							
OFFICE - DIRECTOR	yes			1 x 9	1 x 12	1 x 12	
OFFICE - CHIEF OT	yes			0	1 x 12	1 x 12	
OFFICE - WORKSTATIONS - OTS	yes			0	4.4	4.4	No. will depend on staff establishment
OFFICE - CHIEF PHYSIO	yes			1 x 9	1 x 12	1 x 12	
OFFICE - PHYSIO 2 PERSONS - SHARED	yes			1 x 12	0	0	
OFFICE - WORKSTATIONS - PHYSIOS	yes			0	4.4	4.4	No. will depend on staff establishment
STUDENT ROOM				1 x 9	1 x 14	1 x 14	
MEETING ROOM	yes			1 x 15	1 x 20	1 x 20	
PROPERTY BAY - STAFF	yes			1 x 3	2 x 6	2 x 6	Male & female
STAFF ROOM	yes				1 x 25	1 x 25	
SHOWER - STAFF	yes			1 x 2	2 x 2	2 x 2	Male & female
TOILET - STAFF	yes			1 x 3	2 x 3	2 x 3	Male & female
DISCOUNTED CIRCULATION %				25%	30%	30%	

502839 140 .30.00 Hydrotherapy (Optional)
Note : Inclusion will depend on policy/service

HYDROTHERAPY (OPTIONAL)							
OFFICE - SINGLE PERSON - 9M2	yes			0	1 x 9	1 x 9	May double as a rest room
OFFICE - WORKSTATION	yes			1 x 4.4	0	0	
OPEN SHOWER AREA				1 x 3	1 x 6	1 x 6	
POOL & SURROUNDS				1 x 90	1 x 240	1 x 240	
STORE - GENERAL	yes			1 x 9	1 x 16	1 x 16	Hydrotherapy aids & equipment (that may be wet or damp).
SHOWER - DISABLED				1 x 5	1 x 5	1 x 5	
TOILET - DISABLED	yes			1 x 5	1 x 5	1 x 5	
TOILET/SHOWER/CHANGE - PATIENT				2 x 8	2 x 24	2 x 24	

TOILET/SHOWER/CHANGE - STAFF				1 x 3	1 x 6	1 x 6	
PLANT ROOM				1 x 10	1 x 20	1 x 20	
DISCOUNTED CIRCULATION %				20%	20%	20%	

502840 140 .31.00 Notes:
Audiology: Major audiology services will need to be separately briefed and may have a number of rooms performing different functions
Occupational Therapy Treatment: Depending on service profile, may need separate paediatric treatment area

Functional Relationships

502841 140 .32.00 A diagram of key functional relationships is attached.

Checklists

502842 140 .33.00 A Security Checklist is appended to this document. Refer also to Part C of these Guidelines for general requirements.

References and Further Reading

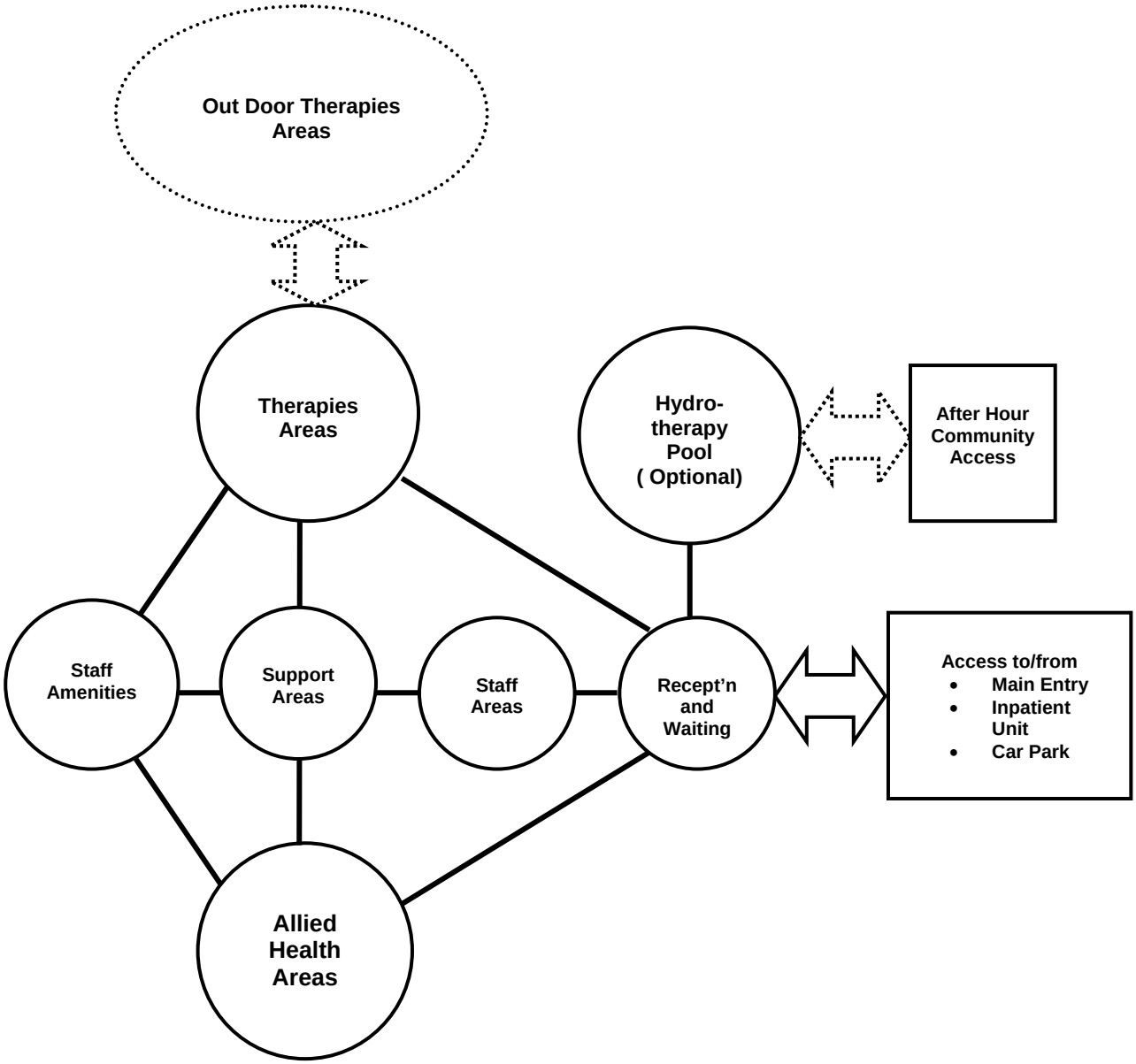
502843 140 .34.00 DS-27 – HBG – Rehabilitation / Day Hospital Unit, NSW Department of Health, Capital Works Branch, October 1992.

Physiotherapy Department Design Guide, Australian Physiotherapy Association, Sydney, 1981.

Standards for Rehabilitation Medicine Service in Public and Private Hospitals 1995 (Under review 2005), Australasian Faculty of Rehabilitation Medicine, Royal Australian College of Physicians.

FUNCTIONAL RELATIONSHIP DIAGRAM –REHABILITATION/ ALLIED HEALTH UNIT

The following diagram sets out the relationships between zones in a Rehabilitation/ Allied Health Unit:



SECURITY ISSUES TO BE CONSIDERED IN REHABILITATION /ALLIED HEALTH UNIT

GENERIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Area to treat inpatient and outpatient	1. Control access.

SPECIFIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Patient files	1. Personnel working on these files must return to secure area after use or return to Medical Records Department. 2. If any electronic files are produced, locate in restricted area of hard drive.
2. Furniture Fitting and Equipment including Computers, Office and Medical Equipment	1. Non-removable 'Asset No.' on all equipment above a predetermined value. 2. Keep equipment in lockable area.
3. Staff personal effects	1. Provision for lockers in staff areas and lockable desk drawer to keep small personal effects.
4. Hospital Personnel Safety	1. Staff working in this area to have knowledge of where the fixed duress system is located and/or use a mobile duress pendant. 2. Locked doors between patient and work areas.
5. Patient "wandering"	1. Appropriate alarm system on doors and/or personal locater system.
6. Hydrotherapy Pools	1. More then one staff member to be always present to provide assistance. 2. Strategic location of fixed duress buttons to summon assistance. 3. Alternate means of egress.

SECURITY CHECKLIST –REHABILITATION/ ALLIED HEALTH UNIT

FACILITY:	**DEPARTMENT: Rehabilitation/ Allied Health Unit**
RISK ISSUE	**DESIGN RESPONSE**
1. Do staff have access to both fixed and mobile duress systems?	
2. Is access to patient records restricted to staff entitled to that access?	
3. Is a system implemented to prevent theft of equipment, files, personal possessions, etc?	
4. How is this area secured during and after hours?	
5. Are there lockable storage areas available for specialised equipment?	
6. Is lockable furniture provided for storage of staff personal effects?	
7. How are the offices secured during and after hours?	
8. Has a system been included to address 'patient wandering'?	

DESIGN COMMENTARY /NOTES	**DESIGN SIGN-OFF**
	Name: …… Position: …….. Signature: …….. Date: ……..
	Name: …… Position: …….. Signature: …….. Date: ……..
	Name: …… Position: …….. Signature: …….. Date: ……..

SPACE REQUIREMENTS FOR GYM EQUIPMENT IN REHABILITATION / ALLIED HEALTH UNIT

Item	Dimensions in metres	Total m2	Circulation Around m2	Total m2
Bike: Upright	1 x 1.5	1.5	2.0	3.5
Bike: Reclining	1 x 2	2.0	2.0	4.0
Steps with rail	1.5 x 1.5	2.25	1.0	3.25
Step	0.5 x 1	0.5	1.0	1.5
Treadmill	2.5 x 1.5	3.75	2.0	5.74
Rower	1 x 2.5	2.5	2.0	4.5
Table with armgrinders	1.5 x 0.7	1.05	1.0	2.05
Weight racks: wall space	1 x .02	0.02	1.0	1.02
Parallel Bars	0.85 x 5.0	4.25	0.9 at each side of rails for therapist = 2.65 wide; additional 1.5 at each end for access = 8m L	21.2

Note that circulation can be used more than once.

155 AMBULATORY CARE UNIT

INDEX

		Description
500313	155 .0.10	INTRODUCTION
		Preamble
		Introduction
		Policy Statement
		Description of Unit
		PLANNING
		Operational Models
		Operational Policies
		Models of Care/Work Practices
		Planning Models
		Functional Areas
		Functional Relationships
		DESIGN
		Access
		Car Parking Requirements
		Disaster Planning
		Infection Control
		Environmental Considerations
		Space Standards and Components
		Safety and Security
		Finishes
		Fixtures & Fittings
		Building Service Requirements
		COMPONENTS OF THE UNIT
		General
		Standard Components
		Non-standard Components
		APPENDICES
		Schedule of Accommodation
		Functional Relationships
		Checklists

INTRODUCTION

Preamble

500860 155 .1.00

This Facility Planning Guideline reflects advances in the understanding of optimal environments for care and changing the practices in primary health care service delivery.

Major ongoing changes in Australia's population, health technology and clinical practice are creating increasing demand for Ambulatory Care Services.

Priority must be given to ensuring that the physical environment in an Ambulatory Car Facility is therapeutic and welcoming for all its users, including children, young people, people of culturally and linguistically diverse backgrounds, Aboriginal people and others with special needs.

There is no clear and universally accepted definition of Ambulatory Care. This is understandable given Ambulatory Care can be considered an 'approach' to patient care that ensures that patients receive care in the most appropriate location.

Ambulatory Care can therefore encompass care provided in Hospitals, Outpatient and Emergency Departments, Community Centres, Ambulatory Care Centres, patients' homes or workplaces, or General Practitioner or Specialists' rooms. It may include hospital-in-the home programs, supported discharge, emergency services, post acute programs, community health and day medical and surgery services.

Introduction

501554 155 .2.00

This Guideline is a resource to assist with the planning, design and construction of an Ambulatory Care Facility. Generic requirements and Standard Components are described in Parts A, B and C of these Guidelines and must be read in conjunction with this Guideline.

Capital planning should not be undertaken without the provision of a completed Service Plan.

Policy Statement

500862 155 .3.00

NSW Health policies as they relate to the provision of services in the Ambulatory Care Unit are underpinned by:

+ The development of appropriate models of service delivery aimed to minimise the need for admissions to an inpatient unit;

+ Enabling patients to have access to a range of diagnostic and treatment services in an 'one-stop-shop' venue.

Description

500861 155 .4.00

DEFINITION OF HPU

For the purposes of this Guideline, Ambulatory Care is defined as the provision of health services on a same day basis on the hospital campus, either as a stand-alone facility or integrated with acute-care services. Given the potential diversity of services and individual models being developed (Polyclinic, Integrated Care Centres), there will need to be reference to other HFGs as required (eg Operating Rooms, Community Health).

Services accommodated in the Ambulatory Care Unit may include, but are not

limited to:

+ Multidisciplinary and specialist consultation and treatment clinics for medical and surgical sub-specialties;

+ Same day surgery;

+ Same day medical services such as renal dialysis, oncology and haematology;

+ Maternal and child health services;

+ Mental health services;

+ Pharmacy;

+ Dental;

+ Ophthalmology including Eyecare Centre;

+ Imaging services including general radiology, ultrasound and CT;

+ Occupational health;

+ Pathology collection and urgent testing service;

+ GP services;

+ Radiotherapy;

+ Telehealth;

+ Rehabilitation therapy services.

Some of the services may also be provided in Community Health Centres. The Ambulatory Care Unit may also accommodate commercial services and other government or non-government agencies.

General

503030 155 .5.00 GENERAL ARRANGEMENT

Ambulatory Care Units will vary in size. Components and allocated spaces will depend on the outcome of a needs analysis and a service plan. The service plan is based on the location, size and the needs of the area in which an Ambulatory Care Unit is to be sited. Space requirements will therefore be based on the throughput/occasions of service. These need to be well detailed in the service plan prior to the commencement of the capital planning process.

Hours of Operation

503031 155 .7.00 HOURS OF OPERATION

It is assumed the Unit will generally operate up to 12 hours per day, 5 days per week. Some services (eg crisis counselling) may require staff to be in attendance 24 hours per day.

Operational Models

500863 155 .6.00 Operational policies that may affect planning of the Ambulatory Care Unit include:

+ The hours of operation of the facility;

+ The cluster of services to be provided within the facility;

+ The opportunity to share facilities;

+ Medical records management.

503032 155 .8.00 FLEXIBILITY

Service mix, how services are delivered by individual staff (even within the same team) and demand for services, change over time within a centre. Providing a flexible accommodation model will improve 'future proof' accommodation and reduce territoriality and perceptions of equity by clinical staff.

Operational policies and facility design should provide for optimal use and sharing of equipment. The location of this equipment must enable easy access to users.

The use of space must be carefully managed and the design must ensure that there are opportunities to adapt and expand the facility as more services are located in Ambulatory Care Units.

503033 155 .9.00 OPERATIONAL POLICIES

Operational Policies have a major impact on facility requirements and the capital and recurrent costs of health facilities. These policies should be clearly articulated so that the facility design can reinforce the new practices.

Operational Policies will vary from Unit to Unit depending on a wide range of factors. Users must define their own Operational Policies. Refer to Part B of these Guidelines for general discussion on Operational Policies.

STAFFING LEVELS

Staffing levels will vary for each Ambulatory Care Unit depending on Operational Policies, services provided by the centre, availability of staff, case mix and activity levels.

STORAGE

The amount and type of storage space provided will vary depending on the size of each Ambulatory Care Unit. Careful analysis of storage requirements and good management in organising the stores and supply systems are essential.

Models of Care/Work Practices

500864 155 .10.00 The model of Ambulatory Care provides the basis for the configuration of the Ambulatory Care Unit and determines the functional relationship of the Unit to other facilities. The following are examples of models of Ambulatory Care:

+ The 'Comprehensive Ambulatory Care Model' where collating services are provided on a day-only basis including outpatients, imaging, minor surgery, interventional cardiology and medical procedures;

+ The 'Single Specialty Ambulatory Care Model' provides for a range of ambulatory services for a specific clinical specialty. The Renal Dialysis Centre, or the Cancer Care Centre (incorporating chemotherapy, radiotherapy, consultation and pharmacy), are examples of this model;

+ The 'Minor Emergency Care Model' which is usually collocated with the hospital's Emergency Department providing GP services and treatment for patients presenting to the Emergency Department with non-urgent conditions.

Planning Models

503034 155 .11.00 LOCATION

The location of Ambulatory Care Units will vary, depending on the outcome of Service Planning at an Area Health Service level. Options for locating centres include:

+ Free standing in a community location;

+ Attached or included in the development of commercial facilities, eg shopping centres;

+ On the grounds of a Hospital Facility.

DESIGN

An Ambulatory Care Unit may be sited in a new purpose-built facility, in an existing building that requires redevelopment or in a combination of both. The design should be selected with consideration of the factors relating to integrating new designs within an existing old facility/building.

Building design must be flexible and adaptable to enable an Ambulatory Care Unit to cater for varying client and service needs and allow for future service delivery changes. The design philosophy for an Ambulatory Care Unit, which is part of the local community, must convey a friendly and inviting environment that will encourage community members to use the available facilities for a variety of purposes.

CONFIGURATION

The configuration of an Ambulatory Care Unit will depend on:

+ The number of staff to be accommodated;

+ The service mix;

+ The population who will use the service;

+ Whether it is collocated with another facility or free-standing.

Functional Areas

500866 155 .12.00 CORE UNIT

The Unit may comprise a large number of subcomponents, and may range in form from a small stand-alone unit, to a large multidisciplinary centre as a key component of a major teaching hospital.

This Guideline describes a Core Unit which may be a unit at the lower end of the scale or the central core of a larger Unit that would be developed by adding a series of additional or peripheral units to suit the service plan for the site in question.

UNIT FUNCTIONAL ZONES

The Core Unit comprises three key functional areas:

+ The Reception/Admission Area;
+ The Patient Areas - waiting and treatment;
+ The Staff Areas.

500867 155 .13.00 To this additional units could be added that may form part of the following HFGs:

+ Operating Unit;
+ Renal Unit;
+ Pharmacy;
+ Dental Unit;
+ Ophthalmology;
+ Imaging Services including general radiology, ultrasound and CT;
+ Occupational Health;
+ Pathology collection and urgent testing service;
+ Interventional Cardiology.

Functional Relationships

500868 155 .14.00 EXTERNAL

Depending on whether it is free standing or part of a larger facility, the Ambulatory Care Unit may have working relationships with many other Units.

If they are not included within the Ambulatory Care Unit, the following areas will have a close working relationship:

+ Transit Lounge;
+ Main Entry;
+ Emergency;
+ Medical Imaging;
+ Pharmacy;
+ Pathology;
+ Outpatients;
+ Car Park/Drop off Zone;
+ Day Procedures/Surgery.

500869 155 .15.00 INTERNAL

500869 155 .15.00

Internally the Unit needs to be planned around the functional areas identified above.

+ The Reception/Admission Area must be designed for efficiency, allow patients to move easily to and from the treatment areas and accommodate large numbers of patients, support persons and mobility aids;

+ The Patient Treatment and Waiting Areas must be efficient from the staff viewpoint, but provide a pleasant environment for patients, some of whom will have only a few visits while others with chronic conditions may visit regularly for long periods;

+ The Staff Area must be an efficient Unit that allows staff to easily move to and from the Treatment Area, and to and from the Reception/Admissions Area. It must provide a degree of privacy for staff and a quiet area where they can work away from the demands of patients and relatives;

+ The Unit must be flexible to accommodate different uses at different times of day;

+ The Unit must allow for sections to be closed off when not in use.

The three functional areas must work together effectively to provide a safe efficient and pleasant environment in a smaller unit, or provide the core of a larger, more diversified unit, in a larger more complex environment.

DESIGN

Access

502000 155 .16.00 EXTERNAL

Ambulatory Care is an Outpatient Unit where people who are acutely ill are treated. Ambulatory Care is now required to have an all-weather vehicle drop-off with easy access for patients who are elderly, frail, have limited mobility or are wheelchair bound.

Car Parking Requirements

502001 155 .17.00 Adequate car parking must be provided for clients and staff. In particular, the need for secure staff parking should be assessed. Times of attendance for staff and overnight parking of health service vehicles will impact on requirements.

Refer also to Part C of these Guidelines.

Disaster Management

500870 155 .18.00 All Units in the facility should be assessed for their potential role in a disaster management situation. When included as a part of a larger facility, the Ambulatory Care Unit has a number of attributes that make it potentially very useful in a disaster situation which include the following:

+ Access to the Unit is usually available from ground floor level;

+ The unit is often located close to the main entrance;

+ It is often in close proximity to support services such as Medical Imaging etc;

+ It is often close or adjacent to the Emergency Department.

These issues should be considered in the planning of this Unit including its proximity to other Units.

Disaster planning is discussed in more detail in Part B, Section 80 of these Guidelines.

Infection Control

500871 155 .19.00 Consideration of infection control is important in the design of this Unit. Treatment spaces in this Unit will be used for a variety of patients.

It is possible that infectious patients will use the same treatment spaces as immunosuppressed patients at different times on the same day. Standard precautions must be taken for all patients regardless of diagnosis or presumed infectious status.

See Part D of these Guidelines for further information. Staff handwashing facilities including disposable paper towels, must be readily available.

Environmental Considerations

500872 155 .20.00 GENERAL

Patients in this Unit may be acutely ill and undergoing treatment that is unpleasant, painful or takes long periods of time.

501599 155 .21.00 ACOUSTICS

Many functions undertaken within an Ambulatory Care Unit require consideration of acoustic privacy including:

+ Discussions / interviews with clients;

+ Exclusion of disturbing or distracting noises during patient consultations / treatment;

+ Isolation of noisy areas such as Public Waiting;

+ Staff discussions regarding patient information.

Solutions to be considered include:

+ Selection of sound absorbing materials and finishes;

+ Use of sound isolating construction;

+ Planning separation of quiet areas from noisy areas;

+ Changes to operational management.

501600 155 .22.00 NATURAL LIGHT

Natural lighting contributes to a sense of wellbeing, assists orientation of building users and improves service outcomes. The use of natural light should be maximised throughout the Unit.

Access to natural light and preferably a pleasant outlook will minimise stress and

discomfort for patients and staff.

501601 155 .23.00 PRIVACY

Attention to patient comfort and privacy generally will minimise stress and discomfort.

There must be a balance between the need to observe patients, the need to minimise stress and discomfort caused by intrusive noise, and the need to maintain a degree of privacy for the patient.

Patient privacy and confidentiality are important considerations to be addressed. The facility should be designed to:

+ Ensure confidentiality of patient discussions and records.

+ Appropriately locate windows and doors to ensure privacy of patients, while maintaining security of staff.

500229 155 .24.00 INTERIOR DESIGN

Interior design includes furnishings, style, colour, textures, ambience, perception and taste. This can assist in relaxing patients and reducing an institutional atmosphere.
Interior design should seek to minimise the institutional environment by appropriate use of colours, fabrics and artworks.

However, cleaning, infection control, fire safety, service delivery and the patient's perception of a professional environment must always be considered.

Some colours and patterns can be disturbing to some clients. Bold primaries and green should be avoided in areas where clinical observation may occur such as Consultation / Treatment Areas.

Space Standards and Components

500875 155 .25.00 ERGONOMICS

Treatment spaces may be used for a variety of functions. Care should be taken to ensure the ergonomic functionality of the spaces in all possible configurations.

Refer Part C of these Guidelines for further information.

500874 155 .26.00 HUMAN ENGINEERING

Refer Part C of these Guidelines for information.

500876 155 .27.00 ACCESS AND MOBILITY

While many patients in this Unit will be quite able, many will use various aids to assist with mobility. These could include crutches, walking frames, wheel chairs and, depending on the model of care, even trolleys or beds. These aids should be allowed for in spatial allocations, and room and corridor dimensions. It is important to consider where they are stored while treatment is in progress.

Space Standards and Components

500877 155 .28.00 DOORS, WINDOWS & CORRIDORS

These issues are discussed in detail in Part C of these Guidelines.

Safety and Security

500880 155 .29.00 SAFETY

An Ambulatory Care Unit shall provide a safe and secure environment for clients, staff and visitors, and remain a non-threatening and supportive atmosphere conducive to the delivery of services.

Clients will have varying levels of physical and mental capabilities. They may be weak, unsteady, affected by medication or confused.

The facility, furniture, fittings and equipment must be designed and constructed in such a way that all users of the facility are not exposed to avoidable risks of injury.

A list of security issues to be considered in Ambulatory Care settings is appended to this document.

Refer to Part C of these Guidelines.

SECURITY

Security issues are important due to the increasing prevalence of violence and theft in Health Care Facilities.

The configuration of spaces and zones shall offer a high standard of security by grouping like functions, controlling access and egress from the Unit and providing optimum observation for staff.

The level of observation and visibility has security implications.

Planning shall allow for after hours access to public areas without compromising security of Staff Areas.

Refer to Part C of these Guidelines.

Finishes

500091 155 .30.00 WALL PROTECTION

Refer to Part C of these Guidelines.

500093 155 .31.00 FLOOR FINISHES

Floor finishes shall be appropriate to the function of the space. Refer to Part C of these Guidelines.

Consideration must be given to the appearance and quality of environment required eg non-institutional, acoustic performance, slip resistance, consequences of client falls, infection control, movement of trolleys and maintenance.

500094 155 .32.00 CEILING FINISHES

Refer Part C of these Guidelines.

Ceiling finishes shall be selected with regard to appearance, cleaning, infection control, acoustics and access to services.

Fixtures & Fittings

500885 155 .33.00 See Part C, Room Data Sheets and Room Layout Sheets for discussion of finishes, fixtures and fittings.

Building Service Requirements

500886 155 .34.00 INFORMATION TECHNOLOGY / COMMUNICATIONS

This Unit will manage a diverse range of patients and may have functional links to many departments of the Hospital. Reliable and effective communications and IT service are essential for the efficient and effective functioning of the Unit.

Unit design should address the following Information Technology/Communications issues:

+ Paperless records;

+ Hand-held computers;

+ PACS;

+ Patient Administration System (PAS);

+ Paging and personal telephones replacing some aspects of call systems;

+ Data entry including scripts and investigation requests;

+ Email;

+ Bar coding for supplies and X-rays / Records.

500887 155 .35.00 EMERGENCY CALL

All Bed Spaces and Clinical Areas, including Toilets and Bathrooms, should have access to an emergency call facility so staff can summon urgent assistance. The emergency call facility should alert to a central module situated adjacent to the Staff Station, as well as to the Staff and Tutorial Rooms. The Nurse Call / Emergency Call System is to comply with AS 3811.

502026 155 .36.00 NURSE CALL

Facilities must provide a call system that allows patients and staff to alert nurses, and other health care staff, in a discreet manner at all times.

Nurse Call Systems must be designed and installed to comply with AS 3811 - Hard wired Patient Alarm Systems.

502027 155 .37.00 DURESS ALARM SYSTEM

Refer to Protecting People and Property Manual and Part C of these Guidelines.

A discreet duress alarm system will be required at all Reception Points and Client

Treatment Areas, where a staff member may be alone with a client.

COMPONENTS OF THE UNIT

General

502002 155 .38.00 This section must be read in conjunction with Part B Standard Components, Room Data Sheets and Room Layout Sheets. The following text describes only specific requirements not covered by these other documents.

The components of an Ambulatory Care Unit will vary for each facility. Components and allocated spaces will depend on the outcome of a needs analysis and a Service Plan that is based on the location, size and the needs of the area in which an Ambulatory Care Unit is to be sited.

Standard Components

501559 155 .39.00 Provide the Standard Components as identified in the Generic Schedule of Accommodation. Provision of Offices, Workstations and support areas will be dependant on the Operational Policy and service demand and may vary from the Schedule of Accommodation, however, room sizes should remain consistent.

Non-Standard Components

501561 155 .40.00 Provide the Non Standard Components as described in this section, according to Operational Policy and service demand.

Reception/Admission

500892 155 .41.00 CLERICAL SUPPORT/MEDICAL RECORDS

DESCRIPTION AND FUNCTION

An Ambulatory Care Unit shall provide a work area for clerical staff - particularly for management of medical records which may be delivered and returned on a daily basis.

The use of this area is to be reviewed as part of the assessment of operational policy.

LOCATION AND RELATIONSHIPS

Adjacent to both the Staff Station and the Reception Clerical Area, privacy is required from the public areas. Staff from this area may need to relieve reception staff. It is important to assess carefully the equipment proposed to be used in this room to ensure a successful outcome.

502003 155 .42.00 ENTRY CANOPY

DESCRIPTION AND FUNCTION

This is an optional component and the need will vary from project to project. An Entry Canopy is required to provide undercover access to the building from vehicles. The canopy should be large enough to allow vehicles such as taxis, buses, cars, and ambulances to manoeuvre beneath it.

LOCATION AND RELATIONSHIP

The Entry Canopy shall be located immediately adjacent to Lobby/Airlock.

500888 155 .43.00 LOBBY/AIRLOCK

DESCRIPTION AND FUNCTION

A Lobby/Airlock is an optional component and the need will vary from project to project. It is recommended for weather protection where the Unit has direct access to external undercover drop off. The size of this space must allow for the use of trolleys, wheelchairs and walking frames.

LOCATION AND RELATIONSHIPS

The Lobby/Airlock should have direct access to the Reception Clerical Area and Waiting Area. Visibility from the Reception Area is desirable for both security and patient assistance.

Patient Areas

500891 155 .44.00 PATIENT BAY - HOLDING

DESCRIPTION AND FUNCTION

A Patient Bay for holding of patients on trolleys pre or post treatment.

This space is optional and depends on operational policy. It may be used for patients from other institutions such as nursing homes.

LOCATION AND RELATIONSHIPS

The Holding Bay should have direct access to the Reception Clerical Area and Toilets, and be directly accessed from the Airlock. Visibility from the Reception Area is required for both security and patient assistance. Patient dignity and privacy must be considered and an agreed level of both visual and acoustic privacy should be achieved.

Staff Areas

500913 155 .45.00 BAY - PATHOLOGY

DESCRIPTION AND FUNCTION

An area to conduct basic pathology tests such as blood gases etc.

Need depends on proximity to main pathology lab and turnaround times for tests.

LOCATION AND RELATIONSHIPS

Adjacent to the Treatment Area - away from Public Areas where security and safety can be ensured.

502004 155 .46.00 BLOOD STORE

DESCRIPTION AND FUNCTION

An area for refrigerated storage of blood and blood products.

LOCATION AND RELATIONSHIPS

Centrally within the unit, accessible from Treatment and Patient Care/Holding Areas.

500911 155 .47.00 CYTOTOXICS

DESCRIPTION AND FUNCTION

The Cytotoxics Room is for the storage, dispensing and disposal of cytotoxic medications.

LOCATION AND RELATIONSHIPS

The Cytotoxics Room should be located adjacent to the Treatment Area - away from Public Areas where security and safety can be ensured.

500912 155 .48.00 WATER TREATMENT ROOM

DESCRIPTION AND FUNCTION

A Water Treatment Room is for storage of a reverse osmosis plant to purify water for use in Dialysis.

LOCATION AND RELATIONSHIPS

The Water Treatment Room should be located adjacent to the Treatment Area - away from Public Areas where security and safety can be ensured, and easy access for maintenance can be assured.

Schedule of Accommodation

500918 155 .49.00 INTRODUCTION

The content and size of an Ambulatory Care Unit varies depending on the location, services provided and throughput.

At larger facilities, it is assumed that separate Outpatients Units are provided.

A generic Schedule of Accommodation is provided that lists generic spaces that can be combined to form an Ambulatory Care Unit. Sizes and quantities of each space will be determined in accordance with service need and operational policy.

ROOM / SPACE	Standard Component			8 SPACES	16 SPACES	24 SPACES	REMARKS
				Qty x m2	Qty x m2	Qty x m2	* Optional requirement
ENTRY / RECEPTION AREAS:							
CLERICAL SUPPORT / MEDICAL RECORDS				1x 9	1x 9	1x 9	Depends on operational policy re photocopy, etc.
ENTRY CANOPY				n/a	n/a	n/a	Depends on project requirements
LOBBY / AIRLOCK				1 x 12*	1 x 12*	1 x 12*	
RECEPTION / CLERICAL	yes			1 x 9	1 x 9	1 x 12	
TOILET - DISABLED	yes			1 x 5	1 x 5	1 x 5	
TOILET - PUBLIC	yes			2 x 3	2 x 3	2 x 3	Increase to 4m2 if babychange facilities included.
PATIENT AREAS:							
1 BED ROOM (CLASS S ISOLATION)	yes			1 x 12	1 x 12	2 x 12	
BAY - RESUSCITATION TROLLEY	yes			1 x 2	1 x 2	1 x 2	
CONSULT ROOM	yes			1 x 12	1 x 12	1 x 12	
ENSUITE - ISOLATION ROOM	yes			1 x 5	1 x 5	1 x 5	'partially assisted'; direct access to 1 Bed Room - Isolation.
LOUNGE - PATIENT	yes			1 x 12	1 x 16	1 x 20	
MEETING - MEDIUM	yes					1 x 20	May include telemedicine area, varies to suit use.
MEETING - 12M2	yes			1 x 12	1 x 12	1 x 12	Also for patient education
PATIENT BAY - ACUTE TREATMENT	yes			8 x 9	16 x 9	24 x 9	Acute treatment spaces; may include dialysis chair
PATIENT BAY - HOLDING	yes/varies			1 x 4*	1 x 4*	1 x 8*	Pre/post treatment; inclusion depends on operational policy.
TOILET - PATIENT	yes			1 x 4	1 x 4	1 x 4	
TREATMENT ROOM	yes			1 x 14	1 x 14	1 x 14	
STAFF AREAS:							

BAY / ROOM - BEVERAGE	yes			1 x4*	1 x 4*	1 x 4*	May be shared between Admissions and Treatment Area.
BAY - LINEN	yes			1 x 2	1 x 2	1 x 2	Includes storage for pillows over
BAY - PATHOLOGY				1 x 3*	1 x 3*	1 x 3*	
BLOOD STORE				1 x 1	1 x 1	1 x 1	Bay
CLEANER'S ROOM	yes			1 x 5	1 x 5	1 x 5	
CLEAN UTILITY	yes			1 x 12	1 x 14	1 x 16	Incl. medications, may also be used for prepackaged cytotoxic drug storage.
CYTOTOXICS ROOM				1 x 8*	1 x 8*	1 x 8*	
DIRTY UTILITY	yes			1 x 14	1 x 14	1 x 14	Includes Disposal Room function.
OFFICE - CLINICAL / HANDOVER	yes			1 x 12	1 x 16	1 x 16	staff work, handovers, etc.
OFFICE - SINGLE PERSON 9M2	yes			1 x 9	2 x 9	2 x 9	Nursing and Medical
PROPERTY BAY - STAFF	yes			1 x 2	1 x 3	1 x 3	
STAFF STATION	yes			1 x 12	1 x 16	1 x 16	
STORE - EQUIPMENT / GENERAL	yes			1 x 12	1 x 14	1 x 16	Combined.
TOILET - STAFF	yes			1 x 3	2 x 3	2 x 3	
WATER TREATMENT ROOM				1 x 12*	1 x 12*	1 x 12*	Where dialysis is provided.
SUB TOTAL				301	402	521	
CIRCULATION @ 32%				96	129	168	
TOTAL				387	531	688	

Functional Relationships

500919 155 .50.00 A diagram of key functional relationships is attached.

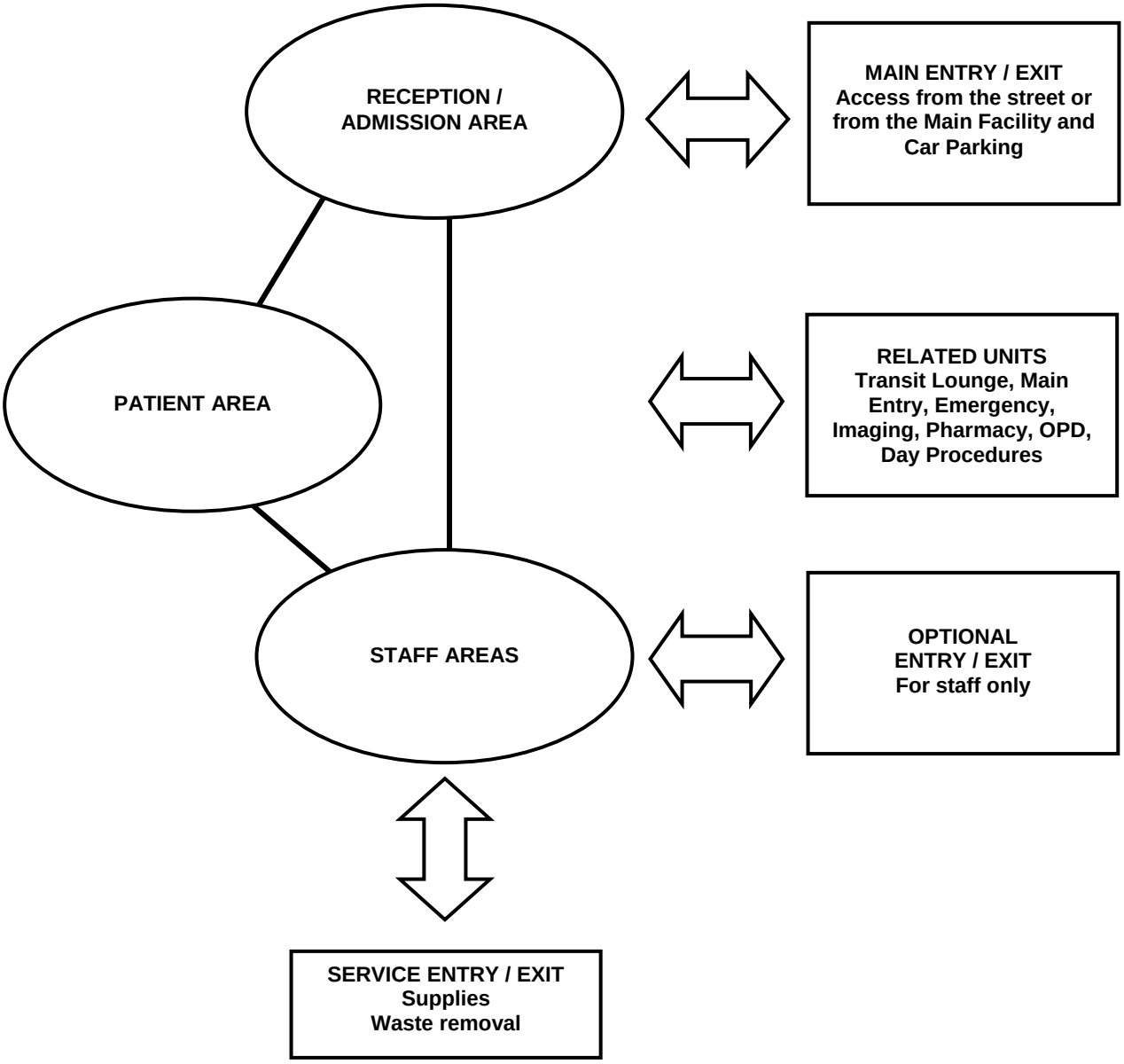
Checklists

500923 155 .51.00 A security checklist for Outpatient Areas is appended to this document.

Refer also to Part C of these Guidelines.

FUNCTIONAL RELATIONSHIP DIAGRAM – AMBULATORY CARE UNIT

The following diagram sets out the relationships between zones in an Ambulatory Care Unit:



SECURITY ISSUES TO BE CONSIDERED IN AMBULATORY CARE CENTRES

GENERIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Treatment Area.	1. Minimise entry and exit doors.

SPECIFIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Patient files	1. Personnel working on these files must return the files to the secure area use or return them to the Medical Records Department. 2. If any electronic files are produced, save in restricted area of hard drive.
2. Furniture fittings and equipment including Computers, Office and Medical Equipment	1. Non-removable 'Asset No.' on all equipment above a predetermined value. 2. Keep equipment in lockable area.
3. Drugs storage	1. Dangerous drug safe within the Clean Utility Area.
4. Hospital personnel safety	1. Staff working in this area should know the location of the fixed duress system and/or use a mobile duress pendant. 2. Appropriately designed waiting area including, where possible: - barrier between staff and patients, - bench seating, - ensure no loose fittings that can be utilised as a weapon, - vending machines. 3. Design shape of Interview Rooms and location of desks etc, in such a way that minimises risk to health personnel. 4. Provide storage and store items not in constant use that could be used as weapons. 5. Minimise furniture that can be used as a weapon ie picked up and thrown.
5. Staff personal effects	1. Provision for lockers in Staff Areas and lockable desk drawer to keep small personal effects.

SECURITY CHECKLIST – AMBULATORY CARE

FACILITY:	DEPARTMENT: Ambulatory Care
RISK ISSUE	**DESIGN RESPONSE**
1. Is access to patient records restricted to staff entitled to that access?	
2. Is a system implemented to prevent theft of equipment, files, personal possessions, etc?	
3. Are drug safes installed in accordance with current regulations?	
4. How is this area secured during and after hours?	
5. Are there lockable storage areas available for specialised equipment?	
6. Is lockable furniture provided for storage of staff personal effects?	
7. Is waiting area appropriately designed to include, where appropriate: - barrier between patients and staff; - appropriate seating for patients; - absence of loose fittings; - vending machines; - TV	
8. Are Interview Rooms appropriately designed with specific reference to staff egress, furniture selection, furniture location, provision for storage of equipment, etc.	
9. Is there an adequate duress alarm system that meets required standards?	
10. Are offices for Community Nurses, Palliative Care Nurses and Post Acute Care staff who work after hours, easily accessible to a secure entry point, toilets and beverage area?	
11. Is a secure entry point provided for after hours staff, including movement between car parking areas and the facility?	

DESIGN COMMENTARY /NOTES	DESIGN SIGN-OFF
	Name: …… Position: …….. Signature: …….. Date: ……..
	Name: …… Position: …….. Signature: …….. Date: ……..
	Name: …… Position: …….. Signature: …….. Date: ……..

240 CLINICAL INFORMATION UNIT

INDEX

	Description
502103 240 .0.10	INTRODUCTION
	Preamble
	Introduction
	Policy Statement
	Description of Unit
	PLANNING
	Operational Models
	Operational Policies
	Planning Models
	Functional Areas
	Functional Relationships
	DESIGN
	Access
	Car Parking Requirements
	Disaster Planning
	Infection Control
	Environmental Considerations
	Space Standards and Components
	Safety and Security
	Finishes
	Fixtures and Fittings
	Building Services Requirements
	COMPONENTS OF THE UNIT
	General
	Standard Components
	Non-Standard Components
	APPENDICES
	Schedule of Accommodation
	Functional Relationships Diagram
	Checklists
	References and Further Reading
	Calculations of Active Records Storage

INTRODUCTION

Preamble

502106 240 .1.00

For reasons associated with the development of the database, the title “Clinical Information Unit” has been used to describe the Unit. However, In different hospitals, the Unit may be called a Health Information Unit or Medical Records Unit.

Health Information systems and management are currently undergoing considerable change and a fully electronic, paperless system is becoming closer to a reality. However, for the purpose of this Guideline, at this time, continuance of hard copy records generation and storage is assumed. Provision of facilities for scanning files for entry into an electronic data base (as a precursor to a full electronic record) has been factored in.

Introduction

502107 240 .2.00

This Health Planning Unit (HPU) is a resource to assist project teams with the planning, design and construction of a Health Information Unit. It should be read in conjunction with generic requirements and Standard Components (Room Data & Room Layout Sheets (RDS/RLS) in Parts A, B, C, D and E of these Guidelines.

Policy Statement

502108 240 .3.00

NSW Health Privacy Manual (2004).

NSW Health Policy Directives:

- PD2005-004, 24-Jan-2005, Medical Records in Hospitals & Community Care Centres.

- PD2005-015, 24-Jan-2005, Medical Records.

- PD2005-127, 25-Jan-2005, Principles for Creation, Management, Storage and Disposal of Health Care Records

- NSW Health Information Bulletin 2004/20, 26.05/04, General Retention and Disposal Authority - Public Health Services: Patient/Client Records (GDA 17)

Description of the Unit

502109 240 .4.00

DEFINITION OF HEALTH PLANNING UNIT (HPU)

The function of the Clinical Information Unit is the development and maintenance of health information systems involving the following:

- retrieval, assembly, sorting and distribution of records for and to the wards, the Emergency and Outpatient Units and any location where a patient is being admitted/treated.

- medico-legal/release of health information duties with regard to subpoenas, freedom of information requests, adoption requests and other enquiries whilst maintaining the rights and confidentiality of patients and staff

- maintenance of accurate and up-to-date information systems such as the Patient Master Index (PMI), Admissions, Transfers and Separations (ATS) and Disease Index (DI) and any other Patient Administration System (PAS)-related application.

- transcription / typing service for outpatient letters, discharge summaries and

operation reports

- classification (clinical coding) of diseases and procedures for inpatient admissions using an International Classification of Diseases for maintenance of the Disease Index, generation of DRGs and provision of morbidity/mortality statistics to the NSW Inpatient Statistics Collection

- supply of cancer data to the NSW Cancer Registry

- supply of perinatal statistics to the NSW Health (as appropriate)

- provision of information to management and other authorised staff for purposes such as planning, utilisation review, quality Assurance, casemix studies and research

- quality assurance of the medical record to ensure standards are met

- participation in undergraduate training from tertiary institutions.

- secure storage - primary, secondary and archival that complies with Occupational Health & Safety regulations.
-
Additional responsibilities of Health Information Management (HIM) staff may include:
- data collection and analysis
- planning and development of computer information systems
- financial management
- design of manual and computerised medical records
- co-ordination of quality improvement programmes
- management of clerical staff in health information services, outpatients and emergency departments and admissions offices.

PLANNING

Operational Models

502110 240 .6.00 HOURS OF OPERATION

The Unit will operate routinely during business hours Monday to Friday. Large Units will operate a skeleton 24 hour service for retrieval of files primarily for the Emergency Unit.

Provision should be made for 24-hour availability of medical records either by a computerised or manual system.

503262 240 .6.05 PAPER-BASED RECORDS

Historically the way records have been and continue to be generated and still mainly the current form in use.

502111 240 .7.00 ELECTRONIC HEALTH RECORD (EHR)

The primary purpose of the EHR is to provide a documented record of care that supports present and future care by the same or other clinicians. This documentation provides a means of communication among clinicians contributing to the patient's care. The primary beneficiaries are the patient and the clinician(s).

Any other purpose for which the medical record is used may be considered secondary, as are any other beneficiaries. Much of the content of EHRs is currently defined by secondary users, as the information collected for primary

purposes was insufficient for purposes such as billing, policy and planning, statistical analysis, accreditation, etc.

Secondary uses of EHRs include:
- Medico-legal – evidence of care provided, indication of compliance with legislation, reflection of the competence of clinicians.
- Quality management – continuous quality improvement studies, utilisation review, performance monitoring (peer review, clinical audit, outcomes analysis), benchmarking, accreditation.
- Education
- Research – development and evaluation of new diagnostic modalities, disease prevention measures and treatments, epidemiological studies, population health analysis.
- Public and population health - access to quality information enables the effective determination and management of real and potential public health risks
- Policy development – health statistics analysis, trends analysis, casemix analysis
- Health service management – resource allocation and management, cost management, reports and publications, marketing strategies, enterprise risk management.
- Billing/finance/reimbursement – insurers, government agencies, funding bodies.

Source: ISO/TC 215 Ad Hoc Group Report, Standards Requirements for the Electronic Health Record & Discharge/Referral Plans
Final Report, July 26, 2002

502112 240 .8.00 SCANNING

An optical disk-based record management system achieved by scanning of paper-generated records to create digital images can significantly increase access to medical records whilst dramatically reducing the space required to store records.

Optical scanning of records also allows for transition from paper-based records into a full electronic health record.

It is expected that even when records become electronic, there may be an ongoing need for records to be scanned – either readmissions or documents such as GP referrals. Major scanning will be carried out in a dedicated area of the Unit; minor scanning such as referrals could be carried out locally – Outpatients. Emergency etc.

Operational Policies

502113 240 .9.00 GENERAL

Comprehensive examples of the issues on which unit decision-makers will be required to develop specific operational policies are listed below:

- A centralised record system should be maintained for all inpatient, emergency and outpatient/day patient attendances. Where a centralised system is not possible, the existence of a sub-file must be flagged to allow retrieval of the sub-file for patient care or medico-legal purposes.

- A unit numbering system will be used which will provide a single identifying number for every patient who presents to the Hospital i.e. the Medical Record Number (MRN). The MRN will be issued at the time of first admission or attendance and will be used for all subsequent admissions and treatment. Patient identification / registration must comply with Patient Registration standards.

- Accurate and up-to-date Patient Administration Systems will be maintained. and information relating to patient movements will be updated as soon as the

Department is notified.

- Terminal digit filing will be used in both active storage and secondary storage

- Correctly completed requests for each record leaving the unit will be required. The tracking of medical records will be facilitated by the use of bar coding on the record folder

- The Hospital's Confidentiality Policy (which includes borrowing rules) will be adhered to. This policy will be based on local decisions, relevant NSW Health Policy Directives and Legislative Acts.

- Information will only be released to a third party with the patient's authority except if required for continuing patient care, or requested under subpoena. Records will not be removed from the Hospital except as a result of a court subpoena, statutory authority, for a coronial investigation, by order of the Director-General or if authorised by the Director of Medical Services.

- Medico-legal reports and subpoenas will be prepared in accordance with the Confidentiality Policy and relevant NSW Health Policy Directives.

- Records will be retained in accordance with NSW Health Information Bulletin 2004/20, 26/5/04, General Retention and Disposal Authority, Public Health Services: Patient/Client Records (GDA 17).

- Medical records will be retrieved from Secondary Storage after hours only if deemed clinically necessary and staff may be accompanied by a security officer if necessary.

- All inpatient attendances will be coded according to the Australian Modification of an international disease and procedure classification system

- A centralised dictating system utilising the telephone system may be used.

- Transcription of discharge summaries, operation reports and outpatient letters may be carried out in the Unit.

The record management system chosen will also require consideration of operational policies related to when the hospital will implement new technologies; cabling for departments; integration with existing communications systems; location of workstations; space and security requirements; air conditioning requirements and the transition process to be utilised when moving from one system to another.

502114 240 .10.00 STORAGE

Medical records must be kept for at least 10 or 15 years after last attendance or official contact or access by or on behalf of patient, or until the patient attains the age of 25 years, depending on Peer Hospital Group category.

If a commercial company is used to dispose of the records they should provide certification to confirm confidentiality.

Records must be stored in a fire-rated construction as indicated in the Building Code of Australia and regulations under the State Records Act. Note that sprinklers should NOT be installed.

502115 240 .11.00 TERMINAL DIGIT FILING SYSTEM (HARD COPY)

Terminal digit filing is a method of filing where records are filed by the last two digits (primary or terminal digits) of a number instead of the fist two digits.

The entire number (which may range from 6 to 10 digits) is broken into groups of twos or threes (and in some instances fours), with the last group being filed first, followed by the second group of digits, and so on.

Filing storage is divided into 100 primary sections numbered 00 to 99.

502116 240 .12.00 STAFFING LEVELS

The Staff Establishment in a Unit based on hard copy files will include the following:

- Health Information Managers – a Unit Head of Department and additional professional staff depending on size of Unit
- Clinical coders
- Medical typists
- Administrative staff.

In a paperless electronic environment, the staff mix will change as many of the staff currently involved in transcription, record assembly and filing will no longer perform traditional functions but will change to perform duties associated with access and quality control.

Planning Models

502117 240 .13.00 LOCATION

Location will / may depend on whether or not a pneumatic or mechanical automated records transport system is to be installed and the departments to which it is linked. The decision to include such a system will strongly influence the external functional relationships of the Unit with the Outpatients Clinic area, in particular and may reduce the importance of direct access to the Emergency Unit.

It must be located so as to provide natural light and – if possible - views to staff who occupy the area 8 hours a day.

Planners must consider possible future uses of the unit envelope for such time as an electronic record system has evolved with consequent reduction in staff and diminishing storage needs. The Unit should be considered as “soft” space into which an adjoining unit could expand or a new unit established.

Secondary storage ideally will be readily accessible to minimise time wasted in access.

502118 240 .14.00 BUILDING DESIGN

If a ground level location cannot be achieved, structural engineers must be consulted to calculate the weight of the records in order to ensure appropriate floor reinforcement.

Functional Areas

502119 240 .15.00 FUNCTIONAL ZONES

- Entry / Reception
- Transcription
- Clinical Coding
- Assembly / Sorting areas

- Staff Amenities
- Files Store/s.

502120 240 .16.00 ENTRY / RECEPTION / ADMINISTRATION

A single controlled point of entry to the Clinical Information Unit for the reception of visitors and staff. A temporary storage area will be required for returned files or files awaiting delivery to departments.

A small amount of waiting will be required.

May be optimum location for the offices for medico-legal staff with dual access from the Waiting Area and from inside the Unit.

Entry door should have a buzzer and key card or similar for secure access for authorised staff.

For units that run a 24 hour service, a peep hole in the door and/or a camera/intercom is required for after-hours access.

Access will be required within this area to Dictating / Research Cubicles so that visiting staff do not have to traverse the Unit.

502121 240 .17.00 TRANSCRIPTION

This area will provide the medical transcription service.

Staff should be located in a quieter area of the unit but within close proximity to the dictating and general assembly/sorting area.

Consideration should be given to the acoustic treatment of this area as staff need to listen to transcription machines, however staff should not be totally separated from the other department activities.

502122 240 .18.00 CLINICAL CODING

Coding requires an even greater degree of concentration to ensure accuracy so a quiet area is essential. Each coder will need a filing bay to store files awaiting attention plus storage for coding and reference manuals.

502123 240 .19.00 OFFICES

The staff side of the Reception Desk is a convenient location for offices for Health Information Managers to allow easy access for visitors to the Unit.

502124 240 .20.00 PHOTOCOPYING / PRINTING

Dedicated, acoustically-treated and ventilated space.

May also be location for generating bar code labels etc.

May also include stationery storage.

Locate with ready access to the medico-legal offices that generate a large amount of photocopying.

Functional Areas

502125 240 .21.00 ASSEMBLY & SORTING

An open plan area used for the processing activities associated with the filing and preparation of the medical records for clinics, admissions etc.

Workstations and sorting tables. Each records officer will need a records storage bay and a trolley at or in close proximity to their workstation.

Storage will be required for:
- records awaiting sorting and assembly
- records awaiting filing
- newly assembled records

Note that records awaiting medico-legal attention will be stored in the Medico-Legal Office
-
As this area will be the major activity area of the Unit, it should have natural daylight.

This area should be located with direct access to the filing storage areas and Photocopy & Stationery Store.

502126 240 .22.00 SHELVING & AISLES

The most common and suitable method to file active medical records is on fixed metal shelving units (bays). Archived files may be stored in a compactus but a compactus is not recommended for active files as it can be dangerous and inconvenient if a number of staff wish to access files at the same time.

Standard bays are usually 900mm wide and 300mm deep. Regardless of the number of shelves in each bay (may be 7), the highest shelf should be accessible by a short member of staff using a library stool – usually six levels of shelving. Step ladders are not recommended. Maximum height should be 2175mm.

A minimum width of 750mm per aisle between facing bays must be provided; however for efficient retrieval of records, 900mm is recommended as it allows space for trolleys, library stools and for staff to pass each other in the aisles.
.
The main access aisle/s should be at least 1500mm wide to allow for trolleys passing each other, and for exit in the event of fire.

When configuring the arrangement of shelving, planners must ensure that the length of a row of bays between main aisles does not contravene BCA codes for fire egress.

502127 240 .23.00 CALCULATION OF ACTIVE RECORDS STORAGE

Refer to Appendix.

Functional Relationships

502128 240 .24.00 GENERAL

In a traditional, “hard copy” environment, the critical relationship is with the Emergency Department for immediate record retrieval.

Less critical is the relationship with Ambulatory Care / Outpatient Unit/s as files are usually pulled and delivered to the Units prior to clinic sessions. However,

distances for transport of heavy records do need to be considered.

It is also useful to locate the Unit to encourage medical staff access to unwritten discharge summaries and for ease of access for record review etc.

In a paperless environment, there will probably be no critical relationships except for staff wanting to access records still in hard copy for research purposes etc.

502129 240 .25.00 ARCHIVE FILE STORE

All the records requiring storage to meet the statutory requirements beyond the 5 year active storage period.

There are a number of advantages for keeping non-active medical records readily accessible and available. Two of these are:
. time saving for staff, and
. easy access for refiling

If storage space is a problem and microfilming or scanning of inactive records is being considered, a special room for microfilming will need to be planned.
The optimum solution is to locate the archival store within the Unit itself or directly underneath connected by a stairway. It is not often practical to include the space for all the records in a prime clinical area. Consideration should be given to locating the records in a low activity area of the hospital and at the same time remain secure, dry and free from vermin, silverfish and other insects likely to attack the paper. Fire sprinklers should NOT be installed.

DESIGN

Access

502130 240 .26.00 One main entry and exit for all staff and records is required to ensure the security and confidentiality of the unit and the medical record is maintained.

Car Parking Requirements

502131 240 .27.00 For staff parking, refer to Part C, Clause 790 of these Guidelines for further information.

Disaster Planning

502132 240 .28.00 Refer to Part B Clause 80 and Part C of these Guidelines for further information.

Infection Control

502133 240 .29.00 Refer to Part D of these Guidelines for further information.

Environmental Considerations

502134 240 .30.00 ACOUSTICS

Refer to Part B of these guidelines.

502135 240 .31.00 NATURAL LIGHT

Essential in general work areas.

502136 240 .32.00 INTERIOR DESIGN

Refer to Part B of these Guidelines

Space Standards and Components

502137 240 .33.00 ERGONOMICS

Refer Part C of these Guidelines for information.

502138 240 .34.00 HUMAN ENGINEERING

Refer Part C of these Guidelines for information.

502139 240 .35.00 ACCESS AND MOBILITY

Refer Part C of these Guidelines for information.

502140 240 .36.00 DOORS, WINDOWS AND CORRIDORS

Refer Part C of these Guidelines for information.

Safety and Security

502141 240 .37.00 SAFETY

Shelving and workbenches must meet Occupational Health & Safety Standards

502142 240 .38.00 SECURITY

Due to the confidential nature of the documents being handled in the Unit, careful consideration must be given to the security of the unit. The unit should be secure at all times to protect the records against loss, damage or use by unauthorised personnel.

There must also be adequate security for staff and visitors should not be able to enter the department proper without being let in by the receptionist. The counter should be designed so that it would be difficult/impossible to climb over.

The required level of security can be achieved by limiting Unit entry / exit points to one (1) equipped with access control - keyed or electronic. All other egress points should be locked and / or locally alarmed. Well signed, local alarms are a strong deterrent to unauthorised egress but the system must be overridden in the case of fire alarm activation in the area.

Hospital policy may require a security officer to accompany non medical records staff in the department where records are required after hours.

502143 240 .39.00 OPTICAL DISC SECURITY

Once a document is scanned, it cannot be lost or tampered with. By storing the original set of disks and using duplicates as working copies, complete sets of records are maintained at all times.

The second issue is security of access to the confidential records on the optical disk system. If a full system is implemented, terminals would be located throughout the Hospital. This could pose problems for security of the information being accessed and displayed on these terminals. This means that safeguards must be put in place to prevent viewing of images by unauthorised persons.

System access and security systems must have multi-dimensional passwords that can avoid unauthorised intrusion into the system and particular records.

Finishes

502144 240 .40.00 WALL PROTECTION

Refer to Part C of these Guidelines

502145 240 .41.00 FLOOR FINISHES

Refer to Part C of these Guidelines

502146 240 .42.00 CEILING FINISHES

Refer to Part C of these Guidelines

Fixtures & Fittings

502147 240 .43.00 Refer to part C of these Guidelines and to the Room Data Sheets (RDS) and Room Layout Sheets (RLS) for further detailed information

Building Service Requirements

502148 240 .44.00 INFORMATION TECHNOLOGY / COMMUNICATIONS

In addition to the usual hospital communication systems, the Clinical Information Unit has particular needs. These include the need for remote dictating from the administrative and clinical areas to a central dictating unit.

Communication systems may include:
- office phones
- two-way intercom between designated staff areas or public address system in large units
- phone between the archival and main unit (if archives located off site or not adjacent to the main Medical Record Unit
- computer networking systems associated with the Medical Record technology

502149 240 .45.00 DURESS ALARM SYSTEM

Locate at Reception.

502150 240 .46.00 LIGHTING

Overhead lighting in the records store must run parallel to the direction of the filing bays to ensure adequate lighting of each aisle.

502151 240 .47.00 FLOOR LOADING

Structural engineers must be consulted to calculate the weight of the records in order to ensure appropriate floor reinforcement if a ground level location cannot be provided.

COMPONENTS OF THE UNIT

General

502152 240 .48.00 The Clinical Information Unit will consist of a combination of Standard and Non-Standard Components.

Standard Components

502153 240 .49.00 Standard Components must comply with details in Standard Components described in these Guidelines. Refer also to Standard Components Room Data and Room Layout Sheets.

Provide the Standard Components as identified in the Schedule of Accommodation.

Non-Standard Components

502154 240 .50.00 Provide the Non-Standard Components as identified in this section and in the Schedule of Accommodation, according to the Operational Policy and Functional Brief.

502155 240 .51.00 ASSEMBLY / SORTING AREA

DESCRIPTION AND FUNCTION

An open plan area used for the processing activities associated with the filing and preparation of medical records for clinics, admissions etc. It will incorporate parking for medical record transport trolleys. (Number and dimensions will need to be ascertained).

May have “zones” for assembled files ready for issue and records waiting to be refiled. Will need workstations and sorting tables.

LOCATION AND FUNCTIONAL RELATIONSHIPS

This area should have direct access to the filing storage areas.

CONSIDERATIONS

At least part of this area should have access to natural light as it will be the major activity area of the department.

502156 240 .52.00 DICTATING CUBICLE

DESCRIPTION AND FUNCTION

The dictating area will be used by medical staff and others to view and research medical records as well as dictating and completing the discharge summaries.

LOCATION AND FUNCTIONAL RELATIONSHIPS

The cubicles should be located on the perimeter of the unit adjacent to but inside the reception area.

CONSIDERATIONS

The number of cubicles will depend on usage and the cubicles may be self-contained or in an open plan office in which case cubicle partitions will be required.

The auditory separation of personnel is preferred as extraneous noise will be distracting to the person dictating.

502157 240 .53.00 ACTIVE FILE STORE

DESCRIPTION AND FUNCTION

All the medical records will be stored in adjustable steel shelving bays. The number of years held in active storage will depend on available space. 5 years is ideal but spatial constraints may restrict this to 3-4 years only but anything less is not acceptable with regard to efficiency of record retrieval.

The average size of the medical record is 305 x 240mm and may be stored vertically or horizontally (i.e. number of shelves per 100 bay 7 for the latter and 6 for the former). Each file is allocated a unique identifying number.

LOCATION

Direct access to / from the assembly/sorting area.

CONSIDERATIONS
Lighting to be parallel with direction of filing bays to ensure adequate lighting of each aisle.

Schedule of Accommodation

502158 240 .54.00 A Generic Schedule of Accommodation for a Clincial Information Unit at Levels 3/4 and 5/6 follows.

In the NSW Health - Guide to the Role Delineation of Health Care Facilities, (Third Edition 2002), Medical Records is not defined by level of service as are other Clinical Support Services such as Pharmacy. Therefore for the purpose of developing this schedule of accommodation, levels are assumed to provide the necessary support to the hospital overall.

WORK AREAS

ROOM/SPACE	Standard Component			Level 3/4 Qty x m2		Level 5/6 Qty x m2	Remarks
WORK AREAS							
RECEPTION	yes			1 x10		1 x 10	
WAITING - SUB	yes			1 x 4		1 x 6	
MEETING (INTERVIEW) ROOM - SMALL	yes			1 x 9		1 x 9	Interviews
RECORD PROCESSING				1 x 25		1 x 50	Main work area
BAY - MOBILE EQUIPMENT	yes			1 x 4		2 x 6	Trolleys
REVIEW / DICTATION CUBICLES				1 x 9		1 x 20	
RECORDS STORE - ACTIVE				Project specific		Project specific	Sqm assessment needs to include circulation between aisles otherwise increase the 15%
OFFICE - SINGLE - HI DEPUTY MANAGER	yes			0		1 x 9	
OFFICE - SINGLE -HI MANAGER	yes			1 x 9		1 x 12	
WORKSTATION - HIM				5.5		5.5	According to Staff Establishment
OFFICE - MEDICO-LEGAL	yes			1 x 9		1 x 12	12 sqm = 2 staff
OFFICE - WORKSTATION (TYPING)				4.4		4.4	No. determined by staff establishment and operational policy
OFFICE - WORKSTATION (CODING)				1 x 6		6	Quiet environment. No. determined by staff establishment and operational policy
STORE - GENERAL				1 x 9		1 x 9	
WORKROOM - SCANNING & PROCESSING	yes			1 x 20		1 x 20	Optional, depending on Policy
STORE - PHOTOCOPY / STATIONERY	yes			1 x 8		1 x 8	

502162 240 .54.10 STAFF AREAS

STAFF AREAS							
MEETING ROOM - MEDIUM	yes			Share		1 x 15	Unit meetings

PROPERTY BAY - STAFF	yes			1 x 2		1 x 2	
BAY - BEVERAGE	yes			1 x 3		1 x 5	After-Hours use
TOILET - STAFF	yes			1 x 2		1 x 2	Particularly for after-hours access
DISCOUNTED CIRCULATION %				15%		15%	Refer Active File Store
RECORDS STORE - ARCHIVE				Project Specific		Project Specific	May be remote

Functional Relationships

502159 240 .55.00 A diagram of key functional relationships is attached.

Checklists

502160 240 .56.00 A Security Checklist is appended to this document. Refer also to Part C of these Guidelines for general requirements.

References and Further Reading

502161 240 .57.00 DS-20 – HBG – Medical Records Unit, NSW Department of Health, Capital Works Branch, July 1993.

Patient Matters Procedure Manual for NSW Health System. http://www.health.nsw.gov.au/audit/manuals/patient_matters_toc.html

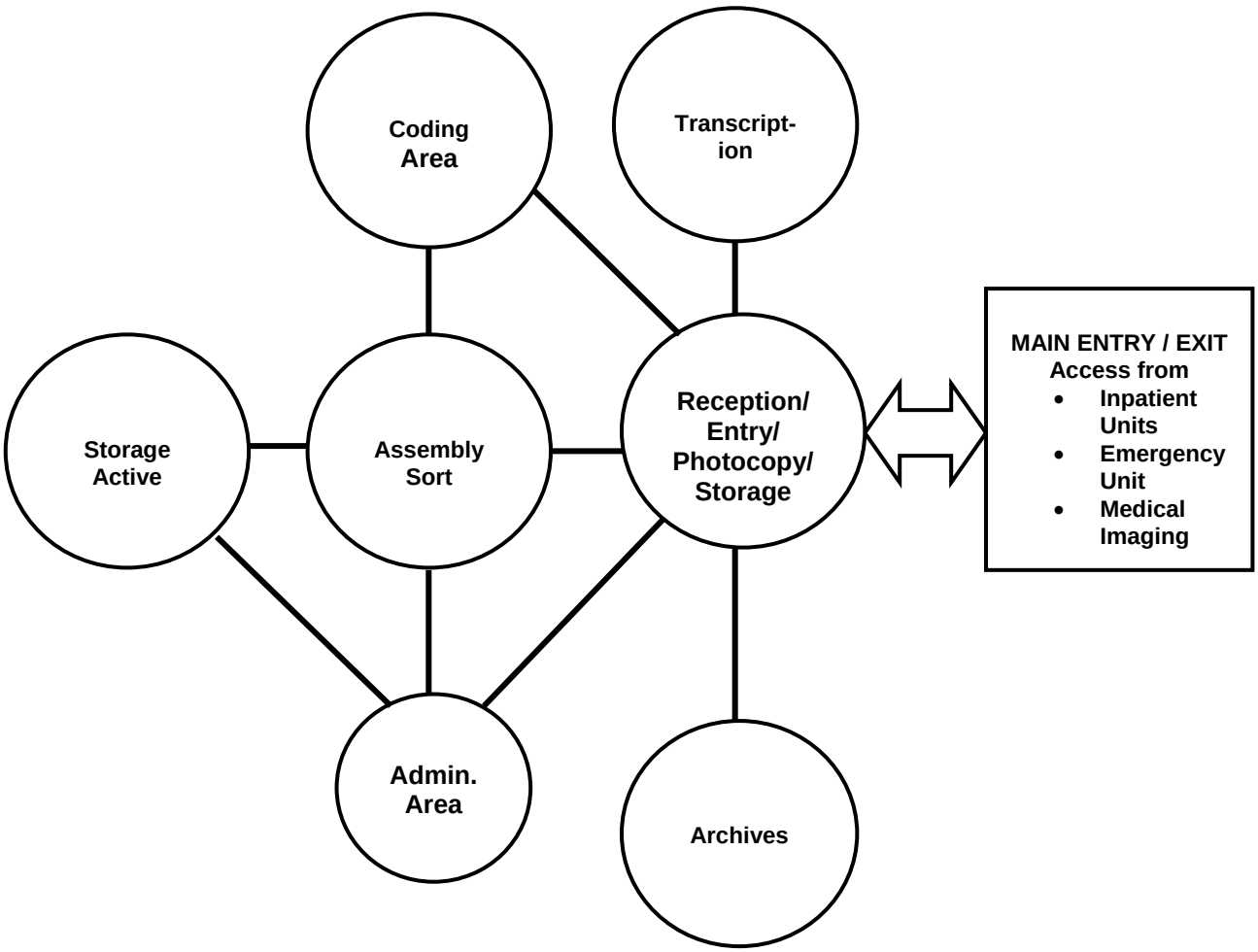
“Filmless & Paperless Hospitals – An Emerging Reality in the UK, Medical Architecture Research Unit, London, UK, August 2001.

Calculations of Active Records Storage

503263 240 .58.00 A Schedule is attached.

FUNCTIONAL RELATIONSHIP DIAGRAM –CLINICAL INFORMATION UNIT

The following diagram sets out the relationships between zones in a Clinical Information Unit:



SECURITY ISSUES TO BE CONSIDERED IN CLINICAL INFORMATION UNIT

GENERIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Area where patient records are maintained including active and archival files.	1. Minimise entry and exit doors with lockable area at all time.

SPECIFIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Patient files	1. Personnel working on these files must return to secure area after use. 2. If any electronic files are produced, locate in restricted area of hard drive.
2. Furniture fittings and equipment including Computers and Office Equipment	1. Non-removable 'Asset No.' on all equipment above a predetermined value.. 2. Keep equipment in lockable area.
3. Hospital personnel safety	1. Staff working in this area to have knowledge of where the fixed duress system is located and/or use a mobile duress pendant. 2. Provide appropriate after-hours access and security, including secure access from all parts of the facility.
4. Staff personal effects	1. Provision for lockers in staff areas and lockable desk drawer to keep small personal effects.

SECURITY CHECKLIST – CLINICAL INFORMATION UNIT

FACILITY:	**DEPARTMENT: Clinical Information Unit**
RISK ISSUE	**DESIGN RESPONSE**
1. Do staff have access to both fixed and mobile duress systems?	
2. Is access to patient records restricted to staff entitled to that access?	
3. Is a system implemented to prevent theft of equipment, files, personal possessions, etc?	
4. How is after hours access provided for staff?	
5. How is this area secured during and after hours?	
6. Are there lockable storage areas available for specialised equipment?	
7. Is lockable furniture provided for storage of staff personal effects?	
8. How is after-hours access provided for staff, including access from all other areas of the facility?	
9. Has a secure waiting area been planned in this area that allows for the public to present at a counter, sign forms, wait and then receive photocopies of relevant records as requested?	

DESIGN COMMENTARY /NOTES	**DESIGN SIGN-OFF**
	Name: …… Position: ……..…….. Signature: ……..…….. Date: ……..……..
	Name: …… Position: ……..…….. Signature: ……..…….. Date: ……..……..
	Name: …… Position: ……..…….. Signature: ……..…….. Date: ……..……..

CALCULATION OF ACTIVE RECORDS STORAGE

Step 1 – Estimate number of medical records required to be stored per annum

Determine the current records to be stored per annum

a) Annual Admitted Patient Separations + Annual New Non-Admitted (Outpatient & ED) Patient Registrations = Total number of records per annum

Note: These figures do not allow for number of actual records as separations will include readmissions. However, these are more appropriate figures to use for admitted patients than new MRNs (registrations) issued per year (which would provide actual number of records) as it allows for the expansion of the file with each readmission.

Registration (new patient) figures, not attendance, are used for non-admitted record calculations as each attendance is usually only one piece of paper (or less) and thus does not greatly impact on the thickness of the record.

As well as determining what will meet current needs, future needs also need to be considered

b) Estimate % increase in activity in future years

This information should be available from the overall Health Services Planning process

c) Multiply total number of current records per annum by % to give total number of records required to be stored per annum

Step 2 – Determine the number of years to be stored in active records storage

An active records storage area should be able to store at least five(5) years worth of records before records are deemed 'inactive' and are removed to secondary storage.

Step 3 – Determine Total Number of Records to be Stored

Total number of records required to be stored per annum x number of years to be stored

Step 4: Calculate Average Size of Each Medical Record

Undertake a physical count of a sample number of randomly distributed 'typical' active storage shelves in the current active storage area. This will indicate an average of number of records per shelf (usually 900 mm wide)

Equate this number per shelf to number of records per linear metre (1000mm).

Step 5: Calculate Total Linear Metres Required

Formula: $\frac{\text{Number of records}}{\text{Number of records per linear metre}}$ = **Total linear metres required**

Step 6 : Total Bays Required (Note / = divided by)

Identify shelving configuration e.g. 6 shelves per bay x 900w = 5.4 linear metres per bay.

Can be calculated in two ways**.**

a) Total Records by Shelves

Formula: Total Number of Records / Number of records per shelf x number of shelves

= Total Number of Bays

b) Total Linear Metres by Linear Metres per Bay

Formula: Total Linear Metres / Linear Metres per Bay

= Total Number of Bays

Note: It is useful to perform both calculations as a cross-check as total should be the same.

Step 7 : Terminal Digit (TD) Filing

To enable TD filing, the number of linear metres of shelving required for each primary digit is calculated as follows:

Formula = $\frac{\text{Metres of Shelving Required}}{\text{Number of Primary Digits}}$

= linear metres per TD section

Step 8: Determine Total Number of Storage Bays with TD Filing

Formula = $\frac{\text{Linear Metres per TD section}}{\text{Number of Metres Storage per Bay}} \times 100$

= Total bays

Note: Compare this figure to that obtained in Step 6. Should be the same.

Step 9: Floor Area Required

There are two ways to calculate the floor space required based on number of bays to be stored – either by assuming the layout of shelving or estimating the area required for each bay aisle space and discounted circulation for file area.

a) Assume layout

Assume bays are arranged to form double sided 'stacks', a designated number of bays to each side. Such a stack will hold the estimated records per shelf x 6 shelves high x number of bays in the stack. E.g. Bays are arranged 10 bays to each side of stack. Such a stack will hold (Number of records per shelf) x (number of shelves) x 20 bays.

Estimate how many records each stack will hold.

To store the required total number of records divide total number of records by number of records per stack.

Calculate length and width of each stack, e.g. if stack is 10 bays long and 2 bays wide, length will be 10 x 900m = 9.1m long and 0.62m wide

Calculate gangways (minor aisle)and main aisle widths (e.g. 900mmw and 1500mm)

e.g. If 8 stacks are required, assume stacks are arranged in 4 rows of 2 stacks

The total length required is:

(2 x 9.1m stacks) + (1 x 1.5m main aisles) + (2 x 0.9 minor aisles)

= 18.2m stacks + 1.5 main aisles + 1.8 aisles

= 21.5 metres

The total width required is:

(4 x 0.62m stacks) + (2 x 1.5 aisles) + (3 x 0.9 minor aisles)

= 2.48m stacks + 3.0 main aisles 2.7 aisles

= 8.18 metres

The floor area required is thus 21.5 x 8.18 = 175.87m^2 (176 m^2)

Note: Need to include space for aisles in calculation otherwise 15% discounted circulation for the whole Unit will be inadequate

Note: that this is an approximation and final amount would depend on layout of shelving.

b) Assign estimated area required for each bay, aisle space and discounted circulation

Estimate bay width and minor aisle width per bay (aisle width divided by 2)

Calculate main aisle(s) utilising 15% discounted circulation

Eg. = 300mm + 450mm = 750mm per bay width

= 0.75 m^2 per bay x number of bays x 15%

= Estimated floor area required

250 AMBULATORY MENTAL HEALTH UNIT

INDEX

		Description
502680	250 .0.10	INTRODUCTION
		Preamble
		Introduction
		Policy Statement
		Description of Unit
		PLANNING
		Operational Models
		Models of Care
		Operational Policies
		Planning Models
		Functional Areas
		Functional Relationships
		DESIGN
		Access
		Car Parking Requirements
		Disaster Planning
		Infection Control
		Environmental Considerations
		Space Standards and Components
		Safety and Security
		Finishes
		Fixtures and Fittings
		Building Services Requirements
		COMPONENTS OF THE UNIT
		General
		Standard Components
		Non-Standard Components
		APPENDICES
		Schedule of Accommodation
		Functional Relationships Diagram
		Checklists
		Referenses and Further Reading

INTRODUCTION

Preamble

502681 250 .1.00

This Health Facility Guideline reflects advances in the understanding of optimal environments for care, advances in assessment and treatment, and changing practices in mental health service delivery. Clients who require ambulatory care have frequently been assessed and may have received initial treatment in a community setting. The person presenting for care may be acutely ill, highly distressed and require further assessment and diagnosis or is not responsive to current treatments. Suicide risk may be a further complexity to treatment. Thus, settings for mental health services must be flexible and optimally therapeutic to provide a setting that will enhance the individual's capacity for reassurance and responsiveness to treatment.

Open, spacious environments, natural light and pleasant surroundings can assist the recovery process. Cramped enclosed spaces that are dark with low ceilings can create a negative ambience that may add to the individual's agitation, fearfulness and even depression. A pleasant and relaxing environment can help to create an appropriate atmosphere of hope and positive expectation. Research in Australia and overseas supports the need for built environments that enables sufficient space to be provided to prevent people from feeling confined and restrained and that reduce the incidence of aggression towards staff.

Optimal physical environments are associated with lower levels of aggression and critical incidents, better client outcomes and better staff conditions and satisfaction. Recurrent costs will be substantially reduced and client services and outcomes improved with such settings.

Introduction

502682 250 .2.00

The guideline is offered as a resource to assist in the planning, design and construction of Ambulatory Mental Health Units. The information provided seeks to place the capital planning process within a framework that depends on prior and thorough service planning. It is expected that a service plan will be completed and approved prior to embarking on the design of a new facility or the reconfiguration of an existing facility.

Ambulatory Mental Health Units (AMHUs) are recognised as an essential component of mental health services in all Area Health Services. The continuum of care proposed for mental health services requires that non-inpatient services be provided for patients with mental illness who still need a regular interface with health professionals, while not requiring inpatient accommodation

502683 250 .3.00

EMERGING TECHNOLOGY AND CLINICAL WORK PRACTICES

In determining specific requirements and design, the impact of new technology and clinical work practices should be reviewed prior to commencing capital planning e.g. telepsychiatry - an expanding service linked to specialist clinicians in other locations and to inpatient units as well as for educational uses.

Policy Statement

502684 250 .4.00

Mental Health Services in NSW are underpinned by the NSW Mental Health Act 1990 and the National Mental Health Strategy.
The National Mental Health Strategy… provides a framework for national reform from an institutionally based mental health system to one that is consumer focused with an emphasis on supporting the individual in their community. The Strategy was reaffirmed in 1998 with the Second National Mental Health Plan and again in 2003 with the endorsement by all health ministers of the National Mental Health Plan 2003-2008."

Also refer
"Charter for Mental Health Care in NSW"

PD2005_339. Manual – "Protecting People and Property: NSW Health Policy and Guidelines for Security Risk Management in Health Facilities".

NSW Health Policy Directive PD2005-576 – Office Accommodation Policy – Public Health Organisations and Ambulance Service.

Description of the Unit

502685 250 .5.00 DEFINITION OF HEALTH PLANNING UNIT (HPU)

The function of the Ambulatory Mental Health Unit (AMHU) is to provide – in a safe and therapeutic environment - appropriate facilities for the reception, assessment, diagnosis, treatment and rehabilitation of patients presenting with known or suspected psychiatric conditions and behavioural disorders.

The AMHU may be the patient's first point of contact with mental health services.

Referrals to the Unit may be from Intake Team Members, General Practitioners, inpatient services and others. However, patients may present to the Unit with no referral and no appointment.

Interview spaces will be readily available at the Reception for the prompt attention of persons presenting for care or attention to reduce stressful or anxiety-producing situations.

The operational policies are based on the philosophy of the AMHU, its role and function as well as the interface with other related service elements e.g. inpatient units, specialist services etc.

502686 250 .6.00 SIZE OF UNIT

The schedules of accommodation in this section propose a freestanding AMHU that can accommodate:

- Twenty persons sitting in the Waiting Area (Based on 1.2m2 per person & 1.5m2 for a wheelchair)
- Up to four staff in the Reception/Clerical/Assessment area
- Up to 40 consultations or interviews per day outside of office areas, being ten per consultation/interview room
- Up to 20 persons at a time in the large Meeting/Activities Room
- Up to 10 persons at a time in the small Meeting/Activities Room
- Office space for 15 full time staff;
- Courtyard or terrace to accommodate 10 persons.
- Amenities for up to 20 staff.

If the proposed unit is to differ from the above workload, the following method should be used to allocate space for key areas:

- Offices for permanent staff according to staff establishment using office sizes as a guide.

- Offices for visiting staff - casual office space in a group setting should be included to enable visiting staff to share a workstation with other visiting staff for the time required.

- Consultation/examination rooms - One per 10 anticipated appointments per day

that are to be held in consultation/interview spaces.

PLANNING

Operational Models

502687 250 .7.00 HOURS OF OPERATION

It is expected that the AMHU will generally operate during business hours from Monday to Friday but this may depend on Operational Policy. And it may be necessary to arrange for after-hours access by staff.

502688 250 .8.00 LOCATION

The location of the Unit will depend on the outcomes of Area Health Service planning across the catchment area. Options may include:

- Free-standing

- Attached to a mental health inpatient unit (existing or planned)

- Attached to (or integrated with) an existing Community Health Centre

- Attached to an existing hospital.

502689 250 .9.00 CONFIGURATION

The configuration of the AMHU will depend upon:

- whether it is collocated with another facility with which it could share facilities or free-standing
- the population of people who will use the service
- the number of staff to be accommodated
- the service mix.

502690 250 .10.00 SHARING

Operational policies and the design of facilities should provide for optimal use and sharing of major equipment. Sharing of equipment should be considered in the context of other service providers in the network. For example, one telepsychiatry unit could serve all the needs of multiple service providers if centrally located.

Operational Policies

502691 250 .11.00 GENERAL

Refer to Part B of these Guidelines for general examples such as Linen and Waste Handling etc

If the unit is to be part of a hospital precinct the operational policies already in place for the precinct will affect the operations of the ACU.

502692 250 .12.00 SPECIFIC POLICIES

Policies specific to the AMHU will need to be ascertained and defined and may include:

- Whether a purely consultational / treatment service or whether allied health services and recreational activities will be provided – and the extent of same

- Whether patients will attend for a day or half-day or on a sessional basis for activities

- Whether clients will be provided with meals and refreshments

- That all consultation/interview will take place in rooms designed for these purposes. Use of offices can compromise staff safety and is not recommended.

- Storage and administration of medications

- Provision of Telepsychiatry services

- Management of medical records and appointment systems

- Handling of violent situations and restraint

- Arrangements for transfer to an inpatient facility if deemed necessary

502693 250 .13.00 STAFFING

Staffing levels and mix will vary depending on the size and configuration of the Unit, service profile and case mix, patient profile and staff availability

Planning Models

502694 250 .14.00 CONFIGURATION

Options may include:

- Within an existing hospital
- New building
- Freestanding building
- Ground floor or higher level location
- In an established mental health service
- Mental health unit in a new hospital

502695 250 .15.00 FLEXIBILITY AND SHARING

Design teams should ensure that by good design and functional location the sharing of spaces is maximised.

Encouraging part-time service providers to share common office and treatment spaces also increases utilisation and reduces operating costs.

It should also be remembered with regard to sharing, that the sharing of meeting rooms is considered good practice. But this should be cognisant of the demand from both services (ambulatory care unit and inpatient unit) and the fixed uses required of the space e.g. staff handover and magistrate's hearings.

Functional Areas

502698 250 .18.00 FUNCTIONAL ZONES

Zones will generally comprise the following:

- Main Entry / Waiting / Reception
- Client Activities
- Clinical and non-clinical support facilities
- Staff Offices & Amenities

502699 250 .19.00 MAIN ENTRY / WAITING

The Main Entry will be approached via a ground floor lobby or lift lobby dependent on the site and will be the designated entry point to the Unit.

It is one of the most important spaces in the building - essentially 'consumer friendly', welcoming and non-threatening to all users.

The environment should be non-institutional and 'home like' in nature with a safe play area for children to entertain themselves in full view of their parents if required.

The Waiting Area may be divided into sub-zones with actual or perceived separations to provide clients and their families with comfortable discrete spaces while waiting. Comfortable seating should be provided for clients awaiting appointments, relatives and/or significant others.

A Disabled Toilet/Baby Change should be accessed off the Waiting Area and additional public toilets as dictated by population and/or availability of toilets close by.

A bay for parking prams, wheelchairs etc should be included.

Secure and discreet access to Staff Offices and Amenities Zone. May be used 'after hours' for access to meeting rooms by support groups and others.

502700 250 .20.00 RECEPTION / CLERICAL /ASSESSMENT

The area provides reception services to clients, relatives and significant others, as well as space for clerical services for the administration of the unit. Access to secure storage for active medical records and other files is required and to stationery and office equipment.

Clear sight lines for single entry control and observation of the Waiting Areas.

There is an identified security risk for clerical staff working in this area and a second egress door to a safe retreat is essential. However, although this may reduce the risk, it does not eliminate it altogether; therefore very careful consideration must be given to the design of the reception desk such as a wide counter so that disturbed or angry clients/supporters cannot reach across and a physical glass or Perspex barrier designed so as to not interfere with communication and is not intimidating. Fixed and personal duress alarm systems should be in place.

The desk should have an access point for persons in wheelchairs and acoustic treatment is necessary to maintain confidentiality of client information and telephone conversations.

This area may also include an assessment office for staff on intake or telephone services.

502701 250 .21.00 ACTIVITIES ZONE

CONSULTATION / INTERVIEW ROOM

Used for the consultation with and assessment of clients and interview and counselling of family members and significant others.

The number of such rooms and their specific uses will be determined by the services provided by the unit and the client population. At times four or five persons may be involved in an interview or the interview may be limited to the client and the health professional.

Toughened glazing panels are to be used to enable observation from the corridor with window treatments preserving privacy whilst allowing client/clinician observation. This is particularly important in a 1:1 client/staff consultation.

All rooms are to have two doors for egress and duress alarms for security in addition to the use of personal duress system.

Rooms should be located in a quiet area remote from areas of high and noisy Activity. High level acoustic privacy.

The use of soft furnishings provides a less confrontational atmosphere whilst maintaining a secure/safe environment.

502702 250 .22.00 EXAMINATION / ASSESSMENT / MEDICATION ROOM

Located adjacent to Consult/Interview rooms. Discrete observation panel. Locked cupboards with adjustable shelving for storage of clinical equipment, drugs, dressings, syringes/needles and other possibly hazardous materials.

'Sharps' containers to be securely enclosed with easy access for sharps disposal. Adequate bench space. Handbasin with paper towels in container without sharp cutting edges. Furniture/joinery designed to prevent patient/ staff injury.

Two points of egress and duress alarms.

Medication storage must meet the requirements of the Poisons Act (1966) No. 31 (NSW).

A clinical washbasin with elbow operated tapware is required to meet Infection Control Guidelines as well as an examination couch and examination light if the room is to be used for patient examination and/or treatment.

A small desk and chair is also required for note taking.

It should be located in a quiet area remote from noisy waiting or activity areas.

502703 250 .23.00 EN SUITE SHOWER / TOILET

Locate so as to be accessible from two consultation/interview rooms or the examination/assessment/medication room and a consultation/interview room to increase access.

The en suite includes a shower, hand basin and toilet with spaces for toiletries.

Shower curtain rails – if required at all - are to either be flush with the ceiling, or to

have a very low breaking strain. Grab rails – if needed - are to be solid. All showerheads should be able to be hand-held.

A minimum of two floor wastes are to be included and the floor is to be sloped away from the door to avoid flooding if taps are left on deliberately or inadvertently.

The mirror is to be constructed of toughened material that does not distort the image of the user.

502704 250 .24.00 MEETING/ ACTIVITIES ROOMS – LARGE & SMALL

All rooms may be used for group activities, meetings, education and training sessions. The large room may additionally be used for Magistrates Sessions, if required.

The exact use of such rooms will vary between units due to the different needs of patient groups and services provided and their use should be determined early in the planning process.

Occupational Therapy will need a sink with plaster trap, and possibly a kiln/exhaust.

Computer and/or TV/video need power outlets and appropriate seating; quiet spaces for 'time out' or listening to music need isolation from noise. Clearly observable spaces.

Access should be possible from the Main Entry/Reception Cluster so that public groups can utilise the space for self-help and client advocate groups.

For safety reasons two points of egress are essential. There should be multiple discrete duress alarm points and more than one telephone outlet.

Furnishings should be appropriate for the various activities in the room and be heavy enough to eliminate their potential use as weapons.

High ceilings and an external outlook are important in creating a spacious and less confrontational atmosphere. The colour scheme for this space should be selected with care to enhance a non-threatening environment.

Lockable cupboards (keyed alike) should be provided for the storage of educational and therapy equipment.

At least one room should be considered/cabled for video, telepsychiatry and teleconferencing facilities for consultations, education, and a possible future link to the Law Courts.

Refer to: Memorandum of Understanding for the Conduct of Review Hearings Under the Mental Health Act by Magistrates of the NSW Local Court, December 1999.

502705 250 .25.00 BEVERAGE PANTRY

The Activities Zone should have access to a Beverage Pantry located at the entry to the meeting/activity rooms so that attendees can prepare beverages and snacks prior to attending functions or meetings in the Unit. Self-serve access for clients. This room should be lockable so that staff can control access if necessary.

The cluster of spaces created by the meetings rooms, public toilet and the beverage pantry should be ideally located so that they can be utilised by public groups after hours without having access to the remainder of the unit.

502706 250 .26.00 SUB-WAITING

It may be appropriate to provide sub-waiting area/s close to the consultation/interview rooms for use by clients who would be adversely affected by waiting in the main waiting area. If the space is not required for waiting it could be designated as a quiet sitting space adjacent to the courtyard for persons requiring a separate area to sit and relax.

The number of sub-waiting areas will be governed by the nature of services provided and the possible mix of clients accessing Community services

502708 250 .28.00 SUPPORT FACILITIES

Provision of Stores, Dirty Utility, Disposal Room, Linen Storage, Cleaner's Room etc will depend on adjacency or otherwise to an adjoining unit. Unit layout should allow such spaces to be shared wherever possible.

502709 250 .29.00 STAFF ZONE

These spaces have been zoned separately to allow offices and staff amenities to be in a discreet location away from patient areas.

If any staff allocated to / working in the Ambulatory Mental Health Unit already has an office in another part of the precinct, no additional office space will be allocated or added to this Unit

The size of the unit and the number of staff employed will determine the number and configuration of spaces in this zone. Ideally, the office zone will provide a secure precinct for staff in accordance with Occupational Health & Safety Guidelines. Planners are referred to the NSW Health Policy Directive on Office Accommodation.

Staff Amenities may be shared with an adjoining Unit.

Functional Relationships

502710 250 .30.00 INTERNAL

Several relationships between spaces are considered important to ensure that the AMHU operates efficiently and effectively. These are:

Reception/Clerical area should have a clear view of the Main Entry and Waiting Area and be visible from and adjacent to the Staff Zone. There should be easy access to the Stationery/Files Store.

Rooms used for consultation/examination room should be easily accessible from the Main Entry/Waiting Area as well as from the Staff Zone.

Meeting/activity rooms should be easily accessible from the Main Entry/Waiting Area and be able to be locked off from the rest of the unit so that community and support groups can use the area 'after hours'.

Access

502711 250 .31.00 EXTERNAL

The policy of mainstreaming Mental Health and its associated facilities requires that the Mental Health Unit is perceived as an integral and equal part of the health precinct. Its location should afford easy access to the shared services and facilities that will/may be used by the patients and staff of the Mental Health Unit. These services include:
- Diagnostic Services
- Visitor amenities
- Staff and visitor parking
- Staff education facilities
- Deliveries for meals, laundry, medical records, stores and supplies and waste collection

If collocated with an adjoining Inpatient Unit, direct but controlled access for staff should be investigated.

Car Parking Requirements

502712 250 .32.00 All-weather drop-off parking for patients

Discreet ambulance access and parking may need to be considered for patient transfer if necessary.

Refer to Part C, Section 790 for further information.

Disaster Planning

502713 250 .33.00 Refer to Part B Section 80 for further information.

Infection Control

502714 250 .34.00 Handbasins as indicated in Standard Components. Routine precautions.

Refer to Part D of these Guidelines for further information.

Environmental Considerations

502715 250 .35.00 ACOUSTICS

Adequate acoustic treatment is required to ensure that patient privacy is maintained and that disruptive incidents do not compromise the operations of the unit. Areas requiring special attention are noted in the relevant Room Data Sheets.

In acoustically treated rooms, return air grilles should be acoustically treated to avoid transfer of conversations to adjacent areas. Door grilles to these areas should be avoided.

502716 250 .36.00 NATURAL LIGHT

Wherever possible, the use of natural light is to be maximised.

Environmental Considerations

502718 250 .38.00 INTERIOR DESIGN /DÉCOR

Decor is not just colour. It is furnishings, style, textures, ambience, perception and taste and can be very personal and subjective.

Decor can be used to prevent an institutional atmosphere. Cleaning, infection control, fire safety, patient care and the patient's perception of a professional, caring environment should always be considered when dealing with decor.

Space Standards and Components

502719 250 .39.00 ERGONOMICS

Refer to Part C of these Guidelines for information.

502720 250 .40.00 HUMAN ENGINEERING

Includes reference to access and mobility. Refer Part C of these Guidelines for information.

502721 250 .41.00

DOORS

Refer to Part C, of the Guidelines with specific reference to Secure Rooms (Clause 710).

502722 250 .42.00 WINDOWS AND GLAZING

Where areas of risk are identified, planners are referred to the Windows Section in Adult Acute Inpatient Units. Also refer to Part C of the Guidelines

502723 250 .43.00

Security within the facility and the surrounding outdoor area as it relates to patient movements requires careful consideration. The security of access for staff, community and domestic service deliveries should also be considered

502724 250 .44.00

Design should assist staff to carry out their duties safely and to supervise patients by allowing or restricting access to areas in a manner which is consistent with patients' needs/skills. Staff should be able to view patient movements and activities as naturally as possible, whenever necessary.

502725 250 .45.00

A communication system which enables staff to signal for assistance from other staff should be included.

Finishes

502726 250 .46.00 WALL PROTECTION

Refer to Part C of these Guidelines

Finishes

502727 250 .47.00 FLOOR FINISHES

Refer to Part C of these Guidelines

502728 250 .48.00 CEILING FINISHES

Refer to Part C of these Guidelines

Fixtures & Fittings

502729 250 .49.00 Refer to part C of these Guidelines and to the Room Data Sheets (RDS) and Room Layout Sheets (RLS) for further detailed information

Building Service Requirements

502730 250 .50.00 VIDEO SECURITY

The use of video security as an adjunct to personal observation of internal and external areas should only be decided after the operational policies have been developed for the unit. It should not be seen as an alternative to, or replacement for, the direct and necessary clinical observation of patients. When deciding on the use of video security, the following factors should be considered:

- Area Health Service policies
- Relevant NSW Department of Health policies
- The rights of patients to privacy balanced against the need to observe activities for safety and security reasons
- The ability of the staff establishment to manage the level of observation required without video security
- The maintenance costs involved
- The ability to negate the need for video security with improved functional design.

502731 250 .51.00 VOICE AND DATA

Communication systems may provide for:

- Alarm systems where necessary (eg. dangerous drug cupboard opening).
- Telephone services for staff, patients and visitors.
- Computer and internet access for patients/supporters and staff.
- Teleconferencing, videoconferencing and telepsychiatry facilities that are used for staff education, management and patient services.

Provision must be made at the outset for cabling and power outlets for computers.

502732 250 .52.00 DURESS ALARM SYSTEM

Refer to Part C of these Guidelines

A discreet duress alarm system will be required at all Reception Points and Client Treatment Areas, where a staff member may be alone with a client.

Also refer to “Protecting People and Property, Chapter 11 – Alarm Systems.

COMPONENTS OF THE UNIT

General

502733 250 .53.00 The Mental Health Ambulatory Care Unit will consist of a combination of Standard Components and Non-Standard Components.

This section must be read in conjunction with Part B Standard Components Room Data Sheets and Room Layout Sheets.

The following text describes only specific requirements not covered by these documents.

Standard Components

502734 250 .54.00 Provide the Standard Components as identified in the Schedule of Accommodation

Non-Standard Components

502735 250 .55.00 Provide the Non-Standard Components as identified in the Schedule of Accommodation according to the Operational Policy and service demand.

502736 250 .56.00 OFFICE / CONSULTING ROOM

DESCRIPTION & FUNCTION
Room used by senior clinical staff as both office and for client interviews.

LOCATION & RELATIONSHIPS
Part of Staff Zone but easily accessible from the Main Entry without having to access other staff areas.

CONSIDERATIONS
Duress call.
Second egress door.
Door observation panels.
Comfortable chairs.

Schedule of Accommodation

502737 250 .57.00 A Generic Schedule of Accommodation for a Ambulatory Mental Health Unit at Levels 3, 4, 5, and 6 follows.

Notes: [o] next to qty/area = optional.

Public / Treatment Areas

ROOM/SPACE	Standard Component		Level 3 Qty x m2	Level 4 Qty x m2	Level 5 Qty x m2	Level 6 Qty x m2	
PUBLIC / TREATMENT AREAS							
RECEPTION	yes		1 x 10	1 x 10	1 x 10	1 x 10	Increase if more than 1 staff
WAITING	yes		1 x 20	1 x 20	1 x 30	1 x30	

CHILD PLAY (OPTIONAL)			0	1 x 9	1 x 9	1 x 9	
STORE - PHOTOCOPY / STATIONERY	yes		1 x 8	1 x 8	1 x 8	1 x 8	May be combined with File Store
STORE - FILES			1 x 6	1 x 6	1 x 8	1 x 8	Will depend on Operational Policy
TOILET - DISABLED	yes		1 x 5	1 x 5	1 x5	1 x 5	1 disabled/female/baby change
TOILET - PUBLIC	yes		1 x 3	1 x 3	1 x 3	1 x 3	1 male
CONSULT ROOM			14	14	14	14	Number will depend on service profile & throughput
SUB-WAITING	yes		1 x 5	1 x 6	1 x 10	1 x 12	
MEDICATION DISPENSING			0	1 x 8	1 x 8	1 x 8	May be combined with Treatment Room
TREATMENT ROOM			1 x 15	1 x 15	1 x 15	1 x 15	May incl. medication storage & dispensing
PATIENT TOILET / SHOWER - DISABLED			0	1 x 6	1 x 6	1 x 6	
PATIENT TOILET	yes		1 x 3	1 x 3	2 x 3	2 x 3	
ADL KITCHEN	yes		1 x 8 (o)	1 x 10 (o)	1 x 12 (o)	1 x 12 (o)	
ADL COMPUTER ROOM			1 x 12 (o)	1 x 12 (o)	1 x 12 (o)	1 x 12 (o)	
MEETING ROOM - SMALL (COUNSELLING ETC)	yes		12	12	12	12	Counselling
MEETING ROOM - LARGE (FAMILY GROUPS)	yes		1 x 20	1 x 20	2 x 30	2 x 30	Family groups, Group Therapy
BAY - BEVERAGE, ENCLOSED	yes		Share	1 x 5	1 x 5	1 x5	Accessible to meeting rooms. Lockable.
STORE - GENERAL	yes		Share	1 x 9	1 x 9	1 x 9	
DISPOSAL	yes		1 x 2	1 x 2	1 x 2	1 x 2	
CLEANER'S ROOM	yes		Share	Share	1 x 5	1 x 5	
DISPOSAL ROOM	yes		Share	Share	1 x 8	1 x 8	

502738 250 .58.00 Staff Offices & Amenities

LIBRARY / RESOURCE ROOM			1 x 12 (o)	1 x 12 (o)	1 x 15 (o)	1 x 15 (o)	
OFFICE - SINGLE 12M2	yes		0	12	12	12	Service Manager, Director. Will depend on Staff Establishment
OFFICE - SINGLE 9M2	yes		9	9	9	9	Will depend on Staff Establishment & need for individual offices
OFFICE - WORKSTATION	yes		5.5	5.5	5.5	5.5	Will depend on Staff Establishment & need for individual offices
PROPERTY BAY - STAFF	yes		1 x 2	1 x 2	1 x 2	1 x 2	
STAFF ROOM	yes		Share	1 x 2 (o)	1 x 15	1 x 15	
SHOWER - STAFF	yes		Share	Share	1 x 2 (o)	1 x 2 (o)	

TOILET - STAFF	yes		2 x 3	2 x 3	2 x 3	2 x 3	
DISCOUNTED CIRCULATION %			30%	30%	32%	32%	

Functional Relationships

502739 250 .59.00 A diagram of key functional relationships is attached.

Checklists

502740 250 .60.00 A Security Checklist is appended to this document. Refer also to Part C of these Guidelines for general requirements.

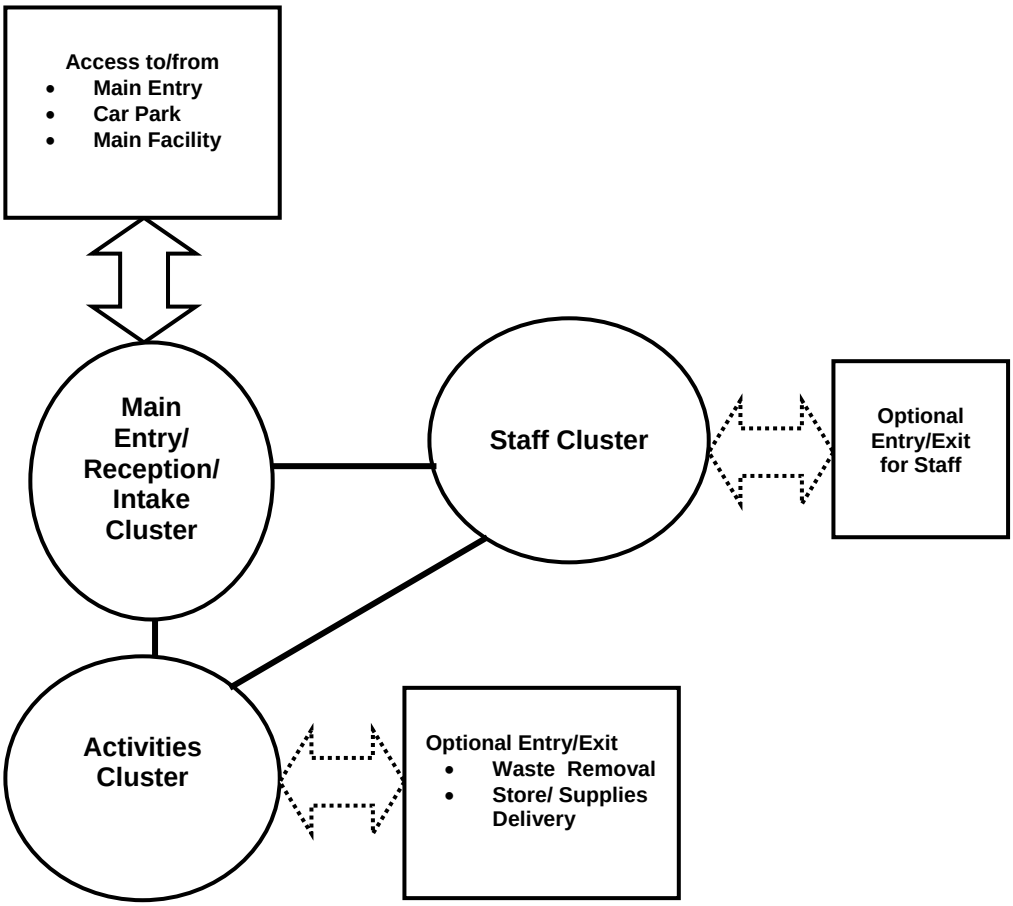
References and Further Reading

502741 250 .61.00 Design Series DS-26 – Mental Health Facility Planning Guideline, Volume 2, Ambulatory Care Unit, NSW Health Department 2003.

Safety, Privacy and Dignity in Mental Health Units – Guidance on Mixed Sex Accommodation for Mental Health Services. NHS Executive, June 1999.

FUNCTIONAL RELATIONSHIP DIAGRAM –AMBULATORY MENTAL HEALTH UNIT

The following diagram sets out the relationships between zones in an Ambulatory Mental Health Unit:



255 COMMUNITY HEALTH

INDEX

		Description
500314	255 .0.10	INTRODUCTION
		Preamble
		Introduction
		Policy Statement
		Description of Unit
		PLANNING
		Operational Models
		Planning Models
		Functional Areas
		Functional Relationships
		DESIGN
		General
		Car Parking Requirements
		Disaster Planning
		Infection Control
		Environmental Considerations
		Space Standards and Components
		Safety and Security
		Finishes
		Fixtures & Fittings
		Building Service Requirements
		COMPONENTS OF THE UNIT
		General
		Standard Components
		Non-standard Components
		APPENDICES
		Schedule of Accommodation
		Functional Relationships
		Checklists

INTRODUCTION

Preamble

500925 255 .1.00 This Facility Planning Guideline reflects advances in the understanding of optimal environments for the care and changing practices in primary health care service delivery.

Major ongoing changes in Australia's population, health technology and clinical practice are creating increasing demand for community based services, and leading to a reorientation of primary health care to meet consumer needs. To meet these challenges, it is vital to improve coordination between primary health care service providers. This task is greatly simplified when a range of primary health care services are located together in Community Health Centres.

Priority must be given to ensuring that the physical environment is therapeutic and welcoming for all its users, including children, young people, people of culturally and linguistically diverse backgrounds, Aboriginal people and others with special needs.

The physical relationship between services such as mental health, sexual health, drug and alcohol, and other health services requires careful consideration.

However welcoming the environment, there is always the possibility that some persons may be agitated or aggressive and potentially a risk to themselves or others, including staff. Therefore the environment must also have an appropriate level of security for both visitors and staff.

502007 255 .2.00 The physical environment in which care is to be provided should be developed and built in ways that clearly indicate:

+ The person is valued, respected, and entitled to have his/her health care needs met in a pleasant, non-intimidating setting with appropriate amenities.

+ The facility is able to provide optimal therapeutic settings, bearing in mind that a broad range of services may be provided for people of all ages and backgrounds.

+ There is recognition of the positive value of light, space and high quality environments on providing Health Care Services.

+ The staff who provide care are valued, skilled and supported to achieve optimal care of the person in a safe and rewarding working environment.

502008 255 .3.00 Models and patterns of service delivery change frequently, as do the needs and priorities of the populations served, so the facility design must continually evolve in response to community requirements. For example, Polyclinics in NSW are now providing services that may include after hours medical care, dental care, specialist health clinics, diabetes education and many other types of service.

502009 255 .4.00 Equally, there is increasing recognition of the relationship between social and economic factors and health status, and the importance of building healthy communities to promote and protect the health of individuals and populations. In the future, the functions of Community Health Centres will extend beyond the provision of health services to an increased emphasis on serving as a focal point for action to build strong, healthy communities.

Introduction

500926 255 .5.00 This Guideline is a resource to assist with the planning, design and construction of a Community Health Centre (CHC). It must be read in conjunction with generic requirements and Standard Components, which are described in Parts A, B and C of these Guidelines.

Community Health Centres may also contain facilities that are more fully covered by other unit specific Guidelines eg Mental Health, Ambulatory Care, Rehabilitation.

Policy Statement

500936 255 .6.00 NSW HEALTH POLICY

The following section sets out the significant features of contemporary primary health care policy that have been used in the development of these Guidelines.

Primary health care is the most visible and commonly used part of the health sector, with over 90% of people in NSW accessing this form of care every year. The NSW Government is committed to the development of a whole-of-community system of primary health care that will improve the health and wellbeing of the people of NSW.

The policy framework for the provision of primary health care services gives priority to achieving the following outcomes (NSW Health Department, 2002. Strengthening Health Care in the Community. Sydney: NSW Government Action Plan):

+ Improving health outcomes for people requiring health care in the community;

+ Improving the quality of life for people requiring health care in the community, their carers and their families;

+ Strengthening primary health care services in NSW;

+ Improving the management of demand for all health services.

The following foundations underpin the policy framework to provide a direction for primary health care services. With the support of the NSW Health Department, each Area Health Service will:

+ Develop strategic plans for primary health care services, including clear directions for the development of primary health care services in their Area;

+ Define and implement a model of care for local primary health care that will identify the core range and level of services that can reasonably be expected in the local community - eg community nursing, therapy, mental health, drug & alcohol, early childhood, and child protection services;

+ Work towards an optimum mix of investment in health care, in order to improve the capacity of the health care system to manage demand effectively for all health services;

+ Prepare and implement a documented plan for each hospital that details discharge arrangements/transitional care, in order to ensure the seamless provision of services for patients leaving hospital for community setting;

+ Work together with other key interest groups in that Area to establish Primary Health Care Networks for coordinating and integrating the provision of primary health care services to geographically defined populations. Each Network will focus on the key factors that contribute to the health of the population in that Area.

The policy framework recognises that there are many compelling reasons to improve NSW's primary health care system:

+ Early health and social interventions are increasingly being recognised as a more effective way to improve the health of the population than treatment services alone;

+ Primary health care - delivered in the community where people live - has the best chance of reducing the gap in health status between the most and least disadvantaged in NSW, particularly for the Aboriginal community;

+ Greater coordination between primary health care providers would enable improved health care planning and delivery. It is particularly important to create better links with general practitioners, who have a central role in managing patients in the community setting;

+ A significant number of hospital admissions and re-admissions are now recognised as avoidable if the appropriate primary health care services are in place;

+ If we are to achieve better management of demand for health services, it is essential to invest in a stronger and more effective primary health care sector, focusing on health promotion, early intervention and support in the community;

+ Better collaboration between the health care sectors has the potential to improve the effectiveness and efficiency of the health care system as a whole.

Description

500927 255 .7.00 DEFINITION OF HPU

Community Health Facilities range from single rooms to Polyclinics and can either be stand-alone buildings or integrated with a Hospital Facility. Requirements for the Facility are determined by the range of services based at the Facility and the model of service delivery.

Community Health Services are provided to non-admitted patients and encompass Public Health, Health Promotion and Early Intervention Treatment Services such as Post Acute, Palliative, Episodic, Chronic, and Complex Care. Community Mental Health may be collocated with this facility or collocated with Mental Health Inpatient Facilities.

500928 255 .8.00 FUNCTION

The prime functions of a Community Health Centre are to provide suitable accommodation to facilitate the delivery of health care services to clients, whilst also providing facilities and conditions to meet the working needs of staff. Activities undertaken include counselling, therapy, health education, community support and group programmes.

Community Health Services are typically ambulatory services delivered in a community based rather than hospital based setting. These services may include Community Acute Care, Post Acute Care and range from Hospital in the Home to Community Health Centre based services.

A Community Health Centre may be the physical base for a service rather than where the service is delivered or a combination of both. For example, outreach staff may be based in a CHC but deliver service in the home, whilst allied health services are delivered from the Centre, or in the home.

Some Community Health Services could also be provided in an Ambulatory Care facility. The Services Plan for a Facility must clearly define the services to be provided.

500929 255 .9.00 POPULATION PROFILE

The population of a Community Health Centre comprises:

+ Staff;

+ Clients and carers;

+ Community groups;

There are two main groups of staff:

+ Unit based staff who are predominantly based in the Centre and provide a service at the Centre;

+ Field staff who undertake work in the community but return to the Centre for supplies and to carry out administrative tasks, attend meetings etc.

In addition, community health staff may be based at a Centre and provide outreach services from that Centre. There may also be other services provided as outreach to a Centre from services based at other locations.

The client population may range from the young to the old, comprise a variety of conditions, and come from a number of different ethnic backgrounds. The diversity of client needs to be accommodated by the Centre must be identified during the briefing stages, and the facility must be designed with the flexibility to meet these needs.

A consumer consultation process will assist in ensuring the service to be provided meets realistic consumer expectations.

Community groups using the facility would do so outside normal working hours.

500930 255 .10.00 GENERAL ARRANGEMENT

Community Health Centres (CHC) will vary in size. Components and allocated spaces will depend on the outcome of a needs analysis and a Service Plan that is based on the location, size and the needs of the area in which a CHC is to be sited. Space requirements will therefore be based on the throughput/occasions of service. These need to be well detailed in the Service Plan prior to the commencement of the capital planning process.

A CHC may be collocated with Ambulatory Care or Acute Inpatient Facilities.

Current policy is to collocate Community Mental Health in CHCs. However, a separate Guideline exists for these facilities which are therefore excluded from this CHC Guideline. This will eventually be integrated into a future edition of this Guideline.

500932 255 .11.00 SERVICES PROVIDED:

Services that may be included in a Community Health Centre include:

PRIMARY HEALTH CARE

+ Aboriginal health services;

+ Allied health services;

  - Physiotherapy,

  - Occupational therapy,

  - Podiatry,

  - Chiropractic,

  - Social work,

  - Speech pathology,

  - Psychology,

  - Dietetics,

  - Audiology,

  - Nutrition.

+ Ambulatory and post-acute care services;

+ Antenatal / Postnatal clinics;

+ Assessment and/or referral (inc. Aged Care Assessment Teams);

+ Child and family health services;

  - Child assessment,

  - Early childhood centres,

  - Early childhood nursing (including Aboriginal early childhood nursing),

  - Immunisation,

  - Nurse home visits (post-natal).

+ Child Protection Services (including developmental issues, early intervention services and child protection counselling);

+ Chronic disease management services;

+ Continence services;

+ Counselling services (eg Bereavement, Adolescents, Problem Gambling, Generalist);

+ Dental services;

+ Eating disorders services;

+ Family planning;

+ Health Education (eg Asthma, Diabetes);

+ Health-related transport;

+ HIV/AIDS services;
+ Home nursing services;
+ Men's health services;
+ Multicultural health services;
+ Outreach Medical Clinics;
+ Palliative care;
+ Primary medical services (GPs and nurse practitioners);
+ Rehabilitation;
+ Sexual Assault services;
+ Sexual health services;
+ Stomal therapy;
+ Women's health services;
+ Youth health services.

500933 255 .12.00 MENTAL HEALTH

+ Adolescent mental health;
+ Child mental health (including early intervention services);
+ Community mental health;
+ Early intervention in general with mental health issues;
+ Mental Health crisis mobile team;
+ Rehabilitation services;

500934 255 .13.00 HEALTH PROMOTION

+ Alcohol and drug treatment programs (including drug diversion programs, needle exchanges and social health services);
+ Community development (capacity building, community participation);
+ Health education;
+ Health information;
+ Nutrition (including eating disorders programs).

500935 255 .14.00 PUBLIC HEALTH

+ Health education;
+ Health protection (including AIDS & infectious diseases, environmental health,

food health).

PLANNING

Staffing

500940 255 . STAFFING LEVELS

Staffing levels will vary for each CHC, depending on Operational Policies, services provided, availability of staff, case mix and activity levels.

Operational Models

500938 255 .15.00 HOURS OF OPERATION

It is assumed the Unit will generally operate up to 12 hours per day, 5 days per week. Some services (eg crisis counselling) may require staff to be in attendance 24 hours per day. There is an increasing trend towards extended hours services.

Outreach services (eg community nursing) may be provided over weekends and public holidays.

Out of hours access may be required on a planned basis for community groups, voluntary organisations or other specific activities.

500937 255 .16.00 FLEXIBILITY

Service mix, how services are delivered by individual staff (even within the same team), and demand for services change over time within a centre. A flexible accommodation model will enable change to be accommodated.

In many instances, facilities may be shared between different disciplines within a CHC, eg Reception and Waiting Areas, Interview and Treatment Rooms. The capacity to share spaces should be maximised, reducing the need for potentially under-utilised special purpose rooms.

Operational Policies and facility design should provide for optimal use and sharing of equipment. The equipment must be located in a position that is easy for users to access.

The use of space must be carefully managed and the design must ensure that there are opportunities to adapt and expand the facility as more services are located in Community Health Centres.

Operational Policies

500939 255 .17.00 OPERATIONAL POLICIES

Operational Policies have a major impact on facility requirements and the capital and recurrent costs of health facilities. These policies should be clearly articulated so that the facility design can reinforce the new practices.

Operational Policies will vary from Centre to Centre depending on a wide range of factors. Users must define their own Operational Policies.

Refer to Part B Section 80 of these Guidelines for general discussion in regard to Operational Policies.

STAFFING LEVELS

Staffing levels will vary for each CHC, depending on Operational Policies, services provided, availability of staff, case mix and activity levels.

Planning Models

501993 255 .18.00 LOCATION

The location of CHCs will vary, depending on the outcome of Service Planning at an Area Health Service level. Options for locating centres include:

+ Free standing in a community location;

+ Attached or included in the development of commercial facilities, eg shopping centres;

+ On the grounds of a hospital facility.

500924 255 .19.00 DESIGN

A CHC may be sited in a new purpose-built facility, in an existing building that requires redevelopment or a combination of both.

500942 255 .20.00 Building design must be flexible and adaptable to enable a CHC to cater for varying client and service needs and future service delivery changes. The design philosophy for a CHC, which is part of the local community, must convey a friendly and inviting environment that will encourage community members to utilise the available facilities for a variety of purposes.

501994 255 .21.00 CONFIGURATION

The configuration of a CHC will depend on:

+ The number of staff to be accommodated;

+ The service mix;

+ The population who will use the service;

+ Whether it is collocated with another facility or free-standing.

+ OHS risk profile.

500943 255 .22.00 TYPES OF COMMUNITY HEALTH CENTRES

Community Health Centres may vary in size from a few rooms shared with other community services to large complexes.

500944 255 .23.00 DETERMINING OFFICE ACCOMMODATION

The NSW Health Office Accommodation Policy shall apply when determining office accommodation. Service planning and operational policies will also influence office provision for a facility.

In general:

+ An individual office is provided for the Centre Manager;

+ Staff with significant supervisory responsibilities, eg service managers, may also have individual offices;

+ Staff will undertake client treatments and consultations in a booked Client Treatment Room. Personal offices will not be used for this purpose;

+ All other staff (regardless of role/status etc) are assigned a workstation as part of an open office arrangement;

+ Workstations shall be 5.5 square metres for staff who spend much of their working day at their desk, eg administration staff, team leaders, and 4.4 square metres for all other staff;

+ Where possible, shared workstations shall be provided for part-time or job share staff;

+ Shared work base facilities shall be provided for visiting staff and students.

500945 255 .25.00 DETERMINING CLINICAL ACCOMMODATION

Essentially the method described below is intended to maximise use of clinical spaces by all clinical staff and allows for changes in space usage as service delivery models change over time. For example some clinical staff may prefer to offer a range of services in a group environment while others prefer one-to-one consultation. The ageing population increases demand for some services, and increasingly, visiting services are delivering care on a booked basis in community health centres to increase access to a range of services such as Women's Health, Acute and Chronic care programs and Aged Care Assessment.

Estimation of interview, consultation and other group room requirements:

+ Determine the number and range of services delivered from the Centre;

+ Determine the mix of services delivered by clinical staff in the Centre and out of the Centre;

+ Determine the projected number of in-Centre appointments including visiting services. Incorporate trends in changes to care patterns such as increased use of Community Health Services for chronic care programs;

+ Estimate scheduled length of in-Centre appointments;

+ Determine client / patient mix including sex, age and likely support numbers;

+ Indicate room utilisation by plotting weekly or monthly appointment numbers and times by accommodation type required, ie generic facilities such as Interview, Consult and Group Rooms, or spaces for specific functions eg dental, audiology, physiotherapy.

+ Aim for 80% occupancy of specific spaces on a booked basis.

+ Implement a booking system for rooms. Clinical rooms should be available to all who have a specific need for a specific period of time.

+ Ensure that under-utilised specific clinical spaces can be used by other groups. For example an open plan gym area can be used after hours for ante-natal classes or community groups on a pre-booked basis.

+ Large group rooms should be planned to allow for their use after hours without impacting on the security of the rest of the facility.

Functional Areas

500946 255 .26.00 FUNCTIONAL ZONES

Individual spaces combine to form zones or groups of spaces with a similar purpose. The relationship between zones is considered important to ensure that CHCs operate efficiently and effectively.

A Community Health Centre can be subdivided into three key Functional Zones:

+ Main Entry / Reception;

+ Client Areas - activities and treatment;

+ Staff Areas.

Functional Relationships

500947 255 .27.00 EXTERNAL

ENVIRONMENT

Where possible, Community Health Centres should be in a quiet location, with a pleasant outlook and maximum environmental benefits.

500948 255 .28.00 LOCATION

A CHC should be located in an area that is accessible to the community by both public and private transport and in close proximity to other local resources. Ideally this location will adjoin other public amenities routinely used by the community eg shopping precinct, transport hub, library. It should be noted that a CHC services may be located over more than one site and in more than one community.

Where a CHC is to be located on a hospital site, it should provide easy access to:

+ Main Entrance

+ Diagnostic facilities such as Medical Imaging and Pathology.

+ Emergency Unit.

+ Rehabilitation services;

+ Pharmacy;

+ Car Parking.

500949 255 .29.00 ACCESS

Off-street access for vehicles transporting clients must be provided. Easy access is required to Car Parking Areas and other Health Care Facilities on the site if provided.

Some services may require a separate and discreet entry point. Ambulance access must be provided to the facility with trolley access to the Main Entry,

Waiting and all Client Areas.

All-weather vehicle drop-off points should be provided for easy access by clients who are elderly, frail, have limited mobility or who are wheelchair bound.

500950 255 .30.00 INTERNAL

The internal plan of the CHC must allow clients to easily move to and from treatment and activity areas, and enable efficient staffing.

Optimum internal relationships include:

+ Reception / Clerical Areas should have a clear view of Main Entry / Waiting Areas and be visible from adjacent Staff Areas. There should be easy access to stationery and medical records. The Reception Area should provide a barrier controlling access between Waiting and Treatment Areas.

+ Consultation / Examination / Interview Rooms should be easily accessible from the Main Entry / Waiting Area as well as the Staff Area;

+ Meeting / Activity Rooms should be adjacent to the Main Entry / Waiting Area so they can be accessed after hours, with the rest of the centre safely secure.

+ Staff areas must be designed so they allow staff to easily move between the Main Entry / Reception and Client Areas. Staff offices and amenities should be separate from Client and Public Areas to provide privacy and a quiet work area.

DESIGN

General

500951 255 .31.00 Refer to Part B, Sections 80 and 90, and to Part C of these Guidelines for general design requirements.

Car Parking Requirements

500974 255 .32.00 Refer to Part C of these Guidelines.

Generally car parking will be provided for clients and staff. In particular, times of attendance for staff and overnight parking for health service vehicles will impact on requirements. Security issues need to be addressed when planning for after-hours parking. These issues will vary from site to site, and will need to be determined in accordance with Local Authority requirements.

Disaster Management

500952 255 .33.00 Refer to Part B Section 80 of these Guidelines for issues to be considered.

The potential role of Community Health Centres in a disaster management situation should be assessed.

Attributes which make it potentially useful in a disaster situation include:

+ Large open spaces for disaster management or emergency accommodation;

+ Consult / Interview Rooms for assessment of victims;

+ Focal point in the community.

Infection Control

500953 255 .34.00 Consideration of Infection Control is important in the design of this Unit. Treatment spaces will be used for a variety of clients.

It is possible that infectious patients will use the same treatment spaces as immunosuppressed patients at different times on the same day. Standard precautions must be taken for all clients regardless of their diagnosis or presumed infectious status.

Refer to Part D of these Guidelines for further information. Staff handwashing facilities, including disposable paper towels, must be readily available.

Environmental Considerations

500955 255 .35.00 ACOUSTICS

Many functions undertaken within a CHC require consideration of acoustic privacy including:

+ Discussions / interviews with clients;

+ Exclusion of disturbing or distracting noises during client consultations / activities eg relaxation therapy, speech pathology, audiology assessments;

+ Isolation of noisy areas such as Public Waiting, Dental, Child Health Facilities;

+ Staff discussions regarding patient information.

Solutions to be considered include:

+ Selection of sound absorbing materials and finishes;

+ Use of sound isolating construction;

+ Planning separation of quiet areas from noisy areas;

+ Changes to operational management.

500956 255 .36.00 NATURAL LIGHT

Natural lighting contributes to a sense of wellbeing, assists orientation of building users and improves service outcomes. The use of natural light should be maximised throughout the Unit.

Access to natural light and preferably a pleasant outlook will minimise stress and discomfort for patients and staff.

500957 255 .37.00 PRIVACY

Client privacy and confidentiality are important considerations to be addressed. The facility should be designed to:

+ Ensure confidentiality of client discussions and records.

+ Provide discrete sub-waiting areas for clients wishing or needing to be separated.

+ Enable the reason for attendance to be kept confidential eg through use of

generic consultation rooms. This is particularly important for services such as mental health, sexual health, drug and alcohol, etc.

+ Appropriately locate windows and doors to ensure privacy of clients, while maintaining security of staff.

500958 255 .38.00 INTERIOR DESIGN

Interior design includes furnishings, style, colour, textures, ambience, perception and taste. This can assist in relaxing clients and preventing an institutional atmosphere. However, cleaning, infection control, fire safety, client service and the client's perception of a professional environment must always be considered.

Some colours and patterns can be disturbing to some clients. Bold primaries and green should be avoided in areas where clinical observation may occur such as Consultation / Treatment Areas.

Space Standards and Components

500959 255 .39.00 ERGONOMICS

Refer to Part C of these Guidelines.

500960 255 .40.00 ACCESS AND MOBILITY

Refer to Part C of these Guidelines.

Wheelchair access from Car Parks is required.

500961 255 .41.00 Buildings should be designed to cope with a wide range of possible conditions. The aim is to provide an environment that will allow the maximum mobility possible for each person. The CHC facility will include access for the disabled as required in the BCA.

500962 255 .42.00 DOORS

Refer to Part C of these Guidelines.

Doorways must be sufficiently wide and high to permit the manoeuvring of wheelchairs, trolleys and equipment without risk of damage to the doorway or the item being moved, and without creating manual handling risks.

500963 255 .43.00 WINDOWS

Refer to Part C of these Guidelines.

Careful attention should be given to windows in Interview Rooms, Consulting Rooms, Treatment Rooms, Group Rooms, etc to preserve privacy for occupants.

500964 255 .44.00 CORRIDORS

Refer to Part C of these Guidelines.

Safety and Security

500965 255 .45.00 SAFETY

Refer to Part C of these Guidelines.

A Community Health Centre shall provide a safe and secure environment for clients, staff and visitors while remaining a non-threatening and supportive atmosphere conducive to the delivery of services.

Clients will have varying levels of physical and mental capabilities. They may be weak, unsteady, affected by medication or confused.

The facility, furniture, fittings and equipment must be designed and constructed in such a way that all users of the facility are not exposed to avoidable risks of injury.

500966 255 .46.00 SECURITY

Refer to Part C of these Guidelines.

Security issues are important due to the increasing prevalence of violence and theft in Health Care Facilities.

The configuration of spaces and zones shall offer a high standard of security by grouping like functions, controlling access and egress from the Unit and providing optimum observation for staff.

The level of observation and visibility has security implications.

Planning shall allow for after hours access to Public Areas without compromising security of Staff Areas.

500967 255 .47.00 Security issues to be considered in Community Health Centres are appended to this document.

Finishes

500968 255 .48.00 WALL PROTECTION

Refer to Part C of these Guidelines.

500969 255 .49.00 FLOOR FINISHES

Floor finishes shall be appropriate to the function of the space. Refer to Part C of these Guidelines.

Consideration must be given to the appearance and quality of environment required eg non-institutional, acoustic performance, slip resistance, consequences of client falls, infection control, movement of trolleys and maintenance.

500970 255 .50.00 CEILING FINISHES

Refer Part C of these Guidelines.

Ceiling finishes shall be selected with regard to appearance, cleaning, infection control, acoustics and access to services.

Fixtures & Fittings

500971 255 .51.00 Refer to Part C and FF&E in these Guidelines.

Building Service Requirements

500972 255 .52.00 INFORMATION TECHNOLOGY / COMMUNICATIONS

Refer to Part B Section 80 of these Guidelines.

Unit design should address the following Information Technology / Communications issues:

+ Paperless records;

+ Handheld computers;

+ Picture Archiving Communication System (PACS);

+ Community Health Information Management Enterprise (CHIME);

+ Paging and personal telephones replacing some aspects of call systems;

+ Data entry including scripts and investigation requests;

+ Email;

+ Bar coding of supplies and X-Rays / records.

All clinical rooms, interview rooms and clinician work stations require data outlets to enable electronic use of records now and in the future.

500973 255 .53.00 NURSE CALL

The need for provision of a call system that allows clients and staff to alert other health care staff in a discreet manner at all times should be considered.

Nurse call systems must be designed and installed to comply with AS 3811 - Hard wired Patient Alarm Systems.

501995 255 .54.00 DURESS ALARM SYSTEM

Duress alarms should be provided in accordance with NSW Health Policy. Refer to Part C of these Guidelines.

A discreet duress alarm system will be required at all Reception Points and Client Treatment Areas, where a staff member may be alone with a client.

Client Areas

500997 255 .24.00 MEETING ROOMS

A number of Meeting Rooms of varying size should be provided for interviews and meetings with clients, their carers, by staff or by community groups. Larger rooms will be required for group activities such as conferences, therapy sessions and tutorials. Operational policies may determine that one room is used for the intake function.

All rooms should be multi-functional.

Storage for equipment and materials should be provided nearby.

Introduction

500975 255 .55.00 This section must be read in conjunction with Part B Standard Components, Room Data Sheets and Room Layout Sheets. The following text describes only specific requirements not covered by these other documents.

General

500976 255 .56.00 The components of a Community Health Centre will vary for each facility. Components and allocated spaces will depend on the outcome of a needs analysis and a Service Plan that is based on the location, size and the needs of the area in which an CHC is to be sited.

500977 255 .57.00 The generic Schedule of Accommodation outlines the particular facilities required for each of the various services that may be contained within a CHC. For further details of Allied Health spaces refer to Allied Health Unit (future guideline).

Standard Components

501562 255 .58.00 Provide the Standard Components as identified in the Generic Schedule of Accommodation. Provision of Offices, Workstations and support areas will be dependant on the Operational Policy and service demand and may vary from the Schedule of Accommodation, however, room sizes should remain consistent.

Non-Standard Components

501564 255 .59.00 Provide the Non Standard Components as described in this section, according to Operational Policy and service demand.

Main Entry/Reception

500981 255 .60.00 BAY - PRAM, WHEELCHAIRS

DESCRIPTION AND FUNCTION

An area for the temporary holding of prams, strollers, etc while clients are attending the CHC and for the storage of wheelchairs.

LOCATION AND RELATIONSHIPS

The Pram, Wheelchair Bay shall be located adjacent to the Main Entry and Waiting Areas. The Bay must not encroach on circulation areas.

500989 255 .61.00 ENTRY CANOPY

DESCRIPTION AND FUNCTION

An Entry Canopy is required to provide undercover access to the building from vehicles. The Canopy should be large enough to allow vehicles such as taxis, buses, cars, and ambulances to manoeuvre beneath it.

LOCATION AND RELATIONSHIPS

Provide at Main Entry.

500991 255 .62.00 EXTERNAL AREAS

DESCRIPTION AND FUNCTION

Outdoor Areas, such as drought resistant gardens, courtyards and terraces should be provided to give a pleasant domestic setting for the building.

Outdoor Treatment Areas may be required to provide specialised outdoor treatment space for clinical activities such as Occupational Therapy and Physiotherapy.

Design considerations include:

+ A secure area that does not allow exit from the CHC, unless necessary for an emergency exit;

+ Actively seeks to minimise security problems;

+ Adequate seating and other rest areas;

+ Facilities and surfaces for disabled access;

+ A range of surfaces, steps and slopes.

LOCATION AND RELATIONSHIPS

The Outdoor Treatment Areas need to have ease of access from the Physiotherapy and Occupational Therapy Clinical Areas.

500990 255 .63.00 MAIN ENTRY

DESCRIPTION AND FUNCTION

The Main Entry to the facility should display clear directions informing people where to proceed. The Entry should have weather protection and may incorporate an airlock space. Doors that open automatically should be provided for easy access.

LOCATION AND RELATIONSHIPS

This should be located adjacent to a vehicle set down point and readily accessible from the street and parking areas. Reception and Waiting Areas should be adjacent.

501998 255 .64.00 SUB - WAITING AREA

DESCRIPTION AND FUNCTION

Depending on the proximity of the services, there may be one or more smaller or Sub-Waiting Areas within an individual CHC facility. These are for use by clients who may require privacy due to distress or confidentiality, or associated with discrete services, eg Dental, Early Childhood.

LOCATION AND RELATIONSHIPS

A Sub-Waiting Area should be positioned adjacent to facilities served.

Client Areas

500978 255 .65.00 ADL KITCHEN

DESCRIPTION AND FUNCTION

An ADL Kitchen provides facilities for assessment and teaching of activities of daily living (ADL) as part of Occupational Therapy services in the CHC. It should contain fittings and fixtures of varying heights and types to cater for both wheelchair users and ambulant people.

LOCATION AND RELATIONSHIPS

An ADL Kitchen should be located adjacent to other occupational therapy facilities.

500979 255 .66.00 SPECIALIST AREAS

Specialist clinical areas such as Occupational Therapy, Physiotherapy, Prosthetist, Orthotist, may be sited in close proximity to each other so that where possible they can share facilities such as outdoor treatment areas and splinting activities. Physiotherapy and Occupational Therapy staff should have visibility to the treatment areas from their offices.

Direct access to an outdoor area from the clinical area is required for Occupational Therapy and Physiotherapy.

Occupational Therapy requires a relatively large treatment area to facilitate individual function activities, activities of daily living, evaluation of equipment needs and group therapeutic activities.

If Physiotherapy is to be provided, an area is required to facilitate evaluation, therapeutic exercise and ambulation training. The treatment area needs to accommodate equipment such as electrotherapy machines, several plinths, gym equipment, mats, treatment tables, parallel bars and steps.

A specifically designated area should be provided where electric treatment modalities are required for Physiotherapy.

A suitable variety and number of counselling/interview rooms should be provided for use by psychologists, social workers and counsellors. See 'meeting room' description and RDS/RLS for fixtures and fittings.

Easy access and exit should be provided to meet OHS needs. One-way glass or point of vision (eg 'peep hole') may be required to meet safety requirements.

For further details of Allied Health Specialist areas refer to Allied Health Section of these guidelines (to be developed).

500986 255 .67.00 DENTAL FACILITIES

DESCRIPTION AND FUNCTION

Depending on the CHC, there may be a specifically designated Dentistry Consulting Room or a sessional dentist and dental nurse may share accommodation with a Podiatrist.

If Dental facilities are included, there will be a need for space for sterilising equipment, portable X-Ray and X-Ray developing equipment. Design of the area for decontamination and sterilising must comply with the relevant Australian Standard.

Areas for Dentistry or Podiatry need to be investigated to allow room for specialised equipment including chairs.

LOCATION AND RELATIONSHIPS

The Dental Facilities shall be located with ready access to the Main Entry and Waiting Areas. The Dental facilities must be acoustically isolated and it may be better to separate them from other areas.

Access is required for patients using mobility aids such as walking frames or wheelchairs.

Schedule of Accommodation

501016 255 .68.00 INTRODUCTION

The content and size of a Community Health Centre varies depending on the location, services provided and throughput.

Community Health Services are categorised into six levels of service. However, these do not necessarily lead to different physical requirements.

A generic Schedule of Accommodation follows that lists generic spaces that can be combined to form a Community Health Centre. Sizes and quantity of each space will need to be determined on a case by case basis.

ROOM / SPACE	Standard Component					Area m2 *Optional	Remarks
ENTRY / RECEPTION AREAS:							Note: All room sizes depend on size of service.
BAY - MOBILE EQUIPMENT	yes					3	
ENTRY CANOPY						30	Allows for ambulances.
EXTERNAL AREAS						-	Varies for each facility.
MAIN ENTRY						12	Directly adjacent to Reception & Waiting Areas
PARENTING ROOM	yes					6	
PLAY AREA	yes					10 - 15	Should relate to Sub-Wait areas, esp for Child & Family services.
RECEPTION	yes					20	up to 4 staff, may include admin function, or c/w clerical/admin area.
SUB-WAITING AREA						30	Allows for up to 20 clients waiting. Size & distribution depends on client numbers & mix.
TOILET - PUBLIC	yes					3	Near Waiting Area. May also be req'd for other areas eg Rehab, Early Childhood.
TOILET - DISABLED	yes					5	
WAITING	yes					40	20+ clients, prams, etc; info display; view from reception, adj to Child Play area.
CLIENT AREAS:							
BAY / ROOM - BEVERAGE	yes					8	For conference & large meeting room
CONSULT ROOM	yes					12	15m2- child-related services; multi funcl, programmed use; possible clinical play area.
MEETING ROOM - 9M2	yes					9	Up to 5 people.Possibler interview function, eg mental health, D & A counselling, etc.
MEETING ROOM - 12M2	yes					12	Suitable for childhood-related services, Intake & Family Therapy.
MEETING ROOM - MEDIUM	yes					20	Up to 15 people; may include req'ts for Telehealth
MEETING ROOM - LARGE	yes					Up to 40	One x ext access for a/hrs use. Others with internal access. Consider Telehealth req'ts.
MEETING ROOM - CONFERENCE						Up to 50	Ext access for a/hrs use. Consider Telehealth req'ts.

OBSERVATION ROOM						9	One way window to small/medium meeting room.
TREATMENT ROOM	yes					14	Multi-functional, used on programmed basis; ready access from waiting areas.
STAFF AREAS:							
BAY / ROOM - BEVERAGE	yes					3	Staff use.
BAY - HANDWASHING	yes					1	Distributed as required.
BAY - LINEN	yes					2	Need depends on operational policies
BAY - RESUSCITATION TROLLEY	yes					2	
CHANGE - STAFF	yes					30	Size depends on staff numbers, adj to staff toilets and showers.
CLEANER'S ROOM	yes					5	Per 1000m2.
CLEAN UTILITY	yes					14	Also for medications.
DIRTY UTILITY	yes					12*	Optional provision.
DISPOSAL	yes					8	
OFFICE - 4 PERSON SHARED	yes					20	Administration; size varies according to size of facility; may be c/w Reception function.
OFFICE - SINGLE PERSON 12M2	yes					12	Centre Manager; adj to Reception & admin areas.
OFFICE - SINGLE PERSON 9M2	yes					9	Depends on staffing & operational policies.
OFFICE - WORKSTATION	yes					4.4 - 5.5	For each clinical staff member; number & size depends on staffing profile.
SHOWER - STAFF	yes					3	OHS requirement.
STAFF ROOM	yes					25	May include library/resources; size depends on size of service.
STORE - EQUIPMENT	yes					20	More than one may be required e.g physio eqt, OT mobility aids, medical eqt, etc.
STORE - GENERAL	yes					9	Goods, non-sterile supplies, med supplies; > one may be reqd,central location.
STORE - FILE (ACTIVE)	yes					30	Active medical records, secure, ready access from reception + clinical areas.
STORE - FILE (ARCHIVE)	yes					30	Archived medical records, secure, may be remote from main work areas.
STORE - MEDICAL GAS	yes					2	Safe & secure, various size cylinders, adeq ventilation; near loading & service areas
STORE - PHOTOCOPY / STATIONERY	yes					8	
TOILET - STAFF	yes					3	
SPECIALIST AREAS:							
PHYSIOTHERAPY -							
ASSESSMENT / TREATMENT ROOM						12	
CHANGE CUBICLE - PATIENT	yes					2 - 4	Mix of small/large depends on profile of clientele.

GYMNASIUM						60	For up to 13 patients/hour. Includes write-up area.
PLASTER ROOM	yes					14	
BAY - RESUSCITATION TROLLEY	yes					2	
SHOWER - PATIENT	yes					4	
TOILET - DISABLED	yes					5	
TREATMENT CUBICLE - OPEN						7	
TREATMENT CUBICLE - CLOSED						10	
OFFICE - WRITEUP BAY	yes					3	Physio - adjacent to Treatment Areas
OCCUPATIONAL THERAPY -							
ADL KITCHEN						12	
ADL BATHROOM						12	
ASSESSMENT/TREATMENT						12	
EQUIPMENT CLEANING						12	
STORE - EQUIPMENT	yes					12	
TREATMENT ROOM - HAND SPLINTING						25	Shared by Physio
TREATMENT ROOM - PAEDIATRIC						Up to 70	Includes storage and wet areas. Size dependent on service demand.
OFFICE - WRITEUP BAY	yes					3	OT
SPEECH PATHOLOGY -							
OFFICE / CONSULT						12	Combined office and consult rooms depends on operational policies of unit.
OBSERVATION						9	
STORE - GENERAL	yes					10	Includes Resource Store
AUDIOLOGY -							
CONSULT						20	Sound proof booth included in room
PODIATRY -							
TREATMENT ROOM						12	To be shared where possible
UTILITY ROOM						10	
CARDIAC / PULMONARY -							
CONSULT - STRESS TEST						20	Includes write up and recovery areas.
SHOWER / WC - PATIENT	yes					5	Use Std Comp for Ensuite bathroom.

DENTAL -							
CLEAN UP / STERILISING						6	
STORE - GENERAL	yes					8	
TREATMENT - DENTAL						12	
WORKROOM - DENTAL						12	
OFFICE - WRITEUP BAY	yes					6	
X-RAY AREA						6	storage and developing.
METHADONE UNIT -							
DISPENSARY						9	
DOSING AREA						6	
OFFICE - 3 PERSON SHARED	yes					15	
TOILET - PATIENT	yes					5	Specimen collection.
WAITING AREA	yes					15	6 - 10 people.
OTHER AREAS -							
SERVICE ENTRY / LOADING BAY	yes					varies	Need for this, and its size depends on the facility size.
WASTE HOLDING AREA	yes					varies	Depends on size of facility

Functional Relationships

501019 255 .69.00 A diagram of key functional relationships is attached.

Checklists

501020 255 .70.00 A security checklist for Outpatient Areas is appended to this document.

References and Further Reading

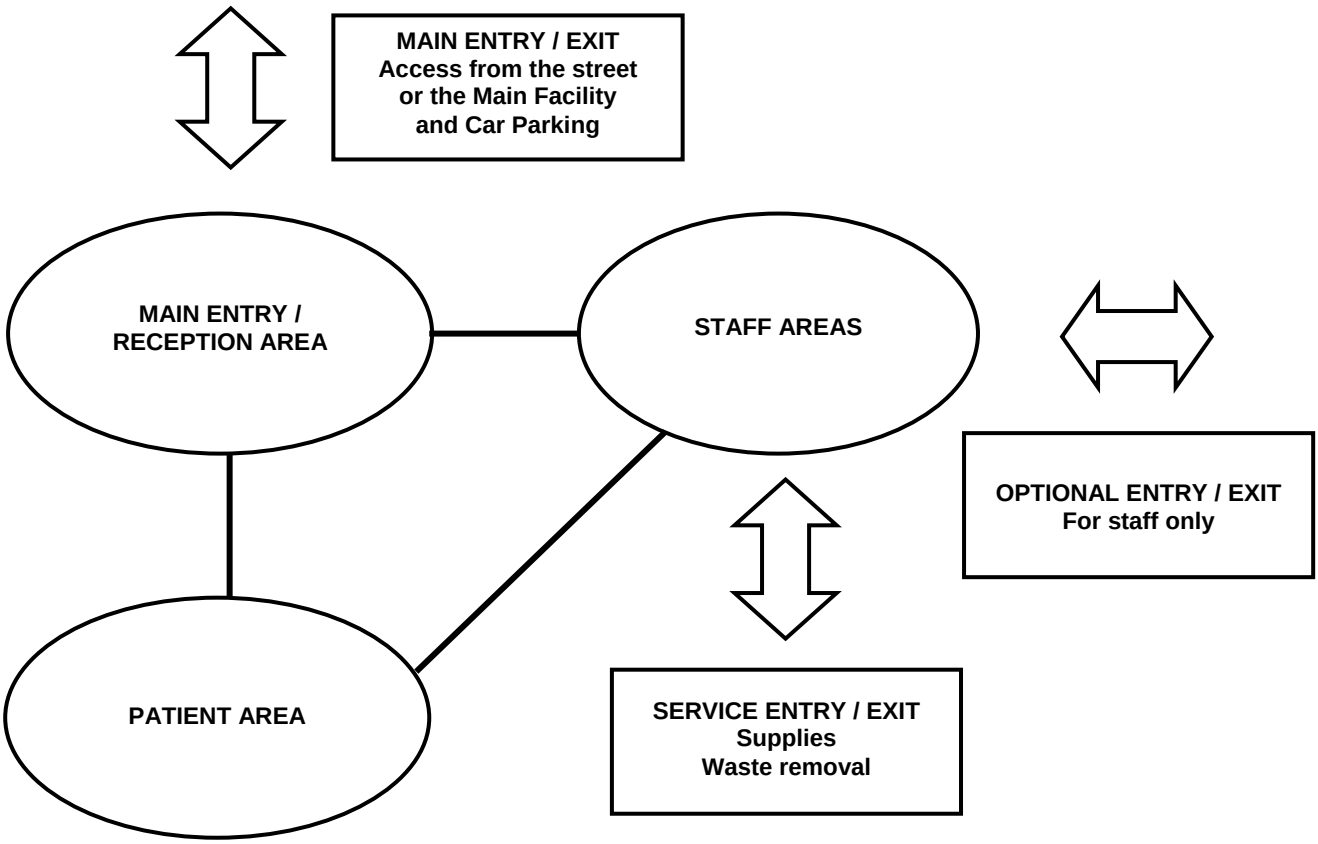
501023 255 .71.00 The following references should be read in addition to the general references provided in these Guidelines:

DS 3.01 Community Health Unit Health Building Guideline, Capital Works Branch, NSW Health Department, 1992

DS 26 Mental Health Facility Planning Guideline, Volume 2 Ambulatory Care Unit, NSW Health Department, 2003

FUNCTIONAL RELATIONSHIP DIAGRAM – COMMUNITY HEALTH UNIT

The following diagram sets out the relationships between areas in a Community Health Unit:



SECURITY ISSUES TO BE CONSIDERED IN COMMUNITY HEALTH CENTRES

GENERIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Treatment Area.	1. Minimise and secure entry and exit doors.

SPECIFIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Client files	1. Personnel working on these files must return them to secure area after use or return to the Medical Records Store. 2. If any electronic files are produced, save in restricted area of hard drive.
2. Furniture fittings and equipment including Computers, Office and Medical Equipment	1. Non-removable 'Asset No.' on all equipment above a predetermined value. 2. Keep equipment in lockable area.
3. Drugs storage	1. Dangerous drug safe within the Clean Utility Area.
4. CHC personnel safety	1. Staff working in this area to have knowledge of where the fixed duress system is located and/or use a mobile duress pendant. 2. Appropriately designed waiting area including, where possible: - barrier between staff and patients, - bench seating, - ensure no loose fittings which can be utilised as a weapon, - vending machines. 3. Design shape of Interview/Meeting Rooms and Sub-Waiting Areas, and locate desks, etc, in such a way that minimises risk to health personnel. 4. Provide storage and store items not in constant use that could be used as weapons. 5. Minimise furniture that can be used as a weapon, ie, picked up and thrown. 6. Security procedures for after-hours staff including outreach workers. 7. Ensure secure access to staff office area especially after hours. 8. Easily accessible and well lit parking for health service and personal vehicles used by after-hours staff.
5. Staff personal effects	1. Provision for lockers in Staff Areas and lockable desk drawer to keep small personal effects.

SECURITY CHECKLIST – COMMUNITY HEALTH CENTRE

FACILITY:	**DEPARTMENT: COMMUNITY HEALTH CENTRE**
RISK ISSUE	**DESIGN RESPONSE**
1. Is access to patient records restricted to staff entitled to that access ?	
2. Is a system implemented to prevent theft of equipment, files, personal possessions, etc ?	
3. Are drug safes installed in accordance with current regulations ?	
4. How is this area secured during and after hours?	
5. Are there lockable storage areas available for specialised equipment?	
6. Is lockable furniture provided for storage of staff personal effects?	
7. Is waiting area appropriately designed to include, where appropriate: - barrier between patients and staff, - appropriate seating for patients, - absence of loose fittings, - vending machines, - TV	
8. Are Interview Rooms appropriately designed with specific reference to staff egress, furniture selection, furniture location, provision for storage of equipment, etc.	

DESIGN COMMENTARY/NOTES	**DESIGN SIGN-OFF**
	Name: …….. Position: …….. Signature: …….. Date: ……..
	Name: …….. Position: …….. Signature: …….. Date: ……..
	Name: …….. Position: …….. Signature: …….. Date: ……..

300 EMERGENCY UNIT

INDEX

		Description
500315	300 .0.10	INTRODUCTION
		Preamble
		Introduction
		Policy Statement
		Description of Unit
		PLANNING
		Operational Models
		Operational Policies
		Short-Stay Ward or Emergency Medical Unit (EMU)
		Planning Models
		Functional Areas
		Functional Relationships
		DESIGN
		Corridors
		Disaster Planning
		Doors
		Environmental Considerations
		Finishes
		Handwashing - Clinical
		Infection Control
		Safety and Security
		General Provisions for Children
		Building Service Requirements
		COMPONENTS OF THE UNIT
		General
		Standard Components
		Non-standard Components
		APPENDICES
		Schedule of Accommodation
		Functional Relationships
		Checklists

INTRODUCTION

Preamble

502228 300 .1.00 The Emergency Department (ED) is the front door of the hospital and for many people forms their primary contact with the health system. The Emergency Department therefore provides an important interface between the community and the hospital.

General

501025 300 .2.00 The core role of the Emergency Department is to provide timely, accessible and appropriate health services to people with acute illness or injury. The Emergency Department needs to be able to deal with large numbers of patients presenting with a range of conditions with varying degrees of urgency.

The Department also provides entry to patients with infectious diseases including SARS, etc. Design for Infection Prevention and Control is necessary, especially at the first point of contact ie Triage.

Provision of care in the Emergency department is provided on a priority basis with patients requiring more urgent care taking precedence over patients with less urgent clinical conditions.

Policy Statement

501027 300 .3.00 The level of service available at individual Eds across the state will vary according to the role delineation of the service and the broader services available at the Hospital. However, all EDs must be able to provide a minimum standard of care to patients presenting there, irrespective of the number and level of Inpatient Units in the Hospital.

Current NSW Health policy advocates the adoption of a network model of services, encompassing both rural and metropolitan services, to enable Area Health Services to meet community need and offer access to a full range of services.

During the planning process it is recommended that Project Planning Teams refer to the following relevant documents:

+ Emergency Department Services Plan, NSW Health, 2001;

+ Emergency Department Strategic Directions - Priorities and Planning Guidelines for the NSW Health System 1997 - 2000;

+ Emergency Department Access Block - Working Party Report, NSW Health, 1999.

+ Working Group for Mental Health Care in Emergency Departments - Final Report and Recommendations. NSW Health, 2003.

Description of the Unit

500316 300 .4.00 The function of the Emergency Department (ED) is to receive, assess, stabilise and manage patients who present with a wide variety of conditions of varying urgency and complexity. They may self-present or be referred.

The range may include cases from major trauma, surgical conditions, medical conditions such as strokes and heart attacks, gynaecological/obstetric problems, broken bones, skin wounds, communicable/non-communicable infections as well as mental health conditions.

Most units will treat adults and children.

While the caseload may be predictable, changing levels of demand must be anticipated.

The ED also provides for the reception and management of disaster patients as part of the Unit's role within the Disaster Plan for each region.

503009 300 .5.00 The following standards are intended only as a guide. Any additional facilities need, shall satisfy the local Operational Policy.

Description of the Unit

300872 300 . 6.00 It is recommended that Hospitals that do not provide an Emergency Service display a prominent exterior sign at the Main Entrance stating this and giving the location of the nearest Hospital with an Emergency Service.

PLANNING

Operational Models

502031 300 . 7.00 The following issues should be considered in developing the operational model for the Unit, as they will all impact on appropriate space provision.

501028 300 . 8.00 NATURE OF THE SERVICE

A. ROLE DELINEATION OF THE HOSPITAL SERVICES INCLUDING ITS EMERGENCY SERVICE

Although the basic nature of the service may be the same, there are different requirements for major referral hospitals, district hospitals, major trauma centres, and paediatric specialist hospitals. Peer hospitals will generally have similar requirements, with variations for activity and other factors.

B. URBAN VS RURAL LOCATION

Whether the Hospital is located in an urban or rural location will have an influence on factors such as flexibility of the service, provision of retrieval services, security issues, sharing of staffing and alternative resources.

The demand for mental health services and the impact of acute mental health presentations to the ED may have significant implications for operational policies and ED design depending on factors such as availability of mental health clinical advice, availability of a medical practitioner, number of staff on duty, access to acute mental health beds, and availability of patient transport services.

C. ACCESS TO INPATIENT HOSPITAL BEDS AND TO ALTERNATIVE SERVICES

The degree of difficulty in admitting patients to the Inpatient Units, and the local philosophy for managing incoming patient load will affect the required holding capacity of the Unit. Where complex pre-discharge care is done within the ED, space and facilities will be required to suit the function.

D. PHILOSOPHY OF CARE OF THE EMERGENCY DEPARTMENT AND THE HOSPITAL

ED services vary in the way acute care is coordinated between the community, ED and Inpatient Services. While some hospitals may have various routes of entry for acute patients, others may channel all acute patients through the ED. There is also variation in the degree of assessment and treatment completed in the ED prior to transfer to an Inpatient Unit. Hospitals will also need to choose whether to have key diagnostic services (particularly Medical Imaging) adjacent, or whether to provide satellite services within the ED.

E. ACADEMIC AND TEACHING ROLES

This factor will influence the requirements for meeting rooms, office space and general administrative space.

F. STAFF STRUCTURE

This will have an impact on the nature, size and location of Staff Stations, as well

as office, administrative space, staff facilities such as staff rooms and amenities including locker/change rooms, toilets and showers.

G. NATURE OF PATIENT CASEMIX, INCLUDING ACUITY AND COMPLEXITY

Features of patient casemix that affect design requirements include numbers, demographics and the nature of the presentations.

Patients with specific needs include:

+ The elderly;

+ Children

+ Chronically disabled people;

+ Patients in custody;

+ Patients with:

  - Minor or major injury;

  - Industrial illness and injury;

  - Sport-related injury;

  - Drug and alcohol-related presentations;

  - Mental illness;

  - Complications of pregnancy etc;

  - Chemical, Biological and Radiological (CBR) exposure;

  - infections or who are immunosuppressed.

501029 300 .9.00 STRUCTURE OF THE SERVICE

While ED care basically includes reception, assessment, stabilisation and treatment, there are various ways in which these components of the service can be provided for different groups of patients. Examples of different models that may influence facility design include:

A. FAST-TRACKING GROUPS OF PATIENTS OR TYPE OF PRESENTATION

Operational Policies may include early identification of specific patient groups to be assessed and treated via a separate track to other ED presentations. This may occur at the triage point, or immediately after triage but in a separate space. Examples of patient presentations include contagious diseases, minor injuries, mental health emergencies, ambulatory paediatrics, hip fractures etc. Assessment and treatment may be carried out by general ED staff, or by a specific team tasked (or called in) for this purpose.

B. GROUPING BY ACUITY

Some facilities will plan their workflow so that patients of similar acuity (urgency) or staff intensity are treated together. This may lead to facilities with separate areas for resuscitation, acute monitored beds, acute non-monitored beds and ambulatory treatment spaces. There may be separate entry-points (or triage points) for the different areas. Staff may be separately allocated to different areas

for each shift, and may require separate Staff Stations and private workspace.

C. GROUPING BY FUNCTION

Patients may be managed in different areas according to the nature of service they require eg acute treatment, complex investigation, complex discharge planning. Patients may be triaged to the appropriate area from a central arrival point, or possibly from separate ambulance and ambulant entry points. Within each Functional Area, patients would be prioritised according to acuity. In this model, separate staffing for each area is required, which again would involve separate workspaces for staff.

D. OTHER SPECIAL FUNCTIONS

Short Stay Ward/Emergency Medicine Unit/ Observation Unit may be adjacent or incorporated into the ED footprint. If managed by ED staff, there may be sharing of additional administrative and staff facilities.

E. SUB-SPECIALTY UNITS

Units such as Toxicology and Hyperbaric Medicine will require specialised design features.

Operational Policies

503036 300 .10.00 GENERAL

Operational Policies have a major impact on facility requirements and the capital and recurrent costs of Health Care Facilities. These policies should be clearly articulated so that the facility design can reinforce the new practices.

Operational Policies will vary between Units depending on a wide range of factors. Users must define their own Operational Policies.

Refer to Part B of these Guidelines for further information regarding Operational Policies.

STAFFING LEVELS

Staffing levels will vary for each ED, depending on Operational Policies, services provided by the centre, availability of staff, case mix and activity levels.

STORAGE

The amount and type of storage space to be provided will vary depending on the size of each ED. Careful analysis of storage requirements and good management in organising the stores and supply systems are essential.

Planning Models

503011 300 .12.00 Architectural Planning of the Unit should reflect local service and operational models and OHS issues.

When designing for patients who may be behaviourally disturbed or cognitively impaired the implications for safety should be considered. This includes safety implications for staff, patients and visitors.

When designing departments that treat paediatrics as well as adults, suitable play and waiting areas must be provided. It is recommended that these areas be part of, but in a separate section of the main waiting room. They should be within sight

of the Triage Nurse Staff Station. Paediatric treatment areas should also reflect paediatric needs.

Where fast tracking of patients is dictated by the model of care proposed, then the layout should ensure that a clear flow of traffic from triage to points of consultation and treatment will not interfere with the functioning of the remainder of the ED. These may be located in a discrete area close to the triage and/or waiting space, without interfering with the operation of the more high intensity /acuity areas of the Unit.

Similar planning measures could be applied to other specialist treatment zones or rooms that will allow for efficiencies in the use of the more expensive spaces within the Unit.

Where patients are grouped by acuity, consideration should be given to the staffing implications of the layout. It is possible, for example, to arrange different levels / types of treatment spaces around a single Staff Station, each retaining their own discrete area.

Consideration should also be given to the possibility of flexible spaces. During less busy periods, efficiencies may be gained by contracting to a smaller part of the whole Unit. With careful planning this should be managed without the need to change the work patterns of the Unit as a whole, or impinge on the proposed model of care.

Where patients are grouped by functional modalities, a similar approach can be used, to enable the layout of the Unit to reflect the proposed service. In this model, the central arrival and triage area should be located to ensure traffic flows to the different functions of the Unit are not confusing and that they are kept separate.

Careful planning of Staff Areas will ensure that resources are used efficiently.

A variety of successful models for the management of special functions such as Short Stay wards are currently in use. The location of such Units and their relationship to the ED needs to be reflected in their planning.

Functional Areas

501030 300 .13.00 The ED is comprised of the following Functional Areas:

+ Entrance /Reception/Triage - comprising the functions of:

  - front of house,

  - first point of arrival and assessment for patients;

+ Patient Care Areas - including:

  - Assessment and Treatment Areas including the Patient Care Areas such as Resuscitation, Seclusion Room and Decontamination Facility;

  - Short-Stay Ward/Emergency Medicine Unit/Observation Unit;

  - Primary Care Area - for patients with low acuity conditions;

  - Stepdown Area - for patients awaiting test results, considered safe, but requiring observation prior to admission or discharge.

+ Staff Areas - including Support Areas such as Clean and Dirty Utility Rooms Stores etc;

- Staff amenities, administrative and teaching functions;

+ Ambulance Service facilities.

General

503012 300 .14.00 In addition to standard treatment areas, some Units may require additional, specifically designed areas to fulfil special roles, such as:

+ Management of:

  - paediatric patients;

  - major trauma patients;

  - behaviourally disturbed patients;

  - patients following sexual assault;

  - patients with gynaecological or obstetric conditions.

+ Undergraduate and postgraduate teaching;

+ Transport and retrieval services;

+ Telemedical services.

Functional Areas

501031 300 .15.00 KEY RELATIONSHIPS - INTERNAL

The Entrance/Reception Area is the focus of initial presentation and hospital administrative functions. The Ambulance Entry should be separate from the Public Entry. A triage nurse should be able to have good visual access to both public and ambulance entries. In a larger facility, two triage positions may be required.

The Reception Area will accommodate the following functions:

+ Reception of patients and visitors;

+ Registration interviews of patients;

+ Collation of medical records;

+ Printing of ID labels;

+ Receiving the public;

+ Handling general enquiries;

+ Processing loans of surgical aids;

+ Receiving money.

The Reception/Clerical Area should be designed with due consideration for the safety of staff. Staff in this area will need access to a duress alarm. The counter should provide seating and be partitioned for privacy for the interview function. Refer Part C of these Guidelines for further information regarding counter design.

The Reception / Triage and Staff Station shall be located where staff can observe and control access to Treatment Areas, Pedestrian and Ambulance entrances,

and Public Waiting Areas. There should be direct communication with the Reception / Triage Area and the Staff Station in the Acute Treatment / Observation Area.

The main aggregation of clinical staff will be at the Staff Station in the Acute Treatment/Resuscitation Area. Most of the other clinical areas should be grouped around this area, unless the service and planning model (as discussed above) dictates a more discrete location for some functions.

The support and staff areas should be accessible to the Clinical Areas but should not impair the clinical function of the Unit.

There must be close proximity between the Resuscitation / Acute Treatment Areas for non-ambulant patients, other Treatment Areas for non-ambulant patients and other Treatment Areas for ambulant patients, so that staff may be relocated at times of high workload.

503013 300 .16.00 TRAFFIC FLOWS

The ED is a busy area, with a wide variety of activities and people, where time delays may be life threatening. It is important that the design allows for rapid access between Functional Areas with a minimum of cross traffic.

Visitor and patient access to all areas should not traverse Clinical Areas. Patients who need to be transferred to other Units, such as Imaging or Inpatient Wards should not traverse other Clinical Areas. It is important that patients' visual, auditory and olfactory privacy is maintained whilst at the same time recognising that staff need to observe patients.

501032 300 .17.00 GENERAL LOCATION

Decisions regarding the Unit location have a major influence on the cost and operational efficiency of the ED staff.

The ED should be located for easy access, usually on the ground floor. It should be close to public transport, and adequately signposted.

The location should, as much as possible, maximise the choices of layout. In particular, the locations of access points must be carefully considered.

The location on the site should primarily be dictated by the key relationships set out below. Clear and separate traffic flows should be provided for Ambulance traffic and public traffic. These should not interfere with other traffic patterns on the site.

In some instances, the ED will be the only access to the rest of the hospital after hours. Consideration should be given to ensuring access to the hospital is available for public after hours.

501035 300 .18.00 CAR PARKING

Some car parking spaces should be close to the entrance of the ED, well lit and available exclusively for patients, their relatives and staff. Protected parking areas should be available very close to the ED for on-call staff.

Secure parking for afternoon and night shift staff is required. Refer Part C of these Guidelines.

Undercover car parking should be available for:

+ An appropriate number of ambulances;

+ Taxis;

+ Private vehicles that drop off/pick up patients adjacent to the ambulance entrance;

+ Police vehicles;

+ Fire Brigade vehicles;

+ Community Health vehicles.

501036 300 .19.00 SIGNAGE

The ED should be clearly identified from all approaches. Signposting that is illuminated is desirable to allow visibility at night.

Refer to Part C of these Guidelines.

Functional Relationships

501038 300 .20.00 KEY RELATIONSHIPS - EXTERNAL

The ED will require ready access to the following key functional areas:

501040 300 .21.00 + MEDICAL IMAGING

Emergency is a heavy user of imaging services. Immediate access to imaging services is important for the convenience and safety of patients. Easy access to CT scanning, Ultrasound and Nuclear Medicine modalities will enhance the ED's effectiveness. A system of electronic display of images within the Unit is desirable.

Alternatively an imaging service can be included within the Unit. If this is the case the Medical Imaging Unit should have a general x-ray table, upright x-ray facilities and an additional overhead gantry in the Resuscitation Area is recommended. The presence/absence of a film processor is dependent upon close proximity to the main Medical Imaging Unit or the use of digital radiology.

501041 300 .22.00 + OPERATING UNIT

Direct access to the Operating Unit is desirable to allow quick transfer of patients for emergency surgery. Ideally this should be via corridors that are not generally accessible by the public.

501042 300 .23.00 + CARDIAC SERVICES INCLUDING CCU AND CARDIAC CATHETER LABS

Easy access to the CCU is desirable to allow prompt transfer of patients to specialist care in this Unit.

501043 300 .24.00 + PATHOLOGY

Rapid access to Pathology services is highly desirable to minimise turnaround times for laboratory investigations. Mechanical or pneumatic tube transport

systems for specimen and electronic reporting of results are recommended. Point of care access for electrolyte and blood gas analysis are highly desirable.

501044 300 .25.00 + MEDICAL RECORDS

Access to medical records is required so that patients' previous medical histories are obtainable without delay. A system of mechanical or electronic medical record transfer is desirable to minimise delays and labour costs. Access to medical records must be available 24 hours per day or via a secure route.

501045 300 .26.00 + INPATIENT ACCOMMODATION UNIT

Easy access to the Inpatient Unit is desirable to allow for transfer of patients who are admitted to overnight accommodation.

501047 300 .27.00 + OUTPATIENTS AND AMBULATORY CARE UNIT

Small hospitals may choose to locate the Outpatients Department (OPD) adjacent to the ED so that reception and administrative functions can be shared. In larger hospitals there is unlikely to be a functional relationship with OPD. However, there would generally be advantages to close access to the Ambulatory Care Unit from ED, as some patients will be discharged via that service.

501046 300 .28.00 + PHARMACY

The ED should be located within close proximity of the Pharmacy Unit to enable patients with limited mobility to have prescriptions filled.

501048 300 .29.00 + MORTUARY

Ready access to Mortuary is desirable to allow for easy transfer of deceased patients out of view of the general public and visitors.

501049 300 .30.00 + SECURITY

Should a security office be included in a capital development, where possible this should be located close to the ED. In this situation, the ED should be designed so that the Security Services have clear visual access of the waiting spaces and public entry to the unit.

503014 300 .31.00 + HELI-PAD

If a helipad is to be located on the site, a clear and defined path from the helipad to the ambulance entry of the ED should be provided.

503015 300 .32.00 + INTENSIVE CARE

ED patients are often transferred to ICU so ready access is required.

Short-Stay Ward or Emergency Medical Unit (EMU)

503026 300 .11.00 This type of facility is increasingly being provided either within or adjacent to Eds for the prolonged observation and ongoing treatment of ED patients who are planned for subsequent discharge (directly from the ED). Patients may be kept in this Unit for complex diagnostic testing, for complex problem-solving or for medical stabilisation.

The length of stay in the Unit is generally between 4 and 24 hours, although local policy may require longer stays. Discharge may sometimes be via the Ambulatory Care service of the hospital, so physical proximity is desirable. The Unit may also be situated separately to the ED, although functionally linked.

According to local Operational Policy, dedicated beds for this purpose will be separately designated and staffed. The types of patients planned to be admitted to this Unit will determine the number and type of beds provided, and the design of associated monitoring and equipment. Staff Stations, work and storage and other support areas will need to be available - either shared or separately provided.

Corridors

503019 300 .33.00 Adequate corridors are essential to the effective functioning of the Unit. The careful planning of corridors of appropriate width allows swift patient and staff movement between key functions and is fundamental to a successful planning solution.

Corridor widths for different uses are more fully described in Part C.

Disaster Planning

501539 300 .34.00 The ED is the 'front line' facility in the case of a disaster. The local Disaster Plan should be considered in the design of the Unit. Requirements may differ between metropolitan and rural units. Flexible planning is required to accommodate the large workloads, critically ill and/or infectious patients, relatives, friends and hospital staff involved in managing a disaster situation. The flexibility to expand into adjoining areas such as Outpatients, or Main Entry should be considered.

Depending on it's designated role the ED may also become a communication hub during formal disaster function. Consideration should be given to allocating a suitable space with adequate communications ports to be used as a disaster management base and to allow briefing of the press. Direct telephone lines bypassing the Hospital switchboard should be available for use in internal and external emergencies or when the hospital PABX is out of service.

A disaster may result in a high volume of ambulance traffic to the ED. In addition, the communications base may be utilised by the Police as a communications centre.

The ED plan should also accommodate a Disaster Equipment Store that is easily accessible and contains sufficient supplies to fully equip the disaster team for either on-site or off-site function.

Disaster planning is discussed in more detail in Part B Section 80 of these Guidelines.

Doors

501540 300 .35.00 Doors in this Unit need to allow for easy access for patient trolleys with several

staff attending. This should also be durable and able to withstand repeated harsh treatment.

An airlock/lobby should be provided for external doors.

For more detail, refer Part C of these Guidelines.

Environmental Considerations

501580 300 .36.00 ACOUSTICS

Many functions undertaken within an ED require consideration of acoustic privacy including:

+ Discussions / interviews with clients;

+ Exclusion of disturbing or distracting noises during client consultations / activities including noise in other Treatment Areas;

+ Isolation of noisy areas such as public waiting;

+ Staff discussions regarding patient information.

Solutions to be considered include:

+ Selection of sound absorbing materials and finishes;

+ Use of sound isolating construction;

+ Planning by separating quiet areas from noisy areas;

+ Changes to operational management. Consider implications for safety when designing for patients who may be behaviourally disturbed or cognitively impaired, this includes safety implications for staff, patients and visitors.

501582 300 .37.00 NATURAL LIGHT

Natural lighting contributes to a sense of wellbeing, assists orientation of building users and improves service outcomes. The use of natural light should be maximised throughout the Unit.

501584 300 .38.00 PRIVACY

Client privacy and confidentiality are important considerations to be addressed. The facility should be designed to:

+ Ensure confidentiality of client discussions and records;

+ Provide discrete Sub-Waiting Areas for clients wishing or needing to be separated;

+ Enable the reason for attendance to be kept confidential eg through use of generic Consultation Rooms. This is particularly important for services such as mental health, sexual health, drug and alcohol etc;

+ Appropriately locate windows and doors to ensure privacy of clients.

DÉCOR

Décor includes furnishings, style, colour, textures, ambience, perception and

taste. Décor can assist in relaxing clients and preventing an institutional atmosphere. However, cleaning, infection control, fire safety, client service and the client's perception of a professional environment must always be considered.

Some colours and patterns can be disturbing to some clients. Bold primaries and green should be avoided in areas where clinical observation may occur such as Consultation / Treatment Areas.

501586 300 .39.00 DÉCOR

Décor includes furnishings, style, colour, textures, ambience, perception and taste. Décor can assist in relaxing clients and preventing an institutional atmosphere. However, cleaning, infection control, fire safety, client service and the client's perception of a professional environment must always be considered.

Some colours and patterns can be disturbing to some clients. Bold primaries and green should be avoided in areas where clinical observation may occur such as Consultation / Treatment Areas.

Finishes

503021 300 .40.00 FLOOR FINISHES

The floor finishes in all Patient Care Areas and corridors for Emergency should have the following characteristics:

+ Non-slip surface;

+ Impermeable to water and body fluids;

+ Durable;

+ Easy to clean;

+ Acoustic properties that reduce sound transmission;

+ Shock absorption to optimise staff comfort but facilitate movement of beds.

Generally Offices, Seminar Training Rooms, Meeting Rooms, and Clerical Areas should be carpeted.

More detail is provided in Part C of these Guidelines.

501588 300 .41.00 CEILING FINISHES

Refer to Part C of these Guidelines.

501547 300 .42.00 WALL PROTECTION

Due to the large number of users and trolley movements in the ED particular care must be taken to provide appropriate wall protection.

The walls also need to be resistant to damage by aggressive persons who may kick, punch or throw items against the walls. This applies particularly in areas where behaviourally disturbed patients may be managed.

Refer to Part C of these Guidelines for further information.

Handwashing - Clinical

503022 300 .43.00 Handbasins for handwashing should be available within each Treatment Area and should be accessible without traversing any other Clinical Area.

Handbasins for handwashing should be readily available and conveniently located throughout the Unit.

More detail on handbasin provision is provided in Part D of these Guidelines, Room Data Sheets and Room Layout Sheets.

Infection Control

501566 300 .44.00 As the diagnosis or infectious status of patients may not be known on admission, standard precautions must be used at all times. The design and layout should allow for the movement of patients to an isolation room within the unit due to suspected or known infectious disease.

Where Class N isolation rooms are provided, these should be located to minimise passing traffic and so that any air expelled from the room does not impinge on other patients or staff.

Safety and Security

501546 300 .45.00 A list of Safety and Security Considerations for EDs is attached to this document.

Safety and security is covered in detail in Part C of these Guidelines.

GENERAL

The ED receives a large number of patients and their visitors, a number of whom may be distressed, intoxicated or involved in violence. The hospital has a duty of care to provide for the safety and security of employees, patients and visitors. Both policies and procedures should be in place to minimise injury, psychological trauma and damage or loss of property. The precise details of security features should be designed in conjunction with a security risk assessment for the specific site.

As the first point of address for visitors to the Unit, the Reception/Triage Area is a high risk area for violence. Careful thought should be given to the design of this area to minimise this risk.

Refer to Part C for further information.

Security

207107 300 .46.00 SECURITY PERSONNEL

Uniformed security personnel may be required at very short notice to assist with a safety or security issue. Their base should be positioned either within or immediately adjacent to the ED, with rapid communication links.

General Provisions for Children

503025 300 .47.00 Unless a specialised Paediatric Hospital exists in the immediate vicinity, children will comprise approximately 25% of attendances in most general EDs. Special design considerations to cater for paediatric attendances include:

+ Protection of the children's clinical area from disturbing sounds or sights from other patients in the ED;

+ The provision of sufficient visitor space and facilities for parents or carers and siblings;

+ Provision of a colourful and welcoming physical environment, with appropriate furniture and colour treatments;

+ Provision of a separate waiting space, protected from the sights and sounds of the general waiting area (but still observable by staff);

+ Close access to separate Procedure Areas for simple procedures which may be upsetting to other children;

+ Ideally, the availability of transit routes to radiology or wards that do not traverse other clinical areas;

+ Consideration of providing a separate Bathroom, within or adjacent to the Paediatric Clinical Area, with size-appropriate toilet and bathtub.

Building Service Requirements

503016 300 .48.00 CLOCKS

The accurate tracking of time within the ED is critical.

A wall clock should be visible in all Clinical Areas and Waiting Areas. Times displayed in all areas must be synchronised. Clocks in Resuscitation Areas require the facility to track elapsed time (one for each bed).

See Room Data Sheets and Room Layout Sheets for more detail.

501538 300 .49.00 COMMUNICATIONS

As a rapid patient turnover and multidisciplinary work environment, Eds are high-volume users of a wide range of telecommunications and information technology tools.

Communications functions include both auditory and visual, and include interactions both within and outside the ED. Communications functions relate to both patient care and to departmental administration.

Communications requirements and the associated technology are rapidly growing and developing. Planning should anticipate new and developing technologies and future functions, and make allowances for growth and development in this area. In particular, the provision of data connection points should be sufficient to allow unimpeded access and to anticipate future needs.

Specific functions to be provided for may include:

+ A dedicated direct phone line for referring medical practitioners;

+ A dedicated cordless phone or phone jack for access to patients' bedsides.

+ Public telephones with acoustic hoods in the Waiting Area.

+ A direct line to a taxi company.

Modalities to be provided for include:

+ Personal and departmental voice communication telephones;
+ Cordless phones or pagers;
+ Overhead PA systems and intercom;
+ Observation with CCTV;
+ Electronic data transfer;
+ Electronic and facsimile image transfer;
+ Physical transfer using pneumatic tubes and automated trolley systems.
+ Nurse call system;
+ Patient emergency system;
+ Location finding duress alarm systems.

503017 300 .50.00 An electronic Emergency Department Information System will be required to support clinical management, patient tracking and departmental administration. Sufficient terminals should be available to ensure that queuing does not occur, even at peak times. Generally, computers should be available for use at each bedside.

Workspace design should include sufficient bench-widths or suitable suspension devices for terminals, keyboards, drives and printers. Additional computer terminals, software and peripheral devices should be installed to enable other departmental functions.

503018 300 .51.00 In smaller Units, especially in more remote areas, telemedicine is becoming increasingly common and important for day-to-day operation.

Allowance should be made for connection of portable telemedicine equipment in all Treatment Areas.

503020 300 .52.00 ELECTRICAL SERVICES

Refer to TS11 and Room Data and Room Layout Sheets for details of electrical needs for this Unit.

500238 300 .53.00 DURESS ALARMS

Should be provided in accordance with NSW Health Policy - refer Part C of these Guidelines.

207035 300 .54.00 EMERGENCY CALL

All bed spaces and Clinical Areas, including toilets and bathrooms, should have access to an Emergency Call System so staff can summon urgent assistance. The Emergency Call System should alert to a central module situated adjacent to the Staff Station, as well as to the Staff and Tutorial rooms. The Nurse Call / Emergency call system is to comply with AS 3811.

501541 300 .55.00 LIGHTING

The lighting design needs to provide for both comfort (patients and staff) and function, and should have inherent flexibility. There are different considerations for different types of Patient Care Areas and Staff Areas.

It should be possible to vary lighting conditions between individual beds and rooms.

Functional requirements for lighting of clinical treatment spaces include the ability to dim for comfort, the ability to focus strong light for bedside procedures, and there should be no colour distortion to ensure accurate assessment of skin tone.

If consistent with departmental function, overhead pendant lights should be centred appropriately over bed spaces in Treatment Areas.

501542 300 .56.00 Waiting Areas and Staff Amenities Areas should have exposure to daylight wherever possible to minimise patient and staff disorientation.

Lighting should conform to Australian Standards.

501543 300 .57.00 MEDICAL SERVICES

Medical gases should be provided in accordance with the Room Data Sheets and Room Layout Sheets.

501544 300 .58.00 MONITORING

As the acuity of patients in hospitals increases, the need for monitoring of patients increases accordingly.

Bedside electronic monitoring needs to provide for both local visual display and electronic data or information transfer. Where possible, the bedside monitoring system should be integrated with (or interface with) the electronic patient information system (or future capacity for this should be provided).

Central monitoring should be available within each unit.

The design and complexity of bedside clinical monitoring will depend on the function of each Clinical Area. Local function will determine the proportion of acute beds that have bedside monitoring at any one time. However, the design should facilitate future flexibility in location of bedside monitoring.

Considerations include flexibility for patient and bed movements and both visual and spatial accessibility. Cabling should be accessible, but should not physically obstruct staff access to the bedside.

207034 300 .59.00 NURSE CALL

Facilities must provide a call system that allows patients and staff to alert nurses and other health care staff in a discreet manner at all times.

Nurse call systems must be designed and installed to comply with AS3811 - Hard wired Patient Alarm Systems.

Patient Treatment Areas

501573 300 . MEETING ROOM

DESCRIPTION AND FUNCTION

To comply with Standard Components.

LOCATION AND RELATIONSHIPS

In a quiet part of the Unit which ensures privacy.

General

501570 300 .60.00 The components of an Emergency Unit will vary for each facility. Components and allocated spaces will depend on the outcome of a needs analysis and a Service Plan that is based on the location, size and the needs of the area in which the ED is to be sited.

501568 300 .61.00 This section must be read in conjunction with Part B Standard Components, Room Data Sheets and Room Layout Sheets. The following text describes only specific requirements not covered by these other documents.

Standard Components

501572 300 .62.00 Provide the Standard Components as identified in the Generic Schedule of Accommodation. Provision of Offices, Workstations and support areas will be dependant on the Operational Policy and service demand and may vary from the Schedule of Accommodation, however, room sizes should remain consistent. See also Planning Models and Functional Areas.

Non-Standard Components

501574 300 .63.00 Provide the Non Standard Components as described in this section, according to Operational Policy and service demand.

501563 300 .64.00 BAY - PHONE/VENDING MACHINES

DESCRIPTION AND FUNCTION

An area for provision of vending machines and public telephones for use by patients staff and visitors. Vending machines providing a wide range of snacks and drinks are now available and may contribute to reduced stress levels in the waiting area especially in larger facilities where long wait times may be expected.

Refer to Part C of these Guidelines for further information.

LOCATION AND RELATIONSHIPS

Immediately accessible from waiting area.

501565 300 .65.00 BAY - WHEELCHAIR/TROLLEY HOLD

DESCRIPTION AND FUNCTION

A bay for holding arriving and departing patients who rely on a wheelchair or

trolley for transport.

LOCATION AND RELATIONSHIPS

The Wheelchair Trolley Bay must be close to the Staff Station, Triage or Work Area to ensure staff oversee the Bay. Patient dignity and privacy must be maintained while not compromising patient safety.

501567 300 .66.00 COMMUNICATIONS BASE (ASNSW)

The Communications Base is occupied by ASNSW officers to communicate between major hospital centres and the ASNSW Operations Centre for co-ordination of Ambulance movements. The communications base is also a critical co-ordination centre in the event of a disaster.

The Communications Base is occupied by 2-3 people maximum and provides space for all relevant communications devices such as telephone, radio systems and data communications. It should also provide space for writeup and 'downtime'.

The room should be immediately adjacent to the Ambulance entry of the Emergency Department with direct line of sight to incoming ambulance vehicles and the parking bay.

501548 300 .67.00 ENTRY/AIRLOCK

DESCRIPTION AND FUNCTION

The Entry Airlock provides the main access point to the Unit. It will be used by a wide range of people including ambulant patients, relatives and friends. Users may be walking, in wheelchairs, on crutches or being carried by others. Patients will often arrive with a number of support persons. An Airlock minimises the effect of unfavourable weather on the interior environment of the Unit, and can be of assistance in managing security. The size of the airlock should allow for several people to enter before the second door opens.

LOCATION AND RELATIONSHIPS

The ED should be accessible by two separate entrances - one for ambulance patients and the other for ambulant patients.

It is recommended that each entrance area contains a separate airlock that can be sealed by remotely activating the security doors. Access to Treatment Areas should also be restricted by the use of security doors.

The Ambulance Entrance should be screened as much as possible for sight and sound from the ambulant patient entrance. Both entrances should direct patient flow towards the Reception/Triage Area.

The general entrance to the ED must be at ground floor level, well marked, illuminated, and covered. It shall provide direct access from public roads for ambulance and vehicle traffic, with the entrance and driveway clearly marked. If a raised platform is used for ambulance discharge, provide a ramp for pedestrian and wheelchair access.

The entrance to the ED shall be paved to allow discharge of patients from cars and ambulances. Temporary parking should be provided close to the entrance.

501569 300 .68.00 AMBULANCE TRIAGE

501569 300 .68.00

DESCRIPTION AND FUNCTION

The Reception Triage Area is to receive and assess patients arriving in the Unit after basic clerical work has been completed. Patients will be interviewed and undergo clinical measurement before being allocated a triage category, which defines how quickly they must be treated.

LOCATION AND RELATIONSHIPS

The Reception / Triage Area should have clear a vision to the Waiting Room, the children's play area (if provided) and the Ambulance Entrance. The Reception / Triage Area may allow staff to perform observations and provide first aid in relative privacy.

501583 300 .69.00 DECONTAMINATION SHOWER

DESCRIPTION AND FUNCTION

A Decontamination Shower is provided to shower patients who arrive in the Unit contaminated with toxic and/or infectious substances. It must include a flexible water hose, floor drain and contaminated water trap.

Consideration should be given to inclusion of a Personal Protective Equipment Bay with the decontamination shower.

LOCATION AND RELATIONSHIPS

Must be directly accessible from the Ambulance Bay without entering any other part of the unit.

501684 300 .70.00 PATIENT BAYS - ACUTE TREATMENT

DESCRIPTION AND FUNCTION

Acute Treatment Areas are used for the management of patients with acute illnesses. Depending on the condition of each patient the bay may be monitored.

Acute Treatment Bays are provided for a variety of purposes including:

+ Paediatric use;

+ For patients undergoing nebuliser therapy;

+ For general purposes.

Equipping for each of these purposes will vary.

LOCATION AND RELATIONSHIPS

In a central location that is visible from the Staff Station.

All acute patient beds must be situated where they can be observed from the Staff Station. Access to the Clean and Dirty Utility Rooms, Procedure Room, Pharmacy Room, and Patient Shower and Toilet is necessary.

501658 300 .71.00 PATIENT BAY - NON ACUTE TREATMENT

DESCRIPTION AND FUNCTION

For observation and treatment of patients who need further assessment or observation (up to 24hrs) before being discharged or admitted.

LOCATION AND RELATIONSHIPS

In a central location that is visible from the Staff Station.

501585 300 .72.00 PATIENT BAY - RESUSCITATION

DESCRIPTION AND FUNCTION

The Resuscitation Room/Bay is used for the resuscitation and treatment of critically ill or injured patients.

LOCATION AND RELATIONSHIPS

The Resuscitation Room/Bay requires:

+ Immediate access from the Ambulance Entry;

+ Easy access from the Staff Station to allow effective communication and summoning of staff;

+ Separation from the Acute Treatment Areas to allow privacy for the patient and relatives, and uninterrupted work space and access for staff;

+ Easy access to Imaging, ICU and Operating Unit;

+ Easy access from the Ambulance Entrance but separate from patient circulation areas;

+ Easy access to the Acute Treatment/Observation Area from the Staff Station;

+ Space to ensure 360 degree access to all parts of the patient for uninterrupted procedures;

+ Circulation space to allow movement of staff and equipment around the work area;

+ Space for equipment, monitors, storage, wash up and disposal facilities;

+ Appropriate lighting;

+ Appropriate heating and isolation lock-down;

+ Equipment to hang IV fluids;

+ Maximum possible visual and auditory privacy for the occupants of the room, other patients and relatives;

+ Solid partitions between it and other areas (movable partitions eg curtains between bed spaces are recommended).

501591 300 .73.00 PATIENT BAY - TREATMENT/RESUSCITATION

DESCRIPTION AND FUNCTION

This space is used in smaller facilities and fulfils the role of both Treatment and Resuscitation Bays.

LOCATION AND RELATIONSHIPS

Similar to Resuscitation.

503035 300 .74.00 TREATMENT ROOM - SECURE ASSESSMENT

DESCRIPTION AND FUNCTION

An ED should have adequate facilities for the safe reception, assessment, stabilisation and initial treatment of patients presenting with acute mental health problems and behavioural disturbance. The main purpose of such an area is to provide a safe and appropriate space to interview and stabilise patients.

Ease of access to toilet facilities should be considered.

501571 300 .75.00 TRIAGE CUBICLE

DESCRIPTION AND FUNCTION

A private cubicle where triage staff take a patient's history to allow allocation of a triage category.

LOCATION AND RELATIONSHIPS

Immediately adjacent and connected to Triage.

501618 300 .76.00 X-RAY ROOM

DESCRIPTION AND FUNCTION

A room to conduct radiological examinations of patients to assist in their diagnosis. This room is optional and would only be provided in higher level facilities. In lower level facilities this need would be met by a mobile X-ray machine.

LOCATION AND RELATIONSHIPS

Directly accessible from or immediately adjoining the Resuscitation Bays.

501620 300 .77.00 BAY - PATHOLOGY

DESCRIPTION AND FUNCTION

A designated area for performing laboratory investigations such as arterial blood gas analysis and microscopy.

LOCATION AND RELATIONSHIPS

Accessible from Resuscitation and Treatment Bays.

501708 300 .78.00 LIBRARY

DESCRIPTION AND FUNCTION

A quiet area containing appropriate written, audiovisual and electronic reference materials.

LOCATION AND RELATIONSHIPS

This is an additive space which should be combined with another area eg Meeting Room.

501714 300 .79.00 PLANTROOM

DESCRIPTION AND FUNCTION

Garage space for ambulance vehicles.

LOCATION AND RELATIONSHIPS

TBA

501722 300 .80.00 STAFF OVERNIGHT ACCOMMODATION

DESCRIPTION AND FUNCTION

Motel style rooms with ensuite bathroom for overnight accommodation of staff.

LOCATION AND RELATIONSHIPS

In a quiet location with other Staff Areas near the perimeter of the Unit.

502342 300 .81.00 STORE - CRUTCH

DESCRIPTION AND FUNCTION

An area for the storage of crutches, splints and other aids to mobility.

LOCATION AND RELATIONSHIPS

Close to, and easily accessible from the Plaster Room.

501640 300 .82.00 STORE - DISASTER EQUIPMENT

DESCRIPTION AND FUNCTION

Store for equipment used in retrieval of patients, and for equipment that would be used in a CBR incident.

LOCATION AND RELATIONSHIPS

Close to Ambulance Bay and if appropriate, accessible to helipad.

501650 300 .83.00 STORE - DRUG

DESCRIPTION AND FUNCTION

A room for the storage of drugs and medications. Secure storage and facilities for dispensing of medications is required.

LOCATION AND RELATIONSHIPS

Central to the Unit - easily accessible from Staff Station and bed bays, with observation of entry from Staff Station for security purposes.

501716 300 .84.00 WASH BAY/SINK

DESCRIPTION AND FUNCTION

An area for staff to clean, replenish supplies and wash down ambulance vehicles.

LOCATION AND RELATIONSHIPS

Adjacent to Plant Room.

APPENDICES

Schedule of Accommodation

501578 300 .0.00 Note 1: FPU - Functional Planning Unit, number depends on service plan and activity level.

Note 2: Staff Station should be located centrally within Treatment Area, preferably with direct oversight of Resuscitation Bays. Direct access required to treatment spaces. It may be raised for uninterrupted vision of the patients. It may be partially enclosed to ensure that confidential information can by conveyed without breach of privacy and to provide security to staff and confidential information.

501732 300 .85.00 A generic schedule of accommodation follows.

Note 1: FPU - Functional Planning Unit, number depends on service plan and activity level.

Note 2: Staff Station should be located centrally within Treatment Area, preferably with direct oversight of Resuscitation Bays. Direct access required to treatment spaces. It may be raised for uninterrupted vision of the patients. It may be partially enclosed to ensure that confidential information can by conveyed without breach of privacy and to provide security to staff and confidential information.

ROOM / SPACE	Standard Component	Level 1	Level 2	Level 3	Level 4	Level 5/6	Remarks
		Qtyxm2	Qtyxm2	Qtyxm2	Qtyxm2	Qtyxm2	* Optional
ENTRANCE / RECEPTION -							
ENTRY/AIRLOCK		Shared	Shared	Shared	1 x 10	1 x 10	
RECEPTION	yes	Shared	Shared	Shared	1x 20	1 x 20	Staff to be able to observe & control access Entries and Treatment Areas.
WAITING ROOM	yes	Shared	Shared	1 x 12	1 x 30	1 x 60	Open, observed from Triage & Reception; play area for children, access to outdoors pref
PLAY AREA	yes	Shared	Shared	1 x 3	1 x 10	1 x 10	Defined area adjoining waiting area, or adjacent to paediatric treatment areas.
PARENTING ROOM	yes	Shared	Shared	Shared	1 x 6	1 x 6	Accessible from waiting areas.

BAY - PHONE/VENDING MACHINES		Shared	Shared	1 x 2	1 x 5	1 x 5	Accessible from waiting areas.
BAY - WHEELCHAIR/TROLLEY HOLD		1 x 2	1 x 2	1 x 8	1 x 12	1 x 12	
COMMUNICATIONS BASE (ASNSW)						1 x 12	
AMBULANCE TRIAGE					1 x 12	1 x 12	
TRIAGE CUBICLE				9	9	9	FPU
MEETING ROOM - 12M2	yes				1 x 12	1 x 12	For staff to interview/meet with family & friends of patients.
MEETING ROOM - 9M2	yes	Shared	Shared	Shared	1 x 9	1 x 9	For staff to interview/meet with family & friends of patients.
TOILET - PUBLIC	yes	Shared	Shared	2 x 2	4 x 2	4 x 2	
TOILET - DISABLED	yes	1 x 5	1 x 5	1 x 5	1 x 5	1 x 5	May also include facilities for baby change.
DECONTAMINATION SHOWER		1 x 8	1 x 8	1 x 8	1 x 8	1 x 8	Check Local Authority req'ts for waste water detention requirements.
DISCOUNTED CIRCULATION		30%	30%	30%	30%	30%	
TREATMENT AREA -							
PATIENT BAY - RESUSCITATION					25	25	FPU
PATIENT BAY - ACUTE TREATMENT					12	12	FPU
PATIENT BAY - NON ACUTE TREATMENT					10	10	FPU
PATIENT BAY - TREATMENT/RESUSCITATION		1 x 16	1 x 35	1 x 35			Single room sized for 2 trolleys for resusc & general treatment - level 2 & 3 only.
TREATMENT ROOM	yes				14	14	FPU. Multi functional - forensic/sexual assault, gynae,etc
TREATMENT ROOM - SECURE ASSESSMENT	similar				14	14	FPU. Use for Mental Health patients - secure containment/assessment. Also for gen use.
PATIENT BAY - ACUTE TREATMENT - PAEDIATRIC					10	10	FPU
PLAY AREA	yes	Shared	Shared	Shared	1 x 8	1 x 8	
TREATMENT ROOM - PAEDIATRIC	similar				1 x 14	1 x 14	Similar to other Treatment Areas. Encl bays preferred for privacy & safetyof patients.
ANTEROOM	yes				1 x 6	1 x 6	Accessible/adjacent to Isolation Room.
1 BED ROOM - ISOLATION (CLASS N)	yes				15	15	FPU. Encl Treatment Bays with neg pres ventil'n for isolatable infections.
TOILET - PATIENT	yes				4	4	FPU
PROCEDURE ROOM	similar				1 x 20	1 x 20	Similar to other Treatment Bays, acoustic & visual privacy req'd.
PLASTER ROOM	yes				1 x 14	1 x 14	Splint & crutch store to be included in, or accessible to the plaster room.
STORE - CRUTCH					1 x 2	1 x 2	Close to Plaster Room
X-RAY ROOM					1 x 30*	1 x 30*	May not be req'd if ED near Imaging. Altern may be gantry over Resusc Bays in L5 & 6.
BAY - PATHOLOGY					1 x 1	2 x 1	

SHOWER - PATIENT	yes	1 x 4	1 x 4	1 x 4	1 x 4	1 x 4	Quieter part of unit, but accessible from treatment bays and rooms.
TOILET - PATIENT	yes	1 x 4	1 x 4	1 x 4	1 x 4	1 x 4	
BAY - HANDWASHING	yes	1 x 1	1 x 1	1 x 1	1	1	1 Handwash Bay per 4 Treatment Bays - refer Part D.
DISCOUNTED CIRCULATION		40%	40%	40%	40%	40%	
SUPPORT AREAS -							
STAFF STATION	yes	Shared	Shared	1 x 6	1 x 20	1 x 30	2sqm per staff; may store trolleys, resusc eqt, disposables, drugs, etc. Ref Note 2.
X-RAY VIEWING & REPORTING	yes				1 x 12	1 x 12	
CLEAN UTILITY	yes	Shared	Shared	1 x 4	1 x 12	1 x 12	
DIRTY UTILITY	yes	Shared	Shared	Shared	1 x 10	1 x 10	
STORE - GENERAL	yes	Shared	Shared	Shared	1 x 20	1 x 20	
STORE - EQUIPMENT	yes	Shared	Shared	Shared	1 x 20	1 x 20	
STORE - DISASTER EQUIPMENT					1 x 8	1 x 8	
BAY - MOBILE EQUIPMENT	yes	Shared	Shared	1 x 4	1 x 4	2 x 4	
BAY - MOBILE EQUIPMENT (X-RAY)	yes		1 x 2	1 x 2	1 x 2	1 x 2	
BAY/ROOM - BEVERAGE	yes	Shared	Shared	Shared	1 x 8	1 x 8	
BAY - LINEN	yes	Shared	1 x 2	1 x 2	1 x 2	1 x 2	
STORE - DRUG		Shared	Shared	Shared	1 x 5	1 x 5	
DISPOSAL	yes	Shared	Shared	Shared	1 x 8	1 x 8	
CLEANER'S ROOM	yes	Shared	Shared	Shared	1 x 5	1 x 5	
BAY - RESUSCITATION TROLLEY	yes	Shared	1 x 2	1 x 2	1 x 2	1 x 2	Rapid emerg access reqd & from this area to patient areas; prefer adj to Staff Stn.
DISCOUNTED CIRCULATION		25%	25%	25%	25%	25%	
SHORT STAY WARD/ EMERGENCY MEDICINE UNIT							
PATIENT BAY - NON ACUTE TREATMENT					10	10	FPU
ANTEROOM	yes				1 x 6	1 x 6	Accessible/adjacent to Isolation Room.
1 BED ROOM - ISOLATION ROOM (CLASS N)	yes				1 x 15	1 x 15	
ENSUITE	yes				1 x 5	1 x 5	For Isolation Room
TOILET - PATIENT	yes				1 x 4	1 x 4	
SHOWER - PATIENT	yes				1 x 4	1 x 4	
STAFF STATION	yes				1 x 12	1 x 15	2sqm per staff; may store trolleys, resusc eqt, disposables, drugs, etc. Ref Note 2.

BAY - LINEN	yes				1 x 2	1 x 2	
BAY - HANDWASHING	yes				1 x 1	1 x 1	
DIRTY UTILITY - SMALL	yes					1 x 8	
DISCOUNTED CIRCULATION		30%	30%	30%	30%	30%	
PRIMARY CARE AREA -							
CONSULT ROOM	yes	1 x 12	1 x 12	1 x 12	12	12	FPU
CONSULT - SEXUAL ASSAULT	similar				1 x 12	1 x 12	Use for sexual assault consultations, may also be used for general purposes.
ENSUITE	yes	1 x 5	1 x 5	1 x 5	1 x 5	1 x 5	For one consult room or for consult room - sexual assault where provided.
CONSULT - ENT/ OPTHALMOLOGY	similar				1 x 12	1 x 12	
CONSULT - DENTAL						1 x 12*	Determined on need/activity.
PATIENT BAY - ACUTE TREATMENT (NEBULISER)					1 x 4*	1 x 4*	Nebuliser chair area; inclusion determined on need/activity.
BAY - LINEN	yes			1 x 2	1 x 2	1 x 2	
BAY - HANDWASHING	yes				1 x 1	1 x 1	
STAFF STATION	yes				1 x 10	1 x 12	2sqm per staff; may store trolleys, resusc eqt, disposables, drugs, etc. Ref Note 2.
DISCOUNTED CIRCULATION		20%	20%	20%	20%	20%	
STAFF AREAS -							
STAFF ROOM	yes	Shared	Shared	Shared	1 x 20	1 x 30	1.5m2 per staff member.
CHANGE - STAFF - FEMALE	yes	Shared	Shared	Shared	1 x 14	1 x 14	Incl toilets, shwrs, lockers. Calc for max staff per shift; overview access from Rec/Ent
CHANGE - STAFF - MALE	yes	Shared	Shared	Shared	1 x 12	1 x 12	Incl toilets, shwrs, lockers. Calc for max staff per shift; overview access from Rec/Ent
OFFICE - SINGLE PERSON 9M2	yes				2 x 9	4 x 9	NUM + Secretary, CNC, CNE, depending on level of service.
OFFICE - SINGLE PERSON 9M2	yes				1 x 9		Staff Specialist
OFFICE - SINGLE PERSON 12M2	yes				1 x 12	1 x 12	Director
OFFICE - 2 PERSON SHARED	yes				1 x 12		Registrars
OFFICE - 3 PERSON SHARED	yes					3 x 15	Staff specialist, Registrars, general use.
MEETING - MEDIUM/LARGE	yes	Shared	Shared	Shared	1 x 15	1 x 25	
MEETING - 12M2/MEDIUM	yes	Shared	Shared	Shared	1 x 12	1 x 15	For staff to interview/meet with family & friends of patients.
LIBRARY					1 x 3*	1 x 3*	Optional - add to another space.
STORE - PHOTOCOPY/ STATIONERY	yes	Shared	Shared	Shared	1 x 8	1 x 8	
DISCOUNTED CIRCULATION		20%	20%	20%	20%	20%	

AMBULANCE SERVICE -							
RECEPTION	yes		1 x 5	1 x 5	1 x 5		
PLANTROOM			35	35	35		ASNSW Plantroom - 40m2 per bay.
WASH BAY/SINK			1 x 40	1 x 40	1 x 40		
OFFICE - SINGLE PERSON 9M2	yes		1 x 9	1 x 9	1 x 9		
OFFICE - SHARED	similar	1 x 12	1 x 15/20	1 x 15/20	1 x 15/20		2 - 4 people sharing
STAFF OVERNIGHT ACCOMMODATION			1 x 25	1 x 25	1 x 25		
STORE - GENERAL	yes		1 x 15	1 x 15	1 x 15		
STORE - DRUG			1 x 5	1 x 5	1 x 5		
STAFF ROOM	yes	Shared	Shared	Shared	Shared		
CHANGE - STAFF	yes	Shared	Shared	Shared	Shared		
DISCOUNTED CIRCULATION		15%	15%	15%	15%	15%	

Functional Relationships

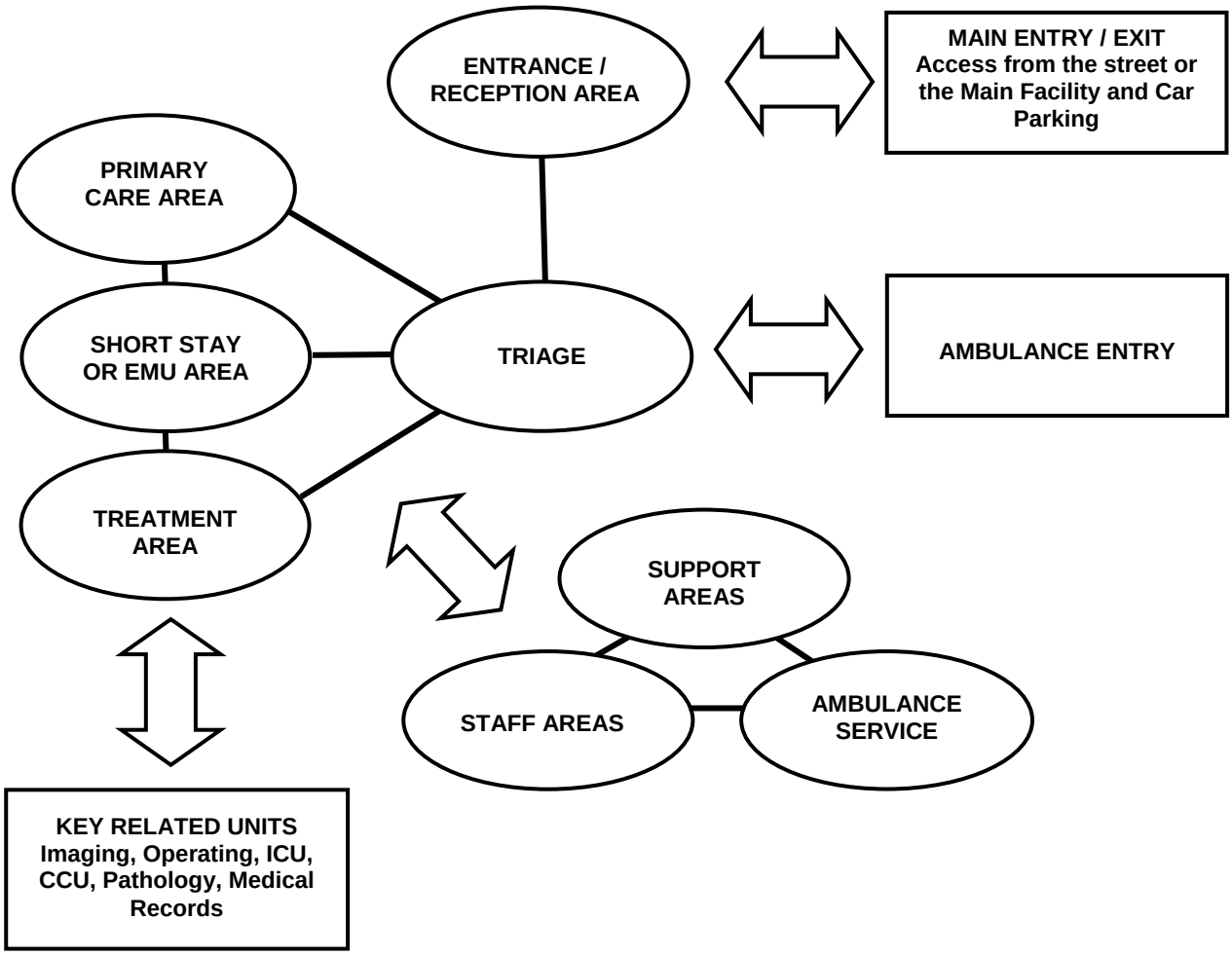
501733 300 .86.00 A diagram showing key functional relationships is attached.

Checklists

207104 300 .87.00 A checklist of issues to be addressed in the design of EDs is attached to this document. Refer also to Part C of these Guidelines.

FUNCTIONAL RELATIONSHIP DIAGRAM – EMERGENCY UNIT

The following diagram sets out the relationships between zones in an Emergency Department:



SECURITY ISSUES TO BE CONSIDERED IN EMERGENCY UNIT

GENERIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. 24 hours a day / 7 days per week access to this Department.	1. A secure environment separating Waiting from Clinical Areas. 2. Appropriately-sized Waiting Area including adequate vending machines, public telephones, toilet facilities including baby change facility, comfortable seating, etc. 3. Minimise entry and exit doors with close observation of these doors.

SPECIFIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Conflict with patients and relatives	1. Install CCTV with video playback in security office where necessary, provide additional monitor in staff station. 2. Install CCTV on 'after hours' access points to allow clinical staff to monitor this area. 3. Provide video and/or intercom points to 'after hours' access points. 4. Provide staff with appropriate security barrier/screens including appropriate provisions for patient contact and document transfer. 5. Provide staff with access to both 'fixed' and 'mobile' duress systems. 6. Provide good visibility from staff areas into waiting areas. 7. ED Waiting Room should not have access to other areas of facility 'after-hours'. This should be controlled by security doors/barriers.
2. Access to Department	1. Control of patient/visitor access as above. 2. Provide alternate access/egress to Department for staff - not through Waiting area. 3. Manage Ambulance Entrance to prevent unauthorised access. 4. Access to treatment and staff areas possible only through key-card access system.
3. Patient Files	1. Personnel working on these files must return them to secure area after use or return to Medical Records Department. 2. The provision of internal lockable post boxes to facilitate secure storage. 3. If any electronic files are produced, locate in restricted area of hard drive.
4. Furniture fittings and equipment including Computers, Office and Medical Equipment	1. Non-removable 'Asset No.' on all equipment above a predetermined value. 2. Keep equipment in lockable area.
5. Mental Health patients	1. Concealed medical services panel including electrical points behind the locked cabinet. 2. Alternate exit door for staff in case of emergency.
6. Presence of Police guns.	1. Provision of a gun safe in an appropriate location.
7. Drugs storage	1. Dangerous drug safe within the clean utility area.
8. Furniture in Waiting Area	1. Ensure seating, etc, is either permanently fixed or is of sufficient 'bulk' to prevent its use as a weapon, ie cannot be picked up and thrown. 2. Do not include furniture of fittings that may be utilised as weapons. 3. Provide bench seating selected so that the personal space of waiting people is not invaded.
9. Staff personal effects	1. Provision for lockers in staff areas and lockable desk drawer to keep small personal effects.

SECURITY CHECKLIST – EMERGENCY UNIT

FACILITY:	DEPARTMENT: EMERGENCY UNIT
RISK ISSUE	**DESIGN RESPONSE**
1. Has a CCTV System been considered to monitor the waiting area and/or access to the public access points in the waiting area?	
2. How is 'after hours' access provided for patients and how is this access point monitored?	
3. Has a secure 'barrier' been installed between staff and the waiting area to: (a) monitor the waiting area; (b) provide staff contact with patients; (c) provide adequate visual and audible communication; and (d) allow for document and item transfer.	
4. Do staff have access to both fixed and mobile duress systems?	
5. Is access to patient records restricted to staff entitled to that access?	
6. Is a system implemented to prevent theft of equipment, files, personal possessions, etc?	
7. How does the ED address assessment / treatment of potential Mental Health patients in the ED?	
8. Is a gun safe required and is it incorporated in the design?	
9. Are drug safes installed in accordance with current regulations?	
10. Is the waiting area furniture incapable of being utilised as a 'weapon'?	
11. How is unauthorised access prevented from Ambulance entrance?	
12. Is there a means of access/egress for staff other than through the Waiting Area?	
13. How is after hours access provided for staff?	
14. How is this area secured during and after hours, and is access prevented to other areas of the facility after hours?	
15. Are there lockable storage areas available for specialised equipment?	
16. Is lockable furniture provided for storage of staff personal effects?	
17. Is appropriate bench seating provided for patients/visitors/relatives?	
18. If a TV is provided in Waiting Area, is it securely fixed and out of reach of visitors, etc?	

DESIGN COMMENTARY/NOTES	DESIGN SIGN-OFF
	Name: ……..…….. Position: ……..…….. Signature: ……..…….. Date: ……..……..
	Name: ……..…….. Position: ……..…….. Signature: ……..…….. Date: ……..……..

340 INPATIENT ACCOMMODATION UNIT

INDEX

		Description
500319	340 .0.10	INTRODUCTION
		Preamble
		Introduction
		Policy Statement
		Description of Unit
		PLANNING
		Operational Models
		Operational Policies
		Planning Models
		Functional Areas
		Functional Relationships
		DESIGN
		General
		Disaster Planning
		Environmental Considerations
		Infection Control
		Space Standards and Components
		Finishes
		Fixtures and Fittings
		Safety and Security
		Building Service Requirements
		COMPONENTS OF THE UNIT
		General
		Standard Components
		Non-standard Components
		APPENDICES
		Schedule of Accommodation
		Functional Relationships
		Checklists
		References and Further Reading

INTRODUCTION

Preamble

501050 340 .1.00

This Facility Planning Guideline supports the provision of optimal environments for care of patients. It accommodates requirements for assessment and treatment, and offers flexibility of space provision to respond to changing practices in health service delivery.

Inpatient settings must be flexible and optimally therapeutic to provide a setting that will enhance the individual's capacity for recovery. Providing natural light and pleasant, relaxing surroundings help to create a positive environment, which can assist the delivery of health care services.

A pleasant and high quality physical environment in which care is to be provided will indicate:

+ The patient is valued and respected;

+ The facility is able to provide the appropriate level of care;

+ Recognition of the positive contribution such environments can make in facilitating recovery and decreasing length of stay;

+ That the staff who provide care are valued, skilled and supported to achieve optimal care of the patient in a safe and rewarding working environment.

Such environments contribute to better patient outcomes and better staff conditions and satisfaction.

Patterns of care frequently change, as do the needs of the populations served. Thus it is critical that physical environments are also flexible and can adapt over time in response to changes in practice and treatment.

Introduction

501051 340 .2.00

This Guideline outlines the specific requirements for the planning of an Inpatient Unit. It must be read in conjunction with generic requirements and Standard Components, which are described in Parts A, B, C, and D of these Guidelines. Inpatient facilities with special needs eg Maternity, Paediatrics, Rehabilitation are covered in separate Guidelines.

Policy Statement

501056 340 .3.00

NSW HEALTH POLICIES

NSW Health's policies for the provision of healthcare services are underpinned by the following foundations:

+ Development of appropriate service models to ensure a comprehensive service network throughout the State;

+ Deployment of resources in a fair and cost effective manner to optimise the health outcomes for service delivery;

+ Development and support for enhanced information systems to monitor, plan and evaluate healthcare services.

The policy framework recognises the multiplicity of our community and the fact that special groups within that community require specific consideration to meet their needs and to enhance the effectiveness of any services provided. These groups include:

+ Aboriginal people;

+ People with physical and sensory disabilities;

+ People from culturally and linguistically diverse backgrounds;

+ The elderly;

+ Children.

Description

501052 340 .4.00 DEFINITION OF MEDICAL/SURGICAL INPATIENT UNIT

Medical/Surgical Inpatient accommodation is for general medical and surgical patients.

In larger Health Care Facilities, this unit includes specialist medical and surgical patients, for example - cardiac, neurology/neurosurgery, infectious diseases, integrated palliative care.

In smaller hospitals - it may also accommodate paediatric, palliative care and obstetric patients.

Patients awaiting placement elsewhere may also be accommodated in this type of facility.

General

501053 340 .5.00 FUNCTION

The Inpatient Unit is the basic nursing unit of a hospital. Its prime function is to provide suitable accommodation for the diagnosis, care and treatment of inpatients. Whilst facilitating the delivery of healthcare services to patients, the Unit must also provide facilities and conditions to meet the working needs of staff.

501054 340 .6.00 POPULATION PROFILE

The population of an Inpatient Unit comprises of:

+ Staff including students and volunteers;

+ Patients;

+ Visitors including relatives and other carers.

There are two main groups of staff:

+ Unit-based staff who primarily provide continuous care to inpatients;

+ Visiting staff who provide periodic or specialist care to inpatients, or support services to the Unit.

The Unit patient population may range from the young to the elderly, comprise a variety of medical and surgical conditions, and come from a number of different ethnic and cultural backgrounds. The diversity of patient needs must be identified during the briefing stages, and the facility must be designed with the flexibility to meet current and future needs.

A consumer consultation process will assist in ensuring the service to be provided meets realistic consumer expectations.

Visitors are primarily carers and colleagues of inpatients.

PLANNING

Operational Models

501060 340 .7.00 HOURS OF OPERATION

It is assumed that the Unit will operate 24 hours per day, 7 days per week. This may vary for individual facilities.

501991 340 .8.00 OPERATIONAL CHANGE

The organisation, delivery and practice of bedside care is continually changing. New technologies have resulted in an inpatient population that has reduced lengths of stay, increased interventions and a higher dependence on medical services and staff.

An emphasis on the efficient use of resources has led to maximising utilisation of inpatient accommodation as well as diagnostic and therapeutic facilities.

Organisational change has resulted in new structures and practices such as flat management structures, multi-disciplinary teams, care groups and multi-skilling.

The use of computerised systems reduces the need for personal interaction between staff, proximity to specialised inputs and quantity of paper records.

At the same time, the public have increased expectations about the quality and delivery of services.

501057 340 .9.00 MODELS OF CARE

Service demand and the organisation of the delivery of care are important in determining the nature and design of a facility. Different models of organising patient care continue to be developed.

Models of care and flexibility for services to be provided in the future should be defined in the process of Service Planning and the development of Operational Policies, and must be considered throughout the design process.

The physical environment should permit, not restrict the implementation of a range of models of care.

501058 340 .10.00 LEVELS OF CARE

An Inpatient Unit may deliver the following levels of care:

+ High Dependency Nursing Care;

+ Intermediate Nursing Care;

+ Supported / Self Care.

The Unit should be flexible enough to accommodate differing patient mixes as

well as different models of care.

501059 340 .11.00 BED CONFIGURATION

Ward design should address the following bed configuration issues:

+ Enabling flexibility in bed usage and implementation of swing beds;

+ Enabling wards to be condensed during periods of low occupancy to reduce pressure on recurrent costs;

+ Clustering beds to facilitate meal relief, back-up staff assistance on routine or emergency basis and optimise patient supervision by lower numbers of staff particularly at night;

+ Incorporating identical ward design in large centres, modified only where necessary on clinical grounds;

+ Deciding how observation versus privacy and public expectations affects the choice of one, two or four bed rooms.

Operational Policies

501061 340 .12.00 GENERAL

Operational Policies will vary from Unit to Unit depending on a wide range of factors. Users must define their own Operational Policies. Refer to Part B of these Guidelines for a general discussion on Operational Policies.

Policies that may have a significant impact on the planning of an Inpatient Unit include:

+ Admissions procedures;

+ The manner in which food, linen and supplies are ordered, supplied and stored;

+ Medical records management;

+ Staffing profile.

Staffing

501063 340 .13.00 Staffing levels will vary for each Unit, depending on Operational Policies, specialties nursed in the Unit, availability of staff, case mix, dependency and activity levels.

Planning Models

501064 340 .14.00 BED NUMBERS AND COMPLEMENT

Decisions regarding bed numbers, and the size and composition of units and hospitals shall be made when the individual service configuration and staffing profiles of a hospital are identified. These must be approved by NSW Health. The following discussion is offered as a guide only.

501066 340 .15.00 The preferred maximum number of beds in an Acute Inpatient Unit in a Medical or Surgical Unit is 30. However, this will vary depending on the service needs of

individual facilities.

501055 340 .16.00 BEDROOM MIX

This Guideline assumes a standard mix of 6 One-Bed Room and 6 Four-Bed Rooms in each 30 bed unit. Two-Bed Rooms are generally only provided in specialist areas eg Maternity or where required by local service needs.

The mix of bedroom types to be provided shall be determined at Service Planning level in the planning and briefing stages.

Sanitary facilities shall be directly accessible from all bedrooms.

Bedrooms should be arranged to increase flexibility by allowing the accommodation of a range of different types of patients with regard to gender, age, condition etc.

501069 340 .17.00 SWING BEDS

For flexibility and added options for utilisation it may be desirable to include provisions for Swing Beds. This may be a single bed, a group of beds or an entire Unit that may be quickly converted from one category of use to another eg long-stay beds that may be converted to acute beds.

Facility design for Swing Beds will often require additional corridor doors and provision for switching supervision and nurse call operation from one Staff Station to another. Security may also be an issue such as when converting General/Medical beds to Paediatric beds.

501071 340 .18.00 ISOLATION ROOMS

All One-Bed Rooms shall be designed to accommodate patients requiring isolation. These shall be constructed as Class S rooms in accordance with Part D of these Guidelines (Infection Control).

The provision of Class N or P shall be determined by service planning analysis for the particular facility concerned.

501992 340 .19.00 UNIT PLANNING OPTIONS

The planning of Inpatient Units has evolved significantly since the model developed by Florence Nightingale in the 1860s. This evolution has largely been in response to the technologies and philosophy of health care prevalent at the time.

Numerous studies have been undertaken, comparing space and operational efficiencies of alternative planning layouts. However, no one particular layout has been found to be universally superior.

Contemporary planning layouts include single corridors, double corridors (race track), a combination of the two, L, T and Y shaped units and triangular units.

A number of Inpatient Units may be grouped together to form a larger management unit that may permit greater flexibility of use.

At the other end of the scale, Single Inpatient Units may be subdivided into clusters of bedrooms with clinical care managed at the bedside.

In all cases, planning of an Inpatient Unit will be a response to the physical constraints of the site, local service needs and operational policies.

Functional Areas

501072 340 .20.00 UNIT FUNCTIONAL ZONES

Individual functional spaces with like purposes combine to form Functional Zones:

+ Patient Areas - areas where patients are accommodated or facilities specifically serve patients;

+ Staff Areas - areas accessed by staff, including utility and storage areas;

+ Shared Areas - areas that may be shared by two or more inpatient units.

Services provided and Operational Policies may vary the zoning required.

Functional Relationships

501073 340 .21.00 EXTERNAL

ENVIRONMENT

Inpatient Units should be in a quiet location, with a pleasant outlook and maximum environmental benefits. The location should avoid disturbing sounds, both on and off site eg traffic, mechanical plant, and disturbing views such as cemeteries and mortuaries.

501074 340 .22.00 LOCATION

Inpatient accommodation is the core of every hospital and is supported by a wide range of services. Functional relationships should be determined that will enhance the delivery of those services.

Principal relationships with other Units include:

+ Easy access from the Main Entrance of a facility;

+ Inpatient Units must not be located so that access to one Unit is via another;

+ Ready access to diagnostic facilities such as Medical Imaging and Pathology;

+ Ready access to Emergency and Critical Care Units;

+ Surgical Units require ready access to Operating / Day Procedures Suites;

+ Ready access to staff amenities.

501075 340 .23.00 INTERNAL

The ability to achieve optimum relationships between component spaces depends on many factors including the nominated site, available space, shape of the space available and specific operational requirements.

Optimum internal relationships include:

+ Patient occupied areas form the core of the unit;

+ The Staff Station and associated areas need direct access and observation of Patient Areas;

+ Utility and storage areas need ready access to both patient and staff work areas;

+ Public Areas should be on the outer edge of the Unit;

+ Shared Areas should be easily accessible from the Units served.

502339 340 .24.00 OBSERVATION

Bedrooms and other areas occupied by patients should be designed and arranged give staff the greatest ability to observe patients.

At the same time, patient privacy issues must be considered.

DESIGN

General

501076 340 . GENERIC GUIDELINE

Refer to Parts B and C for general design requirements.

501077 340 .25.00 Inpatient Unit design involves a compromise between the desire to provide patients, visitors and staff with a safe, pleasant and comfortable environment and the ability to operate the Unit efficiently. For example, the patient's need for privacy must not compromise care.

501078 340 .26.00 Refer to Part B Section 80 for general requirements.

Environmental Considerations

501082 340 .27.00 ACOUSTICS

Refer to Part C of these Guidelines.

Noise is a constant source of complaint from patients and may be damaging to their condition. Noise at night is of particular concern. Confidentiality of patient information must also be protected by acoustic isolation.

Noise sources may be both within and outside the Unit and include:

+ Sanitary facilities;

+ Equipment;

+ Other patients;

+ Staff activities eg meetings, cleaning;

+ Areas of public movement, lift lobbies, etc;

+ Traffic.

Solutions to be considered include:

+ Select sound absorbing materials and finishes;

+ Use sound isolating construction;

+ Plan to separate quiet areas from noisy areas;

+ Change operational management.

501083 340 .28.00 NATURAL LIGHT

Natural lighting contributes to a sense of wellbeing, help users find their way through the building and improves service outcomes. The use of natural light should be maximised throughout the Unit.

Natural light must be available in all bedrooms.

501084 340 .29.00 OBSERVATION AND PRIVACY

A major conflict in the design of inpatient accommodation is to allow both patients and staff to be able to see each other while also ensuring patient privacy. Different styles of unit design offer varying degrees of visibility / observation.

The expected patient mix will be a prime factor in resolving the conflict between observation and privacy. For instance, the following types of patients have differing needs / desires:

+ Elderly patients;

+ Private patients;

+ High Dependency patients need almost constant observation;

+ Intermediate care patients require fairly frequent observation;

+ Supported / self-care patients require passing observation only.

Factors for consideration include:

+ Use of windows in corridor walls and/or doors;

+ Location of beds that may affect sight lines;

+ Location of bed screens to ensure privacy of patients undergoing treatment.

+ Location of sanitary facilities to provide privacy for patients while not preventing observation by staff.

501085 340 .30.00 INTERIOR DESIGN

Interior design includes furnishings, style, colour, textures, ambience, perception and taste. This can help prevent an institutional atmosphere. However, cleaning, infection control, fire safety, patient care and the patients' perceptions of a professional environment must always be considered.

Some colours, particularly the bold primaries and green should be avoided in

areas where clinical observation occurs such as bedrooms, treatment areas and corridors. Such colours may prevent the accurate assessment of skin tones, eg yellow / jaundice, blue / cyanosis, red / flushing.

Infection Control

501079 340 .31.00 As the diagnosis or infectious status of the patients may not be known on admission, standard precautions must be used for all patients at all times.

Refer to Part D of these Guidelines for further information. Staff handwashing facilities, including disposable paper towels, must be readily available and provided in accordance with the ratio set out in Part D.

Space Standards and Components

501086 340 .32.00 ROOM CAPACITY AND DIMENSIONS

The maximum room capacity shall be four patients.

501088 340 .33.00 Refer to Room Layout Sheets for room dimensions. Overall bed dimensions (buffer to buffer) of 2250 mm long x 1050 mm wide are assumed. Minor encroachments including columns and hand basins (as required) that do not interfere with functions may be ignored when determining space requirements.

501089 340 .34.00 BED SPACING / CLEARANCES

Bed dimensions become a critical consideration in determining final room sizes. The dimensions noted in these Guidelines are a recommended bed space.

501090 340 .35.00 In multiple-bed rooms there shall be a clearance of 1200 mm available at the foot of each bed to allow easy movement of equipment and beds. It is preferable for beds on opposite sides of the room to be offset to provide greater privacy.

501091 340 .36.00 In multiple-bed rooms, the minimum distance between bed centre lines shall be 2400 mm.

501092 340 .37.00 Paediatric bedrooms that contain cots may have reduced bed centres, but consideration must be given to the spatial needs of visiting relatives. To allow for more flexible use of the room the 2400 mm centre line is still recommended.

501093 340 .38.00 ERGONOMICS

Refer to Part C of these Guidelines.

501094 340 .39.00 DISABILITY ACCESS

Refer to Part C of these Guidelines.

501095 340 .40.00 ACCESS

501095 340 .40.00

Adequate access and circulation spaces must be provided for the proper use of patient lifters and mobility aids. Particular consideration must be given to circulation around fixed structures such as baths.

Where possible, facilities should allow wheelchair dependent patients to have their normal amount of activity.

501096 340 .41.00 DOORS

Refer to Part C of these Guidelines.

Doorways must be sufficiently wide and high to permit the manoeuvring of beds and equipment without risk of damage to the doorway or the item being moved, and without creating manual handling risks.

501097 340 .42.00 WINDOWS

Refer to Part C of these Guidelines.

Window sill heights should be low enough to permit a view to the outside by a patient lying in bed.

501098 340 .43.00 CORRIDORS

Refer to Part C of these Guidelines.

Finishes

501102 340 .44.00 WALL PROTECTION

Refer to Part C of these Guidelines.

Adequate wall protection must be provided to surfaces that are subject to damage. Particular attention should be given to areas where bed or trolley movement occurs such as corridors, bed head walls, treatment areas and storage spaces.

501103 340 .45.00 FLOOR FINISHES

Refer to Part C of these Guidelines.

Floor finishes shall be appropriate to the function of the space.

Inpatient Units require consideration to be given to acoustic performance, slip resistance, consequences of patient falls, infection control, movement of beds and trolleys and maintenance.

501104 340 .46.00 CEILING FINISHES

Refer to Part C of these Guidelines.

It should be remembered that patients may spend a considerable amount of time lying in bed looking at the ceiling.

Ceiling finishes shall be selected with regard to appearance, cleaning, infection control, acoustics and access to services.

Fixtures & Fittings

501105 340 .47.00 BED SCREENS

In all bedrooms each patient shall have visual privacy. Movable curtains are recommended. The design for privacy shall not restrict patient access to the entrance, ensuite, toilet or handwashing functions (if included).

501106 340 .48.00 CURTAINS / BLINDS

Each room shall have partial blackout facilities (blinds or lined curtains) to allow patients to sleep more easily during the daytime.

Safety and Security

501099 340 .49.00 SAFETY

Refer to Part C of these Guidelines.

An Inpatient Unit shall provide a safe and secure environment for patients, staff and visitors while remaining a non-threatening and supportive atmosphere conducive to recovery. Patients are often unaware of their capacities or incapacities. They may be weak, unsteady, affected by medication or confused.

Whether involving patients or staff, most accidents occur in rooms containing sanitary facilities.

The facility, furniture, fittings and equipment must be designed and constructed in such a way that all users of the facility are not exposed to avoidable risks of injury.

501100 340 .50.00 SECURITY

Refer to Part C of these Guidelines.

Security issues are important due to the increasing prevalence of violence and theft in Health Care Facilities.

The arrangement of spaces and zones shall offer a high standard of security through the grouping of like functions, control over access and egress from the Unit and the provision of optimum observation for staff.

The level of observation and visibility has security implications.

501101 340 .51.00 Security issues to be considered in Inpatient Units are included, but not limited to, the table at the end of this section.

Building Service Requirements

501107 340 .52.00 INFORMATION TECHNOLOGY / COMMUNICATIONS

Inpatient Unit design should address the following Information Technology/Communications issues:

+ Electronic Health Records;
+ Point of Care Clinicals;
+ Picture Archiving Communication System (PACS);
+ Patient Administration System (PAS);
+ Paging and personal telephones replacing some aspects of call systems;
+ Data entry including scripts and investigation requests;
+ Email;
+ Bar coding for supplies and X-rays / Records;
+ Personal duress claims;
+ Telephone system.

501108 340 .53.00 NURSE CALL

Hospitals must provide a call system that allows patients and staff to alert nurses and other health care staff in a discreet manner at all times.

501109 340 .54.00 Nurse call systems must be designed and installed to comply with AS 3811 - Hard wired Patient Alarm Systems.

DURESS ALARMS

To be provided in accordance with NSW Health Policy. Refer to Part C of these Guidelines.

COMPONENTS OF THE UNIT

Staff Areas

910320 340 . BAY/ROOM - BEVERAGE

DESCRIPTION AND FUNCTION

To comply with Standard Components.

LOCATION AND RELATIONSHIPS

To comply with Standard Components.

Introduction

501111 340 .55.00 This section must be read in conjunction with Part B Standard Components, Room Data Sheets and Room Layout Sheets. The following text describes only specific requirements not covered by these other documents.

Standard Components

501592 340 .56.00 Provide the Standard Components as identified in the Generic Schedule of Accommodation. Provision of Offices, Workstations and support areas will be dependant on the Operational Policy and service demand and may vary from the

Schedule of Accommodation, however, room sizes should remain consistent.

Non-Standard Components

501594 340 .57.00 Provide the Non Standard Components as described in this section, according to Operational Policy and service demand.

501596 340 .58.00 LAUNDRY - PATIENT

DESCRIPTION AND FUNCTION

Optional provision. A Patient Laundry should generally be provided in specialist areas such as Mental Health and Rehabilitation Units, or to meet service demand.

Facilities may be provided for the washing, drying and ironing of patients' personal clothing as required. Storage for cleaning agents should also be provided.

A Patient Laundry shall be 6 m2.

LOCATION AND RELATIONSHIPS

The Patient Laundry shall be located close to patient bedrooms.

Acoustic privacy to this area should be considered.

Patient Laundries should only be provided where they are justified by service demand.

Staff Areas

502013 340 .59.00 BAY - MEAL TROLLEY

DESCRIPTION AND FUNCTION

Similar to Standard Components for Bay - Mobile Equipment.

The requirement for a Bay - Meal Trolley will be dependent on Catering management policies and procedures.

LOCATION AND RELATIONSHIPS

Locate readily accessible to Bedroom Areas.

Schedule of Accommodation

501117 340 .60.00 A Generic Schedule of Accommodation for a 30 Bed Unit at Levels 3, 4, 5, and 6 follows. Although categorised by level of service, this does not necessarily lead to different physical requirements.

The Schedule of Accommodation lists generic spaces that form an Inpatient Unit. Quantities and sizes of some spaces will need to be determined in response to the service needs of each unit on a case by case basis.

ROOM / SPACE	Standard Component					Qty x m2	Remarks
PATIENT AREAS -							* Optional
1 BED ROOM	yes					6 x 15	FPU - mix and no. depend on service demand.
1 BED ROOM - SPECIAL	yes					1 x 18	Min. 1 per facility or 1 per 60 beds, may be shared between 2 x IPUs.
1 BED ROOM - ISOLATION	yes					(15)	Class N or P + associated Anterooms; as required by service deman.
2 BED ROOM	yes					(25)	Provide only in specialist units eg Maternity, Rehab, or if required by service demand.
4 BED ROOM	yes					6 x 42	FPU - mix and no. depend on service demand.
ENSUITE - STANDARD	yes					6 x 5	Directly accessible from 1 Bed Rooms.
ENSUITE - SUPER	yes					1 x 6	Locate with 1 Bed Room - Special.
LAUNDRY - PATIENT						(6)*	Specialist areas eg Mental Health, Rehab; or where required by service demand.
LOUNGE - PATIENT	yes					1 x 20	Provided 1 per 60 beds, or shared between 2 units.
SHOWER - PATIENT	yes					6 x 4	To all 4 Bed Rooms.
TOILET - PATIENT	yes					6 x 4	To all 4 Bed Rooms. - 'full assistance'.
STAFF AREAS -							
BAY/ROOM - BEVERAGE	yes					1 x 4	Open bay. Increase area to 5m2 if enclosed in a room.
BAY - HANDWASHING	yes					4 x 1	Provisional. Qty & location to be determined for eachfacility. Refer Part D.
BAY - LINEN	yes					2 x 2	Qty & location to be determined for each facility.
BAY - MEAL TROLLEY						(4)*	Dependent on catering operational policies.
BAY - MOBILE EQUIPMENT	yes					2 x 4	Qty, size & location depends on equipment to be stored. Quiet location preferred.
BAY - PPE	yes					6 x 1	Plus as required for Unit. Refer Part D.
BAY - RESUSCITATION TROLLEY	yes					1 x 2	
CLEANER'S ROOM	yes					1 x 5	Include separate cupboard for dry goods.
CLEAN UTILITY	yes					1 x 14	Includes medication storage.

DIRTY UTILITY	yes					1 x 12	2 may be required to minimise travel distances.
DISPOSAL ROOM	yes					1 x 8	Provision depends on waste management operational policies.
MEETING ROOM - 9M2	yes					1 x 9	Interview function, small meetings.
OFFICE - CLINICAL/HANDOVER	yes					1 x 12	
OFFICE - SINGLE PERSON 9M2	yes					2 x 9	NUM office, plus for clinical personnel.
PROPERTY BAY - STAFF	yes					1 x 2	Number of lockers depends on staff complement per shift.
STAFF STATION	yes					1 x 14	Accomm'n for ward clerk dep. on operat'l policy. Size, location TBD for each facility.
STORE - EQUIPMENT	yes					1 x 20	Quiet area with access to patient areas. Size depends on eqt stored, and no. of bays.
STORE - GENERAL	yes					1 x 9	Size in accordance with service demand & operational policies.
SHARED AREAS -							
BATHROOM	yes					1 x 15	Provide one per floor, or as required by service demand.
MEETING - MEDIUM	yes					1 x 15	Tutorial. Shared by 2 units.
OFFICE - SHARED 3 PERSON	yes					1 x 15	Use by CNC, Nurse Educator, Registrars, depending on service demand & oper policy.
STAFF ROOM	yes					1 x 18	Shared by 2 units; staff resources, beverage prep.
TOILET - PUBLIC	yes					1 x 3	Shard by 2 units. Access to disabled toilet also required.
TOILET - STAFF	yes					1 x 3	Dedicated staff toilet. Shared by 2 units.
TREATMENT ROOM	yes					(14)*	May be required in specialist units, or shared by >1 unit. Depends on oper policy.
SUB TOTAL						687	Excludes optional spaces, includes shared spaces.
CIRCULATION - 32%						220	
TOTAL						907	

Functional Relationships

501118 340 .61.00 A diagram of key functional relationships is attached.

Checklists

502025 340 .62.00 A security check list is provided at the end of this section. Refer to Part C for more details designing for safety and security.

References and Further Reading

500604 340 .63.00 The following references should be read in addition to the general references provided in these Guidelines.

+ DS16 Medical/Surgical Inpatient Unit, Health Building Guidelines, Capital Works Branch, NSW Health Department, 1993

+ DS26 Mental Health Facility Guideline, Volume 1, NSW Health Department, 2000

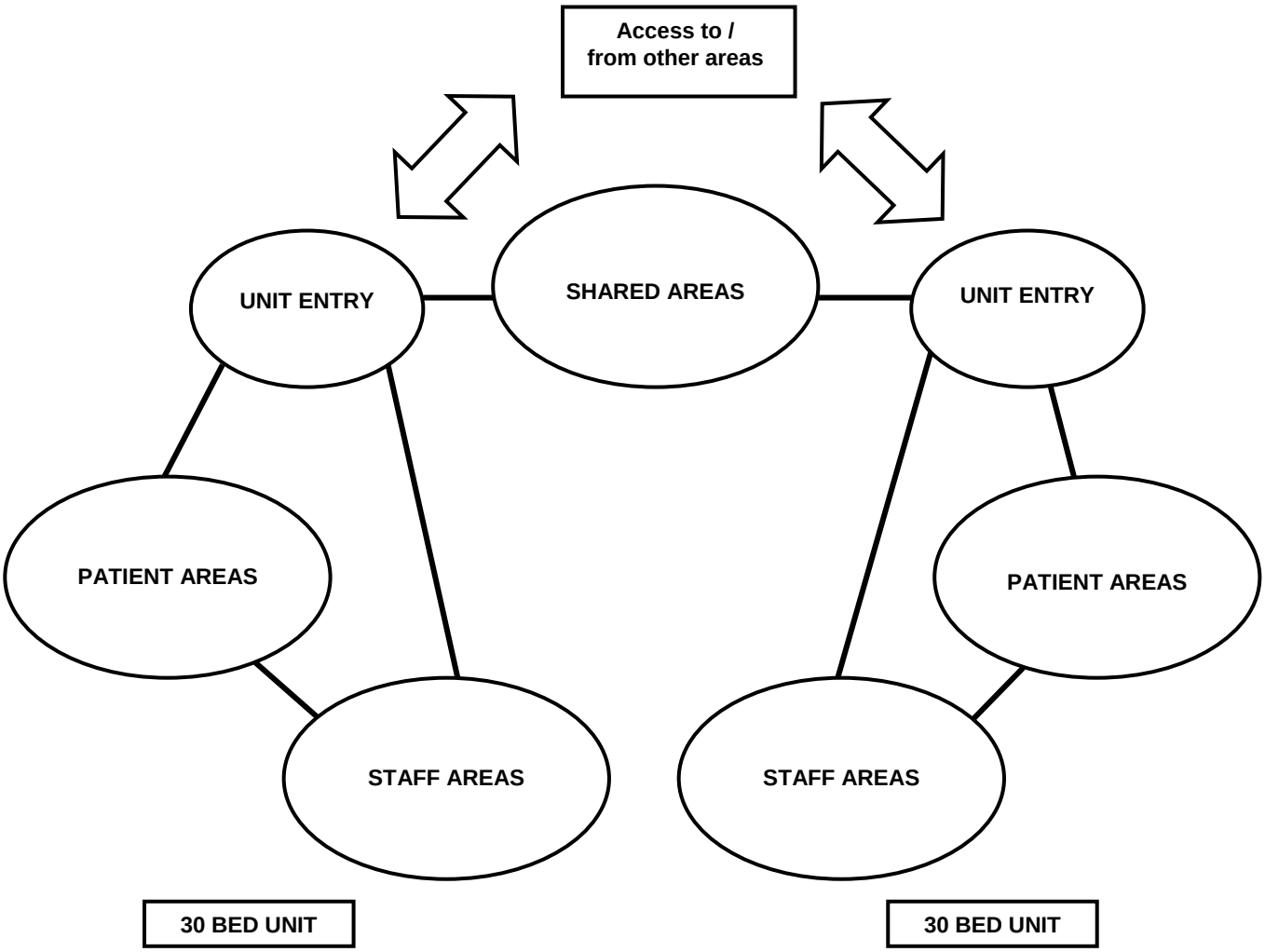
+ Capital Works Guidelines, Capital Works & Asset Management Branch, Queensland Health Department, 1998

+ Inpatient Accommodation: Options for Choice, Health Building Note 04, NHS Estates, HMSO, UK, 1997

+ Design and Care in Hospital Planning, Alan Dilani, Karolinska Institut, Stockholm, 1999

FUNCTIONAL RELATIONSHIP DIAGRAM – INPATIENT UNIT

The following diagram sets out the functional relationships between areas in an Inpatient Unit:



SECURITY ISSUES TO BE CONSIDERED IN INPATIENT ACCOMMODATION

GENERIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Entry by all relevant personnel visiting or working within the Hospital.	1. Minimise entry and exit doors. 2. CCTV monitoring of Ward entry and exit doorways. 3. After hours remote switch and intercom on entry doors. 4. Use of reed switches on all external doors and swipe card entries.

SPECIFIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Relatives / Visitors	1. Good visibility from staff station to Ward. 2. Manage relatives/visitors admittance in the area by restricting visiting hours and/or number of visitors.
2. Patient files	1. Personnel working on these files must return the files to secure area after use or return them to Medical Records Department. 2. If any electronic files are produced, save them in restricted area of hard drive.
3. Furniture fittings and equipment including Computers, Office and Medical Equipment	1. Non-removable 'Asset No.' on all equipment above a predetermined value. 2. Keep equipment in lockable area.
4. Hospital personnel safety	1. Staff working in this area to have knowledge of where the fixed duress system is located and/or use a mobile duress pendant. 2. Design shape of interview rooms and location of desks, etc, in such a way that minimises risk to health personnel. 3. Provide storage and store for items not in constant use that could be used as weapons. (Operational Policy). 4. Minimise furniture that can be used as a weapon, ie, picked up and thrown.
4. Staff and patient personal effects	1. Provision for lockers in staff areas and lockable desk drawer to keep small personal effects. 2. Provision of lockable patient bedside lockers or storage facilities for patient effects. 3. Minimising personal effects kept by patients in the facility
5. Drugs storage	1. Drugs safe to be located in area that can be monitored by staff eg Clean Utility area.

SECURITY CHECKLIST – INPATIENT UNIT

FACILITY:	DEPARTMENT: Inpatient Unit
RISK ISSUE	**DESIGN RESPONSE**
1. Has a CCTV System been considered to monitor the waiting area and/or access to the public access points in the Waiting Area?	
2. How is 'after hours' access provided for patients and how is this access point monitored?	
3. Has a secure "barrier" been installed between staff and the waiting area to: (a) monitor the waiting area; and (b) provide staff contact with patients.	
4. Do staff have access to both fixed and mobile duress systems?	
5. Is access to patient records restricted to staff entitled to that access?	
6. Is a system implemented to prevent theft of equipment, files, personal possessions, etc?	
7. Are drug safes installed in accordance with current regulations?	
8. Is the waiting area furniture incapable of being utilised as a "weapon"?	
9. How is after hours access provided for staff?	
10. How is this area secured during and after hours?	
11. How is the security of patient's valuables managed?	
12. Are there lockable storage areas available for specialised equipment?	
13. Is lockable furniture provided for storage of staff personal effects?	
14. Are interview rooms appropriately designed with specific reference to staff egress, furniture selection, furniture location, provision for storage of equipment, etc.	

DESIGN COMMENTARY/NOTES	DESIGN SIGN OFF
	Name: …… Position: …… Signature: …… Date: ……..
	Name: …… Position: …… Signature: …… Date: ……..
	Name: …… Position: …… Signature: …… Date: ……..

360 INTENSIVE CARE - GENERAL

INDEX

Description

500318 360 .0.10 INTRODUCTION

Preamble
Introduction
Policy Statement
Description of Unit

PLANNING

Operational Models
Planning Models
Functional Areas
Functional Relationships

DESIGN

Disaster Planning
Environmental Considerations
Handwashing - Clinical
Infection Control
Space Standards and Components
Finishes
Fixtures and Fittings
Safety and Security
Building Service Requirements

COMPONENTS OF THE UNIT

General
Standard Components
Non-standard Components

APPENDICES

Schedule of Accommodation
Functional Relationships
Checklists

INTRODUCTION

Preamble

501348 360 .1.00 Intensive Care Units provide critical care to patients with life threatening illness or injury. They provide a concentration of clinical expertise, technological and therapeutic resources which are coordinated to care for the critically ill patient.

The clinical infrastructure and staff profiles reflect the complex nature of the monitoring and therapeutic interventions undertaken to provide the necessary physiological and psychosocial support required.

General

300742 360 .2.00 The nature and extent of Intensive Care type facilities may vary greatly from hospital to hospital, and will depend upon the Operational Policies for each facility. In many instances, no Intensive Care facility will be provided at all.

300743 360 .3.00 In small hospitals, more Intensive Care may be provided in the form of Intensive Nursing Care or High-Dependency Nursing Care beds, within or attached to General Inpatient Units. In these cases, few of the requirements for an Intensive Care Unit will be applicable. The exact level of provision will be established by the Operational Policy.

300823 360 .4.00 Because of their unique requirements, no attempt is made here to suggest standards for all varieties of Specialty Units that may be found in the larger medical facilities. As far as applicable, these standards shall be used. Adaptations, adjustments, and additions shall be made as needed for the functional needs of staff and patients with special consideration for access and inclusion of necessary auxiliary services.

Policy Statement

501350 360 .5.00 The Intensive Care Unit is an integral component of the hospital and, in a broader sense, the critical care system. Demand for Intensive Care Services continues to rise, in part due to increased complexity of treatment. It is anticipated that this trend will continue.

The level of Intensive Care Service provided will vary across sites according to the role delineation of the service and the broader services available at the hospital.

During the planning process it is recommended that planning teams review the following documents:

+ Intensive Care Service Plan, NSW Health, 2001;

+ Intensive Care Strategic Directions - A Framework for the NSW Health System, NSW Health, 1999;

+ NSW Metropolitan Critical Care Plan, NSW Health, 1996;

+ NSW Rural Critical Care Plan, NSW Health, 1998;

+ Better Practice Guidelines for Bed Management, NSW Health, 1998.

Levels of Service/Role Delineation

501349 360 .6.00 LEVELS OF SERVICE/ROLE DELINEATION

There are two key descriptions of role delineation and level of service for Intensive Care Units (ICU). The relationship between the two descriptions is shown in the table below.

The accommodation requirements of the ICU will vary according to its prescribed level of service. The level of service will be determined according to the 'Minimum Standards for Intensive Care Units' (1) and the 'NSW Health Guide to the Role Delineation of Health Services' (2).

There is alignment between the role descriptions contained in these two Guidelines, and it is recommended they be referred to during the planning process for more detailed information.

Minimum Standards (FICANZCA):	NSW Health Role Delineation:
Level 1	Level 4
Level 2	Level 5
Level 3	Level 6

The NSW Health Role Delineations for Intensive Care for Level 2 and 3 Units correspond most closely to requirements of a high dependency service.

A specialist Paediatric Intensive Care Unit equates to a Level 6 (Level 3 FICANZA) intensive care in terms of planning requirements.

(1) Minimum Standards for Intensive Care Units, Joint Faculty of Intensive Care Medicine, Australian and New Zealand College of Anaesthetists and Royal Australasian College of Physicians, June 2003.

(2) Guide to the Role Delineation of Health Services, Third Edition, NSW Health Department, 2002.

PLANNING

Operational Models

501351 360 .7.00 APPLICABLE MODELS

There are four broad models of intensive care applicable within Australia:

501352 360 .8.00 1. COMBINED CRITICAL CARE

The first model is of a combined critical care area encompassing High Dependency Unit, Intensive Care and Coronary Care, usually in a rural or regional hospital where flexibility of bed utilisation is important. This will allow short and medium term intensive care patients to be managed appropriately when required, and at other times, the Unit may be used for the more common cardiology or high dependency patients.

These Units have lower medical and nursing demands, and will usually be staffed on a nurse/patient ratio of significantly less than 'one to one'. These Units may or may not have a dedicated specialist in Intensive Care, but should have an appropriately qualified director who is responsible for ensuring quality assurance, mortality audit and appropriate standards and guidelines for the management of patients.

501353 360 .9.00 2. COMBINED GENERAL INTENSIVE CARE

Larger hospitals and some tertiary hospitals may find it appropriate to combine all patient subgroups within a dedicated Intensive Care Area with the Unit accepting patients with any Intensive Care problem including post-op trauma, neurosurgery, thoracic or cardiothoracic surgery and general medical patients. These Units will usually have a combination of intensive care and high dependency beds, and again, flexibility of medical and nursing workforce is a major consideration in the configuration.

This model offers the advantage that in hospitals where the sub-specialty case load is limited, staff are exposed to a general range of intensive care problems rather than being sent to wards at times when there is no sub-specialty work. Cross fertilisation of education and protocols allows more efficient running when case loads are low within Sub-Specialty Units.

The disadvantage of this model is that many sub-specialty nursing and medical skills may be diluted, and potentially there may be access problems for Sub-Specialty Units when the general intensive care patient load is high.

501354 360 .10.00 3. HOT FLOOR

501354 360 .10.00

The 'Hot Floor' model of Intensive Care collocates Sub-Specialty Intensive Care Units, usually encompassing cardiothoracic, trauma, neurosurgical and general intensive cares, with or without a co-located high dependency unit. Other Sub-Specialty Units such as non-invasive ventilation, burns, spinal, and hyperbaric oxygen therapy may be considered as adjuncts to a Hot Floor.

A more comprehensive Hot Floor model could include collocation of ICU with Theatres, Emergency, CCU and parts or all of Medical Imaging.

The Hot Floor model has the principal advantage of collocating services, avoiding duplication and with a single management structure, allows a more efficient medical and nursing overview. The Hot Floor model envisages one set of medical and nursing policies and procedures within one broad cost centre with common goods and services, porter services, orderly services, etc. Most equipment would be standardised across the Hot Floor avoiding duplicated education and minimising service costs.

The Hot Floor model has the advantage that practitioners, particularly nursing, may sub-specialise, allowing development of important sub-specialty nursing skills such as neurosurgical nursing. Rotation through the units allows all staff to experience different aspects of patient care and facilitates the spread of common techniques such as CVVHD, novel monitoring, ICP monitoring, EEG monitoring, etc.

Because Sub-Specialty Areas within the Hot Floor still receive the bulk of their patients from various medical specialties, patients of sub-specialties rarely have their access to ICU beds blocked by other groups. This allows Specialist Units such as Neurosurgery to optimise patient throughput by effectively partially quarantining beds.

The principal disadvantages of a Hot Floor involves two issues. Firstly, the issue of managing a large cohort of nurses and doctors, and secondly the disadvantage of co-locating units if infection control were to become a major problem. This has been highlighted by the SARS outbreak in Asia in 2003. Clearly, there needs to be careful consideration when developing a Hot Floor of how to sub-segregate Units.

501355 360 .11.00 4. SEPARATE INTENSIVE CARE UNITS

The fourth model encompasses a range of differentiated Intensive Care Units within an institution such as a separate General Intensive Care, a separate High Dependency Unit, a separate Cardiothoracic Intensive Care, a separate Neurosurgical Intensive Care, a separate Burns Intensive Care, a separate Trauma Intensive Care etc.

This model has the advantage of allowing different groups to control portions of the Intensive Care resources of a Hospital. For the Sub-Specialist Units within other units of the institution this can avoid the problems associated with bed blockages.

The model encourages the development of sub-specialty medical and nursing skills, however it has the disadvantages of duplicating management, policies and procedures. The problems of physical isolation can, at times, make it difficult to staff the Unit.

Sub-Specialty Units have the additional disadvantage that often new and innovative techniques are difficult to institute within the Sub-Specialty Intensive Care because of infrequent use.

It needs to be noted that as patient acuity increases, most Sub-Specialty Units are seeing more and more multi-system organ failure patients and general intensive care skills need to be enhanced within Sub-Specialty Units.

501356 360 .12.00 GENERAL COMMENTS ON MODELS

In any of these models of ICU serious consideration should be given to developing extra bed capacity for a collocated High Dependency Unit, whether that Unit be spread within the ICU or be a separate Unit. By identically equipping HDU beds the future demands of Intensive Care can better be guaranteed, and potentially the high dependency parts of an ICU can be used to decant patients should there be an internal disaster or infection control issues.

It is clear that as the size of hospitals contracts and the general severity of illness of inpatients increases, many general nursing wards will also be looking after higher dependency patients with monitoring and more invasive modes of therapy, which will require higher nursing and medical skill mix and numbers. These patients will continue to be nursed in standard 15m2 1 Bed Rooms or 18m2 1 Bed Room - Specials as provided for a general ward.

Planning Models

501358 360 .13.00 Two of the key factors that must be considered in the design of an Intensive Care Unit are the ability of staff to observe patients and the proximity of staff to patients. Decentralised Staff Stations/Observation Desks may sometimes be provided, often at a ratio of one per two beds.

The Unit should comprise a centrally located staff base, with adequate space for monitoring and resuscitation equipment, surrounded by patient care bed spaces, which enables staff to maintain visual contact with patients at all times.

A Unit should comprise a maximum cluster of 10 -12 beds with capacity for Isolation Rooms.

Generally a second staff station will be required for more than 12 beds.

Beyond these, clinical zone support facilities such as clean and dirty utilities, equipment and general storage should be in close proximity.

Zones for staff facilities and support areas for relatives should be on the periphery of the Unit.

For the psychological well being of patients and staff, natural light is highly desirable and patient privacy is essential.

Functional Areas

501360 360 .14.00 PATIENT AREAS:

CLINICAL ZONE

This is the main hub of the Unit with all other zones radiating from it.

The Patient Care Zone contains patient bed spaces located in direct visual contact with the Staff Station. The Staff Station should contain space for charting and central monitoring, resuscitation equipment, storage of regularly used medication and viewing facilities.

Each patient bed space should contain individual medical services including

bedside monitoring, call systems and handwashing facilities.

A number of the spaces should be adaptable to the nursing of infectious and immunocompromised patients.

STAFF AREAS:

STAFF AREA

A Staff Area should be located within close proximity to the Clinical Area, but with total privacy to Patient and Public Areas. Adequate Office Space, Staff Amenities and Tutorial and Reception Facilities should be provided, with the possibility of a space that could be provided or converted to provide overnight staff accommodation when necessary.

CLINICAL SUPPORT

The Clinical Support Area is dependent on the defined level of the ICU and its role within the Health Care Facility.

This area may contain Clean Utilities, X-Ray and Pathology Facilities. Where a vacuum tube system is to be used to transport pathology, pharmacy or documents, it should be located in this Area.

NON CLINICAL SUPPORT

While this Area contains the Dirty Utility and the majority of Storage Areas, it is common for some Mobile Equipment Bays to be located within the Clinical Area for easy access to frequently used equipment.

ENTRANCE RECEPTION:

This Public Area should be at the front of the Facility, with privacy from all Patient Areas. It should provide support facilities for families such as Beverage Areas, Waiting Lounges, Grieving Rooms and Interview Rooms. It is suggested that access and exit of patients from the Unit, be separate from these publicly accessible areas.

Functional Relationships

920166 360 .15.00 EXTERNAL

The ICU should be a separate Unit within the hospital with easy access to the Emergency Unit, Operating Unit and Medical Imaging.

300748 360 .16.00 LOCATION

The location shall be arranged to eliminate the need for through traffic.

204071 360 .17.00 ANCILLARY SERVICES

Laboratory, Radiology, Respiratory Therapy, and Pharmacy Services should be available. These services may be provided from the central departments or from satellite facilities as required by the functional program.

920170 360 .18.00 INTERNAL

PATIENT VISIBILITY

Staff should be able to see patients at all times, either directly or by indirect means such as video monitoring.

This approach permits the monitoring of patient status under both routine and emergency circumstances. Direct line of sight between the patient and the central Staff Station is preferable.

In ICUs with a modular design, patients should be visible from the respective Nursing Sub-Stations. Sliding glass doors and partitions facilitate this arrangement and increase access to the room in emergency situations.

920171 360 .19.00 LIGHT AND WINDOWS

The environment provided should minimise stress to patients and staff. Therefore, natural light and views should be available from the Unit.

Windows are an important aspect of sensory orientation, and as many rooms as possible should have windows to reinforce day/night orientation.

Drapes or shades of fireproof fabric can make attractive window coverings and absorb sound. Window treatments should be durable and easy to clean. If drapes or shades are not a viable option, consider the use of tinted glass, reflective glass, exterior overhangs or louvres to control the level of lighting.

If windows cannot be provided in each room, an alternate option is to allow a remote view of an outside window or skylight.

202030 360 .20.00 BEDSIDE MONITORING

Bedside monitoring equipment should be located in a position that makes it easy for staff to access and view the equipment, but does not interfere with their ability to see or physically access the patient.

The bedside nurse and/or monitor technician must be able to observe the monitored status of each patient at a glance. This goal can be achieved either by a Central Monitoring Station, or by bedside monitors that permit the observation of more than one patient simultaneously.

Neither of these methods are intended to replace bedside observation. Weight-bearing surfaces that support the monitoring equipment should be sturdy enough to withstand high levels of strain over time.

It should be assumed that monitoring equipment will increase in volume over time. Therefore, space and electrical facilities should be designed accordingly.

920190 360 .37.00 STAFF WORK AREAS

The staff working area must include:

+ Adequate space for staff to work in comfort while maintaining visual contact with the patient;

+ Adequate space for patient monitoring, resuscitation equipment and medication storage areas (including a refrigerator);

+ Space for a mobile X-Ray machine;

+ X-Ray viewing facilities enabling simultaneous viewing of multiple X-Rays with

space for X-Ray storage;

+ Adequate room for telephones and other communication systems, computers and data collection;

+ The storage of stationery;

+ Adequate space for a receptionist and/ or ward clerk.

DESIGN

Disaster Management

501361 360 .21.00 Planning for all Units should consider each Unit's role in the local Disaster Management Plan.

As a key Unit, the ICU is likely to be important in any Disaster Management Plan.

Disaster planning is discussed in more detail in Part B of the Guidelines.

Environmental Considerations

920173 360 .22.00 ACOUSTICS

Signals from patient call systems, alarms from monitoring equipment, and telephones add to the sensory overload in Critical Care Units. Without reducing their importance or sense of urgency, such signals should be modulated to a level that will alert staff members, yet be rendered less intrusive.

For these reasons:

+ Floor coverings that absorb sound should be used while keeping infection control, maintenance and equipment movement needs under consideration;

+ Walls and ceilings should be constructed of materials with high sound absorption capabilities;

+ Ceiling soffits and baffles help reduce echoed sounds;

+ Doorways should be offset, rather than being placed in symmetrically opposed positions, to reduce sound transmission;

+ Counters, partitions, and glass doors are also effective in reducing noise levels.

920182 360 .23.00 LIGHTING

Appropriate lighting, both general and task, is to be provided throughout the Intensive Care Unit. Refer to the TS11 for specific requirements.

Space Standards and Components

920179 360 .24.00 INTERIOR DESIGN

Colour can be used to prevent an institutional atmosphere. Cleaning, infection control and the patients' perception of a caring environment should always be considered, but the main functional requirement is for staff to be able to observe the colour of the patients' skin.

Care must be taken to ensure light reflected onto the patient does not impair the ability of staff to judge the condition of patients. Extremes of colour should be avoided, especially yellow/orange tones.

Environmental Considerations

501598 360 .25.00 NATURAL LIGHT

The use of natural light should be encouraged throughout the unit as this contributes to both staff and patient morale, and is considered likely to improve patient outcomes in an ICU.

In particular, where possible, bed room areas should have access to natural light and outlook.

Infection Control

920178 360 .26.00 Clinical Hand-Washing Facilities shall be provided convenient to the Staff Station and patient bed areas. The ratio of provision shall be one Clinical Hand-Washing Facility for every two patient beds in open-plan areas and one in each Patient Bedroom or cubicle.

Refer Part D of these Guidelines.

501597 360 .27.00 Whether the diagnosis or infectious status of patients is known or unknown, standard precautions should be used for all patients at all times.

Refer Part D of these Guidelines.

Space Standards and Components

501362 360 .28.00 BEDS AND COMPLEMENT

Beds in an Intensive Care Unit may be arranged in clusters of up to 12 beds. Each cluster or group of beds shall have access to the minimum support facilities including:

+ Staff Station (generally 1 per 12 beds or part thereof);
+ Clean Utility;
+ Dirty Utility;
+ Store Room/s;
+ Patient Ensuites;
+ Patient Bathroom;
+ Linen Storage;
+ PPE Bays/Storage;
+ Disposal Room;
+ Pathology Area;
+ Offices;
+ Support facilities that may be shared between clusters of beds.

300761 360 .29.00 BED SCREENS

Each patient bed space shall have provision for visual privacy from casual observation by other patients and visitors. Bed screens are recommended for open-plan ICU spaces. Blinds or curtains are recommended for cubicle areas or dedicated Patient Bedrooms.

300756 360 .30.00 BED SPACING/CLEARANCES

Where an open-plan arrangement is provided, bed spaces shall be arranged so that there is a clearance of at least 1200 mm from the side of the bed to the nearest fixed obstruction (including bed screens) or wall.

300757 360 .31.00 To facilitate resuscitation procedures without restricting movement of staff, beds, and equipment, the available minimum clear distance between the head of the bed and any fixed obstruction or wall and between the foot of the bed and the bed screen shall be 900 mm.

300758 360 .32.00 When an open plan arrangement is provided, a circulation space or aisle of 2200 mm minimum clear width shall be provided beyond dedicated cubicle space.

300759 360 .33.00 Separate cubicles and Single Patient Bedrooms including Isolation Rooms, shall have minimum dimensions of 3900 mm in either direction.

300760 360 .34.00 All entry points, doors or openings, shall be a minimum of 1200 mm wide, unobstructed. Larger openings may be required for special equipment, as determined by the Operational Policy.

Building Service Requirements

202019 360 .35.00 CORRIDORS

Beds and trolleys within ICU are large and carry valuable and sensitive equipment, and patients who are severely ill.

The size of the basic ICU bed is often enlarged by the addition of monitors, drips and several staff, making movements more difficult than in other areas of the Hospital.

It is important that adequate circulation space is provided for the safe and efficient movement of these trolleys and beds.

Part C of these Guidelines provides information on the required corridor widths etc for Health Care Facilities.

300755 360 .36.00 OBSERVATION WINDOWS

To assist staff observation of patients in cubicles or Single Patient Rooms, observation windows, conveniently placed to ensure unobstructed vision from the Staff Station, are recommended.

Finishes

501364 360 .38.00 GENERAL

Refer Parts C and D of these Guidelines.

Consideration should be given to the impact of finishes, surfaces and fittings etc on patients and staff;

Slippery floors, protrusions or sharp edges, stability and height of equipment or fittings are all potential hazards and thus should be considered in the design of the facility.

500230 360 .39.00 CLEANING

+ All surfaces should be hard wearing and easily cleaned;

+ All patient surfaces should be washable;

+ Cleaning policies and infection control policies of the Facility should be considered when choosing suitable surfaces.

+ Layouts, fittings, furnishings, floor coverings and detailing will have a significant impact upon the ease of cleaning and the maintenance of the Unit. The design and detailing of the Unit, including height of ledges, nooks, provision of coved skirtings, should facilitate cleaning.

500231 360 .40.00 FLOOR FINISHES

In most Patient Care Areas sheet vinyl is the most appropriate floor finish because of ease of cleaning. In some areas carpet reduces noises from trolleys and traffic, but it increases cleaning time and cost.

Wherever there is a change in floor covering eg vinyl to carpet, there should not be a change in floor level.

500232 360 .41.00 WALL PROTECTION

Wall protection will be required wherever there is potential damage from beds, trolley etc and for hygienic reasons around hand washing facilities.

Fittings & Fixtures

500234 360 .42.00 WORK SURFACES AND BENCHES

All work surfaces and benches should be smooth and impervious, refer to Part C for further information.

Safety and Security

501363 360 .43.00 A list of Safety and Security issues to be considered in the design of the Unit is attached to this document. Refer also to Part C of these Guidelines for general OHS requirements.

Building Service Requirements

502030 360 .44.00 GENERAL

ICU is a highly serviced area, relying on a number of mechanical and electrical systems for its effective operation.

TS11 provides detailed information on building services for Health Care Facilities.

203008 360 .45.00 AIRCONDITIONING

The Unit shall have appropriate airconditioning that allows control of temperature, humidity and air change.

920174 360 .46.00 CLOCKS

The accurate tracking of time within the Intensive Care Unit is critical.

A wall clock should be visible in all Clinical Areas and Waiting Areas. Times displayed in all areas must be synchronised. Clocks in resuscitation areas require the facility to track elapsed time (one for each bed).

See Room Data Sheets and Room Layout Sheets for more detail.

920175 360 .47.00 COMMUNICATIONS

All ICUs should have an intercommunication system that provides voice linkage between the Staff Station, Patient Modules, Staff-Overnight Stay Rooms, Conference Rooms and Staff Lounge. Supply Areas and the Visitors' Lounge / Waiting Room may also be included in the system. When appropriate, linkage to key departments such as Blood Bank, Pharmacy and Clinical Laboratories should be included.

Some types of communication, such as personnel tracking and non-emergency calls, may best be accomplished using visual displays, such as numeric or colour-coded lights, which eliminate unnecessary noise.

In addition to a standard telephone service for each ICU, which should provide hospital-wide and external communications capabilities, there should be a mechanism for emergency internal and external communications when normal systems fail.

500246 360 .48.00 DURESS ALARMS

Should be provided in accordance with NSW Health Policy. Refer Part C of these Guidelines.

500250 360 .49.00 EMERGENCY CALL

All Bed Spaces and Clinical Areas, including Toilets and Bathrooms, should have access to an Emergency Call System so staff can summon urgent assistance. The Emergency Call System should alert to a central module situated adjacent to the Staff Station, as well as to the Staff and Tutorial Rooms. The Nurse Call / Emergency Call System to comply with AS 3811.

920183 360 .50.00 MONITORING

Each Unit should contain an approved patient monitoring system, with visual display for each patient at a central monitoring point, generally the Staff Station. Monitors with high/low alarm and the capability to provide hard copies of displays

are recommended.

More information is provided in the Room Data Sheets and Room Layout Sheets.

500241 360 .51.00 NURSE CALL

Facilities must provide a Call System that allows patients and staff to alert nurses and other health care staff in a discreet manner at all times.

Nurse Call Systems must be designed and installed to comply with AS 3811 - Hard wired Patient Alarm Systems.

DURESS ALARMS

Should be provided in accordance with NSW Health Policy. Refer Part C of these Guidelines.

COMPONENTS OF THE UNIT

General

500254 360 .52.00 This section must be read in conjunction with Part B Standard Components, Room Data Sheets and Room Layout Sheets. The following text describes only specific requirements not covered by these other documents.

Standard Components

500257 360 .53.00 Provide the Standard Components as identified in the Generic Schedule of Accommodation. Provision of Offices, Workstations and support areas will be dependant on the Operational Policy and service demand and may vary from the Schedule of Accommodation, however, room sizes should remain consistent. See also Planning Models and Functional Areas.

Non-Standard Components

500259 360 .54.00 Provide the Non Standard Components as described in this section, according to Operational Policy and service demand.

Patient Areas

501372 360 .56.00 PATIENT BAY - CRITICAL - ENCLOSED

DESCRIPTION AND FUNCTION

An enclosed room with similar functions and needs to the Patient Bay Critical (above). The room is enclosed to provide privacy and separation for the patient. This room is effectively an Isolation Room Class S. Refer Part D of these Guidelines.

LOCATION AND RELATIONSHIPS

Within a group of not more than 12 within easy observation of the Staff Station.

502010 360 .57.00 PATIENT BAY - CRITICAL - ENCLOSED - ISOLATION CLASS N

DESCRIPTION AND FUNCTION

A 1 Bed Isolation Room will provide accommodation for patients requiring isolation, such as infectious, toxic or immunocompromised patients. In some instances, the room may also be used for disturbed patients.

Refer Part D Infection Control.

LOCATION AND RELATIONSHIPS

Isolation Rooms should be clustered and located away from the Unit entrance.

Staff Areas

501376 360 .58.00 BAY - BLANKET WARMING

DESCRIPTION AND FUNCTION

A Bay to accommodate a machine for the storage and warming of blankets.

LOCATION AND RELATIONSHIPS

The Blanket Warming Bay should be located close to the bed bays but not impeding clear access to patients and equipment.

501388 360 .59.00 EQUIPMENT CLEANUP / SUB PATHOLOGY

DESCRIPTION AND FUNCTION

All ICUs must have available 24-hr Clinical Laboratory Services. When this service cannot be provided by the Central Hospital Laboratory, a satellite laboratory within, or immediately adjacent to, the ICU must serve this function. Satellite facilities must be able to provide minimum chemistry and haematology testing, including arterial blood gas analysis.

LOCATION AND RELATIONSHIPS

Accessible from all areas of the Unit.

501406 360 .60.00 OVERNIGHT ROOM

DESCRIPTION AND FUNCTION

An Overnight Room if provided for on-call staff to sleep when they are unable to leave the Unit due to the need to care for a patient.

LOCATION AND RELATIONSHIPS

The Overnight Room should be located in a quieter part of the Unit away from noise and activity.

501389 360 .61.00 RESPIRATORY/BIOMEDICAL WORKROOM

DESCRIPTION AND FUNCTION

A Respiratory/Biomedical Workroom is an area for the repair maintenance and calibration of both respiratory and Biomedical equipment, and as a work base for anaesthetic and biomedical technicians when visiting the Unit. This area will

typically be occupied intermittently by 1 or 2 persons.

LOCATION AND RELATIONSHIPS

A Respiratory/Biomedical Workroom shall be accessible from all areas of the Unit.

501382 360 .62.00 STORE - DRUG

DESCRIPTION AND FUNCTION

A Drug Store is a room for storage of drugs and medications. Secure storage and facilities for dispensing of medications is required.

LOCATION AND RELATIONSHIPS

A Drug Store shall be located central to the Unit - easily accessible from Staff Station and Bed Bays, with observation of entry from Staff Station for security purposes.

501386 360 .63.00 STORE - RESPIRATORY

DESCRIPTION AND FUNCTION

For storage of respiratory equipment used in the ventilation of patients.

LOCATION AND RELATIONSHIPS

This Store should be located centrally within the Unit.

Schedule of Accommodation

501418 360 .64.00 A Generic Schedule of Accommodation for Units at Levels 3, 4, 5, and 6 follows.

The Schedule of Accommodation lists generic spaces that form an Inpatient Unit. Quantities and sizes of some spaces will need to be determined in response to the service needs of each unit on a case by case basis.

ROOM / SPACE	Standard Component		Level 2/3	Level 4	Level 5	Level 6	REMARKS
			Qty x m2	Qty x m2	Qty x m2	Qty x m2	* Optional Provision; FPU - Functional Planning Unit - qty determined by service needs.
ENTRANCE / RECEPTION AREA -							
MEETING ROOM - 12M2	yes			1 x 12			
MEETING ROOM - MEDIUM	yes				1 x 15	1 x 15	
TOILET - PUBLIC	yes		Shared	1 x 3	1 x 3	1 x 3	
WAITING	yes		1 x 15	1 x 15	1 x 15	1 x 15	Calculated at 1.2m2 per able-bodied person, 1.5m2 per wheelchair occupant.
DISCOUNTED CIRCULATION			25%	25%	25%	25%	
PATIENT AREAS -							
ANTEROOM	yes		4	4	4	4	FPU - use for 1 Bed Rooms - Isolation Class N (neg pressure ventilation)
BATHROOM	yes		1 x 15*	1 x 15*	1 x 15*	1 x 15*	Inclusion depends on operational policy of unit.
BAY - LINEN	yes		1 x 2	1 x 2	2 x 2	2 x 2	
BAY - RESUSCITATION TROLLEY	yes		1 x 2	1 x 2	2 x 2	2 x 2	
BAY / ROOM - BEVERAGE	yes		1 x 4	1 x 4	1 x 5	1 x 5	5m2 allows for enclosed room.
ENSUITE	yes		6	6	6	6	FPU; sizes for 'full assistance', ie 2 staff plus medical equipment.
PATIENT BAY - CRITICAL	yes		20	20	24	24	FPU; group of not more than 12,within easy observation of Staff Station.
PATIENT BAY - CRITICAL HIGH DEPENDENCY	yes		20	20	20	20	FPU; group of not more than 12,within easy observation of Staff Station.
PATIENT BAY - CRITICAL ENCLOSED (CLASS S ISOL)	similar		20	20	25	25	FPU; group of not more than 12,within easy observation of Staff Station. Class S Isolation.
PATIENT BAY - CRITICAL ENCLOSED (CLASS N ISOL)	similar		20	20	25	25	FPU; clustered, located away from Unit entrance.
DISCOUNTED CIRCULATION			40%	40%	40%	40%	
STAFF AREAS -							
BAY - BLANKET WARMING					1 x 1*	1 x 1*	Inclusion depends on operational policy of unit.
BAY - HANDWASHING	yes		1	1	1	1	FPU; Refer Part D for numbers & location.
BAY - MOBILE EQUIPMENT	yes		1 x 4	2 x 4	3 x 4	3 x 4	Locate in quiet low traffic areas.

BAY - PPE	yes		1	1	1	1	FPU; Refer Part D for numbers & location.
BAY/ROOM - BEVERAGE	yes				1 x 4	1 x 4	
CLEANER'S ROOM	yes		1 x 5	1 x 5	2 x 5	2 x 5	
CLEAN UTILITY	yes		1 x 12	1 x 12	2 x 12	2 x 12	
DIRTY UTILITY	yes		1 x 10	1 x 10	1 x 10	1 x 10	
DISPOSAL	yes		1 x 8	1 x 8	1 x 8	2 x 8	Inclusion depends on bed numbers & waste management policies.
EQUIPMENT CLEANUP / SUB PATHOLOGY	yes		1 x 8	1 x 8	1 x 18	1 x 18	
MEETING - LARGE	yes		Shared	Shared	1 x 20	1 x 20	Education/Resource - may include Library, 24 hr access req'd; perimeter of unit.
MEETING - MEDIUM/LARGE	yes		Shared	1 x 15	1 x 30	1 x 35	Seminar/Training - alternative location for Library; 24 hr access req'd; perimeter of unit.
OFFICE - CLINICAL/HANDOVER	yes				1 x 12*	1 x 12*	Inclusion depends on operational policy of unit. Close to Staff Station.
OFFICE - SINGLE PERSON 9M2	yes				1 x 9	1 x 9	Senior Nurse Manager
OFFICE - SINGLE PERSON 9M2	yes		1 x 9	1 x 9	1 x 9	1 x 9	NUM
OFFICE - SINGLE PERSON 9M2	yes		1 x 9	1 x 9			Staff Specialist
OFFICE - 2 PERSON SHARED	yes				1 x 12	1 x 12	Staff Specialists - 2 x workstations, may be open plan or in encl office.
OFFICE - SINGLE PERSON 12M2	yes				1 x 12	1 x 12	Medical Director
OFFICE - WORKSTATION	yes		5.5	5.5	5.5	5.5	Registrars - workstation/s, open plan or in encl office. No. determined by staffing.
OFFICE - WORKSTATION	yes			5.5	5.5	5.5	CNC/Educator- workstation/s, open plan or in shared office. No. determined by staffing.
OFFICE - WORKSTATION	yes					5.5	Research - workstation/s, open plan or in shared office. No. determined by staffing.
OFFICE - WORKSTATION	yes			5.5	5.5	5.5	Secretarial - workstation/s, open plan or in shared office. No. determined by staffing.
OFFICE - WORKSTATION	yes		5.5	5.5	5.5	5.5	General - workstation/s, open plan or in shared office. No. determined by staffing.
OVERNIGHT ROOM						1 x 12	Registrar, needs access to bathroom facilities eg Staff Change.
RESPIRATORY/ BIOMEDICAL WORKROOM					1 x 20*	1 x 20*	Inclusion depends on operational policies of unit.
SHOWER - STAFF	yes		Shared	Shared	1 x 2	1 x 2	
STAFF ROOM	yes		1 x 12	1 x 15	1 x 35	1 x 35	
STAFF STATION	yes		1 x 12	1 x 18	1 x 25	2 x 25	
CHANGE - STAFF - FEMALE	yes		Shared	1 x 8	1 x 20	1 x 30	Includes toilets, showers, lockers; size depends on staffing per shift.
CHANGE - STAFF - MALE	yes		Shared	1 x 8	1 x 20	1 x 25	Includes toilets, showers, lockers; size depends on staffing per shift.
STORE - DRUG			1 x 10*	1 x 10*	1 x 10*	1 x 10*	Inclusion depends on operational policy of unit.
STORE - EQUIPMENT	yes		1 x 15	1 x 15	1 x 20	1 x 20	

STORE - FILE	yes					1 x 10	
STORE - GENERAL	yes		1 x 20	1 x 20	1 x 25	1 x 25	
STORE - PHOTOCOPY/ STATIONERY	yes		1 x 5	1 x 5	1 x 10	1 x 12	
STORE - RESPIRATORY	yes					1 x 20*	Inclusion depends on operational policy of unit.
STORE - STERILE STOCK	yes			1 x 15	1 x 30	2 x 30	
X-RAY VIEWING & REPORTING	yes				1 x 12*	1 x 12*	Inclusion depends on operational policy of unit.
DISCOUNTED CIRCULATION			25%	25%	25%	25%	

Functional Relationships

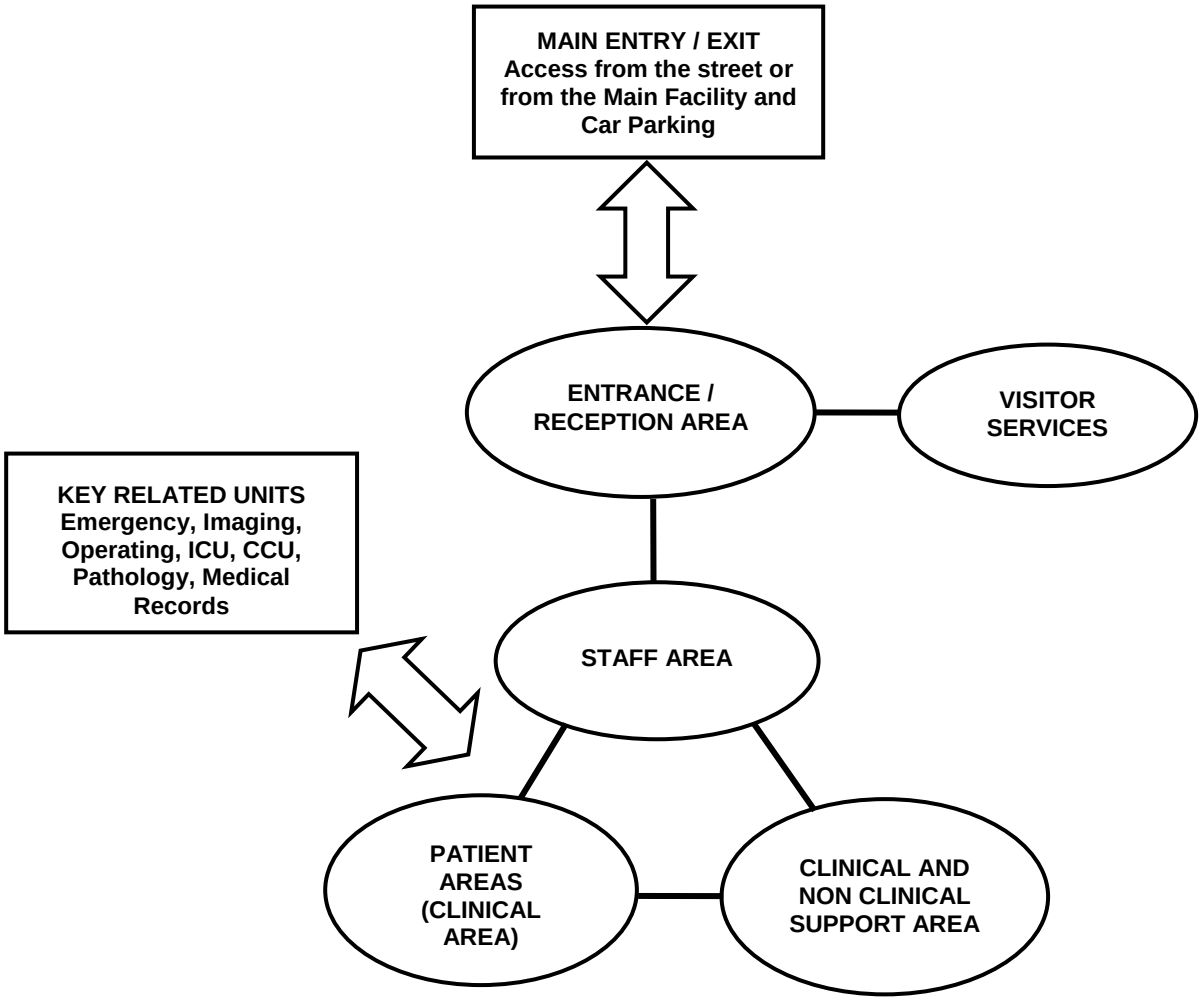
501419 360 .65.00 A diagram showing key functional relationships is attached.

Checklists

502225 360 .66.00 A security checklist is appended to this document. Refer also to Part C of these Guidelines for general requirements.

FUNCTIONAL RELATIONSHIP DIAGRAM - INTENSIVE CARE UNIT

The following diagram sets out the relationships between zones in an Intensive Care Unit:



SECURITY ISSUES TO BE CONSIDERED FOR INTENSIVE CARE UNIT

GENERIC SAFETY AND/ OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Ward area to house intensive care and coronary care patients.	1. Minimise entry and exit doors. 2. Security of entry via intercom and remote release button. 3. Staff entry via keypad or swipe card, this being a separate entry from visitors / relatives.

GENERIC SAFETY AND/ OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Relatives / Visitors	1. Good visibility from Staff Station to Ward. 2. Manage relatives/visitors admittance in the area by restricting visiting hours and/or number of visitors.
2. Patient files	1. Personnel working on these files must return them to a secure area after use or return to Medical Records Department 2. If any electronic files are produced, save in restricted area of hard drive.
3. Furniture fittings and equipment including Computers, Office and Medical Equipment	1. Non-removable 'Asset No.' on all equipment above a predetermined value. 2. Keep equipment in lockable area.
4. Drugs storage	1. Dangerous drug safe within the Clean Utility Area.
5. Hospital personnel safety	1. Staff working in this area to have knowledge of where the fixed duress system is located and/or use a mobile duress pendant. 2. Provision of an adequate waiting area for relatives/visitors that may be in the area 'out of hours'. This area to be able to be secured and monitored by staff.
6. Staff personal effects	1. Provision for lockers in staff areas and lockable desk drawer to keep small personal effects.

SECURITY CHECKLIST - ICU / CCU / HDU

RISK ISSUE	DESIGN RESPONSE
1. Has a CCTV System been considered to monitor the Waiting Area and/or access to the public access points in the Waiting Area ?	
2. How is 'after hours' access provided for patients and how is this access point monitored ?	
3. Has a secure 'barrier' been installed between staff and the waiting area to: (a) monitor the Waiting Area; and (b) provide staff contact with patients.	
4. Do staff have access to both fixed and mobile duress systems ?	
5. Is access to patient records restricted to staff entitled to that access ?	
6. Is a system implemented to prevent theft of equipment, files, personal possessions, etc ?	
7. Are drug safes installed in accordance with current regulations ?	
8. Is the Waiting Area furniture incapable of being utilised as a 'weapon'?	
9. How is after hours access provided for staff?	
10. How is this area secured during and after hours?	
11. Are there lockable storage areas available for specialised equipment?	
12. Is lockable furniture provided for storage of staff personal effects?	

DESIGN COMMENTARY/NOTES	DESIGN SIGN-OFF
	Name: …… Position: …… Signature: …… Date: ……
	Name: …… Position: …… Signature: …… Date: ……
	Name: …… Position: …… Signature: …… Date: ……

390 INTENSIVE CARE - NEONATAL / SPECIAL CARE NURSERY

INDEX

Description

503160 390 .0.10 INTRODUCTION

Preamble
Introduction
Policy Statement
Description of Unit

PLANNING

Operational Models
Operational Policies
Planning Models
Functional Areas
Functional Relationships

DESIGN

Access
Car Parking Requirements
Disaster Planning
Infection Control
Environmental Considerations
Space Standards and Components
Safety and Security
Finishes
Fixtures and Fittings
Building Services Requirements

COMPONENTS OF THE UNIT

General
Standard Components
Non-Standard Components

APPENDICES

Schedule of Accommodation
Functional Relationships Diagram
Checklists
References and Further Reading

INTRODUCTION

Preamble

503161 390 .1.00

This Guideline reflects the increasing emphasis and evidence in the field of perinatal medicine on the importance of the physical environment on newborn development in the short and long term with particular and especial reference to
- light – both natural and artificial - in terms of protecting vulnerable undeveloped retina, visual pathways and establishment of normal circadian rhythms
- temperature and humidity control
- the negative impact of excessive noise on hearing and brain development and means to control that noise and
- infection control.

Equally as important is increasing recognition of the importance of direct family involvement in care, but more importantly, in the decision-making process with regard to that care. There is evidence to suggest that parenting education and participation in care may reduce lengths of stay, readmission rates and improve long term outcomes.

This Guideline also examine initiatives such as transitional care (or care-by-parent), home care and support, and lactation support as part of the Baby Friendly Hospital Initiative –"an effort by UNICEF and the World Health Organization to ensure that all maternities, whether free standing or in a hospital, become centers of breastfeeding support". www.unicef.org

The needs of staff are also of great importance and the Guideline recognises that environment can have a major impact on staff satisfaction, recruitment and retention in what is a highly specialised and potentially very stressful field with high risk of "burnout". There is evidence to show that reduction of stress improves quality of care and staff health and well-being.

It also recognises that education and staff training are integral elements of tertiary neonatology and facilities for these activities are addressed.

A wide range of guidelines and literature from around the world have been consulted and all the recent literature is emphasing the same priorities – units must be baby-centred, family-centred and staff-oriented.

Introduction

503162 390 .2.00

GENERAL

The Guide to the Role Delineation of Health Services (NSW Health, Third Edition 2002) defines 6 levels of Neonatal Services. However, for the purpose of developing a facility for newborns, 3 levels of newborn care are generally applied.

Level 1 refers to healthy newborns without complications of 37 weeks gestation or greater and birth weight 2,500 grams or greater. Facilities for this category of baby are excluded from this Guideline but details may be found in the Maternity Unit Guideline. Every unit providing maternity (birthing) services will require, as a minimum, facilities for resuscitation and stabilisation prior to transfer to a higher level Neonatal Unit with which it will normally have formal networks even though the majority of babies will room in with their mothers.

The Special Care Nursery for Level 2-only newborns are described in the Guideline for Maternity Facilities (HPU 510) where the Nursery may be collocated with maternity beds and birthing rooms to form an integrated Unit. Nevertheless, the design principles outlined in these Guidelines apply equally to these Nurseries. This Guideline specifically addresses facility requirements for Neonatal Intensive Care and Special Care Nurseries where they form a discrete Unit as part of a Women's Hospital / Centre or a Children's Hospital.

503163 390 .3.00 DEFINITION OF LEVELS OF CARE 2 AND 3

Level 1 – Refer previous section.

The following descriptions may be used as a general guide but are not necessarily all-inclusive and may need to be modified / adapted to local conditions.

Level 2 - Special Care Nursery - 3 levels:
High dependency care includes:
- Acute care short of life support
- Immediate step-down care from Level 3

Low dependency care includes:
- A range of mild to moderately ill babies and
- Convalescent babies.

Long term care includes:
- Babies with ongoing conditions not yet suitable for home care; includes oxygen-dependent babies and some with neurological and surgical conditions.

Level 3: Neonatal Intensive Care
Applies to babies requiring continuous life support and comprehensive care for complex and critical illness and prematurity. Level 3 may be further subdivided into 3 levels differentiated by the capability to provide advanced medical and surgical care.

Level 3A
Babies with birth weight of more than 1000 g and gestational age of more than 28 weeks. Continuous life support can be provided but is limited to conventional mechanical ventilation.

Level 3B
Babies with extremely low birth weight (1000 g or less) and 28 or less weeks' gestation requiring advanced respiratory support such as high-frequency ventilation and inhaled nitric oxide.

Requires on-site access to a full range of paediatric medical subspecialties and medical imaging on an urgent basis including CT, MRI and echocardiography.

Paediatric surgical specialists and anesthetists either on site or at a closely related institution to perform major surgery.

Level 3C units have the capabilities of a level 3B unit and are only located in Children's Hospitals that can provide extracorporeal membrane oxygenation (ECMO) and surgical repair of serious congenital cardiac malformations requiring cardiopulmonary bypass.

Source: American Academy of Pediatrics, Levels of Neonatal Care, Committee on Fetus and Newborn, Pediatrics, 2004; 114;1341-1347.

Policy Statement

503164 390 .4.00 Models of Maternity Service Provision across NSW – Progressing Implementation of the NSW Framework for Maternity Services, NSW Health, April 2003.

Description of the Unit

503165 390 .5.00 DEFINITION OF HEALTH PLANNING UNIT (HPU)

A Neonatal Intensive Care Unit (Level 3) is a discrete and environmentally-

controlled unit designed, equipped and staffed to care for premature and medically unstable or critically ill newborns who require constant nursing care and supervision, complicated surgical procedures, continuous respiratory support or other intensive interventions.

The Special Care Nursery caters for newborns requiring less care and supervision -although not necessarily excluding respiratory support - but who are not sufficiently stable to be discharged, and it may serve as a step-down from intensive care.

Spatial requirements for each of these categories varies but there must be the flexibility to minimise unnecessary moving of infants from bay to bay.

503166 390 .6.00 GENERAL DESIGN

Design and layout must be “baby-centred”, “family-centred” and must provide appropriate facilities for staff comfort, efficiency and “time-out” when needed.

“The design shall allow for flexibility and creativity to achieve the stated objectives.”
Recommended Standards for Newborn ICU Design
Report of the Fifth Consensus Conference on Newborn ICU Design
January 2002, Clearwater Beach, Florida

503167 390 .7.00 BABY-CENTRED

Unit design must create an environment that:
- provides facilities to enable best clinical practice from full life support to convalescent care
- allows optimal infant development via attention to noise reduction, light and temperature controls
- allows easy family access 24 hours/day
- minimises risk of adverse occurrences, especially infection
- provides flexibility for future changes in practice and technology.

503168 390 .8.00 FAMILY-CENTERED

Unit design must recognize the pivotal role of the parents and other family members as part of the baby’s care team. The environment must:
- create a welcoming entry
- provide adequate space and facilities for families at the cotside
- provide live-in parent accommodation within the Unit
- allow for privacy and encourage physical contact, attachment and breastfeeding / expression of breast milk
- provide quiet facilities for counselling, grieving and care planning
- provide “retreat” facilities
- facilitate communication with staff.-

503169 390 .9.00 STAFF-ORIENTATED

Unit design must provide optimal working conditions and facilities for staff that provides / allows for:
- a pleasant and supportive working environment
- flexibility in staff allocation and ease of staff movement
- good access to and observation of patients. Observation may be direct and via remote monitoring
- implementation of good infection control and occupational health & safety practices

- appropriate information technology and communication systems
- staff lounge and adequate staff amenities
- continuing education and training facilities
- facilities for clinical research
- necessary office and administration space.

503170 390 .10.00 COT NUMBERS AND MIX

The number of cots and mix of levels will be determined by the Service Plan. Not all units will operate Level 3 cots (although all will need facilities for resuscitation, stabilisation and transfer) but most units with Level 3 cots will also have Level 2 cots, and occasionally accommodation for normal Level 1 babies.

“The number of cots in the SCN is determined by the spectrum of patients managed and the admission and discharge policies of the unit. In particular, the ability to transfer babies to other hospitals with SCNs or to Hospital-in-the-Home (HITH) or other home-supervised care will influence the number of cots required. In general, two to four SCN cots are required for each NICU cot”. (ANZNNU Design Group – Draft Guidelines May 2004)

Cot numbers should aim for an average occupancy rate of 75% to allow for emergencies e.g. unexpected multiple births, retrievals. (UK Neonatal Staffing Study Group. 2002.)

For the purpose of this Guideline, the Schedule of Accommodation details 50 cots – 20 Level 3 including 4 isolation rooms and 30 Level 2 - but this is indicative only in order to develop a logical list of the rooms /spaces required to support a given number of cots. Planners must adjust the cot numbers and support spaces in the Schedule of Accommodation to suit individual circumstances.

503171 390 .11.00 FUTURE DEVELOPMENTS

- Increasing technological support / equipment
- Increasingly sophisticated information systems
-
- Increasing rate of pre-term delivery (in part at least because of older maternal age)
- Increased survival rates of all gestational ages
- Increase in multiple births
- Earlier discharge with community support
- Transitional Care (refer Section 15.00)
- “Kangaroo Care”: (A method of skin-to-skin contact to promote parent/infant bonding especially for stable premature babies). www.austprem.org.au/journey/nicu/kangaroo_care
- Increasing use of nitric oxide in the treatment of very premature infants
- Improvements in neurodevelopmental care – management of noise and light
- Long term follow-up
- Increased requirement for staff study/inservice
- Nurse practitioners
- Increased requirements for senior medical to sleep in unit for quality of care and medico-legal reasons
- Increasing trend towards single rooms
- More demand for families to live in.

Operational Models

503172 390 .12.00 HOURS OF OPERATION

The unit will operate 24 hours per day, 7 days per week. Parents will have round-the-clock access to the Unit.

Emergency admissions will be from the Delivery Suite, Operating Suite or external retrieval so 24 hour readiness for admissions is essential

503173 390 .13.00 SINGLE ROOMS

There is an increasing amount of data advocating increasing spatial separation of neonates including single rooms (for Level 3 neonates only), the advantages of which may be described as follows:
- Increased privacy – acoustic and visual
- Possibility of continuum of care from admission to transition / discharge
- Greater flexibility for parental involvement
- Better infection control
- Individual environmental control of noise, light, temperature
- Minimisation of the need for overnight parent accommodation that – in most instances – rarely meets demand.

Provision of dividing doors between rooms may facilitate management of multiple births and ease of parental access.

If single rooms are the chosen option, continuous high quality electronic monitoring of all clinical parameters to a central console and/or a master/slave system will be required plus sophisticated staff call systems and access to patient information from remote locations. These technologies are available.
Disadvantages
- Increased capital cost – additional square metres, handbasins, doors, glazing
- Diminished physical observation requiring sophisticated electronic monitoring systems and the cost of those systems
- Implications for staffing and impact on recurrent costs
- May impose staffing difficulties when staff leave for breaks
- Limits opportunities for parents to socialise with other parents and obtain peer support thus creating a degree of isolation. If this option is selected, it is important that communal family rooms are provided and centrally located to the cots - not in a remote location - so that parents can get some rest and socialisation without being too far from their babies.

503174 390 .14.00 MODELS OF CARE

Assuming open cot bays, traditionally infants have been separated according to level of acuity i.e Level 3 intensive care and Level 2 special care. This model does however require some cot movement between nurseries - step-down to Level 2 from Level 3 or upwards if condition deteriorates and this may have a negative impact on families who have developed close relationships with the parents of other babies and staff.

One alternative model is a flexible room arrangement that locates infants according to their gestation development and allows the infant to remain in the same cot space – or at least cot bay - for the duration of length of stay. This minimises infant movement, facilitates cohort management and staff support and continuity of care. If this model is chosen, it will have considerable impact on design issues such as provision of medical gases, pendants etc. and all bays in a given nursery may not be identical. However, in large neonatal units the “flexible room arrangement” that would minimise infant movement would require virtually

all cot spaces to be able to take Level 3 babies that in the current climate is not supportable by space nor cost of fittings.

At least 2 levels of care, and possibly more need to flow through the unit. The movement of babies between levels in fact is rarely a negative impact, and indeed most families appreciate the positive aspect of progressing through levels of care; this is often seen as a "graduation". Separating levels of care also allows distribution of staff according to skillmix.

503175 390 .15.00 TRANSITIONAL CARE UNIT (TCU)

As distinct from Parent - Infant Rooms.

Edited extract from "Designing a Neonatal Unit", British Association of Perinatal Medicine, May 2004.

In the context of neonatal services, "Transitional Care" may have two connotations:

1. The group of babies almost ready for discharge who can be cared for almost exclusively by their parents with assistance and support from unit staff. (Important to remember that these babies are still "inpatients" but not the mother even if occupying a bed). (This category of babies are addressed under "Parent – Infant Accommodation in Section 390.34.00)

2. Those infants with a spectrum of conditions that previously required admission to the SCN and may now be managed at the mothers' bedsides. Examples include phototherapy, prophylactic IV antibiotics, hypoglycaemia when it is believed there is no underlying serious pathology, mild respiratory disease not requiring oxygen supplementation and babies of 34 and 35 weeks gestation who are establishing breastfeeding. In this instance, both mother and baby may be considered as inpatients.

Practices vary widely, and thus the number of such beds required is difficult to estimate. The Transitional Care Unit may be seen either as an extension of the neonatal unit or may be more cost-effective managed via a better resourced postnatal unit. However, the babies will require neonatal nursing supervision.

Facilities at the baby cot area include:
- Four GPOs
- One oxygen, one suction and ideally one medical air outlet

(Edited from ANZNN Draft Guidelines).

Operational Policies

503176 390 .16.00 GENERAL

Examples of general hospital policies relevant to most units such as linen supply, waste management etc can be found in Part A of these Guidelines.

503177 390 .17.00 FAMILY INVOLVEMENT

Parents will be encouraged to participate not only in the physical care of their babies but be intimately involved and a partner in the decision-making process regarding care - but only to the extent that they feel comfortable doing so.

They should be able and encouraged to spend as much time as they wish at the cotside.

There also needs to be an area within the Unit where parents may go to relax away from the “intensity” of the cotside.

503178 390 .18.00 FAMILY PROPERTY

Need for lockers and hanging space. For the immediate family, lockable cupboard/s at cotside. For other visitors (overcoats etc) Locker Bay near Entry or in/near Family Lounge. Note that keys get lost so some alternative means of securing items should be considered.

503179 390 .19.00 RESUSCITATION

Facilities for neonatal resuscitation should be carefully thought out for each zone of the Nursery.

Resuscitation of infants in humidicribs may be carried out in situ. However, it may not be appropriate in a multi-cot Level 2 nursery with babies in bassinets, therefore each nursery should have ready access to resuscitation facilities, either fixed within a dedicated resuscitation room/bay or via a mobile resuscitaire. Fixed facilities should include an open radiant-heated cot with appropriate facilities including oxygen, medical air and suction, power outlets, laryngoscopes, equipment for assisted ventilation and a secure store of drugs. Location of a “fixed” bay must be carefully considered.

503180 390 .20.00 NEONATAL FOLLOW-UP

Regular follow-up services may be provided for certain categories of neonates up to 8 years of age to assess neurodevelopment.

Depending on the operational policy of the hospital, how clinic sessions are organised and actual attendance numbers, there may be psychosocial advantages for families and staff to attend follow-up clinics close to the Unit in appropriately equipped rooms (an examination surface, good procedure lighting and everything required for weighing, phlebotomy and transcutaneous bilirubinometry) rather than booking rooms in an Outpatients Clinic. However this may depend on the need for access to support services such as Audiology, Physiotherapy and Developmental Psychology assessments (the latter requiring access to observation room with one-way mirror) and the age of the child at the time.

However, a Consult / Exam Room located close to the NICU entrance but well away from sight or sound of the nurseries may be useful for ad hoc attendances.

503181 390 .21.00 NEONATAL PROCEDURES AND SURGERY

Children’s Hospitals will usually perform neonatal surgery in the Operating Suite. However, some perinatal hospitals may need to perform surgery in the Unit as very unstable infants requiring surgical procedures (PDA ligation (patent ductus arteriosus - birth defect of the heart) / urgent laparotomy) and infants on oscillatory ventilation are not able to be moved safely.

A Procedure Room will be provided for this purpose with relevant lighting, medical gases, power supply. Inhalational anaesthetic agents are not used therefore gas scavenging is not required. The requirements for this room are described in Section 390.80.00 under Non-Standard Components.

In smaller units, an Isolation Room may be equipped for this purpose.

503182 390 .22.00 DOMICILARY / HOME CARE SERVICES

An office base for staff and storage facilities will be required if home care services are provided. These facilities may be located on the perimeter of the Unit with access to an Interview Room and easy egress.

503183 390 .23.00 EQUIPMENT CLEANING

Project staff will need to ascertain whether reusable items such as respiratory tubing, teats and bottles, will be processed in the Unit or sent to the Sterile Supply Unit. An Equipment Cleaning Room is described in Section 380.82.00 under Non-Standard Components.

503184 390 .24.00 STAFF ESTABLISHMENT

The staff establishment will/may include:
- medical staff (Clinical Director, fellows, consultants, registrars and junior medical staff)
- nursing staff (NUM, clinical nurse specialists, lactation consultant, home care nurses)
- educators
- clerical/administrative staff (ward clerk, secretary, data collectors)
- ancillary staff (aide, patient assistant)
- Allied Health staff (social workers, speech pathologist, pharmacist, physiotherapist & occupational therapist.

Provision of offices or workstations will depend on the establishment and the need to be located in/near the unit and will comply with DoH Policy Directive PD2005_576 Office Accommodation Policy – Public Health Organisations and Ambulance Service.

Staff attending on a sessional or irregular basis who are based elsewhere in the Hospital - Allied Health staff in particular - will need access to shared workstations.

503185 390 .25.00 STAFF:PATIENT RATIOS

The design, layout and configuration of the Unit should take into account the nurse to patient ratios that can be expected. These ratios will be determined by senior medical and nursing staff according to the infants' conditions and needs and the access to monitoring systems.

The increasing use of continuous positive airways pressure ventilation (CPAP) should not be viewed as a less intensive form of intensive care, but as a different kind of intensive care that can be just as demanding of nursing expertise.

Planning Models

503186 390 .26.00 LOCATION

Planners should try to provide a location and/or orientation that avoids direct sun into the Nurseries to minimise the need for critical sun protection; a southern aspect is preferred.

If in a Children's Hospital and depending on the size of the respective units, a

location adjacent to the Paediatric Intensive Care may be desirable with ready access to the Operating Suite.

If in a Women's Hospital/Centre, the Unit should be located on the same floor as or no more than one floor away from the Birthing Unit and Caesarean section operating rooms.

Care must be taken to avoid placing the actual nurseries adjacent to noise sources such as plant rooms, lifts and public lobbies.

Functional Areas

503187 390 .27.00 FUNCTIONAL ZONES

- Entry / Reception / Public Areas
- Family Areas
- Patient Areas
- Clinical Support Areas
- Staff Areas

503188 390 .28.00 ENTRY / RECEPTION / PUBLIC AREAS

The Reception will serve as the main organisation and communications "hub" for the Unit. It must be located to oversight the entry and therefore able to restrict and control traffic into the Nurseries. Space will be need for delivery and holding of mail, gifts and flowers. It must create a welcoming and positive first impression.

There should be a clear and logical flow from the "hub" to clinical, support and family areas.

The area may include waiting, visitor toilets, child play area, interview rooms, consult/exam rooms if provided, manager's office, write-up rooms for attending staff (Allied Health etc) and photocopy/stationery store.

A handbasin may be located at the entry to the Nurseries and a locker bay for visitors for items such as overcoats, umbrellas etc that are best not taken into the nurseries.

Public toilets, phones and vending machines have been itemised in the Schedule of Accommodation but if available in a nearby central lobby, they can be excluded from the Unit Schedule.

503189 390 .29.00 COT BAY SIZES

With regard to the sizes of cot bays, guidelines from the UK, Canada, New Zealand, USA and Australia have been reviewed and the following represents the general consensus of opinion and recent projects.

All the following areas exclude centre aisles between facing cots, handbasins and any additional storage or workstation included in a room.

- Level 3: 14 sqm (This will accommodate pendants.)
- Level 2 High Dependency 12 sqm
- Level 2 Low Dependency 10 sqm
- Level 2 Long Term Care 12 sqm

Each bay should have a distinct "baby" zone and "parent" zone.
Centre aisles between facing cots must be a minimum width of 2.4m in NICU and at least 2m in SCN.

503190 390 .30.00 CONFIGURATION OF COTS

Two, maximum 4 cots per bay for Level 3.

4-6 cots per bay in the Special Care Nursery (Level 2); some will be high dependency, some low dependency and a few will be allocated to longterm care.

The Unit must be zoned for maximum flexibility whilst minimising cot movement. Eg zone between low level 3 and high dependency level 2.

Project staff should consider supplying High Dependency Level 2 cots with the same number of electrical and gas outlets as Level 3 cots so that they can act as Level 3 cots in the event of a need to close parts of the NICU area (e.g. infection, other need for evacuation, unit refurbishment) or because of acute excess Level 3 workload. .

503191 390 .31.00 COT BAY REQUIREMENTS

Storage: Will be required for:
- disposable consumables – syringes, tubes, needles etc.
- infection control items – gloves, hand-rubs
- linen – small items
- baby cleaning items, nappies etc.

Storage of disposables, linen, etc. may be via fixed shelving or by a mobile trolley for each bay (as is the usual system in adult Intensive Care Units). This system allows easy cleaning and restocking and minimises dust collection and poor stock rotation and should be considered. Sharps disposal bins may also be mounted on the trolley. If shelving is used, allow 0.67 cubic meters for intensive care and 0.45 cubic meters for special care.

Disposal: Each Nursery (or single room where provided) needs access to a dirty linen skip and bins for general and clinical waste.

Staff Work Area: The staff work area around the cot must meet local occupational health & safety standards. There must be adequate areas for charting – written and/or electronic.

Parent Facilities: There must be space for both parents to be at the cotside, with at least one “easy” chair for a parent to participate in “kangaroo” care.

There should be a designated lockable storage space for parents’ belongings, and a
display area for toys and mementos. A personal bulletin board is desirable.

503192 390 .32.00 ISOLATION ROOM

A least one isolation room is required in each NICU as part of the total complement of cots. A reasonable estimate is one isolation room per 10 NICU cots although Neonatal Units that have a high number of admissions from outside hospitals such as Units in paediatric hospitals may require more rooms. Isolation rooms should have the ability to provide support to the most complex patients that the NICU would care for

At least one room must be Class N – negative pressure ventilation with adjoining anteroom. (Refer to Section D – 820-24 of the Guidelines for further information).

An lobby outside the suite of rooms should be provided for storage of supplies and a small staff workbase and handwashing and gowning facilities must be

available so that staff and visitors cannot access the standard isolation rooms without first undertaking appropriate infection control precautions.

Removal of soiled materials must avoid contact with and contamination of other areas of the nursery.

All room exit doors require self-closing devices.

Rooms may be used as standard rooms when not occupied by an infectious infant.

The isolation room/s should be away from the entrance to the Level 3 Nursery

Dimension:
1 Level 3 cot - minimum 16 sqm
2 Level 3 cots – minimum 28 sqm,
1 Level 3 and 1 Level 2 cots - minimum 20 sqm.

Walls, windows, ceilings and floors must be sealed to avoid infiltration of air from the outside and other air spaces.

If observation windows are provide, they should be double glazed with integral Venetian blinds for privacy operable from inside the room.

All surfaces should be composed of materials that facilitate cleaning. Sound absorbing surfaces in floors and ceilings must be maximised.

A remote monitoring system to the main Staff Station or personalised staff alarm system will be required.

An emergency communication system must be provided.

503193 390 .33.00 FAMILY AREAS

Should include:
- Dedicated and appropriately designed cotside space
- Family Lounge/Dining including a Beverage Bay
- Child Play – may be part of the Family Lounge or a separate room adjacent to the Family Lounge.
- Toilet (disabled) with baby change table
- Education/Resource Room
- Office or facility for a parent support group (multipurpose room)
- Lactation Support – Refer Section 36.00
- Domestic laundry or access to same elsewhere in the Hospital for parents. Machines may be incorporated into the Equipment Cleaning Room if accessed by staff only.

503194 390 .34.00 PARENT – INFANT ACCOMMODATION

Purpose: Live-in rooms on the unit are required for multiple purposes:
- care-by-parent prior to discharge (transitional care)
- facilitation/establishment of breastfeeding even though not yet ready for discharge
- accommodation for parents whose baby is extremely ill as respite from the cotside
- parents of dying babies
- temporary acute stay accommodation following admission for parents who live a long distance away prior to establishing other arrangements

The babies in these rooms will still be classified as inpatients, therefore the rooms must be within the secure area of the unit and adjacent to the other clinical areas.

The rooms may also be used for quiet interviews and educational purposes including discharge planning and parentcraft.

Number of Rooms: A reasonable minimum is one parent room per 10 beds (combined NICU and SCN). However, this number will depend on the unit's practice pattern, the size of the region served and other available options.

Fittings and Furnishings:
- Twin beds convertible to a double/ queen bed plus space for baby cot/s (including twins/ triplets)
- Direct access to basin, toilet and shower facilities that may be shared between rooms
- The infant cot area requires access to four GPOs, one oxygen, one medical air and one suction outlet.
- Telephone and emergency call facilities are required.
- Television (may be used for recreational and educational purposes)
- Internet data outlet
- Other furnishings should create a homely, private environment.

It may be appropriate to designate one room specifically for hospice care of dying babies with appropriate décor and art work and including facilities for bathing and laying out the baby and for light refreshments.

503195 390 .35.00 INTERVIEW / COUNSELLING / MULTIPURPOSE ROOMS

Rooms are required for counselling of distressed parents or planning ongoing care away from the demands of the Unit and free from interruption. These rooms should be multipurpose and may also be used for staff appraisal or policy discussions.

The rooms should be intimate in nature; the need for a telephone should be assessed and there should be no television. Careful thought should be given to décor and comfortable furnishings and soundproofing from adjacent areas is essential to ensure privacy.

A large unit will need at least two of these rooms – at least one per 20 cots.

503196 390 .36.00 LACTATION SUPPORT

In order to achieve Baby Friendly Hospital Initiative (BFHI) status, the following will be required:
- Workstation for Lactation Consultant
- Milk expressing area
- A comfortable room for breastfeeding if the mother prefers to do so away from the cotside. If sized for 3 or 4 mothers, it can serve as an area where mothers can get to know each other in an intimate setting. If the latter two areas are combined, the area used for expressing may need to be screened.
- Storage for breast pumps etc
- Access to an assist toilet

503197 390 .37.00 PATHOLOGY

Point-of-care testing is essential..

A bay or room for a blood gas analyser will be required that may be the location for a pneumatic tube transfer station if installed. Include a handbasin, storage and a computer.

503198 390 .38.00 IMAGING PROCEDURES, PROCESSING AND VIEWING

Mobile x-ray and ultrasound machines may be housed in the unit in their own bay or a dedicated imaging room. The space will also be used to store lead aprons and accessories. Processing needs should be discussed with Medical Imaging staff regarding development of straight films and possible provision of an in-unit laser printer for ultrasound films.

Standard power outlets will be required for recharge.

In new units, digital imaging and PACS is assumed and viewing may occur at the cotside, Staff Station, Viewing Area and other areas as nominated

503251 390 .38.05 MILK PREPARATION AND STORAGE

The Formula (or Milk) Room will need space and equipment (washer/disinfector) facilities for cleaning and sterilizing bottles and teats unless the sterilization function is handled in the CSSD.

Refrigerators and freezers will be required for storage of expressed breast milk. Consideration may need to be given to security of equipment and controlled access to the area as theft of expressed breast milk is increasing where access is unrestricted.

503199 390 .39.00 EQUIPMENT STORAGE

It is assumed that the Unit will clean and store its own equipment that will include:
- Ventilators, CPAP devices
- Incubators and bassinets
- Radiant heaters
- Phototherapy units
- Syringe pumps
- Pulse oximeters
- Cardiorespiratory monitors.

Storage may be divided into open plan equipment bay/s located central to the nurseries for equipment that needs to be readily and frequently accessed and an Equipment Store on the periphery of the Unit – with possible dual access from the main hospital corridor for delivery etc. All areas must be designed to provide both floor parking space and off-floor shelving with adequate power outlets for recharging battery-operated equipment.

Careful attention must be given to ventilation and temperature control where multiple items of heat-generating equipment are being charged particularly in an enclosed room.

Recommended Standards for Newborn ICU Design, Report of the Fifth Consensus Conference on Newborn ICU Design, January 2002, Clearwater Beach, Florida recommends a minimum allowance of 2.8m2 for each intensive care cot and 1.7 for each special care cot. However, this may be unsustainable in spatial and cost terms and will need to be reviewed on a hospital-by-hospital basis according to the equipment to be stored.

Depending on operational policies, optional inclusions within the Store may be:

- Workstation for the nominated Equipment Nurse for inventory and ordering and
- Workbench for a biomedical technician to undertake testing and minor repairs

serviced with medical gases, power and voice/ data outlets.

503200 390 .40.00 SUPPLIES STORAGE

Bulk consumables and sterile supplies will be stored in the Clean Utility Room and a lightweight compactus may be considered (nappies, formula, linen, masks & gowns etc).

0.22 m3 for each cot for disposables such as syringes, needles, IV sets etc. (Reference - Recommended Standards for Newborn ICU Design, Report of the Fifth Consensus Conference on Newborn ICU Design, January 2002, Clearwater Beach, Florida)

503201 390 .41.00 PHARMACEUTICAL STORAGE

Medications and IV fluids may be stored in the Clean Utility or in a dedicated Medication Room. A refrigerator with temperature monitoring and alarm will be required and some units may require a separate refrigerator for vaccines.
It is assumed that parenteral nutrition will be prepared in the main Pharmacy but there will need to be adequate storage space in the Unit.

503202 390 .42.00 MEDICAL GASES STORAGE

Storage will be required for nitric oxide cylinders and emergency supplies of oxygen and medical air, and transport cylinders (for evacuation).

503203 390 .43.00 INFANT RETRIEVAL

Intra-Hospital Transfers: Provision must be made for storage and recharging of equipment for intra-hospital transfers from delivery suites and between Neonatal Units e.g. to a Children's Hospital for surgery.

External Neonatal Retrieval Service: For those units where an external retrieval service is an integral component of the NICU, spatial and design requirements will depend on the following factors:

- the size of the team and its relationship to NICU staff – i.e. whether there is a separate team dedicated to transport
- the role of the team with regard to education.
- the need for administrative (including a computer for data entry) and education space
- the amount and type of equipment – including clothing
- the extent of the communication system
- the ownership of dedicated vehicles
- access to the emergency vehicle bay

503204 390 .44.00 STAFF OFFICES

The offices for the Nurse Manager and home care nurse/s may be located in the "Hub" of the Unit as may workstations for staff who attend irregularly.

The remainder of offices should be located in a staff-only zone clearly separated from family areas with, if possible its own key-controlled access separate from the main entry. The offices must be supported by facilities for photocopying, stationery storage and paper shredding and recycling.

503205 390 .45.00 STAFF EDUCATION AREAS

- PACS viewing/discussion area for 3 to 4 staff

- Seminar Room for up to 30 staff depending on the size of the Unit. Access should avoid travel through clinical areas particularly if shared by non-unit staff on a booked basis

- A multifunctional skills lab can be invaluable for learning and practising simulated procedures. If provided, it should be equipped with a resuscitaire, incubator, ventilator, mannequin, a storage surface, and several chairs & medical gases. It may be separated from the Seminar Room by an operable wall.

- Library / Resource Room

503206 390 .46.00 ON-CALL ROOMS

There is an increasing tend for senior members of the medical staff to be on the unit at all times, therefore provision must be made for on-call rooms. The rooms must include a handbasin and have access to shower & toilet.

503207 390 .47.00 STAFF CHANGE ROOMS

Separate male and female locker rooms will be required providing quarter or half lockers and hanging space. Total locker numbers and ratio of male to female staff will need to be ascertained.

Assuming no permanent allocation, it is suggested that lockers be provided on the basis of 1 per cot (assuming a 1:2 nurse:patient ratio) plus up to 10 supernumerary staff. However if the operational policy allows for dedicated lockers, this number will need to be increased according to the staff establishment.

Unisex shower in the unit or ready access to a shower within the hospital.

503252 390 .47.05 STAFF LOUNGE

A dedicated staff room is essential for de-stressing and meal breaks. It should contain a beverage/dining area and a quiet sitting space. Size must reflect the number of staff using the room at any one time.

Natural lighting is essential and there is evidence to show that night staff require bright artificial light in order to maintain alertness when returning to dimly lit clinical areas. (Circadian rhythm effect).

Functional Relationships

503208 390 .48.00 EXTERNAL

Birthing Unit (not applicable to units in Children's Hospitals) and Operating Unit with parent access to Recovery. There should be one floor only of separation with a key-controlled lift if horizontal adjacency cannot be achieved

Postnatal Inpatient Beds (less critical as mothers often discharged much earlier and will then spend their time in the NICU).

Helipad

Emergency Department Ambulance Bay

MRI Unit

Outpatient facilities in Paediatric Unit if clinics not conducted in Unit

Social work for child protection issues / clinics

Relationship with the local Children's Hospital

DESIGN

Access

503209 390 .49.00 EXTERNAL

- Drop off and parking for parents
- Access to long-term parking (regional families)
- Access for wheelchairs, prams and strollers
- Easy transfer of babies to the Operating Suite
- After hours – but separate - access for parents / staff
- Bed/trolley access for mothers from postnatal wards
- Keyed lift to Helipad or equivalent
- Ambulance
- Outside area readily accessible from the Unit to give families relief from the clinical environment

503210 390 .50.00 INTERNAL

Must allow access and ease of movement for an x-ray or ultrasound unit, a mother in a bed or on a trolley.

Minimise exits – public, staff, goods entry & waste removal.

It is worthwhile calculating the widest and longest object that may travel along the corridors. This may be a mother in a bed who is visiting her baby or a retrieval incubator plus staff. This can ensure that the journey can be safely accomplished in the shortest and most direct route and can facilitate decisions as to which way corridor doors should open, and whether they open automatically or by push-button or electronic access. Such travel patterns may inform the eventual design of the Unit and its connections with the rest of the hospital including evacuation plans.

Car Parking Requirements

503211 390 .51.00 For staff parking, refer to Part C, Clause 790 of these Guidelines for further information.

Disaster Planning

503212 390 .52.00 Evacuation plans must be in place.

Refer to Part B Clause 80 and Part C of these Guidelines for further information.

Infection Control

503213 390 .53.00 General

The importance of good infection control practices in the newborn environment cannot be overstressed.

Clinical handbasins will be provided at a ratio of 1:2 in intensive care and 1:4 special care cots and staff must not have to travel more than 6m from cot to basin.

Isolation rooms will be provided for babies with known infections and for babies transferred in until their infectious status is know. Facility for at least one Class N Isolation Room with Ante Room should be available.

Refer to Part D of these Guidelines for further information.

503253 390 .53.05 CLINCAL HANDBASINS

Clinical handbasins should be provided at a ratio of 1:2 in intensive care and 1:4 in the special care nursery and staff must not have to travel more than 6m from cot to basin. At least one basin must be available for children and people in wheelchairs.

The space occupied by the basins is additional to the size of the cot bay.

Design requirements:
Hands-free operation is preferred.
Water flow must not fall directly into the drain outlet
Sized to avoid splashing and splash-back from the drain.
No pooling allowed at the bottom of the basin.
Pictorial hand-washing instructions at every sink.

Environmental Considerations

503214 390 .54.00 ACOUSTICS

"Numerous studies identify noise as a primary stressor for infants, patients and staff of health care facilities, with infants particularly disoriented by noise because their hearing is still immature, … Noise can prevent an infant from reaping the developmental benefits of sleep, but noise can be reduced through acoustic and configuration modifications to the facility and modifications in staff behaviour through educational programs. However, some forms of noise, such as music, have been shown to be effective in reducing stress in infants by reducing cortisone levels in the brain that are associated with stress" Mardelle Shepley, Neonatal Intensive Care Unit Designs are critical to infant health, June, 2005.

Ambient (i.e. background) noise levels should not exceed an hourly Leq 40-45 dB(A) (AS/NZS 2107:2000 – Acoustics-… - Intensive Care)

Noise control measures may include:
- Acoustic ceiling tiles with a noise reduction co-efficient of at least 0.9. (May depend on local infection control policies)
- Double glazing
- Flooring with sound-absorbing qualities
- Duct baffles
- Walls of sound absorbing materials
- Special acoustic insulation for noise-producing equipment at the cotside. Noise output should be a criterion when selecting equipment

503215 390 .55.00 LIGHTING IN CLINICAL AREAS

All clinical areas should have controlled natural lighting for the development of circadian rhythms in the infants and to enhance staff performance and wellbeing.

Direct overhead ambient lighting in the infant care space must be avoided as well as direct lighting outside the area that may be in the infant's line of sight to minimise danger or damage to the developing retina, visual pathways and developing brain.

Lights should be angled or designed to reduce reflection off the incubator canopy.

"Light levels should be no brighter than needed to complete a task, and individualized lighting should be available at each baby station,… Individualized lighting … is the best compromise to meet the needs of the infant and the staff because lighting needed by infants may not be comfortable to staff. Reduced lighting also has been shown to significantly reduce conversation levels among staff, the primary contributor to noise in an intensive care unit.
Mardelle Shepley, professor of architecture at Texas A&M, "Neonatal intensive care unit designs are critical to infant health" Jun 17, 2005, 03:32

Thus the infant care space should have three separate light sources and controls:
- General room ambient lighting – controlled by dimmer.
- Individual work space lighting – not direct on infant with controls to allow immediate darkening of any cot position to permit transilluminance. (The passing of a light through the walls of a body part or organ to facilitate medical inspection).
- Observation/procedure light for every infant space.
-

Lighting must be colour-corrected to natural lighting. Refer to AS1680 Part 5.

Ambient lighting levels in cot bays shall be adjustable, through a range of at least 100 to 600 lux as measured at each bedside. Refer to AS1680 Part 2: Recommendations for specific tasks and interiors

503216 390 .56.00 PROCEDURE LIGHTS

Each NICU cot must have a local light for emergency use, observation and procedures. This light should be appropriate in intensity and area of focus and may be adjustable.

High Dependency Level 2 cots require 1 procedure light per cot
Low Dependency Level 2 cots require access to 1 mobile procedure light per work area

Lights must be shaded to minimise shadow and glare to adjoining cots.

503217 390 .57.00 TEMPERATURE CONTROL

The UK report suggests that "babies' cots should be placed so that at all times they are at least 610mm from external windows. [This may be difficult to achieve in all instances]. There should be double-glazing to minimise radiant heat loss, and some shading to prevent rooms from overheating. The latter can be achieved by reflective [or tinted] glass, [integral] Venetian blinds … internal washable blinds."

UK Report - The NICU "should be air-conditioned throughout and should have the following standards (as specified by the Fifth Consensus Conference in NICU Design:)
- Air temperature of 22-26 deg C (72-78 deg F)
- Relative humidity of 30-60%
- A minimum of six air-changes per hour
- Minimising of draughts on or near infant beds
- Filtration of ventilation air at least 90% efficient."

Individual thermostats.

Air-conditioning / ventilation outlets located with care to avoid draughts over a cot.

503218 390 .58.00 PRIVACY

Essential – both visual and speech.

503219 390 .59.00 INTERIOR DESIGN

“Color selection relative to infants is largely inconsequential, (she says) because of their lack of visual perception, but with regard to adults, studies have indicated persons in high anxiety situations prefer pastels rather than saturated colors. Common sense, (she says), dictates that color schemes should be subdued so they don't interfere with accurate reading of the infants' skin color.

Space Standards and Components

503220 390 .60.00 ERGONOMICS

Refer Part C of these Guidelines for information.

503221 390 .61.00 HUMAN ENGINEERING

Refer Part C of these Guidelines for information.

503222 390 .62.00 ACCESS AND MOBILITY

For retrieval teams – in and out.

Single point of public entry.

Separate entry for staff ideal but not essential.

Refer Part C of these Guidelines for information.

503223 390 .63.00 DOORS AND CORRIDORS

Refer Part C of these Guidelines for information.

503224 390 .64.00 WINDOWS

Location and design of windows in the Nurseries requires careful planning to provide maximum sun protection. Able to be shuttered; consider the need for double glazing.

Shading devices must be neutral in colour or opaque to minimise colour distortion from transmitted light.

Windows from nurseries into corridors may interfere with family privacy so should be carefully considered. If provided, they should be double glazed with integral Venetian blinds controlled from within the cot bay/nursery.

Safety and Security

503225 390 .65.00 SAFETY

There must be adequate space around the cot to enable staff to work safely – particularly in an emergency and for easy access for equipment such as x-ray and ultrasound units and a mother's bed.

Also refer to Section C 709 for further information.

503226 390 .66.00 SECURITY

The security system should protect the physical safety of infants, families and staff in the Unit and in particular should minimise any risk of infant abduction.

Single controlled entry for the public and visitors.

Consider closed circuit television with phone or intercom for after-hours access.

Separate staff entry and entry for goods and waste removal - if provided - must be by smart card access or similar.

Emergency exits to be alarmed.

Baby security tag system.

Ready access to duress alarms for staff.

Finishes

503227 390 .67.00 WALL PROTECTION

Refer to Part C of these Guidelines

503228 390 .68.00 FLOOR FINISHES

Floor finishes should have the following features:
- Sound absorbing
- Comfort for staff
- Visually attractive
- Minimising resistance to movement of heavy equipment
- Easily cleaned and maintained
- Durable
- Minimise growth of micro-organisms

Carpet should be considered for non-clinical areas.

Also refer to Part C of these Guidelines

503229 390 .69.00 CEILING FINISHES

Sound-absorbing; acoustic tiles/finishes with NRC (noise reduction co-efficient) of at least 0.9 is required in all clinical areas and main support areas, with the possible exception of isolation rooms, which nevertheless require maximum sound-reduction strategies.

Also refer to Part C of these Guidelines

Fixtures & Fittings

503230 390 . 70.00 Cot bays must be designed to allow all monitoring equipment to be readily visible and within safe reach of staff. This may require special mounting devices for monitors (articulated arms), rails or shelving at appropriate height and position. The height of monitors and other equipment should be adjustable.

Also refer to part C of these Guidelines and to the Room Data Sheets (RDS) and Room Layout Sheets (RLS) for further detailed information

Building Service Requirements

503231 390 . 71.00 IINFORMATION TECHNOLOGY AND MANAGEMENT SYSTEMS

Systems generally must be compatible with overall hospital systems

There will be facilities for x-ray viewing and a local Neonatal Information System will operate at each cot bay.

An electronic medical record can be expected within the life span of the Unit. Design should anticipate this eventuality so that introduction does not cause major disruption to the environment or functioning of the Unit.

Communications: There must be systems for optimal fail-safe communications between staff, and for parents to communicate by telephone with cotside staff. This will include an emergency call system and nurse assist system.

Information Technology: Fibre optic cabling is required at each cotside for information systems, monitoring and PACS.

Communication Rooms: In order to support the technology, it is vital that Communications Rooms are sized for flexible server space and a large enough central backbone.

503232 390 . 72.00 TELEPHONES

Hospital telephones in Nurseries should have a light call indicator and low ringing tones to minimise noise. Cordless phones are preferred.

Use of mobile phones at the cotside should similarly be either prohibited or ringing tones turned off.

A telephone outlet should be provided to each NICU cot bay although actual telephones may be restricted to one per 2 Level 3 cots and 1 per four Level 2 cots.

503233 390 . 73.00 CLOCKS

A clock must be clearly visible from each cot space; this may be via read-out on the cardiac monitor. The Reception, Staff Station, Treatment Room and all nurseries where provided must have a synchronised clock system.

503234 390 . 74.00 ARRANGEMENTS FOR MEDICAL SERVICES

A decision will need to be made – sooner rather than later – regarding facilities for provision of medical services and which system is to be installed in the various levels of nursery. Options include:

- Pendant
- Beam system
- Horizontal wall ducts with cabinetry or
- Vertical columns/ducts

and comparative costs will influence the decision.

Ceiling-suspended pendants with single or double articulated arm provide flexibility but occupy more space around the cot, may interrupt natural light and can appear intimidating.

The gantry system is a beam suspended from the ceiling and allows various items of equipment to be attached and moved to suit particular patient circumstances.

Services may be supplied from horizontal or vertical wall-mounted panels/ducts that may be incorporated into cabinetry. It is possible to combine these panels / ducts with rails for mounting monitors etc. This option is more cosmetically pleasing, less intrusive into the cot space, less intimidating, preserves all available natural light and is less expensive. It may however be harder to clean and is less flexible.

Regardless of which option or mix of options is selected, the arrangement of outlets must be identical at each cot so that staff can be familiar with their work zone wherever they are. If a Skills Lab is provided, outlets should be similarly arranged.
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Medical Services Requirements Per Cot :

LEVEL 3
+Power outlets (GPOs)-20 minimum of which at least 1/3 to be on emergency supply
+Oxygen-3 minimum
+Medical Air-3 minimum
+Suction-3 - 4 if required for nitric oxide scavenging

LEVEL 2 HIGH DEPENDENCY
+As per Level 3 so they can act as NICU cots when necessary

LEVEL 2 LOW DEPENDENCY -May vary between areas (As per Room Data Sheet)
+Power outlets (GPOs)-8
+Oxygen-2
+Medical Air-2
+Suction-2

LEVEL 2 LONG TERM CARE
+Power outlets (GPOs)-6
+Oxygen-2
+Medical Air-1
+Suction-1

503235 390 .75.00 ELECTRICAL SERVICES (ANZNNU Guidelines)

All electrical systems will be cardiac protected.

Uninterruptible power supply (UPS) must be available to provide continuous emergency power to NICU [Level 3] equipment. The equipment connected to UPS will be determined by a number of factors including:

- the vital nature of the equipment – e.g. ventilators
- the need for continuous power – e.g. monitor data continuity
- the existence of in-built batteries – e.g. I.V. pumps
- high current drain making items such as incubators unsuitable for UPS.

503236 390 .76.00 USE OF NITRIC OXIDE

Nitric oxide (a vasodilator) is being increasingly used in the treatment of very premature infants. It is usually provided by portable cylinder as required. It may be reticulated from a local manifold but unless reticulated to all Level 3 cots for maximum flexibility, this would be a very costly exercise as stainless steel pipes and fittings are required to ensure corrosion does not occur. And additional scavenging outlets will be required at each cot. It is not recommended

Cylinders may be stored in a well-ventilated Gases Store or in the Equipment Room.

COMPONENTS OF THE UNIT

General

503237 390 .77.00 The Neonatal Intensive Care and Special Care Nursery Unit will consist of a combination of Standard Components and Non-Standard Components.

Standard Components

503238 390 .78.00 Standard Components must comply with details in Standard Components described in these Guidelines. Refer also to Standard Components Room Data and Room Layout Sheets.

Provide the Standard Components as identified in the Schedule of Accommodation.

Non-Standard Components

503239 390 .79.00 Provide the Non-Standard Components as identified in this section and in the Schedule of Accommodation, according to the Operational Policy and Functional Brief.

503240 390 .80.00 PROCEDURE ROOM

DESCRIPTION AND FUNCTION

A room equipped for:
- laser therapy for retinopathy of prematurity
- ligation of patent ductus arteriosus (PDA) or
- drainage of the peritoneum following bowel perforation

The treatment room may also double as a consult/exam room.

The room should be a minimum of 14 sqm, 20 sqm preferred.

LOCATION AND RELATIONSHIPS

Central location close to but away from the main Nurseries.

CONSIDERATIONS

Laser screening and in-use warning lights.
Radiant heater.
Pendant or ducts as for a Level cot bay.
Gases as per Level 3 cot bay.

503241 390 .81.00 CONSULT / ASSESSMENT ROOM

DESCRIPTION AND FUNCTION

The room may be used for:
- Assessment and work-up of infants referred from community for review for admission.
- Follow-Up Clinics
- Alternative Interview Room.

May be occupied by clinicians and family for up to 4 hours.

LOCATION AND RELATIONSHIPS

Locate in the “Hub” of the Unit to prevent unnecessary traffic through clinical areas.

CONSIDERATIONS

- Heat table.
- Scales
- Exam light
- Comfortable chairs
- Desk

503242 390 .82.00 EQUIPMENT CLEANING ROOM

DESCRIPTION AND FUNCTION

Room where equipment is disassembled, cleaned and sterilised / disinfected – including ventilators, respiratory tubing etc. (Teats and bottles may be processed in the Milk Room).

LOCATION

At the perimeter of the Nurseries near the Equipment Store.

CONSIDERATIONS

Oxygen, suction and medical air outlets
“Wet” bench and sink/s
Respiratory tubing disinfector
“Dry” bench for reassembly
Handbasin.

May also contain washing machine and dryer for baby clothing.

Design and layout must allow natural progression from dirty to clean with dual access if this can be achieved.

Schedule of Accommodation

503243 390 .83.00 A Generic Schedule of Accommodation for a Intensive Care-Neonatal /Special Care Nursery Unit at Level 2 and 3 follows. For Level 2 only, Refer HPU 510 - Maternity Unit.

ENTRY/RECEPTION/HUB
Note : Assumes public toilets available nearby, otherwise include.

ROOM/SPACE	Standard Component				Levels 2 &3		Remarks
ENTRY/RECEPTION/HUB					Qty x m2		For Level 2 only, Refer HPU 510 - Maternity Unit
WAITING	yes				1 x 20		Designed to enable separation of family groups. May include phones and vending
BAY - VENDING					1 x 3		2 machines
BAY - PHONE X 2					1 x 2		1 phone - disabled access
BAY - WATER DISPENSER					1 x 1		
TOILET - DISABLED / BABY CHANGE	yes				1 x 5		
BAY - HANDWASH TYPE C	yes				1 x 2		Refer Standard Components for description of "Type C"
BAY - LOCKERS					1 x 1 (o)		For visitors' use
RECEPTION	yes				1 x 12		For 1-2 staff
STORE - PHOTOCOPY / STATIONERY	yes				1 x 8		
OFFICE - NURSE UNIT MANAGER	yes				1 x 9		
OFFICE - HOME CARE NURSES					1 x 16 (o)		Assumes 2 staff plus 4 sqm storage
OFFICE - DUTY MEDICAL	yes				1 x 12		2 staff. If 3 staff - 15 sqm
WRITE-UP ROOM	yes				1 x 13		"Hot" desks. 4-6 workstations @ 2.2 per station
CONSULT / ASSESSMENT ROOM	yes				1 x 12		No. to be determined.
COUNSELLING/MULTIPURPOSE ROOM	yes				2 x 12		

503244 390 .84.00 PATIENT AREAS
Note : Proposed 50 Cots in Patient Areas-Cot numbers and mix of levels are representative only for purposes of generating a schedule.

PATIENT AREAS							
COT BAY - LEVEL 3	yes				16x 14		Area excludes basins, additional trolleys and equipment & circulation between facing cots
BAY - HANDWASHING TYPE A	yes				8 x 1		1 per 2 cots; part of Nursery. Refer to Standard Components for description of "Type A"
BAY - PERSONAL PROTECTIVE EQUIPMENT (PPE)	yes				8 x 1		Collocate with handbasins

COT BAY - LEVEL 2 HIGH DEPENDENCY/LONGTERM CARE	yes				16 x 12		Excludes basins & circulation
COT BAY - LEVEL 2 LOW DEPENDENCY	yes				14 x 10		Excludes basins & circulation
BAY - HANDWASHING TYPE A	yes				8 x 1		1 per 4 cots minimum; part of Nursery
BAY - PERSONAL PROTECTIVE EQUIPMENT (PPE)	yes				8 x 1		Collocate with handbasins
BATHING/EXAM AREA					1 x 12		For Level 2 Nursery
ISOLATION ROOM - CLASS N	yes				2 x 16		
ANTE ROOM	yes				2 x 6		As required for Class N Isolation Rooms
ISOLATION ROOM - STANDARD					2 x 16		
ISOLATION ROOM LOBBY	yes				1 x 8		Outside the isolation rooms for linen, small staff base, supplies, etc
NEONATAL BAY - GENERAL CARE	yes				4 x 6 (o)		Optional - For "unqualified" babies who are unable to nursed at the mother's bedside
BAY - LINEN / BLANKET WARMER	yes				3		Number will depend on layout and access
BAY RESUSCITATION TROLLEY	yes				2		Number will depend on layout and access
TREATMENT ROOM					1 x 20		
PARENT-INFANT ROOM					4 x 14		Refer Section 390.34.00
PARENT SHOWER / TOILET	yes				2 x 5		

503245 390 .85.00 CLINICAL SUPPORT AREAS

CLINICAL SUPPORT AREAS							
STAFF STATION					1 x 20		
OFFICE - CLINICAL/HANDOVER	yes				1 x 12		
CLEAN UTILITY/MEDICATIONS	yes				1 x 12		0.22 m2 per cot for sterile supplies.
BAY - PATHOLOGY					1 x 4		Bench 1200x800; analyser, ice machine, handbasin. Incl. pneumatic transport station if
MILK STORAGE ROOM					1 x 14		Refrigerators and freezers
LINEN CUPBOARD					1 x 1 (o)		For small items that are not processed by the Linen Service - baby clothes etc
IMAGING ROOM					1 x 6		X-ray / ultrasound. Refer 390.38.00
EQUIPMENT CLEAN-UP / SET-UP					1 x 16		For cleaning cots, incubators, dismantling & cleaning respiratory equipment.
STORE - CONSUMMABLES / STERILE PACKS					1 x 12		Based on 0.22 sqm per cot. Assumes compactus
STORE - EQUIPMENT					1 x 96		Based on 2 sqm per cot. Include space for biomedical assessment & repair

DISPOSAL ROOM					1 x 10		
CLEANER'S ROOM	yes				1 x 5		
BIOMEDICAL WORKSHOP					(o)		Optional depending on location relative to ICU, OR
STORE - INTRA-HOSPITAL TRANSPORT EQUIPMENT					1 x 8		
STORE - RETRIEVAL EQUIPMENT					(o)		Space requirements will depend on the role of the retrieval service. Refer 390.43.00.

503246 390 .86.00 FAMILY SUPPORT AREAS

Note : For immediate family only.

FAMILY SUPPORT AREAS							
FEEDING / EXPRESSING ROOM					1 x 12		For expressing milk.& breast feeding. 3-4 mothers
PARENT LOUNGE / DINING / BEVERAGE					1 x 20		Up to 12 people.
CHILD PLAY AREA	yes				1 x 10		For siblings. 2.5 sqm per child
PARENT RESOURCE AREA					1 x 9		Quiet room for use of laptop, literature & other resources.
TOILET - PARENT, DISABLED	yes				1 x 5		With baby change table
TOILET - PARENT	yes				1 x 3		
LAUNDRY: DOMESTIC					1 x 6 (o)		Baby and parent clothing. Incorporate linen cupboard for small items
DISCOUNTED CIRCULATION %					40%		

503247 390 .87.00 STAFF OFFICES & AMENITIES

Note : Requirements will be determined by the Staff Establishment and will include office space for research staff as appropriate.

STAFF OFFICES & AMENITIES							
OFFICE - CLINICAL DIRECTOR	yes				1 x 12		
OFFICE - CONSULTANTS	yes				9		Determined by staff establishment
OFFICE: LACTATION NURSE					1 x 12		Includes storage
OFFICE - SOCIAL WORKER	yes				1 x 12		2 staff
OFFICE - WORKSTATIONS - MEDICAL	yes				5.5		
OFFICE - WORKSTATIONS - NURSING	yes				5.5		
STORE - PHOTOCOPY/STATIONERY	yes				1 x 8		
SEMINAR ROOM	yes				1 x 30		Up tp 20 staff

SKILLS LABORATORY					1 x 20		Adjacent to Tutorial Room. Operable wall optional. Provide medical gases.
LIBRARY / REFERENCE ROOM					1 x 9		
PACS VIEWING/CASE CONFERENCE					1 x 9		For 3 -4 staff
STAFF ROOM	yes				1 x 40		
CHANGE ROOM / TOILETS - FEMALE					1 x 18		60 quarter lockers, hanging space, 2 toilets
CHANGE ROOM / TOILETS - MALE					1 x 6		10 quarter lockers, 1 toilet
SHOWER - STAFF (UNISEX)	yes				1 x 3		
OVERNIGHT ROOM	yes				2 x 10		
DISCOUNTED CIRCULATION %					32%		

Functional Relationships

503248 390 .88.00 A diagram of key functional relationships is attached.

Checklists

503249 390 .89.00 Refer also to Part C of these Guidelines for Security general requirements.For Planning Checklists refer to Part A, B, C & D of these guidelines.

References and Further Reading

503250 390 .90.00

Design Guidelines for Neonatal Units for Australia and New Zealand. First Draft – 17th May 2004, Dr. Neil Roy, Divisional Director (Medical) – Neonatal Services, Royal Women's Hospital, Melbourne and Dr. Carl Kuschel, Director of Neonatal Unit, National Women's Hospital, Auckland, New Zealand for the Australia & New Zealand Neonatal Network.

A Review of Neonatal Intensive Care Provision in New Zealand, Ministry of Health, February 2004.

HPU 390 - Intensive Care-Neonatal / Special Care Nursery, Department of Human Services, Victoria, November 2004.

"Designing a Neonatal Unit". Report for the British Association of Perinatal Medicine, May 2004.

Health Canada. Family-Centred Maternity and Newborn Care: National Guidelines, Minister of Public Works and Government Services, Ottawa, 2000. (Chapter 10, Facilities and Equipment).

Standards for Hospitals Providing Neonatal Intensive and High Dependency Care, 2nd edition, British Association of Perinatal Medicine, December 2001.

Recommended Standards for Newborn ICU Design, Report of the Fifth Consensus Conference on Newborn ICU Design, January 2002, Clearwater Beach, Florida, Committee to Establish Recommended Standards for Newborn ICU Design, Robert D. White, MD, Chairperson, Memorial Hospital, South Bend,

Indiana. Sourced AEST 22/08/2005

Mardelle Shipley. Neonatal intensive care unit designs are critical to infant health", Jun 17, 2005, 03:32. Sourced AEST 10/08/2005

"A Single-Room NICU-The Next Generation Evolution in the Design of Neonatal Intensive Care Unit, American Institute of Architects. AEST 10/08/2005

United Nations Convention on the Rights of the Child, Article 24.

American Academy of Pediatrics, Levels of Neonatal Care, Committee on Fetus and Newborn, Pediatrics, 2004; 114;1341-1347.

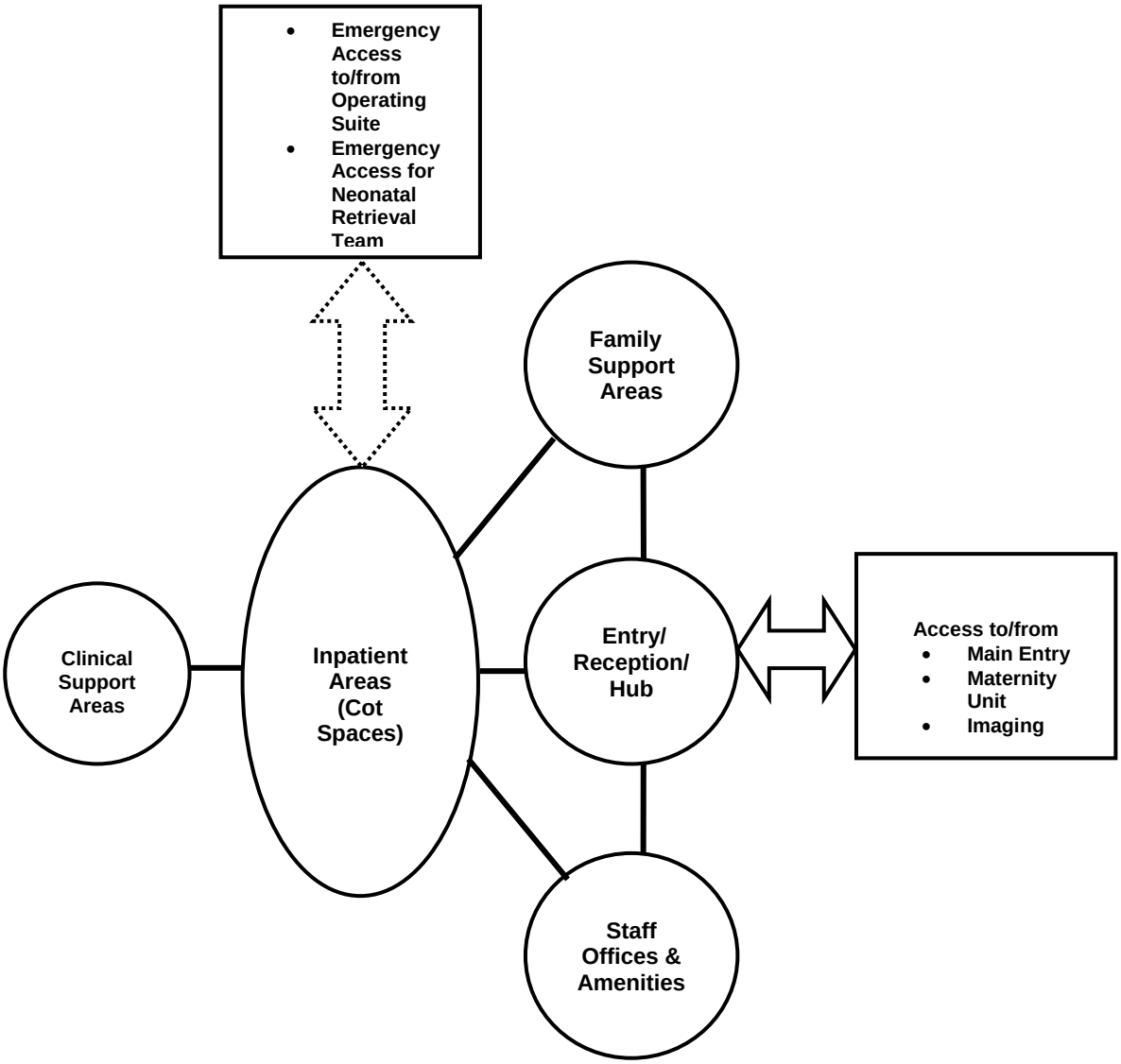
Neonatal Intensive Care Unit – Design Brief, Child Health, July 2002, Capital and Coast District Health Board, Wellington Hospital, New Zealand.

Neonatal Services – Functional Brief, Royal Women's Hospital, Melbourne, 2004.

Model of Care for Newborn Services Special Care Unit, Middlemore Hospital, New Zealand, Final Draft, June 2004.

FUNCTIONAL RELATIONSHIP DIAGRAM –INTENSIVE CARE – NEONATAL/ SPECIAL CARE NURSERY

The following diagram sets out the relationships between zones in a Neonatal / Special Care Nursery



440 MEDICAL IMAGING - GENERAL

INDEX

		Description
503060	440 .0.10	INTRODUCTION
		Preamble
		Introduction
		Policy Statement
		Description of Unit
		PLANNING
		Operational Models
		Models of Care
		Operational Policies
		Planning Models
		Functional Areas
		Functional Relationships
		DESIGN
		Access
		Car Parking Requirements
		Disaster Planning
		Infection Control
		Environmental Considerations
		Space Standards and Components
		Safety and Security
		Finishes
		Fixtures and Fittings
		Building Services Requirements
		COMPONENTS OF THE UNIT
		General
		Standard Components
		Non-Standard Components
		APPENDICES
		Schedule of Accommodation
		Functional Relationships Diagram
		Checklists
		Referenses and Further Reading

INTRODUCTION

Preamble

503061 440 .1.00 Medical Imaging (Diagnostic Radiology) is a Clinical Support Service in the Guide to the Role Delineation of Health Services (Third Edition 2002). Six levels of service are delineated and a description of type of service, facilities and staffing for each level is provided.

Planners may refer to this document to determine/understand the service profile and roles of the institution/s in which the Medical Imaging Unit occurs to determine the extent of facility needs.

Medical Imaging Units will vary in size. Components and allocated spaces will depend on the outcome of a needs analysis and a service plan. The service plan is based on the location, size, needs and population of the area in which the Medical Imaging Unit is to be sited and must be well in place prior to the commencement of the capital planning process.

In addition, facility design, must, where appropriate, meet all necessary criteria to reach accreditation standards with regard to design and equipment. Refer to the Australian Council on Healthcare Standards (ACHS) EQUIP Guide.

503062 440 .2.00 NEW TECHNOLOGIES

Medical Imaging is possibly one of the most rapidly developing and evolving specialties within the health care system. Whilst general radiology still forms the bulk of the workload in terms of volume, modalities such as ultrasound and MRI are increasing exponentially in terms of their applications and safety factors. At the more complex end of the spectrum, the interventional / therapeutic work is growing at major hospitals and is expected to grow further. This may require additional requirements in areas such as infection control, monitoring, outpatients review and resuscitation.

Planners need to be very aware of future possibilities, build in flexibility for expansion and/or change but also be aware not only of the capital cost of major equipment, but
- be confident that the health outcomes of installing a particular imaging modality can be justified
- consider the overall impact on other hospital services in terms of referral patterns and
- be aware of what is available in the private sector particularly in rural areas to avoid unnecessary and costly duplication and under-utilisation. Some small towns rely on private practice for more sophisticated modalities and private practitioners may be contracted to provide facilities on the hospital campus.

Introduction

503063 440 .3.00 This Health Planning Unit (HPU) is a resource to assist project teams with the planning, design and construction of a Medical Imaging Unit. It should be read in conjunction with generic requirements and Standard Components (Room Data & Room Layout Sheets (RDS/RLS) in Parts A, B, C and D of these Guidelines.

This Guideline will address the following imaging modalities:
- General imaging including Tomography
- Orthopantomography (OPG)
- Fluoroscopy (Screening)
- Ultrasonography
- Mammography
- Digital chest screening
- Computerised Tomography (CT)

- Angiography
- Digital Subtraction Angiography
- Magnetic Resonance Imaging (MRI)
- Picture Archiving & Communication Systems (PACS)

It will also address the type and provision of mobile imaging units.

503064 440 .4.00 Cardiac angiography is excluded from this guideline although it may be incorporated into an Interventional Suite of a Medical Imaging Unit to share recovery facilities etc.

Nuclear Medicine, Positron Emission Tomography (PET) and Bone Mineral Densitometry will be included at a later date.
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Policy Statement

503065 440 .5.00 LEGISLATION

Radiation Control Act 1990 (amended 2002) and Radiation Control Regulations 2003 administered by the Environment Protection Authority (EPA). Areas of EPA responsibility include:
- Licensing
- Registration and
- Accreditation

PD2005_339. Manual – "Protecting People and Property: NSW Health Policy and Guidelines for Security Risk Management in Health Facilities".

PD2005_576: Office Accommodation Policy – Public Health Organisations and Ambulance Service.

Description of the Unit

503066 440 .6.00 DEFINITION OF HPU

The Medical Imaging Unit is a discrete unit of the hospital which provides for radiological investigations, both diagnostic and increasingly therapeutic. The most common modalities at Level 4 and above are general radiology, screening (fluoroscopy), ultrasound and computed tomography (CT) Depending on the level of service and the clinical profile of the facility, the unit may also provide:
- tomography
- OPG (orthopantomography)
- Mammography (in support of a breast service, not screening)
- Chest screening
- Peripheral angiography
- DSA and
- Magnetic resonance imaging (MRI).

It is expected that there will be a need for some level of anaesthesia to be given, particularly if the Health Facility offers paediatric services and substantial interventional imaging that will require associated nursing care and patient holding, preparation and recovery facilities.

503067 440 .7.00 PATIENT CHARACTERISTICS

Unit design and layout must accommodate the needs of a wide range of patients, from mobile outpatients to acutely ill patients on life support and a significant proportion of patients will/may require high levels of nursing and medical support

during transfer to and from, and throughout their time in the Imaging Unit. Examples include:
- frail aged (walking aids & wheelchairs)
- ventilated patients
- patients suffering acute trauma
- confused, breathless, sedated or unconscious patients
- patients being monitored for vital signs
- patients on intravenous therapy
- patients undergoing sedation or general anaesthesia during the procedure and requiring recovery post-procedure
- neonatal and paediatric patients
- antenatal patients.

Paediatric patients merit special consideration as a proportion of these may be acutely or seriously ill, may require specialist nursing care and are more likely to need some degree of anaesthesia / sedation and consequent recovery.

PLANNING

Operational Models

503068 440 .8.00 HOURS OF OPERATION

Hours of operation will depend on the Level of Service. Small units may only operate during business hours with an on-call after-hours service. Large units will provide a 24 hour, 7 days a week service. Both operating regimes will have some impact on Unit access and security.

503069 440 .9.00 INTERVENTIONAL UNITS

A single consolidated Medical Imaging Unit at ground level with direct adjacency to Emergency and ready access to Ambulatory Care facilities is the ideal with or without a satellite Unit in the Emergency Unit.

However, the increasing incidence of complex interventional and surgical procedures under radiological control are starting to raise concerns over the optimum location of the Interventional Suites with regard to recovery and access to anaesthetists and trained recovery nursing staff.

The line between surgery in an Operating Unit and Interventional Imaging is blurring and intraoperative imaging is emerging to the point where the Interventional Imaging could be considered as part of an operating unit sharing recovery etc. This will generally result in a “split” department and planners need to carefully consider all the implications, particularly for patient safety and staffing –anaesthetic, nursing and radiological.

There is however, a considerable cost differentiation between the utilisation of Operating Unit and Imaging Unit for interventional work as the Operating Unit has an inbuilt high structural cost that should be taken into consideration.

503070 440 .10.00 EMERGENCY SATELLITE

If collocation of Medical Imaging and the Emergency Unit cannot be achieved, or if travel distances are too great (depending on the size of the respective units), and if emergency workload and acuity justify, it will be appropriate to locate a satellite unit within Emergency, usually comprising a general room, CT room and ultrasound. (The latter may be via a mobile unit). Major trauma centres may also have overhead gantries in their resuscitation rooms.

503071 440 .11.00 ORTHOPAEDIC CLINIC SATELLITE

If a high volume of work is generated by the Hospital's Orthopaedic Service, every attempt should be made to locate the Orthopaedic Clinic as close as possible to Medical Imaging. If this cannot be achieved, consideration may need to be given to a Satellite Imaging Unit. If this occurs, it should be integrated with the Clinic itself.

503072 440 .12.00 OBSTETRIC ULTRASOUND SATELLITE

The need for dedicated perinatal ultrasound room/s remote from the main Imaging Unit will depend on the complexity, utilisation and throughput of the Obstetric Service. If provided, it will usually be incorporated into the Maternity Ambulatory Care Unit. Most likely restricted to facilities with a major Women's Health service.

503073 440 .13.00 PICTURE ARCHIVING & COMMUNICATION SYSTEMS (PACS)

PACS are computers or networks dedicated to the storage, retrieval, distribution and presentation of images, and a full system can handle images from any modality from plain x-rays to PET.

It provides the capability of off-site viewing and reporting (telediagnosis) and allows practitioners in disparate locations to view and discuss the same data simultaneously (teleradiology).

It allows for instantaneous reporting, obviates the need for film transport between units thus minimising the risk of lost films and possible re-examination and ultimately obviates the need for hard copy film storage as existing hard copy film can be progressively digitised and stored into the system.

If there is integration with HIS, then order entry may be automatic.

It is important to recognise the difference a fully implemented PACS system makes to work flows and to unit layout as clerical duties change and radiographers can verify images at time of exposure, hence most of their work is done in the x-ray room.

It is envisaged that all new and/or refurbished facilities will utilise this system making traditional daylight processing obsolete. However, a back-up dark room may be needed in case of failure of the digital systems.

Satellite units, off-campus units, private practices and staff homes may all be linked into the system. All wards and departments will be able to retrieve and view images but manipulation of images will be restricted.

Modalities

503074 440 .14.00 GENERAL RADIOLOGY / TOMOGRAPHY

Each room will probably contain an upright Bucky stand for chest films.

Where volumes are low, OPG, Mammography and Tomography may be added to the general room equipment. This will necessitate a slightly larger room

Tomography is becoming increasingly rare with the advent of CT but may be required/preferred by a Urology service. The necessary attachments may be

incorporated into a General Room.

Assuming no satellite in the Emergency Unit, one room must be sized and located to facilitate transfer of patients from ED.

503075 440 .15.00 ORTHOPANTOMOGRAPHY (OPG)

OPG is a method of obtaining films of the upper and lower teeth-bearing jaws that supports Trauma, Dental and Faciomaxillary services.

Utilisation patterns and the clinical services provided will determine whether it can be incorporated into a General Room or whether it needs its own dedicated space.

503076 440 .16.00 MAMMOGRAPHY

Mammography will usually only be provided if the Hospital provides a breast service (clinics, surgery etc) as it will used for diagnostic not screening purposes.
It should be sized to allow prone positioning for some biopsy procedures.
It is unlikely that a general hospital will house a screening service as part of BreastScreen Australia but there may be exceptions in Women's Centres. This needs to be ascertained as it will affect facility requirements and functional relationships.
Mammography should be located adjacent to an Ultrasound Room for fine needle biopsies. Change Rooms should be discreet and access to an Interview Room will be required.

503077 440 .17.00 DIGITAL CHEST UNIT

Usually only provided if a chest screening service is part of the Hospitals' service profile.

503078 440 .18.00 ULTRASOUND

One of the most rapidly growing modalities in terms of use, ultrasonography is particularly appropriate to the imaging of internal organs and blood vessels in Obstetrics, Medicine, Surgery, Cardiology and Vascular Surgery. In the latter two specialties, the work will either be done in their own specialty units or in an integrated unit for clinical measurement. They are rarely part of a Medical Imaging Unit.

One ultrasound room should be sized to allow for interventional procedures.

There must be access to a toilet and drinking water as procedures often require the patient to have a full bladder.

Adjacent Preparation Area for set-up and review of biopsy slides etc.

503079 440 .19.00 FLUOROSCOPY

Room equipped for fluoroscopic/radiographic examination involving contrast media, serial repositioning of the patient and the timed use of a fluoroscopic imaging system.

The functions of the Screening (Fluoroscopy) Room involve the administration to the patient of a contrast media which will suitably outline an organ or system, and subsequent radiological examination utilising fluoroscopic equipment.

Facilities for barium preparation and a toilet / shower will be required. For

maximum flexibility, the latter should be accessed from inside the room and from the external corridor.

Procedures may be general or specialised. With the general decline in use of barium contrast studies and advances in equipment technology, general screening and angiography may sometimes be appropriately combined in one room.

The room must be equipped for anaesthesia – ERCPs etc.

503080 440 .20.00 DIGITAL SUBTRACTION ANGIOGRAPHY (DSA).

Angiography is the imaging of the vascular system.

Simple angiography involves injection of a radiographic contrast agent into blood vessels so that vascular structures are enhanced and revealed together with surrounding bony and soft tissue structures. Used for simple peripheral studies and can be done on a fluoroscopy table.

With DSA, a contrast agent is administered directly, via a catheter, into an artery close to the area to be examined. The subtraction of a pre-contrast mask suppresses interfering structures from the image so that the arteries become clearly defined.

Enables a full spectrum of vascular and non-vascular procedures including angiography, angioplasty, arterial and venous stents, biopsy and drainage procedures, and biliary and urologic procedures.

503081 440 .21.00 COMPUTERISED TOMOGRAPHY (CT SCANNING)

Standard Component. A Control Room may service 2 rooms. May need to be serviced for general anaesthesia. Also needs a bed/trolley bay adjacent to each room in order for staff to observe whilst carrying out other duties.

503082 440 .22.00 MAGNETIC RESONANCE IMAGING (MRI)

Requires its own suite for access control and protection of/from the magnet (fringe field), and preparation/nursing support areas. Needs ready access to a small interview for patient consents and explanations. Include storage for MRI-compatible (non-ferrous) equipment. Locker for patients' property that may interfere with or be damaged by the magnet such as credit cards, keys.

Careful consideration must be given to the siting of the MRI in order to minimise the shielding required (and the cost of same). I.e. do not locate a helipad above it or locate the MRI next to a sub-station.

Siting considerations must also include:
- floor / slab structurally capable of carrying the weight of the MRI
- good external access for the installation of the MRI. This may be less expensive if done through a removable side panel rather than dismantling the RF shielded door
- room size / shape must be able to contain the 5 Gauss magnetic field with the room and consideration should be given to the needs for future 3T MRIs
- Access control designed in, so that the four zones of control are accommodated, with only authorised staff entering the MRI room
- Other moving ferrous objects which can interfere are lifts, cars moving through car parks, construction sites,

Need to ensure that emergency equipment such as fire extinguishers and medical gas bottles in the vicinity are not made of magnetic iron.

503083 440 .23.00 ENDOSCOPIC RETROGRADE CHOLEOPANCREATOGRAPHY (ERCP)

ERCP is a diagnostic procedure for examination of the biliary and pancreatic ducts system and may be a therapeutic intervention for removal of gall stones etc.

It is a procedure used by gastroenterologists, and project staff will need to ascertain whether the procedures are to be performed in the Medical Imaging Unit or in an Endoscopy Unit if the latter is provided.

Unlikely to occur in Level 4 facilities and below.

503084 440 .24.00 DENTAL X-RAY

Wall-mounted x-ray units in Dental Surgeries with benchtop processing. Usually managed by the Dental Unit and outside the scope of this Guideline.

503085 440 .25.00 COMPUTED AND DIGITAL RADIOGRAPHY (CR & DR)

Computed radiology is replacing traditional film processing as a means of capturing an image. Cassettes are still used but viewing is done on a CR viewing monitor and the image can be enhanced by the operator to capture the best image before being stored onto the PACS network for reporting.

Digital radiography does away with the use of cassettes altogether and images appear directly onto the workstation monitor and allow manipulation of the images.

Hard copy film brought in by a patient may be digitised and stored onto the network and as images can be viewed from any computer with the necessary authorised access there is no need for traditional x-ray viewing boxes. However, it may be appropriate to locate a viewing box in the Outpatient Department for use until such time as the films can be digitised.

Operational Policies

503086 440 .26.00 PATIENT TRANSPORT

Determine whether the Unit will have its own dedicated portering service or use a central portering service. If the former, space will be required for trolley/wheelchair parking, a small orderly base, storage for linen and portable oxygen cylinders and a small area with sink for wiping down trolleys.

503087 440 .28.00 ANAESTHETICS & RECOVERY

It is vital to ascertain the likely extent of anaesthetic requirements (general and sedation) in order to assess holding and recovery needs, equipment needs and medical servicing of rooms.

Access to a small Interview Room will be required for consents etc in privacy.

Planning Models

503088 440 .29.00 PRIVATISATION OF SERVICES

Increasingly, and especially in smaller facilities, consideration is being given to partial or full privatisation of Medical Imaging services. These options need to be addressed early in the planning process as they may have considerable spatial, design and cost implications.

503089 440 .30.00 OFF-SITE SERVICES

In smaller or remote rural hospitals that cannot justify a full Medical Imaging Unit, access to off-site services such as CT scanning and MRI is an important consideration in the planning phase as is the possibility of establishing teleradiology links with a larger centre. (Implications for an appropriately equipped room).

Functional Areas

503090 440 .31.00 FUNCTIONAL ZONES

The Medical Imaging Unit will consist of the following Functional Zones depending on Operational Policy and service demand:
- Reception, Waiting for ambulatory patients and visitors and Public Amenities
- Clerical / administrative areas (typing, sorting, bookings)
- Imaging rooms with access to patient change areas and toilets
- Patient Holding/Recovery
- Support areas including interview rooms, preparation areas, storage, disposal and utility rooms
- Film processing areas – whether dark room, daylight or computed radiology (CR) workroom
- Film storage
- PACS storage and work areas
- Viewing and reporting areas
- Staff offices & Amenities including Staff Room, Change Rooms, Toilets and Meeting Room/s

503091 440 .32.00 RECEPTION / WAITING

Standard Components. May require a Child Play area. Access to public and disabled toilets.

Must be well-designed, well-defined and user-friendly. The Reception must oversight the entry and waiting areas. Approximately a third of available seating must have arms and seat height of 500mm to allow patients with some disability e.g. hip replacement to get out of the seat easily.

Ambulatory outpatients only. No patients on beds/trolleys.

In large departments, it may be preferable to limit the numbers of patients at the “front” and direct to sub-waiting areas once patients have registered.

503092 440 .33.00 CHANGE AREAS

There should be separation of “changed” and “unchanged” patients, and ambulatory patients and those in wheelchairs or on beds/trolleys requiring some supervision.

Optional arrangements for Change Cubicles include:
- Two dedicated cubicles per imaging room, each opening directly into that room or
- A bank of cubicles located adjacent to the imaging rooms but not opening directly into the rooms. This option may be supported by a bank of lockers and

separate male and female "changed" waiting areas so that patients are not confined to a cubicle. This latter option allows for more flexibility re wheelchair access and more efficient management of clean and soiled linen and call systems. There will still need to be a toilet attached to the screening room.

503093 440 .34.00 INTERVIEW / ASSESSMENT / PRE-PROCEDURE ROOMS

For patient assessment by medical and technical staff, explanations and consents.

Ready access from reporting area & imaging suites.

503094 440 .35.00 IMAGING ROOMS

Usually clustered into suites of like rooms that can share appropriate radiological and patient support. For example

- General & screening rooms
- Ultrasound & Mammography (and often CT)
- CT
- Interventional (DSA & Angiography)
- MRI

503095 440 .36.00 MOBILE IMAGING EQUIPMENT

Mobile units may be general x-ray units, image intensifiers or ultrasound units. Their use and provision should be defined in the Service Plan / Functional Brief as they will impact on space and staffing.

General units will be parked in the Medical Imaging Unit for deployment around the facility, with dedicated units in:
- Operating Unit – general and image intensifier
- NICU – general and ultrasound
- ICU – general and ultrasound
- Emergency – general (if no satellite) and ultrasound.

Locations will need to be determined so that the appropriate parking bays, fittings, protective aprons, power etc can be provided in outlying units.

It is expected that images will be digital or CR system and on the PACS system, so no processing facilities should be required - in the Operating Unit for example. However these units may require viewing stations for better clarity of images.

The responsibility for maintenance etc rests with Medical Imaging.

503096 440 .37.00 VIEWING & REPORTING

These days reporting rarely uses traditional x-ray viewers but "soft copy" reading using high resolution viewing monitors. Design of reporting areas must be conducive to productivity, comfort and efficiency.

Each reporting station will need a minimum of two viewing monitors, a computer for patient and radiological information systems (PIS and RIS) and dictating equipment.

In some instances, reporting may be carried out in the Control Rooms but this requires additional space in these areas for audio privacy.

If staff with permanent offices wish to do reporting in their offices, they must also have two viewing monitors to give better clarity for more accurate diagnosis, dimmable lighting etc.

Staff in shared offices and visiting medical staff will need access to reporting stations.

Reporting stations need to be central with easy access from imaging suites (particularly US, CT, MRI)

Control of environmental conditions i.e. lighting, noise levels etc – ideally individually at each reporting station. Voice recognition software in future will need to be isolated from noise pollution

503097 440 .38.00 PACS ROOM

A climate-controlled area to house the optical disc storage unit/s ("juke boxes") and computers for use by the PACS controller and the suppliers of the equipment.

All digital machines will have – in the imaging room - an ISDN connection linked back to the PACS Room to either an individual monitor or to a single router (a device in a network that handles message transfer between computers) to so that software maintenance of equipment by suppliers requires only one line in/out. Similarly the workstations in the CR Workroom will be linked back.

503098 440 .39.00 SUPPORT AREAS

CLEAN UTILITY / PREPARATION ROOM required for preparation and mixing of contrast media and storage of medications and sterile supplies. If conveniently located, may serve a number of rooms and the Patient Holding/Recovery Area. When pre-prepared media is used, additional storage shall be provided for the media.

DIRTY UTILITY ROOM required and size and number will depend on the number of patient holding/recovery bays and type of patient accommodated. In many instances, a Sub Dirty Utility will suffice but more than one room will/may be required in large Units to minimise staff travel distances.

RESUSCITATION TROLLEY BAYS: In large units, more than one trolley will be needed and planners will need to define locations which may include the Interventional Unit, MRI, and Recovery.

503099 440 .40.00 FILM PROCESSING & VIEWING AREAS

It is likely that in the future, even in small units – and certainly in private units, that all storage will be via PACS making dark rooms and daylight processing obsolete.

- Dark room: May be required as a back-up in the event of a disaster or failure of the PACS system.

- Daylight processing if provided shall be located convenient to the General Imaging Rooms and to the quality control area. Still used for mammography.

If a computed radiography system is used, allow 1 CR unit per 2 general rooms located central to the rooms.

Laser printers are required for CT, Ultrasound, MRI etc

Film scanning (digitiser) for conversion of conventional films to PACS and the laser printer will be used to convert back to hard copy.

503100 440 .41.00 FILM STORAGE

Hard copy storage requires a room with static shelving and should ideally be located near the main Reception/Clerical Area for ease of retrieval. Size will depend on Operational Policy re culling, retention or destruction and archiving and may be progressively reduced as films become digitised or culled. Films must be retained for 7 years and paediatric records until children are 7 years past their age of majority – i.e. 25 years.

Storage for archived film may need to be provided. It may be outside the Imaging Unit, but must be properly secured to protect films against loss or damage.

Film to be retained for teaching and research purposes may be housed in a Film Library.

Storage facilities for unexposed film shall ensure protection of film against exposure and shall not be warmer than the air of adjacent occupied spaces.

If the facility has converted to digital imaging, there will need to be an area for the PACS archive storage units.

At the time of the redevelopment a decision must be made to determine the system the unit will adopt – total digital and PACS systems or a combination of PACS and old films system. However, the maintenance of dual system is inefficient and ineffective and a decision regarding the conversion of films to digital format should be made based on a cost benefit analysis.

503101 440 .42.00 PATIENT HOLDING / RECOVERY AREAS

Patients may be in the Unit for periods of up to four hours and longer during the course of an examination or series of examinations.

Because of increasing patient acuity and the increasingly interventional nature of examinations, often requiring anaesthesia/sedation, there is a corresponding need for an area designated as a patient holding/recovery area with nursing supervision and support areas.

The number of bed/trolley spaces will depend on the Level of Service and the number and mix of imaging modalities but there should be a minimum of two bed spaces for routine purposes. Where Computerised Tomography procedures are to be carried out, an additional bed-space will be required.

The required dimensions of the Patient Holding/Recovery area should be determined with reference to:
- operational policy on the transport of patients within the facility (own bed, trolley)
- additional mobile/fixed equipment to be accommodated (IV stands, monitors etc)
- staff access to patient/equipment.

This area needs to be supported by a Staff Station, Utilities etc.

Functional Relationships

503102 440 .43.00 EXTERNAL

It is highly desirable that the Medical Imaging Unit has ready access to:
- Emergency Department
- Ambulatory Care areas – particularly orthopaedic and surgical clinics

When determining location, transfer of patients through public areas must be avoided, particularly those who are critically ill or severely traumatised.

There must also be effective horizontal or vertical links between Medical Imaging and
- Intensive Care / Coronary Care
- Surgical/Orthopaedic Inpatient Units
- Radiotherapy/Nuclear Medicine where applicable
- Transport arrival points

503103 440 .44.00 INTERNAL

Location of diagnostic rooms around a central staff and processing area if achievable provides for optimal workflow/circulation.

The rooms used for large volume outpatients should be located near the main entry & outpatient waiting.

DESIGN

Access

503104 440 .45.00 ENTRIES

There should be one only point of access to the Unit for outpatients and visitors to the Unit overseen by the Reception. (A shop front entrance may be highly attractive to outpatients in a competitive market environment)

Wherever possible there should be separate discreet entry for patients on beds/trolleys from Emergency, ICU and Inpatient Units to provide privacy for inpatients away from public scrutiny and to optimise workflows. This entry may also efficiently serve as a dedicated staff access particularly for staff movements to and from outlying units and particularly after hours.

Consideration should be given to the most appropriate means of entry for outpatients brought in by ambulance (e.g. from a Nursing Home).

Access for large equipment must be considered and a “back-of-house” access for supplies delivery and waste removal will need to be determined.

503105 440 .46.00 WAYFINDING

In large Units that provide sub-waiting areas for each modality / cluster of modalities, very careful thought must be given to overall layout and wayfinding and the manner in which patients may be directed from Reception by sensory or other means as it is unlikely that there will be the staff to act as escorts under most circumstances.

Parking

503106 440 .47.00 Visitors will use public car parks with access to drop-off and disabled car spaces.

Staff parking is addressed in Part C of these Guidelines (Section 790.59)

Disaster Planning

503107 440 .48.00 There should be emergency power available to allow completion of processing of digital images and storing in to PACS, thus overcoming the need for repeat x-ray exposure to patients.

Digital records should not only be backed up on site, but also remotely for added security.

Seismic joints as indicated.

Infection Control

503108 440 .49.00 Handbasins in all imaging rooms and clinical support areas.

Interventional rooms will need to be designed to operating room standards.

Also refer to Section D of these guidelines for further information.

Environmental Considerations

503109 440 .50.00 ACOUSTICS

Acoustic privacy in all imaging rooms, interview rooms and especially in reporting areas.

503110 440 .51.00 NATURAL LIGHT

Although imaging rooms are usually windowless, an attempt should be made to provide natural light wherever possible as it contributes to a sense of wellbeing and minimise the stress of the unknown or potentially uncomfortable or painful procedure.

In staff areas, the Staff Rooms and offices should have access to natural light and preferably a pleasant outlook.

503111 440 .52.00 LIGHTING

Ceiling mounted shadowless lighting required in CT and Angiography.
Indirect and dimmable lighting required in all examination rooms for patient comfort.

503112 440 .53.00 TEMPERATURE & HUMIDITY

- Technological requirements of equipment (as per manufacturer's specifications).
- Control of heat and humidity critical in equipment/computer areas and as the heat load for equipment is high, there must be separate heating/cooling zones for the equipment and the Control Room.
- Patient comfort particularly if uncovered during an investigation.
- Heat generated by Ultrasound equipment.

Given the large diversity of heat outputs from imaging equipment, individual room control may be easier with multiple small air conditioner units rather than a few large capacity ones.

503113 440 .54.00

503113 440 .54.00 PRIVACY

Visual patient privacy, particularly if unclothed is an important consideration to be addressed in the design of rooms and waiting spaces. Consideration could be given to locations of privacy screens.

The Medical Imaging Unit should be designed to ensure confidentiality of patient conditions and instruction regarding examinations.

Discrete sub-waiting areas could be provided as necessary for patients wishing or needing to be separated.

503114 440 .55.00 INTERIOR DESIGN

Despite its technical nature, a sterile clinical environment must be avoided by judicious use of colour, furnishings and artwork.

Refer to Part C of these guidelines for further information.

Space Standards and Components

503115 440 .56.00 ROOM SIZES & CONFIGURATION

Imaging rooms must be sized and proportioned (usually rectangular) to suit the equipment to be installed, provide a safe working environment and allow the effective movement of staff and patients.

Since technology changes frequently and from manufacturer to manufacturer, rooms should be sized to allow upgrading of equipment in the future, particularly if existing equipment is to be transferred in the first instance.

For maximum flexibility, all rooms should enable bed/trolley access so that bed patients do not have to wait for the appropriate room.

503116 440 .57.00

ACCESS AND MOBILITY

Refer Part C of these Guidelines for information.

503117 440 .58.00 ERGONOMICS

Refer Part C, Section 730.12 of these Guidelines for information.

Addresses such issues as bench heights and depths, storage systems etc.

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503118 440 .59.00 HUMAN ENGINEERING

Refer Part C of these Guidelines for information.

503119 440 .60.00 DOORS, WINDOWS AND CORRIDORS

Special consideration should be given to the width and height of

doorways to ensure delivery and removal of equipment is not impeded or prevented and that patient trolley and bed movement is not hampered.

Where windows are provided in imaging rooms, they should be fitted with operator-controlled screening and be radiation shielded where necessary.

Refer Part C of these Guidelines for information.

Safety and Security

503120 440 .61.00 SAFETY

In Imaging Units, risks to staff are :
- exposure to radiation and other chemicals
- manual handling from trolley to table and back and
- after-hours isolation.
- risks associated with the MRI Magnetic Field

In-use warning lights must be located outside all imaging rooms; may be manual or automatic operation.

For OHS reasons, installation of ceiling-mounted lifters may be considered in rooms dealing with non-ambulant patients.

Refer to the Occupational Health & Safety Act 2000 and Regulation 2001.

Refer to Part C of these Guidelines for further information.

Environmental Protection Authority for radiation safety standards

503121 440 .62.00 SECURITY

Access control particularly after-hours.

Duress call at Reception.

Patients' property – own locker or use of basket that stays with the patient during examination.

Finishes

503122 440 .63.00 WALL PROTECTION

It is imperative that intra-departmental corridors have protection to the lower part of the walls to minimise what can be considerable damage from trolleys.

Refer to Part C of these Guidelines

503123 440 .64.00 FLOOR FINISHES

Refer to Part C of these Guidelines

503124 440 .65.00 CEILINGS

Refer to Part C of these Guidelines

Fixtures & Fittings

503125 440 .66.00 Refer to part C of these Guidelines and to the Room Data Sheets (RDS) and Room Layout Sheets (RLS) for further detailed information

Building Service Requirements

503126 440 .67.00 CONSTRUCTION

Construction standards for a Medical Imaging Unit include the following:
- Flooring adequate to meet load requirements for equipment, patients and personnel.
- No conduits shall be laid in the vicinity of expected core holes
- Provision for cable trays, ducts or conduits in floors, walls and ceilings as required for equipment installation
- Ceiling heights that suit the equipment, but shall not be less than 3000 mm
- for ceiling tube mount installations
- Ceiling-mounted equipment needs properly designed, rigid support structures located above the finished ceiling.
- A unistrut or equivalent ceiling should be considered for ease of installation, service and remodelling.
- Lighting to be designed so as not to obstruct ceiling-mounted tubestands
- X-ray control screens to be designed so as not to obstruct equipment positioning and ceiling-mounted tubestands
- Separate air-conditioning to control rooms to accommodate high fluctuating A/C equipment loads.

Recent post-occupancy evaluations undertaken for NSW Health state that the use of ceiling space as a return air plenum is ineffective in existing building conditions, where existing walls go up to the underside of the slab above.
The above ceiling space requirements are important considerations given the amount of equipment which has to be accommodated – air conditioning, vents, cable runs, plumbing, unistruts for x-ray gantries etc.
In the digital age, the x-ray control screens should be full ceiling height to facilitate the running of data cables to the control bench.

503127 440 .68.00 RADIATION PROTECTION

Medical imaging (ionising) equipment requires radiation protection. Plans and specifications will require assessment by a Radiation Services consultancy and reviewed by an Accredited Consultant Radiation Expert (CRE)

The radiation protection assessment will specify the type, location and amount of radiation protection required according to final equipment selection and layout. Radiation protection requirements shall be incorporated into the final specifications and the building plans.

503128 440 .69.00 CALL SYSTEMS

Systems will comprise:
- Nurse call located in or near change cubicles, patient-use toilets and showers and at every holding/recovery bay
- Staff Assist and Emergency Call – In every imaging room, in the Holding/Recovery area and corridor/s.
- Duress call – At Reception

Annunciator panels in corridors must be located for optimum viewing and be non-scrolling.

Consideration needs to be given as to exactly where calls will be annunciated

particularly in times of reduced staffing (night shift).

503129 440 .70.00 INFORMATION TECHNOLOGY / COMMUNICATIONS

Systems will/may include:
- Voice / data cabling for phones and computers
- Dictation system for reporting and / or voice recognition system
- High speed network for digital and CR equipment
- PACS
- Patient (or Hospital) Information System (HIS)
- Radiology Information System (RIS) ideally linked to the PIS
- Teleradiology

503130 440 .71.00 ELECTRICAL SERVICES

Three phase power for x-ray generating rooms - equipment specific
Interventional rooms will need to be cardiac-protected.

503131 440 .72.00 MEDICAL GASES

Oxygen and suction in all rooms and holding / recovery bays.

Medical air, nitrous oxide (if used) and scavenging will be required in all rooms where general anaesthesia is delivered.

Medical gas systems must have alarms within the imaging suite which alert staff to diminished capacity or potential failure, as well as when gas bottles need changing

All portable ferrous oxygen cylinders must carry MRI Warning Label

COMPONENTS OF THE UNIT

Standard Components

503132 440 .73.00 Standard Components must comply with details in Standard Components described in these Guidelines. Refer also to Standard Components Room Data and Room Layout Sheets.

Provide the Standard Components as identified in the Schedule of Accommodation.

Non-Standard Components

503133 440 .74.00 Provide the Non-Standard Components as identified in this section and in the Schedule of Accommodation, according to the Operational Policy and Functional Brief.

503134 440 .75.00 COMPUTED RADIOGRAPHY (CR) WORKROOM

DESCRIPTION & FUNCTION
Uses phosphor plates (cassettes) instead of the traditional film plates and effectively replaces Dark Room and Daylight functions for processing general films. It allows viewing of the image on a computer monitor and the radiographers can enhance the image before storing.The following equipment for 2 radiographer workstations will service 4 general rooms:

- CR plate readers – a multiplate unit and a smaller back-up unit
- Computers for entering patient information - 1 per workstation
- CR monitors for viewing images – 1 per workstation
- Storage for manuals
- Plate holders (carriers) ideally mobile for moving between imaging room and workroom.

Smaller Units using a small reader may require a back-up Dark Room.

LOCATION & RELATIONSHIPS
Immediately outside the General Radiology Rooms with access from each room.

CONSIDERATIONS
Temperature control and ventilation.

503135 440 . 76.00 CONTRAST MEDIA PREPARATION ROOM

DESCRIPTION & FUNCTION
Space for storing and preparing contrast media (barium sulphate or iodine compounds) for fluoroscopy examinations.

LOCATION & RELATIONSHIPS
May be part of a Clean or Dirty Utility room but must be a discrete space. Ready access to the Fluoroscopy Room

CONSIDERATIONS
Additional storage for pre-prepared media. Requires a dedicated sink.

503136 440 . 77.00 DIGITAL (PACS) REPORTING WORKSTATION

DESCRIPTION & FUNCTION
Radiologist workstation for reporting on procedures using high resolution (LCD) monitors on which, unlike traditional x-ray viewers, images can be manipulated. A minimum of 2 linked monitors are required but occasionally 4.

In addition to the reporting monitors, a dedicated computer will be required for access to the Patient Information System and a system for dictating reports. In the future, these 3 functions may be integrated into a single computer system with appropriate software.

LOCATION & RELATIONSHIPS
Ready access from the imaging rooms but in a quiet location. Several workstations may be located in the one room but cubicles need to be visually and acoustically separated.

CONSIDERATIONS
Ergonomic design of the workstation to accommodate the monitors.

Temperature control imperative to minimise risk of monitor failure.
Adequate ventilation

Individual cubicle lighting (dimmable) and temperature controls

Acoustic management to ensure quality of voice recordings.

Schedule of Accommodation

503137 440 .78.00 A Generic Schedule of Accommodation for a Medical Imaging Unit - (General, Angiography, CT Scanning, MRI) at Level 2, 3, 4, 5, and 6 follows.

Note: (o) in Qty/ x m2 column = Optional

ENTRY / RECEPTION / CLERICAL

Note 1 : Transport Staff Workbase/Trolley Park
If provided, will need linen supply, portable oxygen cylinder storage & bench/sink for wiping down trolleys. (need larger space at facilities with heavy interventional work)

ROOM/SPACE	Standard Component	Level 2 Qty x m2	Level 3 Qty x m2	Level 4 Qty x m2	Level 5 Qty x m2	Level 6 Qty x m2	
ENTRY / RECEPTION / CLERICAL							
WAITING	yes	Share	Share	1 x 20	1 x 35	1 x 45	1.2 m2 per seat, 1.5m2 for w/chair. Respectively 15, 25 & 35 seats/wheelchairs
BAY - DRINKING FOUNTAIN				1 x 1	1 x 1	1 x 1	Optional vending may be addedd at 3m2
CHILD PLAY AREA				1 x 8 (o)	1 x 8 (o)	1 x 8 (o)	3-4 places
TOILET - DISABLED / BABY CHANGE	yes	Share	Share	1 x 5	1 x 5	1 x 5	Unless available nearby
TOILET - PUBLIC	yes	Share	1 x 3	2 x 3	2 x 3	2 x 3	Unless available nearby
RECEPTION	yes	Share	Share	1 x 10	1 x 12	1 x 12	1, 2 & 2 staff
CLERICAL WORKROOM		Share	1 x 9	1 x 10	1 x 15	1 x 20	May need larger area if they also combine booking system for the facility/AHS
CURRENT FILM STORAGE		Share	1x30(o)	1 x 50 (o)	1 x 70 (o)	1 x 100 (o)	Check need if PACS used
BAY - MOBILE EQUIPMENT	yes	Share	1 x 4	2 x 4	3 x 4	4 x 4	For mobile units depending on policy re decentralising
TROLLEY / WHEELCHAIR PARK		Share	1 x 5	1 x 6	1 x 10	1 x 12	Not required if provided from Transport Unit
TRANSPORT STAFF WORKBASE/TROLLEY PARK		Share		1 x 4	1 x 6	1 x 8	See note 1

503138 440 .79.00 SUPPORT AREAS

Note 2 : PACS Server Room

SUPPORT AREAS							
CLEANER'S ROOM	yes	Share	Share	1 x 5	1 x 5	1 x 5	
HARD COPY / DIGITISER ROOM				1 x 6	1 x 6	1 x 6	
PACS SERVER ROOM			1 x 10	1 x 12	1 x 20	1 x 30	See note 2.
STORE - GENERAL	yes		1 x 9	1 x 9	1 x 12	1 x 12	
STORE - FILM / CASSETTES / PLATES			1 x 9	1 x 9	1 x 12	1 x 12	

OPTICAL DISCS STORAGE ROOM			1 x 9	1 x 9	1 x 12	1 x 12	
PACS OPERATION/MANAGEMENT TEAM			1 x 9	1 x 9	1 x 12	1 x 12	

503139 440 .80.00 GENERAL X-RAY & FLUOROSCOPY (SCREENING)

GENERAL X-RAY & FLUOROSCOPY (SCREENING)							
PATIENT BAY - HOLDING	yes		1 x 8	2 x 8	0	0	For Level 5 & 6 refer to general nursing holding/recovery unit.
BAY - LINEN	yes		Share	1 x 2	1 x 2	1 x 2	
GENERAL X-RAY ROOM	yes	1 x 30	1 x 30	2 x 30	3 x 30	4 x 30	Includes Control. Adjust numbers as per service plan
CHANGE CUBICLE - PATIENT	yes	1 x 2	1 x 2	2 x 2	3 x 2	4 x 2	1 cubicle per imaging room. Less required if centralised
CHANGE CUBICLE - W/CHAIR ACCESS	yes	1 x 4	1 x 4	2 x 4	3 x 4	4 x 4	1 cubicle per imaging room. Less required if centralised
CHANGED WAITING / PATIENT LOCKERS (IF PROVIDED)	yes			2x5 (8 seats)	2 x 7	2 x 10	Required if Change Cubicles are centralised.Seperate male & female patients.
PATIENT LOCKER BAY (IF CENTRAL CHANGED WAITING)				1 x 1	1 x 2	1 x 2	
COMPUTED RADIOLOGY (CR) PROCESSING				1 x 20	1 x 30	1 x 40	Approximately 10m2 per Imaging Room for CR equipment & workstations (1 per imaging room)
DARK ROOM	yes		1 x6	1 x6	1 x6	1 x8	Back-up for Level 4 single CR plate reader & system failure
DAYLIGHT PROCESSING	yes		0	0	0	0	Assumed no longer required
SCREENING ROOM (FLUOROSCOPY)	yes		1 x 36 (o)	1 x 36	1 x 36 (o)	1 x 36 (o)	Includes control
CONTRAST MEDIA PREPARATION ROOM/BAY			1 x 5 (o)	1 x 5	1 x 5	1 x 5	Could be part of nearby Utility Room
CHANGE CUBICLE - PATIENT	yes		1 x 2 (o)	1 x 2	1 x 2	1 x 2	
SHOWER/TOILET - DISABLED			1 x 6 (o)	1 x 6 (o)	1 x 6 (o)	1 x 6 (o)	Dual access from room and corridor
BAY - RESUSCITATION TROLLEY	yes		0	1 x 2 (o)	1 x 2	1 x 2	

503140 440 .81.00 ULTRASOUND, MAMMOGRAPHY & CT SCANNING

Note 3 : CT Scanning Room
Size may be increased to contain computer cabinets thus eliminating need for a separate room.

ULTRASOUND, MAMMOGRAPHY & CT SCANNING							
SUB-WAITING (U/SOUND & MAMMOGRAPHY)			1 x 6	1 x 8	1 x 10	1 x 10	
ULTRASOUND ROOM	yes		1 x 12 (o)	2 x 12	2 x 12	2 x 12	Numbers adjusted to suit service plan
ULTRASOUND ROOM			0	0	1 x 24	1 x 24	For interventional procedures
CHANGE CUBICLE - U/SOUND	yes		1 x 2 (o)	1 x 2	1 x 2	1 x 2	1 per room

CHANGE CUBICLE - DISABLED			1 x 4 (o)	1 x 4	1 x 4	1 x 4	1 per room
MAMMOGRAPHY ROOM	yes(draft)			1 x 16	1 x16	1 x 16	
CHANGE CUBICLE - MAMMOGRAPHY	yes		1 x 2	2 x 2	2 x 2	2 x 2	2 per room
MAMMOGRAPHY PROCESSOR				1 x 6	1 x 6	1 x 6	
ULTRASOUND/ MAMMOGRAPHY PREP ROOM/LAB					1 x 9	1 x 9	
CT SCANNING ROOM	yes(draft)		1 x 45 (o)	1 x 45	2 x 45	2 x 45	See note 3.
CT CONTROL ROOM	yes(draft)		1 x 6	1 x 6	1 x 12	1 x 12	Shared between 2 rooms
CT COMPUTER ROOM			1 x 12 (o)	1 x 12 (o)	2 x 12 (o)	2 x 12 (o)	Optional depending on equipment selected.
CHANGE CUBICLE - DISABLED - CT	yes		1 x 4	1 x 4	2 x 4	2 x 4	1 per room
TOILET - PATIENT	yes			1 x 4	1 x 4	1 x 4	
PATIENT BAY - HOLDING	yes		1 x 8	1 x 8	2 x 8	2 x 8	1 per room outside room
CLEAN UTILITY (PREP) ROOM -	yes			1 x 8	1 x 8	1 x 8	
BAY - LINEN TROLLEY	yes		Share	1 x 2	1 x 2	1 x 2	
BAY - RESUSCITATION TROLLEY	yes		0	1 x 2 (o)	1 x 2 (o)	1 x 2 (o)	Depending on size and layout of unit

503141 440 .82.00 ANGIOGRAPHY / DSA

ANGIOGRAPHY / DSA							
ANAESTHETIC INDUCTION ROOM	yes			15 (o)	15 (o)	15 (o)	
SCRUB-UP / GOWNING	yes			1 x 6	1 x 6	1 x 6	2 scrub stations. May be shared between Angiography Rooms if design permits
STERILE STOCK / SET-UP ROOM	yes			1 x 16	1 x 18	1 x 24	
ANGIOGRAPHY ROOM	yes			1 x 42	2 x 42	3 x 42	Refer Service Plan to determine number of rooms (50m2 8m L x 6.25W)
CONTROL ROOM - SINGLE	yes			1 x 14	0	1 x 14	
CONTROL ROOM - SHARED				0	1 x 24	1 x 24	
COMPUTER EQUIPMENT				1 x6	2 x 6	3 x 6	1 per Angiography Room.
REPORTING ROOM	yes			1 x 8	1 x 12	1 x 16	Adjust as necessary
BAY - RESUSCITATION TROLLEY	yes			1 x 2	1 x 2	1 x 2	
STORE - FILMS / CDS / VIDEOS				1 x 6	1 x 8	1 x 8	

503142 440 .83.00 MRI
(1 room only assumed for the purposes of this Guideline but may be a suite of 2 rooms at Level 6)

MRI							
INDUCTION / PREPARATION ROOM	yes			1 x 20	1 x 20	1 x 20	Include small staff base/clean utility and 1 patient trolley/bed bay per room
BAY - HANDWASHING (TYPE A)	yes			1 x 1	1 x 1	1 x 1	Part of Prep Area
MRI SCANNING ROOM				1 x 42	1 x 42	1 x 42	Size will depend on equipment selected
MRI CONTROL				1 x 10	1 x 10	1 x 10	Must oversight and control entry into magnet room
MRI COMPUTER ROOM				1 x 10	1 x 10	1 x 10	
OFFICE / REPORTING	yes			1 x 9	1 x 9	1 x 9	
CHANGE CUBICLE	yes			1 x 2	1 x 2	1 x 2	
PATIENT LOCKER BAY	yes			1 x 1	1 x 1	1 x 1	
SUB-WAITING	yes			1 x 6	1 x 6	1 x 6	
TOILET - PATIENT	yes			1 x 4	1 x 4	1 x 4	
BAY - RESUSCITATION TROLLEY				1 x 2	1 x 2	1 x 2	Non-ferrous construction
STORE - DEWAR TANK				Remote areas only	Remote areas only	Remote areas only	Remote areas only.Must provide easy access into MRI room for top-up using mobile Dewars.

503143 440 .84.00 PATIENT HOLDING / RECOVERY

Note 4 : Patient Bay - Holding / Recovery
At least 2 per interventional room (Holding / Recovery may be combined make it single larger area with direct observation from Nurses Station. Separate holding area adjacent to each modalities may inefficient due to additional staff resources. A lot of interventional work is being performed under the control of CT and Ultrasound)

PATIENT HOLDING / RECOVERY							
PATIENT BAY - HOLDING / RECOVERY	yes		9	9	9	9	See note 4.
STAFF STATION	yes			1 x 10	1 x 10	1 x 10	
CLEAN UTILITY	yes			1 x 10	1 x 10	1 x 10	
BAY - LINEN TROLLEY	yes			1 x 2	1 x 2	1 x 2	
BAY - RESUSCITATION TROLLEY	yes			1 x 2	1 x 2	1 x 2	
DIRTY UTILITY - SUB	yes			1 x 8	1 x 8	1 x 8	
DISPOSAL ROOM	yes			1 x 8	1 x 8	1 x 8	
STORE - EQUIPMENT	yes			1 x 9	1 x 12	1 x 12	

DISCOUNTED CIRCULATION %			35%	35%	35%	35%	

503144 440 .85.00 STAFF OFFICES & REPORTING

Offices/workstations will be based on Staff Establishment. Sizes based on NSW Health Directive - PD2005-576 - Office Accommodation

STAFF OFFICES & REPORTING							
OFFICE - SINGLE -12M2 (DIRECTOR)	yes				1 x 12	1 x 12	
OFFICE - SINGLE 9M2 (RADIOLOGIST)	yes	1 x 9	1 x 9	9	9	9	At Level 2 & 3, office used for reporting
OFFICE - SINGLE 9M2 (RADIOGRAPHER)	yes			9	9	9	Chief Radiographer, Assistant Chiefs, Senior Radiographers etc
OFFICE - SINGLE NUM				1 x 9 (o)	1 x 9	1 x 9	
OFFICE - WORKSTATION (TRANSCRIPTION)	yes			4.5	4.5	4.5	
OFFICE - WORKSTATION (IT, CLERICAL)	yes				5.5	5.5	
OFFICE - WORKSTATION (SECRETARY)	yes				5.5	5.5	
OFFICE - WORKSTATION (REGISTRARS)	yes				5.5	5.5	
PACS REPORTING WORKSTATION			5.7	5.7	5.7	5.7	Refer Non-Standard Components. May be used for individual and group teaching.

503145 440 .86.00 STAFF AMENITIES

STAFF AMENITIES							
FILM LIBRARY / STUDY					1 x 20	1 x 20	5 places
QUIET STUDY ROOM					1 x 9 (o)	1 x 9 (o)	
STORE - PHOTOCOPY / STATIONERY	yes				1 x 8	1 x 8	
MEETING ROOM - MEDIUM	yes				1 x 20	1 x 20	
MEETING ROOM - LARGE	yes				2 x 30	2 x 30	
STAFF ROOM	yes			1 x 15	1 x 20	1 x 25	Depending on Staff Establishment
PROPERTY BAY - STAFF	yes			1 x 2	0	0	Numbers will depend on Staff Establishment
SHOWER - STAFF	yes			1 x 2 (o)	0	0	Numbers will depend on Staff Establishment
TOILET - STAFF	yes			2x 3	1 x 3	1 x 3	Easily accessible if main change rooms remote
STAFF CHANGE ROOM					2 x 14	2 x 14	1 Shower, 2 WCs plus lockers. Required for facilities with high interventional workload
DISCOUNTED CIRCULATION %				30%	30%	30%	

Functional Relationships

503146 440 .87.00 A diagram of key functional relationships is attached.

References and Further Reading

503147 440 .88.00 DS-15 Health Building Guideline – Medical Imaging Unit, NSW Health Department, 1992

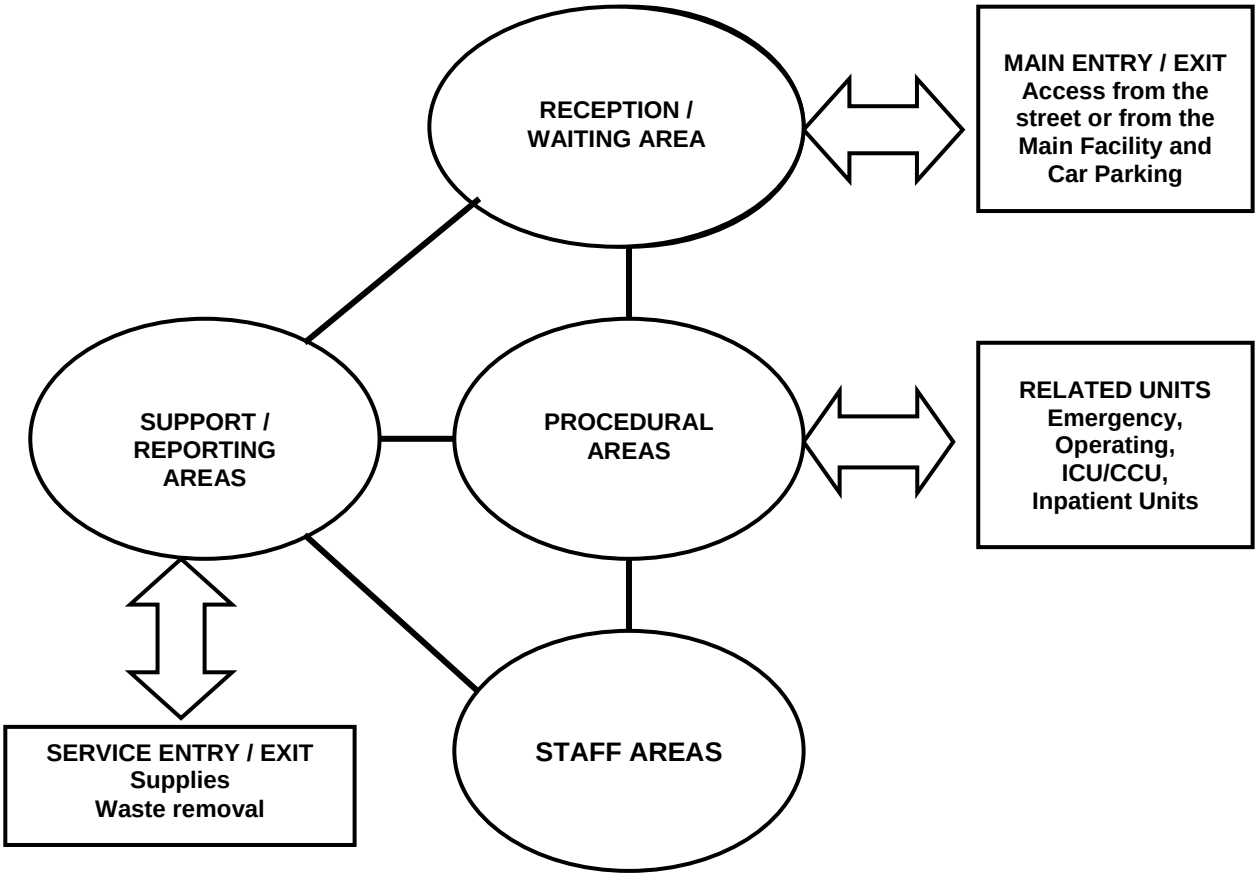
DHS Victoria HFG – Medical Imaging,

Checklists

503148 440 .89.00 A Security Checklist is appended to this document. Refer also to Part C of these Guidelines for general requirements.

FUNCTIONAL RELATIONSHIP DIAGRAM –MEDICAL IMAGING UNIT

The following diagram sets out the relationships between zones in a Medical Imaging Unit:



SECURITY ISSUES TO BE CONSIDERED IN MEDICAL IMAGING UNIT

GENERIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Area where outpatients and inpatients come for treatment.	1. Control access.

SPECIFIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Furniture fittings and equipment including Computers, Office and Medical Equipment	1. Non-removable 'Asset No.' on all equipment above a predetermined value. 2. Keep equipment in lockable area.
2. Patient files	1. Personnel working on these must return to secure area after use or return to Medical Records Department. 2. If any electronic files are produced, locate in restricted area of hard drive.
3. Drugs storage	1. Dangerous drug safe within the clean utility area.
4. Hospital personnel safety	1. Staff working in this area to have knowledge of where the fixed duress system is located and/or use a mobile duress pendant. 2. Provide appropriate after-hours access and security, including secure access from all parts of the facility.
5. Staff personal effects	1. Provision for lockers in staff areas and lockable desk drawer to keep small personal effects.

SECURITY CHECKLIST – MEDICAL IMAGING UNIT

FACILITY:	**DEPARTMENT: Medical Imaging Unit**
RISK ISSUE	**DESIGN RESPONSE**
1. How is 'after hours' access provided for patients and how is this access point monitored ?	
2. Do staff have access to both fixed and mobile duress systems ?	
3. Is access to patient records restricted to staff entitled to that access ?	
4. Is a system implemented to prevent theft of equipment, files, personal possessions, etc ?	
5. How is after hours access provided for staff?	
6. How is this area secured during and after hours?	
7. Are there lockable storage areas available for specialised equipment?	
8. Is lockable furniture provided for storage of staff personal effects?	
9. Has a secure waiting area been planned in this area that allows for the public to present at a counter, sign forms, wait and then receive photocopies of relevant records as requested?	
10. Are drug safes installed in accordance with current regulations?	

DESIGN COMMENTARY /NOTES	**DESIGN SIGN-OFF**
	Name: …… Position: …….. Signature: …….. Date: ……..
	Name: …… Position: …….. Signature: …….. Date: ……..
	Name: …… Position: …….. Signature: …….. Date: ……..

510 MATERNITY UNIT

INDEX

		Description
502250	510 .0.10	INTRODUCTION
		Preamble Introduction Policy Statement Description of Unit
		PLANNING
		Operational Models Models of Care Operational Policies Planning Models Functional Areas Functional Relationships
		DESIGN
		Access Car Parking Requirements Disaster Planning Infection Control Environmental Considerations Space Standards and Components Safety and Security Finishes Fixtures and Fittings Building Services Requirements
		COMPONENTS OF THE UNIT
		Standard Components Non-Standard Components
		APPENDICES
		Schedule of Accommodation Functional Relationships Diagram Checklists

INTRODUCTION

Preamble

502251 510 .1.00 Maternity/Obstetrics is the branch of health care which provides services for the management of pregnancy, birth and the postnatal period, and care of the newborn. It encompasses the total needs of the pregnant woman and her family, including the physical, educational and psycho-social requirements, irrespective of the care setting. (Note that home birthing is not addressed in this Guideline).

502252 510 .2.00 Maternity is a Core Service under Maternal and Child Health in the NSW Guide to the Role Delineation of Health Services (Third Edition 2003). It defines 6 levels of service from 1 to 6 and also defines the level of neonatal care necessary for each level of Maternity Services. Appendix II of the Guide also defines risk factors for maternity patients.

Planners should use the Role Delineation to assist in determining facility needs in conjunction with the approved Service Plan, staff establishment and in accordance with the Process of Facility Planning.

It is essential to be aware of the impact on the Unit itself and associated facilities in other units of:
- Operational Policy
- the various models of maternity care available.

In addition, facility design, must, where appropriate, meet all necessary criteria to reach accreditation standards with regard to design and equipment.

Introduction

502253 510 .3.00 This Health Planning Unit is a resource to assist in the planning, design and construction of a Maternity Unit. It should be read in conjunction with generic planning requirements and Standard Components described in Parts A, B, C, D & E of these Guidelines.

This Guideline may be used for the planning and design of birthing facilities at all levels of service but - as per the original HBG DS-18 – Obstetric Unit - the Schedule of Accommodation assumes a Level 4 service comprising a 24 Bed Inpatient Unit, 4 room Birthing Unit and Special Care Nursery to create an integrated unit.

However, bed, birthing room and cot numbers are purely nominal in order to create a logical schedule of accommodation and planners will need to modify the schedule to suit their own particular circumstances in accordance with the Service Plan. In Level 5 and 6 Units, there may be dedicated antenatal and postnatal wards.

Details are given for a Level 3 Birthing Unit but assumes that general ward beds will be used for antenatal and postnatal care.

Details for nurseries are omitted at Levels 5 & 6 as these can be found in the Guideline for Neonatal / Special Care Nurseries.

The Guideline also provides a suggested Schedule of Accommodation for a Maternity Outpatient Clinic.

Policy Statement

502254 510 .4.00 Before embarking on a project, planners and project staff are encouraged to familiarise themselves with the following NSW Health reports.

Models of Maternity Service Provision across NSW - Progressing Implementation of the NSW Framework for Maternity Services, NSW Health, April 2003, and

The NSW Framework for Maternity Services (2000) that states:

"… NSW Health adopt the following philosophy statement for developing maternity services:

NSW Health recognises pregnancy, labour, birth and parenting as significant and meaningful life events and acknowledges the right of consumers to access safe maternity care and quality maternity services.

Continuity of care and consistent information is essential to the provision of care that is culturally sensitive and appropriate."

The policy framework recognises the multiplicity of the community and the fact that special groups within that community require special consideration of their needs to enhance the effectiveness of any services provided.

In the context of Maternity Services these groups include all women of child-bearing age :
- in rural and remote communities and particularly Aboriginal & Torres Strait Islanders;
- with physical and sensory disabilities;
- from culturally diverse backgrounds
- who are of non-English speaking background (NESB)
- with underlying medical conditions;
- with drug dependencies
- who are socially and psychologically disadvantaged
- experiencing fertility problems;
- who are undergoing terminations for foetal abnormalities (note that “social” terminations usually performed in the private sector)
- experiencing stillbirths, deaths in utero
- who are relinquishing babies for adoption.

Pregnancy in young women creates its own special needs.

Also refer to:

Homebirth Policy Statement – NSW Health, PD2005_176 (To be updated)

At time of writing, NSW Health has no specific policy stance on the following:
- LDRP Rooms versus LDR Rooms
- Water birthing.

Description of the Unit

502255 510 .5.00 DEFINITION OF HEALTH PLANNING UNIT (HPU)

The Maternity Unit is a discrete unit providing facilities for the safe antenatal, birthing and postnatal care of mothers and their babies.

This Guideline at Level 4 provides for a nominal 24-bed unit plus birthing rooms capable of accommodating approximately 1000 deliveries per year. The accommodation is appropriate for the provision of care for mothers and babies with low to moderate risk factors and related complications.

It is anticipated that the unit will be managed as one entity including the Nursery.

Sub-zones within the unit will provide for the care of mothers with antenatal or postnatal complications requiring acute maternity care, healthy mothers having normal deliveries, healthy newborns requiring minimal care, babies requiring care for complications arising from moderate risk factors and babies with severe complications awaiting transfer to a Neonatal Unit of higher delineation.

The Birthing Unit includes a number of self-contained rooms that accommodate the birthing process of:
- Labour
- Delivery / Birthing
- Recovery
- Postnatal (or Post-Partum)

The model combining Labour, Delivery and Recovery in one room is referred to as LDR. The model combining all four processes is referred to as LDRP. If the LDRP option is selected it will impact on the number of postnatal beds required.

Description of the Unit

502256 510 .6.00 ASSESSMENT OF NUMBER OF BIRTHING ROOMS & BEDROOMS

The level of service and anticipated number of births as determined in the Service Plan, average lengths of stay, number of elective Caesarean sections and model of care will all affect:
- the number of birthing rooms required
- number of postnatal inpatient beds required.

The anticipated number of elective Caesarean sections booked directly into the operating suite thus bypassing the delivery suite should be deducted from total births when assessing the number of birthing rooms.

The following is based on the LDR model and assumes approximately 1 delivery per room per 24 hours although this may vary from unit to unit:

1000 births - 3 birthing rooms plus 1 assessment
1500 births - 4 birthing rooms plus 1 assessment
2000 births - 5 birthing rooms plus 1 assessment
3000 births - 8 birthing rooms plus 1 or 2 assessment rooms.

Hospitals adopting the LDRP model will need to reassess these figures depending on Operational Policy and average lengths of stay.

502257 510 .7.00 FACTORS AFFECTING PLANNING & DESIGN

The following are not traditional priorities but are a reflection of our changing society and may have an increasing impact on design:
- increasing concerns about infant safety and possible abduction
- prevalence of domestic violence
- prevalence of theft
- continuing change in the composition of the maternity population with a higher percentage of older women and / or women with complex pregnancies – particularly multiple births and prematurity
- early discharge and community care programmes (that may transfer facilities from the hospital to the community setting)
- increase in elective Caesarean sections as a birthing option
- increasing emphasis on mental health and well-being.

PLANNING

Operational Models

502258 510 .8.00 HOURS OF OPERATION

The Maternity Unit will provide a 24 hour, seven day per week service with admissions occurring around the clock.

502259 510 .9.00 MATERNITY OUTPATIENT SERVICES

Maternity outpatient care encompasses antenatal and postnatal care including education, counselling and support services for mothers, partners and families to ensure preparation for, and understanding of pregnancy, birth, parenting and mother care. One of the main objectives of antenatal care is the early detection of risk factors and referral to the appropriate level of care.

Increasingly, services are expanding and diversifying to include management of early pregnancy (e.g threatened miscarriage) and follow-up perinatal bereavement couselling. Also used for multidisciplinary team review of infant

postmortem results -with the parents when indicated. Related clinics such as fertility services and uro-gynaecology are also often part of outpatient services.

Planners must determine the model of care to be adopted by the facility to determine:
- the location of outpatient facilities – hospital or community setting
- the range of services and the number of clinic rooms required and
- whether there is enough throughput to justify dedicated clinic rooms or shared with a general outpatients

Midwives operating a midwifery-led/birth centre model would/may prefer that their women are seen within the Unit.

502260 510 .10.00 DAY ONLY MATERNITY & PERINATAL SERVICES & FACILITIES

In addition to routine clinic attendances, it may be necessary for some antenatal women to attend hospital on a day or half-day basis for foetal assessment monitoring (CTG), ultrasound, blood tests etc. In small hospitals the Ambulatory Care Ward may be utilised.

Large regional centres will have a dedicated unit that will/may include ultrasound (depending on the proximity of the Medical Imaging Department and Operational Policy) and will be collocated with the Maternity Outpatient Clinics.

502261 510 .11.00 PROVISION OF OPERATING ROOM/S

it is assumed that all elective Caesarean sections will be performed on a booked basis in the general Operating Unit.

When an urgent Caesarean section is deemed necessary, the distance from the Birthing Unit to the main Operating Unit should not exceed three minutes of travel time. Such travel should take into consideration:
- 1 metre per second travel speed
- Lifts (if any) able to be key-operated by Unit staff
- Lift delay and travel included in the time
- Distance measured from Birthing Room to Operating Room.

If these times cannot be achieved, planners will need to give consideration to a one room emergency Operating Room within the Birthing Unit, but every effort should be made to avoid this scenario with its resultant staffing implications for anaesthesia and recovery, and maternal and foetal/infant safety.

Models of Care/Work Practices

502262 510 .12.00 GENERAL

Planners and project staff are referred to the NSW Framework for Maternity services (NSW Health 2000) for description of the various models of care and will need to determine the impact of them on facility needs. In particular, location - metropolitan, rural or remote, and client profiles and culture will/may affect the type of unit required.

502263 510 .13.00 “BIRTH CENTRE”

The term generally used to describe facilities for midwife-led services for women with normal pregnancies. It allows for antenatal and postnatal care and continuity of carer during labour and birthing within a family/home like environment. May be

a dedicated suite of rooms within the Maternity Unit, an integral component of the main Birthing Unit or a free-standing unit for low risk women.

502264 510 .14.00 MIDWIFERY SERVICES

Midwifery care may be accessed via midwives' clinics or team midwifery or caseload models located at hospitals, community health centres or GP practices.

Postnatal community midwifery services are now offered by most units. They are not just about early discharge but are provided according to the woman's need; it may be for "early" discharge and/or may be provided to women who require further supervision after hospitalisation. It will need to be ascertained whether the midwives are accommodated in the Maternity Unit or in the community so that in the former instance appropriate office space and storage can be provided.

502265 510 .15.00 SHARED CARE

GP and locals Maternity Hospital

502266 510 .16.00 MULTIDISCIPLINARY TEAM APPROACH

Within a tertiary or regional hospital, the pregnant woman will be assessed for risk factors on first presentation and allocated to a multidisciplinary team that will supervise her care for the duration of pregnancy, labour and delivery, and possibly but not necessarily - postnatal care. The team may comprise obstetricians, midwives, general practioners, allied health staff, paediatricians, geneticists etc.

This model of care may also impact of facility design as wards and birthing rooms may be collocated in clusters.

502267 510 .17.00 SPECIALIST OBSTETRIC CARE

To be available where required, but especially for women with special care needs, medium to high risk pregnancy or complicated medical history, multiple births or previous history of complications during pregnancy. This care is provided by a specialist obstetrician, usually within a tertiary care or regional/general hospital facility with access to emergency support services for both mother and baby.

There are also emerging models where midwives skilled in management of high risk women work with the specialists.

Operational Policies

502268 510 .18.00 ROOMING-IN

Postnatal accommodation assumes rooming-in, but there will/may be circumstances resulting from the mother or baby's health status where this is not possible. A small holding nursery may be incorporated into the ward for babies who do not require the level of care provided by a special care nursery – and who are not "inpatients" (i.e. qualified births).

502269 510 .19.00 BIRTHING ROOM BATHS

Baths are generally requested and installed for pain management but there are issues of safety to be considered with regard to getting a labouring woman, not so much into, but out of the bath, particularly in an emergency.

If installed, must be “jetless” for Infection Control reasons and ceiling hoists or lifters should be considered.

502270 510 .20.00 WATER BIRTHS

If water birthing is included in the Operational Policy, the Unit will require access to a dedicated Bathroom. The Bathroom will require a large peninsular bath, with access to both sides. The Bathroom shall have a minimum area of 15 m2. and comply with all other requirements noted in Standard Components - Bathroom.

Note: These Guidelines do not imply endorsement of Water Birthing as a safe or appropriate operational model.

502271 510 .21.00 MEDICAL RECORDS

Assuming files are still hard copy, antenatal clinic and booking files are ideally stored in the Birthing Unit Reception area so as to be immediately accessible when woman present in labour (unless 24 hour medical record service).

Locked secure storage area is required and must be accessible after hours.

502272 510 .22.00 PARENTCRAFT

Multipurpose rooms should be available for parent education – feeding, bathing etc.

502273 510 .23.00 ANTENATAL CLASSES

Assuming that antenatal classes are not conducted in a community setting, there must be a space available within the Hospital with storage for mats and the capacity to show videos. In the past classes have been conducted by physiotherapists but most education is now provided by midwives and childbirth educators. A room in the Physiotherapy Unit may an option; however, if numbers are small, classes may be conducted in a unit-based Multidisciplinary Room. After-hours access will be required.

502274 510 .24.00 MANAGEMENT OF SPECIAL CIRCUMSTANCES

Women who have suffered perinatal loss (stillbirths, neonatal deaths, terminations for foetal abnormalities and miscarriages) or who are relinquishing a baby for adoption need special consideration in terms of privacy and isolation from the sound and sight of live babies. Ideally they should be able to stay in the Birthing Room until ready for discharge but if transfer to a ward bed is necessary, it should not be in a ward with other mothers and babies; continuing access to midwifery / obstetric care is required.

A separate quiet room with appropriate décor and – especially - artwork may be appropriate for grieving, bonding, laying out etc. This room may be formally designated a SANDS room (Stillbirth and Neonatal Death Support).

Care should also be taken that these women are not collocated with women

undergoing termination of pregnancy.

502275 510 .25.00 NEONATAL RESUSCITATION

All birthing rooms and nurseries will need facilities for infant resuscitation and stabilisation and holding if retrieval is necessary. And occasionally emergency delivery occurs on the antenatal ward where access to resuscitation equipment is also vital especially for premature babies and if the ward is not in the immediate vicinity of the Nursery.

502291 510 .25.05 BABY BATHING

Depending on Infection Control policies, if users wish to allow baby bathing in the mother's bedroom, there are specially-designed basins that can be bench-set that can also serve as the clinical handwash basin. Care must be taken with bench heights and the basin set as close to the front of the bench as possible.

Use of a standard clinical basin for baby bathing is not safe practice and there have also been attempts to use the empty bassinet by filling from clinical basins. This is also not recommended.

Mothers in two bed rooms will have access to a separate Baby Bathing Area unless budget allows for 2 bathing units in each room. This however impacts on bedroom sizes and 28m2 instead of 25m2 will be required.

503053 510 .25.06 FORMULA PREPARATION, MANAGEMENT OF BOTTLES AND TEATS

The Nursery will require a room for formula preparation and storage of expressed breast milk. And unless the Hospital's Sterile Supply Unit provides the service, the room will also require space and equipment for cleaning and sterilizing bottles and teats.

If the Hospital also has a paediatric service, it may be appropriate for a single room to service the needs of all infants with regard to bottle and teat processing.
.

503054 510 .25.07 BABY FRIENDLY HOSPITAL INITIATIVE (BFHI)

This initiative was launched in 1991 by UNICEF and the World Health Organisation to encourage the use of breast milk either by breast feeding or expressing. Details may be found on the UNICEF web site - www.unicef.org/programme/breastfeeding and in the NSW Public Health Bulletin 2005; 16(3-4) 63-66 that describes a case study at the Royal Hospital for Women..
Hospitals who wish to gain BFHI status will need to consider the resources necessary such as
- Lactation Consultant/s (workstations, storage)
- Comfortable, quiet room in Nurseries for feeding & expressing with assistance and supervision from staff if necessary (In the postnatal ward, this may be done in bedrooms but women may gain support from their peers if such a space is available away from the bedside.
- Follow-up clinics for women experiencing problems after discharge (some Women's Centres provide specific facilities for this purpose).
- Fridges/freezers for expressed milk.

Planning Models

502276 510 .26.00 LOCATION

In order to provide easy access for ambulances or private vehicles, a ground floor position is the location of choice for the Unit if this can be achieved. Such a location would additionally facilitate access to hospital grounds and verandas for the mothers and their supporters. If this cannot be achieved, access to a secure courtyard is desirable.

Units should be located to avoid:
- disturbing sounds, both on-site and off-site such as ambulance sirens traffic, trains etc
- disturbing views such as cemeteries, mortuaries or their entries etc
- problems associated with prevailing weather conditions. It is preferable for patient accommodation to have a north-east aspect.

The functional needs of the unit however must take priority over other locational needs.

502277 510 .27.00 CONFIGURATION

In small centres, if an LDR model, Birthing Rooms and inpatient beds may be combined as an integrated unit.

In larger centres, there will be dedicated maternity inpatient beds/units separate from the Birthing Suite.

Where a Hospital has no dedicated Special Care Nursery or Neonatal Intensive Care Unit, a small Level 1 nursery will/may be part of the Maternity Ward.

Functional Areas

502278 510 .28.00 FUNCTIONAL ZONES

The Maternity Unit at Level 4 comprises the following functional zones:
- Reception and arrival area including provisions for visitors and administrative activities
- Birthing Rooms
- Inpatient Areas – Acute Care (Antenatal & sick post-natal) & Mother Care
- General & Special Care Nursery
- Support & Staff areas including facilities that can be shared between zones and other units

502279 510 .29.00 RECEPTION

This zone provides an area where mothers, their supporter/s, visitors and other members of the public are initially received and directed to the appropriate part of the Unit. There needs to be convenient access to public telephone and toilet facilities particularly for supporters. It may be the preferred location for a Visitors' Lounge that could include Child Play Space.

The office/s for nursing administration and midwifery educators may be located in this vicinity.

The area may be used as a booking facility for expectant mothers or this may occur in the Maternity Ambulatory Care Area.

When designing the Reception, particular consideration needs to be given to security of the area (duress alarm, controlled access etc) and also to space for

the initial holding of frequent flower/gift deliveries.

502280 510 .30.00 BIRTHING AREAS

The entire birth process takes place in this area and involves assessment, early and established labour, vaginal delivery – with or without intervention, the bonding process of mother, partner and family with baby as well as a rest period prior to transfer to a ward bed or discharge if a community midwifery programme.

If the Facility provides LDRP rooms, the patient will occupy the same room for the entire length of stay.

Facilities comprise:
- Birthing Rooms
- One at least multi-purpose assessment room that can be used for consultations and examinations and as a back-up birthing room
- Facilities for support persons and other family members throughout the entire birthing process and period immediately following the birth

- At Level 3, a holding nursery to provide additional facilities for baby resuscitation, space for parking a transport humidicrib and additional bassinettes for multiple births. The nursery should provide facilities for preparing babies for early transfer home directly from the Birthing Unit and for the laying out of stillborn babies.

502281 510 .31.00

NURSERY AREAS

Provided at Level 3 /4 Maternity as a possible adjunct to a Maternity Inpatient Unit, the General (Level 1) Nursery will provide facilities for the care of well babies away from their mother's bed area and for the following functions:
- baby weighing, bathing and changing
- Feeding of babies in comfortable chairs
- Parent and staff education
- Phototherapy
- Sleeping of babies in daytime using partial blackout curtains
- Short-term accommodation, with assisted ventilation if required, for the care of babies with unexpected severe complications while awaiting transfer to a centre with a Neonatal Intensive Care Unit.

The Nursery must have a minimum floor area of 2.8 m2 per bassinet and a minimum of one metre clear and unobstructed passageway between each bassinet. Number of cot bays will depend on rooming-in policies and the number of mothers unable or reluctant to do so.

The Special Care (Level 2) Nursery will in addition to the above have sick and recovering premature infants requiring care in humidicribs and bassinettes due to problems related to their prematurity and/or low weight.

502282 510 .32.00

INPATIENT ACCOMMODATION

The Inpatient Area provides suitable accommodation for antenatal and postnatal mothers.

The Schedule of Accommodation assumes a 24 bed unit comprising a mix of one and two bed rooms for acute care mothers and for mothercare but bed numbers are nominal only and will need to be adjusted to suit the specific project - and

geography and patient demographics. The bed mix should be designed for use by a variable mix of mothers e.g. a higher than normal antenatal population..

Acute care may include antenatal patients and mothers recovering from Caesarean sections etc. Mothercare areas are for well mothers and well babies.

The bedrooms should be arranged in functional groups according to degree of dependency. Acute care rooms should be well positioned in relation to the staff station and utility areas to facilitate effective patient observation by staff. The bedrooms for the mothercare group may be located towards the periphery of the unit and should convey a relaxed domestic environment.

Four bedded rooms are not recommended for Maternity Units due to the rooming-in policy in many hospitals, as four babies in one room can cause excessive disruption to mothers requiring rest.

It is suggested that at least 1 pair of adjoining one bed rooms be designated for standard isolation with a handwash and PPE bays outside. Provision of Class N Isolation Rooms (negative pressure plus ante room) will depend on level of service and even geographical location with regard to likelihood of diseases such as TB.

502283 510 .33.00 SHARED AREAS

The opportunity to share space, equipment and staffing should be maximised, both between the various zones of the unit and between the Maternity Unit and other units where appropriate. Within the unit it will be possible to share areas such as staff station, utilities, waiting and lounge space between zones. By judicious planning it should be feasible to share areas such as tutorial and toilet facilities with adjacent units. The size of shared spaces may need to be larger than “standard” to accommodate the greater number of staff or visitors occupying them.

502284 510 .34.00 OFFICE ACCOMMODATION

With the exception of the office for the NUM that is included in the Schedule of Accommodation, the staff establishment will determine the number of offices/workstations required and users of this Guideline are referred to the NSW Health Policy Directive PD2005-576 – Office Accommodation Policy – Public Health Organisations and Ambulance Service for sizes.

Functional Relationships

502285 510 .35.00 EXTERNAL

The Unit should be located to maximise or provide quietness and an outlook and access to the outside during long periods of labour. This latter is of particular importance for units in rural areas with high aboriginal populations who are not used to being confined indoors. However, privacy must be maintained.

The Maternity Unit, and in particular the Birthing module, should be located with easy access to the Operating Suite.

502286 510 .36.00 INTERNAL

The Maternity Unit shall be designed to prohibit non-related traffic through the unit.

Within the Unit, the Reception should be located at the entrance to the unit and should provide direct access to each of the Birthing, Inpatient and Nursery areas. The area should accommodate waiting space and provide ready access to assessment & consultation/examination facilities.

Refer Functional Relationship Chart

DESIGN

Access

502287 510 .37.00 EXTERNAL

The Unit requires 24 hour access. If the Unit does not have its dedicated entry, specific arrangements will need to be made for after-hours access.

Access during normal hours will be via the Reception Area. After hours access for expectant mothers and their supporters will be via the Birthing Area. After hours policy may allow restricted access to partners/support persons of mothers in the In-patient Area and parents of neonates in the Neonatal Special Care Area.

The unit should be located close to:
- ambulance transport bay – particularly for the NETS retrieval team
- helipad if provided - also for retrieval teams
- short-term car parking for partners bringing women to the Birthing Unit and for flower deliveries although the latter must not obstruct the patient drop-off area
- hospital car park
- public transport facilities

Car Parking Requirements

502288 510 .38.00 Drop-off parking for women in labour – private vehicles and taxis

General visitor parking

Nearby parking for visiting obstetricians

Refer to Part C, Clause 790.59 for further information.

Disaster Planning

502289 510 .39.00 Particular attention must be paid to means of evacuation of mothers in advanced labour, and evacuation of babies to avoid separation from their mothers.

Refer to Part B (Clause 80.51) and Part C of these Guidelines for further information.

Infection Control

502290 510 .40.00 HANDWASHING

There will be a scrub basin Type A (Refer Standard Component) in each Birthing Room.

Handbasin in each bedroom and outside each pair of designated Isolation Rooms if provided.

At entry to Nursery for parents & staff.

At least one handbasin per 6 cots in the Nursery. Staff to be no further than 6 metres from a basin.

502292 510 .42.00 PLACENTA DISPOSAL

Placental material will usually be considered contaminated waste and dealt with as per the individual hospital/Area Health Service Waste Management policies. The use of placental macerators is not recommended.

Units may need to consider providing dedicated refrigerator or freezer for storage whilst awaiting disposal or collection by families for cultural reasons.

Environmental Considerations

502293 510 .43.00 GENERAL

The Birthing Rooms should have individually-controlled air-conditioning systems. If the thermostats are located inside the Birthing Room, the controls should be located out of the reach of children and under the control of staff only. The rooms need to be able to quickly obtain a temperature range of 25-27 degrees Celcius when the baby is born. The Nursery also requires similar temperature control.

502294 510 .44.00 ACOUSTICS

Acoustic treatment is essential in the Birthing Rooms to allow the mother to vocalise as desired during labour without disturbing other mothers in labour.

Babies crying at night are a major source of noise and for those mothers recovering from surgery or other conditions eg. pre-eclampsia, noise may be detrimental to their condition.

One of the prime considerations in the Nursery is the amount of noise created by babies crying, monitors, suction pumps, ventilators, etc. Methods of sound dampening should be carefully considered, but should not interfere with observation and ease of access between the Nursery and staff/support areas.

Refer to Part C of these Guidelines for further information.

502295 510 .45.00 LIGHTING

Colour-corrected dimmable lighting is essential in all patient areas where high dependency care is provided – birthing/assessment rooms and birthing room en suites and bathrooms, all nurseries and baby bathing/examination/resuscitation areas.

502296 510 .46.00 NATURAL LIGHT

Essential in all bedrooms, birthing rooms and nursery.

502297 510 .47.00 PRIVACY

The design of the Assessment and Birthing Rooms should ensure that the foot of the bed does not face the door. Viewing panels in the Birthing Room door should be avoided.

Environmental Considerations

502298 510 .48.00 INTERIOR DESIGN

Particular care needs to be given to the Nursery and to the Birthing Rooms to achieve a non-clinical ambience. Medical services may be encased in joinery panels and equipment stored in an adjoining area or behind folding doors or screens

Care must be taken with the reflective quality of colours e.g. the effect of yellow on jaundiced babies.

Refer to Part C of these Guidelines for further information.

Space Standards and Components

502299 510 .49.00 ERGONOMICS

Refer to Part C of these Guidelines for information.

502300 510 .50.00 .HUMAN ENGINEERING

Refer to Part C of these Guidelines for information.

502301 510 .51.00 ACCESS AND MOBILITY

Refer to Part C of these Guidelines for information.

502302 510 .52.00 DOORS, WINDOWS AND CORRIDORS

Refer to Part C of these Guidelines for information.

Safety and Security

502303 510 .53.00 SAFETY

Compliance with Occupational Health & Safety Requirements. Refer to Part C, Section 790 of these Guidelines for further information.

Special consideration needs to be given to lifting techniques and equipment if baths are provided in Birthing Rooms.

502304 510 .54.00 SECURITY

Security issues are of major importance in design of what is a highly emotional environment due to the prevalence of domestic violence, theft and the seemingly increase in infant abduction or other illegal acts by estranged parents or disturbed members of the public.

Fridges and freezers used for storage of breast milk should either be locked or the Formula Room restricted to Staff access only or mothers under staff supervision to ensure that the correct milk is issued to the right infant.

Minimising entry and exit points, incorporating an Access Control System, by means of a reed switch, electric strike and card readers to all Unit perimeter doors, can avoid the use of an unsophisticated – and costly - infant tagging system. Card readers need to be provided on the internal as well as the external

approach to all egress doors, including fire egress doors. No unsecured exit from the Maternity Unit should be available, except in a fire or other emergency situation.

Provision of one entrance for patients and visitors to enter the Birthing Area will aid security To maximise control by the staff there should be direct observation of all persons entering the unit including video intercoms for after-hours remote access.

502310 510 .54.05 ELECTRONIC INFANT TAGGING

Electronic infant tagging involves a tag being put around a baby's ankle which responds to sensor panels located at unit / hospital exits. If the baby is taken through the sensor an alarm goes off and the hospital's security team is alerted. Infant tagging is costly and has proved problematic where it has been implemented as neonates loose weight in the first days of life; the tag bracelets therefore become too large and slip off easily.

Finishes

502305 510 .55.00 WALL PROTECTION

Refer to Part C of these Guideline

502306 510 .56.00 FLOOR FINISHES

Refer to Part C of these Guidelines

502307 510 .57.00 CEILING FINISHES

Refer to Part C of these Guidelines

Fixtures & Fittings

502308 510 .58.00 Leaning/squatting rails for active birth in Birthing Rooms

Refer to part C of these Guidelines and to the Room Data Sheets (RDS) and Room Layout Sheets (RLS) for further detailed information

Building Service Requirements

502309 510 .59.00 INFORMATION TECHNOLOGY / COMMUNICATIONS

Communication systems – phone, data etc – must be compatible with existing or planned overall hospital systems including staff and emergency call systems.

Annunciator panels should be clearly visible in corridors and of the non-scrolling type so that all rooms can be seen. However, the ability to control audibility at night should be a criterium when selecting systems.

502311 510 .61.00 DURESS ALARM SYSTEM

Locate at Reception and Staff Stations.

Standard Components

502312 510 .62.00 Standard Components identified in the Schedule of Accommodation must comply with details in the Standard Components described in these Guidelines.
Also refer to Standard Component Room Data Sheets (RDS) and Room Layout Sheets (RLS).

Non-Standard Components

502313 510 .63.00 Provide the Non-Standard Components as identified in this section and in the Schedule of Accommodation, according to Operational Policy and Functional Brief.

502314 510 .64.00 STORE – BIRTHING ROOM

DESCRIPTION & FUNCTION
Area where clinical supplies and equipment (bowls, trolleys etc) and birthing equipment (bean bags, mats, balls etc) may be stored when not in use in order to maintain a domestic environment.

LOCATION AND RELATIONSHIPS
An integral part of the Birthing Room.

CONSIDERATIONS
Doors – whether sliding, standard or may just be a curtained bay.

502315 510 .65.00 BREASTFEEDING ROOM

DESCRIPTION AND FUNCTION

A room for demonstrations, breastfeeding or using breast pumps for expressing milk and shall be a minimum of nine m2. In small units, it may also be used to prepare and store formula/breast milk substitutes in line with Baby Friendly Hospital Initiatives.

LOCATION AND RELATIONSHIPS

The Room shall be located with convenient access to the Nursery or to the Ward.

CONSIDERATIONS
The Breast Feeding Room will require the following:
- A bench with an inset sink
- Handbasin (Type b) for mothers and staff assisting
- Comfortable chairs suitable for breastfeeding
- Refrigerator/ freezer (if required)
- Storage for pump and attachments
- General power outlets for use of a breast pump
- Access to educational material either within the room or conveniently
- located nearby.

The room will require visual and acoustic privacy.

502316 510 .66.00 BATHING / EXAMINATION ROOM

DESCRIPTION AND FUNCTION

A room for infant examination and demonstration to new mothers of baby bathing

techniques as part of parentcraft education. Size will depend on Operational Policy re demonstration and whether bathing occurs in mothers' bedrooms. It is recommended that purpose-built baby baths and sinks are used for safety and OH&S reasons rather than portable baths or bassinets.

LOCATION AND RELATIONSHIPS
May be part of a Nursery or part of a Maternity Inpatient Unit

CONSIDERATIONS
Storage for baby scales
Attention to height of benches and mounting of baby baths.

APPENDICES

Schedule of Accommodation

502317 510 .67.00 A Generic Schedule of Accommodation for a Maternity Unit at Level 3, 4, 5, and 6 follows.

Note: (o) in Qty/xm2 column = Optional

BIRTHING UNIT

ROOM/SPACE	Standard Component		Level 3 Qty x m2	Level 4 Qty x m2	Level 5 Qty x m2	Level 6 Qty x m2	Remarks
BIRTHING UNIT							
ENTRY / RECEPTION			Share with Ward	May share			
RECEPTION	yes		0	1 x 10	1 x 10	1 x 10	Increase to 12 sqm if more than 1 staff
WAITING-SUB	yes		0	1 x 5	1x 8	1 x 8	
TOILET - PUBLIC	yes		0	2 x 3	2 x 3 (o)	2 x 3 (o)	Optional if not available in nearby public areas
TOILET / BABY CHANGE - ACCESS				Share	1 x 5 (o)	1 x 5 (o)	Optional if not available in nearby public areas
BAY - WHEELCHAIR PARK	yes		0	1 x 4	1 x 4	1 x 4	
LOUNGE - PATIENT/VISITOR	yes		0	1 x 12	1 x 15	1 x 15	Separate from general waiting.Includes a Beverage Bay.

502318 510 .67.10 PATIENT & SUPPORT AREAS

PATIENT & SUPPORT AREAS							
EXAMINATION / ASSESSMENT	yes		0	1 x 28	1 x 28	1 x 28	Will act as a back-up Birthing Room
BIRTHING ROOM (LDR)	yes		2 x 28	4 x 28	28	28	No. determined by no. of births
EN SUITE - BIRTHING ROOM			2 x 7	5 x 7	7	7	Double showers; 1 per Birthing Room
BATHROOM - BIRTHING ROOM	yes		0	10(o)	10(o)	10(o)	Includes peninsular bath. Replace Ensuite.
STORE - BIRTHING ROOM			2 x 3	4 x 3	3	3	1 per Birthing Room

STAFF STATION	yes		1 x 10	1 x 14	1 x 14	1 x 14	
OFFICE - CLINICAL / HANDOVER	yes		0	1 x 12 (o)	1 x 12	1 x 12	
CLEAN UTILITY/MEDICATIONS	yes		Share with Ward	1 x 12	1 x 12	1 x 12	Adjust size to meet requirements
DIRTY UTILITY	yes		1 x 8 (o)	1 x 12	1 x 12	1 x 12	Include placenta storage fridge or freezer
DISPOSAL ROOM	yes		Share with Ward	1 x 8	1 x 8	1 x 8	
BAY - LINEN / BLANKET WARMING	yes		1 x 3	1 x 3	2 x 3	2 x 3	
BAY - MOBILE EQUIPMENT	yes		1 x 4	1 x 4	2 x 4	2 x 4	
BAY - RESUSCITATION TROLLEY (ADULTS)	yes		Share with Ward	1 x 2	1 x 2	1 x 2	
BAY - BEVERAGE, ENCLOSED	yes		Share with Ward	1 x 4	1 x 4	1 x 4	
CLEANER'S ROOM	yes		Share with Ward	1 x 5	1 x 5	1 x 5	
STORE - EQUIPMENT	yes		1 x 14	1 x 14	1 x 14	1 x 14	
STORE - GENERAL	yes		0	1 x 9	1 x 9	1 x 9	
STORE - GENERAL (RENTAL BABY CAPSULES)	yes		0	1 x 6 (o)	1 x9 (o)	1 x9 (o)	

502319 510 .67.20 OPERATING UNIT (OPTIONAL)

Note:
If provided, for emergency C -SECTIONS ONLY.
Elective C-sections via Operating Unit.

OPERATING UNIT							Optional
ANAESTHETIC INDUCTION ROOM	yes				1 x 15	1 x 15	Optional
CLEAN - UP ROOM	yes				1 x 7	1 x 7	
OPERATING ROOM - MINOR	yes				1 x 36	1 x 36	Needs baby resusc capability
SCRUB-UP / GOWNING					1 x 6	1 x 6	Two stations only.
STERILE STOCK / SET-UP					1 x 12	1 x 12	
PATIENT BAY - RECOVERY	yes				2 x 9	2 x 9	
STAFF BASE / MEDICATIONS					1 x 6	1 x 6	Part of Recovery
DISCOUNTED CIRCULATION %			30%	32%	32%	32%	

503055 510 .67.30 SPECIAL CARE NURSERY

Notes:
Level 3 consists of 4 Cot Bays.
Level 4, refer to Service Level for No. of Cot Bays.

Level 5 & 6 , refer to NICU / SCN HPU for No. of Cot Bays.

502320 510 .67.30 SPECIAL CARE NURSERY

Notes:
Level 3 consists of 4 Cot Bays.
Level 4, refer to Service Level for No. of Cot Bays.
Level 5 & 6 , refer to NICU / SCN HPU - 390

SPECIAL CARE NURSERY			Level 3	Level 4	Level 5	Level 6	
STAFF STATION	yes		Share	1 x 10			
CLEAN UTILITY - SUB			Share	1 x 8			
BAY - MOBILE EQUIPMENT	yes		Share	1 x 4			
EQUIPMENT CLEAN-UP ROOM			Share	1 x12			
DISPOSAL ROOM	yes		Share	Shared with Ward			
BAY - LINEN	yes		1 x 2	1 x 2			
BAY - HANDWASH	yes		1 x 1	1 x 1			At entry
BAY - HANDWASH	yes		4 x 1	1			1 per 4-6 cots
COT BAY - SPECIAL CARE	yes		0	10			
COT BAY - RESUSCITATION/TREATMENT			0	14			
ISOLATION ROOM			0	1 x 14 (o)			Optional.
NURSERY - GENERAL CARE (4 COT BAYS)			1 x 30	see Remarks			L4 consists of 4 cots + workstation.1 bay to be designed for resuscitation, stabilisation and
STORE - EQUIPMENT	yes		Share	1 x 14			
BATHING / EXAMINATION			1 x 10	1 x 10			
BREASTFEEDING ROOM			1 x 9	1 x 12			
FORMULA PREPARATION ROOM			1 x 9	1 x 14			Reprocessing teats, bottles, preparing formula

502321 510 .67.35 STAFF OFFICES

Notes:
Remainder of Offices/Workstations determined by Staff Establishment. Refer NSW Health Office Policy

STAFF OFFICES							
OFFICE - SINGLE 9M2 (UNIT MANAGER)	YES		Refer Ward	1 x 9	1 x 9	1 x 9	

502322 510 .67.45 STAFF AMENITIES (For Birthing & Nursery)

Notes:
Level 3 shared with Ward

STAFF AMENITIES (FOR			Level 3	Level 4	Level 5	Level 6	

STAFF AMENITIES (FOR BIRTHING & NURSERY)			Level 3	Level 4	Level 5	Level 6	
PROPERTY BAY	yes			1 x 2	1 x 2	1 x 2	Adjust size to suit establishment
STAFF ROOM	yes			1 x15	1 x 20	1 x 25	Adjust size to suit establishment
SEMINAR ROOM				1 x 15	1 x 20	1 x25	
MEETING ROOM	yes			1 x 15	1 x 20	1 x25	Adjust size to suit establishment. May be shared
SHOWER - STAFF	yes			1 x 2	1 x 2	1 x 2	
TOILET - STAFF	yes			1 x 3	1 x 3	1 x 3	
OVERNIGHT STAY - BEDROOM	yes			1 x 10 (o)	1 x 10 (o)	1 x 10 (o)	
OVERNIGHT STAY - EN SUITE	yes			1 x 4 (o)	1 x 4 (o)	1 x 4 (o)	

502323 510 .67.50 INPATIENT UNIT

Notes:
+Access to general ward beds.
+Remaining Support & Staff Areas as Per General Inpatient Accommodation - HPU 340 .

ROOM/SPACE				24 Beds	30 Beds	30 Beds	Bed mix approx. 50% single rooms; number and mix may be adjusted
INPATIENT UNIT							
1 BED ROOM	yes			11 x 15	15 x 15	15 x 15	One room may be designated as a SANDS room
1 BED ROOM - SPECIAL	yes			1 x 18	1 x 18	1 x 18	Optional (multiple births etc)
2 BED ROOM	yes			6 x 25	7 x 25	7 x 25	
EN SUITE - STANDARD	yes			18 x 5	23 x 5	23 x 5	
BAY - HANDWASHING	yes			2 x 2	4 x 1	4 x 1	
LOUNGE - PATIENT	yes			1 x 15	1 x 15	1 x 15	with beverage facilities
NURSERY - GENERAL	yes			1 x 16 (o)	1 x 20 (o)	1 x 20 (o)	General care/holding only
BATHING/EXAM ROOM				1 x 12	1 x 12	1 x 12	
BATHROOM	yes			1 x 15	1 x 15	1 x 15	
DISCOUNTED CIRCULATION %				32%	35%	35%	35% to cater for the number of 1 & 2 bed rooms

Functional Relationships

502249 510 .68.00 A diagram of key functional relationships is attached.

Checklists

502343 510 .69.00 A security checklist is appended to this document. Refer also to Part C of these

guidelines.

References and Further Reading

502344 510 .70.00 The NSW Framework for Maternity Services – 2000

Models of Maternity Service Provision across NSW, NSW Health, April 2003.

NSW Guide to Role Delineation of Health Care Services (Third Edition 2003)

NSW Department of Health HBG - DS-18 - Obstetric Unit 1992

Victorian HFG Guideline 510 – Obstetric Unit. March 2005 (Birthing Unit Only)

Homebirth Policy Statement – NSW Health – PD2005-176

NSW Health Policy Directive PD2005-576 – Office Accommodation Policy – Public Health Organisations and Ambulance Service.

502345 510 .71.00 ADDITIONAL REFERENCE MATERIAL USED IN COMPILING THIS HPU:

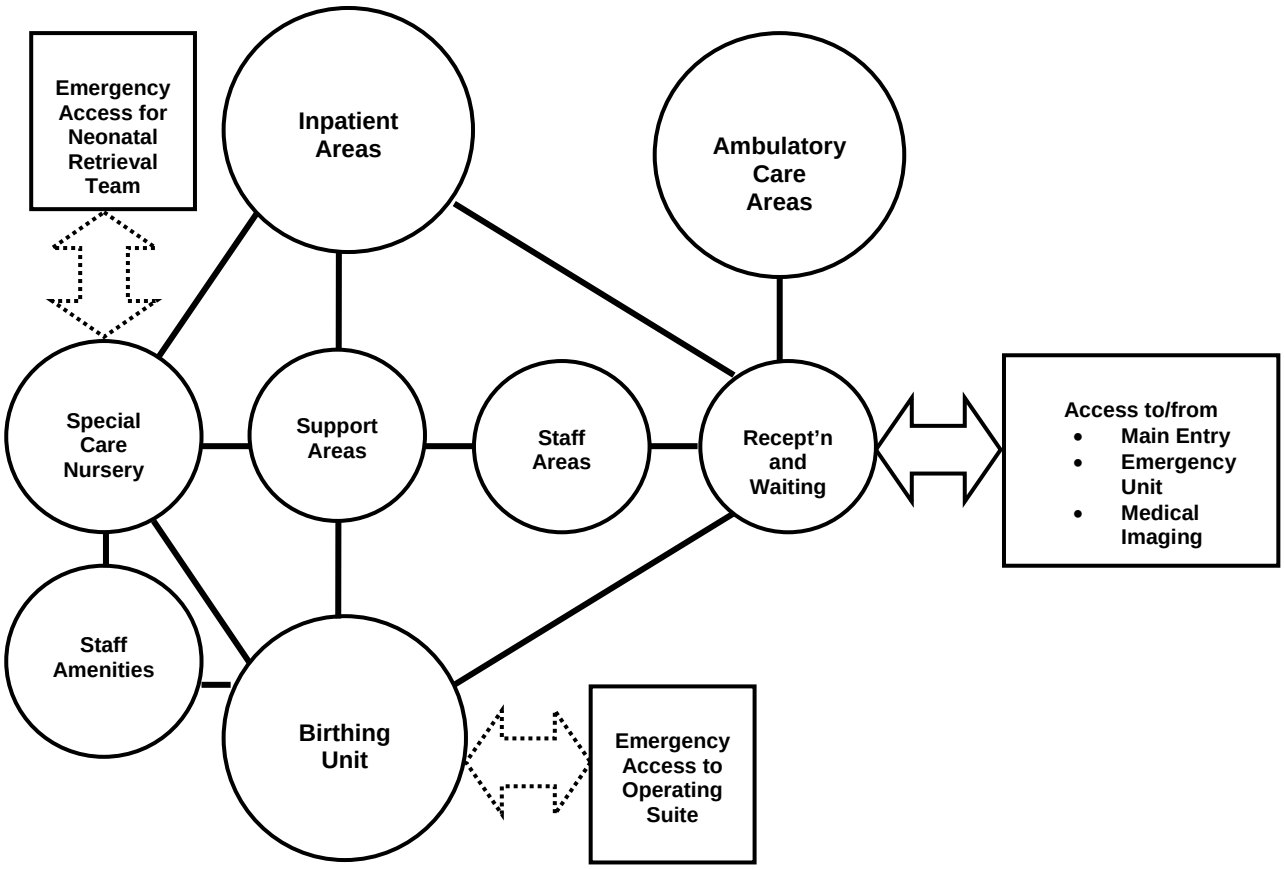
National Maternity Action Plan - The Maternity Coalition Inc. – "Implementing Community Midwifery Across NSW".

Evidence-based project briefing experience of the following Maternity Units/Hospitals:

- The Royal Hospital for Women, Sydney 1994
- The Women's Hospital, Brisbane 1995
- Campbelltown & Camden Hospitals' Maternity Units 1996
- North Shore Hospital, Auckland, NZ, Maternity Unit 2000
- Wellington, NZ, Women's Hospital 2002
- The Royal Women's Hospital, Melbourne 2002 & 2004.

FUNCTIONAL RELATIONSHIP DIAGRAM –MATERNITY UNIT

The following diagram sets out the relationships between zones in a Maternity Unit:



SECURITY ISSUES TO BE CONSIDERED IN MATERNITY UNIT

GENERIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Pre-natal, birthing, post natal, mothers with sick and well baby's nursery.	1. Minimise entry and exit doors to all areas with newborn babies, minimising the risk of illegal removal of babies. 2. CCTV monitoring of Inpatient Unit entry and exit doorways. 3. After hours remote switch and video intercom on entry doors. 4. Use of reed switches and electric locking on external doors and entries. Swipe card readers may be required to both sides of internal doors, to allow access for authorized staff.

SPECIFIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Relatives / Visitors – includes risk of violence from non-custodial, alcohol or drug affected parents/visitors.	1. Staff station at main entrance to allow staff to monitor access and egress. 2. Good visibility from staff station to nursery. 3. Minimise number of relatives/visitors admittance in the area by restricting number of relatives/visitors attending at any one time and/or restricting visiting hours to set times. 4. Implement appropriate specific security procedures in respect of the risk associated with illegal removal of babies. 5. If appropriate, install system in hallways to monitor visitors entering the unit. 6. Courtyards, where provided, to be securely screened/fenced and adequately monitored (from Staff Station, CCTV, etc.) 7. Reception desk security. 8. Duress alarm system.
2. Illegal removal of babies	1. Minimise entry/exit doors. 2. Controlled access of entry/exit doors. 3. No external opening doors/windows. 4. All egress past staff station. 5. CCTV on entry/exit doors. 6. Baby tagging system to set off alarm if attempted unauthorized removal of baby from the unit.
3. Patient files	1. Personnel working on these files must return to secure area after use or return to Medical Records Department. 2. If any electronic files are produced, locate in restricted area of hard drive.
4. Drugs storage	1. Dangerous drug safe within the clean utility area.
5. Furniture fittings and equipment including Computers, Office and Medical Equipment	1. Non-removable 'Asset No.' on all equipment above a predetermined value. 2. Keep equipment in lockable area.
6. Safety of Hospital personnel	1. Staff working in this area to have knowledge of where the fixed duress system is located and/or use a mobile duress pendant. 2. There must be lighting of exits and staff car parks.
7. Staff personal effects	1. Provision for lockers in staff areas and lockable desk drawer to keep small personal effects.

SECURITY CHECKLIST – MATERNITY UNIT

FACILITY:	DEPARTMENT: Maternity Unit
RISK ISSUE	**DESIGN RESPONSE**
1. How is 'after hours' access provided for patients and how is this access point monitored?	
2. Do staffs have access to both fixed and mobile duress systems?	
3. Is access to patient records restricted to staff entitled to that access?	
4. Is a system implemented to prevent theft of equipment, files, personal possessions, etc?	
5. Are drug safes installed in accordance with current regulations?	
6. How is after hours access provided for staff?	
7. How are the offices secured during and after hours?	
8. Are there lockable storage areas available for specialised equipment?	
9. Is lockable furniture provided for storage of staff personal effects?	
10. How does this Department address the security of babies ?	
11. What systems are utilised to monitor access to rooms/wards by patients/visitors?	

DESIGN COMMENTARY /NOTES	DESIGN SIGN-OFF
	Name: …… Position: ……..…….. Signature: ……..…….. Date: ……..……..
	Name: …… Position: ……..…….. Signature: ……..…….. Date: ……..……..
	Name: …… Position: ……..…….. Signature: ……..…….. Date: …….……..

520 OPERATING UNIT

INDEX

		Description
500317	520 .0.10	INTRODUCTION
		Preamble
		Introduction
		Policy Statement
		Description of Unit
		PLANNING
		Operational Models
		Planning Models
		Other Planning Issues
		Functional Areas
		Functional Relationships
		DESIGN
		Disaster Planning
		Environmental Considerations
		Infection Control
		Finishes
		Fixtures and Fittings
		Safety and Security
		Building Service Requirements
		COMPONENTS OF THE UNIT
		General
		Standard Components
		Non-standard Components
		APPENDICES
		Schedule of Accommodation
		Functional Relationships
		Checklists
		Operating Unit Flow Diagrams

INTRODUCTION

Preamble

501224 520 .1.00

This Facility Planning Guideline aims to promote the development of optimal environments for the conduct of surgery and the pre and post operative management of patients undergoing surgical procedures, whilst enabling the adoption of emerging technologies and changing models of care.

The design of the Operating Unit and Peri-Operative Unit must be sufficiently flexible to accommodate the day-to-day fluctuations in surgical caseload and the corresponding fluctuations in staff and patient numbers.

A high quality physical environment will indicate that:

+ The patient is valued;

+ There is recognition of the positive contribution such environments make to the safe and efficient provision of surgery and for the pre-operative immediate post-operative recovery of patients;

+ The staff who provide care are valued and enabled to provide optimal care in safe and pleasant workspace.

Introduction

503029 520 .2.00

This Section outlines the specific requirements for the planning of an Operating Unit or Peri-Operative Unit. Generic planning requirements and Standard Components must be read in conjunction with this section.

Since an Operating Unit may be incorporated within an Ambulatory Care facility, this section must be read in conjunction with the Ambulatory Care component of these Guidelines.

Policy Statement

501226 520 .3.00

NSW Health policies that impact on the management of surgical services and operations of Operating Units and Peri-Operative Units include:

+ Waiting Time and Elective Patient Management Policy, PD2006_020, 07-Mar-2006;

+ Guide to the Role Delineation of Health Services Third Edition, 2002;

+ What a difference a day can make - Same Day Surgical and Endoscopic Procedures Policy, May 1999.

Specific NSW Health's service plans impact on the planning of Operating Units. Selected highly specialised surgical procedures are provided on a statewide basis and as identified in the following:

+ Selected Specialty and Statewide Service Plan No 1 - Heart Lung Transplantation, January 2002;

+ Selected Specialty and Statewide Service plan No 2 - Pancreas Transplantation, January 2002;

+ Selected Specialty and Statewide Service Plan No 3 - Liver Transplantation, January 2002;

+ Selected Specialty and Statewide Service Plan No 4 - Severe Burns, May 2003.

Description of the Unit

503000 520 .4.00 The Operating Unit is a physically distinct and environmentally controlled facility comprising one or more Operating Rooms, with provision to deliver anaesthesia and accommodation for the immediate post-operative recovery of patients.

The Operating Unit may be:

+ Located as a dedicated facility within a hospital;

+ Collocated with a specialist clinical service within a hospital such as a Burns Unit or Obstetric Unit;

+ Located in a free-standing ambulatory surgical facility;

+ Ancillary support services and staff amenities may also be included in the Operating Unit.

The Operating Suite module provides a safe and controlled environment for the care of patients undergoing operative procedures within the Operating Suite.

Facilities are provided for:

+ Patient reception/identification;

+ Induction of anaesthesia;

+ Operative procedures;

+ Post operative recovery;

+ Ancillary support;

+ Staff amenities.

500263 520 .5.00 PERI-OPERATIVE UNIT

The Peri-Operative Unit functions as:

+ A Pre-Admission Reception Area for patients undergoing surgery;

+ A Post-Surgical Recovery Area and Pre-Discharge Lounge for patients.

503001 520 .5.50 OPERATING UNIT

The Operating Unit functions as an appropriate and safe venue to perform surgical procedures, using inhaled and other anaesthetic agents, and to provide accommodation for the recovery of patients in the immediate post-operative period (Stage 1 Recovery). Whilst facilitating the surgical management of patients, the Unit must also provide facilities to meet the needs of staff working in the Area.

503003 520 .6.00 The design of the unit should permit unimpeded traffic flows for sterile and used materials, patients, visitors and staff.

501225 520 .7.00 The number of Operating Rooms and recovery beds/spaces required, the configuration of the support and other services, and the size of the facility are

determined by:

+ The anticipated volume of surgical procedures;

+ The casemix and complexity of the surgical caseload.

PLANNING

Operational Models

501227 520 .8.00 The model of surgical service delivery determines the configuration of the Operating Unit, and the functional relationships required with other Units and facilities.

Examples of models of surgical service delivery include:

+ 'The Integrated Ambulatory Care Model' where patients access surgical and/or medical procedures and other complementary services on a planned day-only basis in a dedicated facility;

+ 'The Peri-Operative Model' where patients having planned surgery as day-only or day-of-surgery admissions are admitted to a dedicated facility prior to surgery. Planned and emergency surgery and 1st stage recovery is undertaken in the Operating Unit. Day-only cases are then transferred back to the facility for pre-discharge care;

+ 'The Short Stay Surgery Model' where patients having planned surgery as a day-only or overnight admission are admitted to a dedicated facility, then transferred to the Operating Unit for surgery and 1st stage post-operative recovery, and then returned to the facility. Post-operative stay is usually 48 hours or less;

+ 'Specialist Surgery Model' catering for a single specialty such as ophthalmology or plastic surgery. Patients are day-only admissions for surgery and recovery.

501228 520 .9.00 Users must define their own Operational Policies as one of the earliest steps in the planning process.

Policies that may affect planning include:

+ Admissions procedures;

+ The manner in which food, linen and supplies are ordered, supplied and stored;

+ Medical records management;

+ Use of dedicated theatres for individual specialities;

+ Inclusion of an emergency theatre;

+ Inclusion or exclusion of day procedures;

+ Provision of sterile supplies from Central Sterile Supplies Department (CSSD) or Theatre Sterile Supplies Unit (TSSU);

+ Day of Surgery Admissions (DOSA) and day surgery patients.

Refer to Part B - General Requirements for general discussion on Operational Policies.

Planning Models

503004 520 .10.00 The operational model chosen for the Operating Unit will greatly influence the planning model adopted.

501229 520 .11.00 There are many options available for planning a new or upgraded Operating Suite. The response to the agreed Planning Model should be a layout that achieves a balance between the environmental needs of the staff, infection control, operational flow and functional requirements.

501230 520 .12.00 The location of departments such as Day Surgery, TSSU/CSSD, Admissions/Bookings and Administration Services and Facilities, including the separation of the flow of patients, staff, goods and services, will have an impact on the selection of the Planning Model.

501231 520 .13.00 The shape of the building and the location of the department within the building will affect the planning of the unit; however there are a number of other issues that will need to be evaluated prior to commencing the internal planning of the Department.

501232 520 .14.00 SINGLE CORRIDOR

A single corridor is an option that is often considered where all the goods, clean and used, plus pre and post operative patients all traverse the one corridor. There is ongoing debate as to the suitability of this approach. However, this option is considered suitable provided:

501233 520 .15.00 + That the main circulation corridor is sufficiently wide in order to permit separation of passage of goods and services;

501234 520 .16.00 + Handling of clean supplies and waste is carefully considered.

501235 520 .17.00 A disadvantage of this planning model is that a patient awaiting surgery may be exposed to other patients following their surgery. These patients may have drains, visible blood stains, etc, and be surrounded by equipment that could be upsetting to other patients prior to surgery.

501236 520 .18.00 RACE TRACK

A race track model allows for all the Operating rooms to be accessed from the rear via a combined Set Up/Stock Room. This model aims to separate ‘dirty' from 'clean’ traffic by controlling the uses of each corridor.

501237 520 .19.00 This is often preferred, as both stock and staff can be concentrated in one location. It therefore prevents duplication of equipment stock and staff.

Planning Models

501238 520 .20.00 The issues of flash sterilisation for dropped instruments and specialised instruments often requires considerable thought and discussion in terms of the Operational Policy and instrumentation requirements.

501239 520 .21.00 SMALL CLUSTERS

Small clusters of two to four Operating Rooms per cluster with a shared Stock and Set-Up Room is often a preferred model during the planning stages, however the operating costs of providing dedicated staff and stock duplication can be an issue.

501240 520 .22.00 This model can add to the corridor space and circulation space. The staff often prefer the space to be used as stock storage rather than as corridor and circulation space.

501241 520 .23.00 DEDICATED THEATRES WITH FIXED OR MOBILE EQUIPMENT

This model dedicates particular theatres to specific types of surgery. This may be beneficial in larger suites where work volumes justify this specialisation. In smaller suites the benefits of flexible use of theatres usually outweighs the benefits of specialisation.

501242 520 .24.00 Fixed equipment can preclude the multifunctional use of the Room. If a piece of equipment needs repair, the room cannot be used.

501243 520 .25.00 If the activity requires, it can be useful to provide dedicated theatres for specialities such as Urology, with a dedicated table and drainage.

501244 520 .26.00 Fixed radiology equipment is large and difficult to clean and may not be required for all cases.

Other Planning Issues

501245 520 .27.00 STERILE SUPPLIES

Sterile supplies may be provided from a dedicated TSSU or from a CSSD that also serves other areas of the hospital. Whichever option is chosen the Theatre Suite is a major user of sterile stock and its location relative to the sterile supplies is of high importance.

501246 520 .28.00 The Theatre Sterile Supplies Unit may be located within the Suite or externally. It is preferable to locate the TSSU adjacent to the Suite with direct access between the departments. If the footprint for the service cannot be located on the same floor, a dedicated clean and used goods lift should be provided.

501247 520 .29.00 Adequate standing space should be provided to allow for the holding of set-up trolleys in front of each of the lifts.

501248 520 .30.00 SCRUB LOCATION

Many Suites are planned with a shared Scrub Room. This allows more than 2 or 3 persons to scrub per room and will speed the change round process.

501249 520 .31.00 Most Operating Suites are planned with the Scrub Room located on the patient entry side, and this is recommended.

501250 520 .32.00 Where space on the entry side is at a premium, Scrub Rooms may be located on the set up and sterile goods inward flow side.

501251 520 .33.00 SET UP, STERILE STOCK FLOW AND LOCATION

Smaller Suites may incorporate the set up and the stock holding flow as part of the TSSU.

501252 520 .34.00 To increase efficiency and throughput, a sterile set up area may be located between, or to the rear, or if space allows, in the front of the Operating Room. If the sterile packs are unwrapped in this set up area, the air conditioning and room pressure implications are considerable and costly.

501253 520 .35.00 SEPARATION OF PRE AND POST OPERATIVE GOODS AND PERSONNEL

Theatres can be planned with an entry for the clean goods and the patient on one side and an exit bay on the other side for the patient and waste. This is a useful way to plan a Suite when same day and day surgery patients walk into the Suite. Trolley holding and stock may be located on one side and a clean up bay and waste holding on the other side.

The location of Recovery can be an issue when planning this option.

501254 520 .36.00 SINGLE STOREY SUITE VERSUS MULTI- STOREY SUITE

There are occasions where the Change Rooms and sometimes Offices and Tea Rooms must be located on a floor above or below the Operating Suite due to space restrictions.

501255 520 .37.00 In this model the Anaesthetists usually prefer the Staff Room to be located on the same floor as the Suite as ease of access to the Recovery is important.

501256 520 .38.00 WINDOWS

The need for an external view from the Operating Room is often a prime requirement. The implications for this concept are:

+ Vision from the Operating Room could be through a corridor, set up area or directly to the external environment.

+ Many procedures require black-out and there are additional cost associated with external heat shields and cleaning blinds within the clean zone of the Suite.

+ If the windows to the Suite are located on the outside of the building there are often heating and cooling implications that will have a considerable impact on the recurrent costs of managing the Suite.

+ Viewing windows from a corridor to the Operating Room can be useful for supervision and training purposes.

+ Given that only a limited number of windows can be achieved within a Suite, it may be preferable to provide the Staff Amenities and the patients in Recovery and Day Surgery with the windows rather than the staff working in the Operating Rooms.

+ Where a TSU is part of the unit, windows should also be provided where possible.

Functional Areas

501257 520 .39.00 UNIT FUNCTIONAL ZONES

The Operating Unit comprises the following Functional Zones:

+ Admissions/Reception Area - for receipt and admission of patients to the Unit, with general overseeing of day-to-day operations, control of entry and exit from the Unit, and completion of general administrative tasks;

+ Pre-Operative Holding Area - for holding and management of patients prior to their operation or procedure.

+ Operating Rooms Area - where procedures are carried out.

+ OR Support Areas - where stock and sterile supplies, linen, anaesthetic equipment and supplies are stored and managed, waste is disposed of, small items sterilised etc.

+ Recovery Area - where patients are assisted through the process of recovering from the effects of anaesthetic.

+ Staff Areas - Male/Female Change Rooms and Staff Room.

+ Clinical Support Area - where office and administration space is provided for Clinical staff.

Functional Relationships

501261 520 .40.00 EXTERNAL

Patients may enter the Unit from a number of locations; some of these will be emergencies or need urgent treatment. For these reasons it is desirable to have close and direct relationships with:

+ Emergency;

+ ICU/NICU;

+ Ambulance Bay;

+ Helipad;

+ Lifts;

+ Delivery Suite.

Links between these Units and the Operating Unit should be rapid, direct and discreet.

To minimise stress to patients and other hospital users, transfer of severely ill patients to and from the Unit through public corridors should be avoided.

Other Units that are intimately linked with the day-to-day running of the Unit, and are often planned as a part of the Unit include:

+ Peri-Operative Unit;

+ CSSD/TSSU.

Other Units with which a close relationship is desirable include:

+ Pathology;

+ Imaging.

501264 520 .41.00 INTERNAL

Planning of an Operating Unit is complex and requires the correct relationships to be achieved between the Functional Areas listed above.

Key issues to be managed include:

+ Separation of clean and dirty traffic flows.

+ Logical orderly patient flow from arrival at Reception, through Pre Operative Holding, Theatre and Recovery back to either the Peri-Operative Unit, the Ward or discharge to home.

+ The ability of staff to monitor the condition and safety of patients at all times.

+ The efficient management of the Unit, in particular ensuring the design does not result in additional staffing costs.

Achievement of all these goals is not readily described in words and readers should refer to the diagrams included with these Guidelines for guidance.

DESIGN

Disaster Planning

501265 520 .42.00 A Disaster Management Plan should be prepared which describes the role of the hospital in a disaster situation.

Depending on the type of disaster the Operating Unit may be a key facility with a substantially increased workload.

The role of the Unit in the Disaster Plan should be understood before planning commences.

This is discussed in more detail in Part B, Section 80 of these Guidelines.

Environmental Considerations

501267 520 .43.00 The Operating Unit can be a stressful environment for both patients and staff. The inclusion of natural light and views can improve the environment considerably, however when doing this, care must be taken to control glare and light intensity.

Operating Units will be airconditioned and particular parameters apply to the Operating Rooms, the Recovery Area and storage areas for sterile stock.

Colour can be used to avoid an institutional atmosphere.

503005 520 .44.00 In all areas where patient observation is critical such as Operating Room/s, Anaesthetic Room/s, Recovery Area/Room, Holding Area/Room, colours shall be chosen that do not alter the observer's perception of skin colour.

Infection Control

501266 520 .45.00 Due to the invasive procedures undertaken, infection control is a key issue in the design and planning of the Unit. For this reason, traditional theatre designs featured clean and dirty zones defied by red lines and completely separate corridor systems for patients and for clean and dirty goods.

Today Operational Policies play a greater role in managing the risk of infection, however it remains a key issue in design of this Unit.

Refer to Part D Infection Control Guideline.

Finishes

501270 520 .46.00 GENERAL

As with most Units, the selection of finishes for the Operating Unit is influenced by both durability and infection control issues.

The finishes in the Operating Suite/Day Procedures Unit should be easy to clean to facilitate infection control. At the same time, they should be hard wearing and impervious to moisture.

Due to the high number of trolley movements in the Unit, wall protection is an important issue, and wall and corner protection is required wherever there is the potential for damage from trolleys.

See Part C of these Guidelines for further information.

500267 520 .47.00 FLOOR FINISHES

The floor finishes should be of a type that are impervious to moisture, easily cleaned, stain resistant, comfortable for long periods of standing and suitable for wheeled traffic. In the Operating Rooms and Procedure Room, the colour should be such that there is sufficient contrast to find small dropped items.

Non-slip sheet vinyl with welded joints and coved skirtings is considered appropriate throughout the Unit.

Some substances heavily stain sheet vinyl. This should be considered when choosing a colour and pattern for the floor material.

Carpet may be used in the Waiting Area. A short dense pile is recommended.

See Part C of these Guidelines for further information.

500282 520 .48.00 CHANGES IN FLOOR FINISHES

Where there are changes in types of floor coverings, eg vinyl, ceramic, tiles, carpet, there should not be a change in floor levels. Ridges, cover strips and humps where two surfaces meet are dangerous and noisy and represent an infection control problem, and safety hazard for potential slips, trips and falls.

See Part C of these Guidelines for further information.

500283 520 .49.00 WALL FINISHES

Wall surfaces are subject to the cleaning protocols documented in the Operational Policy for the Operating Suite/Day Procedures Unit.

Ceramic tiles are not recommended as a wall finish due to their potential to compromise infection control. These tiles are also susceptible to damage from trolleys and if cracked or broken individual tiles may be difficult to replace.

500284 520 .50.00 CEILINGS

Ceilings will be subjected to the cleaning protocols documented in the Operational Policy for the Unit.

See Part C of these Guidelines for further information.

500285 520 .51.00 BENCH TOPS

Bench tops should be of a smooth, impervious finish, resistant to damage and stains. Joins should be avoided if possible because they are difficult to keep clean. A range of products is suitable, eg laminates, synthetics and stainless steel. Consideration should be given to the use of the bench tops and the type of material most suitable to their task.

500286 520 .52.00 WINDOW TREATMENTS

Window treatments to patient bed areas require consideration of infection control issues, and may require external or internal (between double glazing) treatments.

See Part C for further information.

500288 520 .53.00 CLEANING REQUIREMENTS

The cleaning policy of the Unit must be determined during the design period.

Design, layouts, fittings, furnishings, floor coverings and finishings will have significant impact on the cleaning of the Unit. Ledges, corners and all other surfaces that are difficult to clean should be minimised.

Facilities should be provided that will assist in the efficient cleaning of the unit, eg appropriate location of power outlets, adequate storage of cleaning materials and equipment, waste disposal and handwashing facilities.

Fixtures & Fittings

501271 520 .54.00 See Part C for further information.

Safety and Security

501269 520 .55.00 For security of drugs and equipment, and infection control reasons, access to the Operating Unit should be controlled. Generally this is achieved by limiting access for everyone, other than authorised staff, to one entry point controlled by Reception.

OCCUPATIONAL HEALTH AND SAFETY

Employers and employees have a statutory obligation to ensure the health, safety and welfare at work of all employees.

The design of the Unit should seek to prevent injury and reduce the number of potential hazards.

Hazards that may be prominent in the Operating Suite / Day Procedures Unit include the risk of:

+ Exposure to infectious substances;

+ Exposure to radioactive materials;

+ Exposure to anaesthetic gases;

+ Exposure to decontamination agents;

+ Injury from machines and lifting.

503006 520 .56.00 SAFETY & SECURITY Issues list is appended to this document.

See also Safety and Security in Part C.

Building Service Requirements

501272 520 .57.00 GENERAL

The provision of appropriate building services to the Operating Unit, and easy access to these from the unit, is essential for efficient and safe operation.

Services and systems required include:

+ Medical gases;

+ Communication and data systems such as telephones, nurse call, emergency call, email, internet and vacuum tube;

+ Mechanical airconditioning and humidity control;

+ Light and power;

+ Patient Monitoring systems;

+ Telemetry systems;

+ Bar code readers;

+ Sterilising facilities;

+ Thermostatic mixing valves;

+ Ice machine;

+ Fume extraction where glutaraldehyde is used.

These are described in more detail in both Room Data and Room Layout Sheets.

501274 520 .58.00 STERILISING

Sterilising facilities with high-speed sterilisers or other sterilising equipment for immediate or emergency use must be grouped to several Operating Rooms for convenient, efficient use. A work space and handwashing facility shall be included. Such facilities shall be provided at the ratio of one per four Operating Rooms.

Other facilities for processing and sterilising reusable instruments may be located in another hospital unit such as Central Sterilising Supply Department (CSSD) or Theatre Sterile Supply Unit (TSSU).

204170 520 .59.00 STORAGE

Storage Bays shall be provided for equipment such as portable X-ray equipment, stretchers, fracture tables, warming devices, auxiliary lamps.

Equipment Bays shall be provided at the minimum rate of 5 m2 per theatre and minimum dimension of 0.8 m (1m preferred). These areas shall not impede on corridors or disrupt traffic. This can be satisfied by recessing the Bay into the corridor walls or adding the minimum equipment bay width to the corridor width.

Note: Mobile Equipment Bays are best designed as elongated rectangular shapes and combined as far as possible.

COMPONENTS OF THE UNIT

General

500289 520 .60.00 This section must be read in conjunction with Part B Standard Components, Room Data Sheets and Room Layout Sheets. The following text describes only specific requirements not covered by these other documents.

Standard Components

500290 520 .61.00 Provide the Standard Components as identified in the Generic Schedule of Accommodation. Provision of Offices, Workstations and support areas will be dependant on the Operational Policy and service demand and may vary from the Schedule of Accommodation, however, room sizes should remain consistent. See also Planning Models and Functional Areas.

Non-Standard Components

500291 520 .62.00 Provide the Non Standard Components as described in this section, according to Operational Policy and service demand.

501277 520 .63.00 MEETING ROOM - 9 m2

DESCRIPTION AND FUNCTION

Similar to Standard Component.

The Meeting/Interview Room is a multipurpose room that may be used as an office. The Interview Room may also be designed so that it is divided by a physical barrier, such as a desk top. This would enable staff to conduct an interview without the necessity of them compromising their 'clean' status and the need for visitors to change into Operating Suite attire.

Functions and activities include:

+ Consultations;

+ Interviews;

+ Grief counselling with relatives;

+ Office activities.

This room will be multipurpose including functions usually associated with a Treatment Room.

LOCATION AND RELATIONSHIPS

The Consult Interview Room should be on the boundary between clean and dirty zones.

501275 520 .64.00 RECEPTION/CLERICAL

DESCRIPTION AND FUNCTION

The Reception/Clerical Area is the focal point of entry into the Operating Suite. It controls the boundary between the Operating Suite and the rest of the hospital.

The functions and activities of the Reception/Clerical Area include:

+ Patient delivery and identification;

+ Clerical work;

+ Enquiry point;

+ Monitoring of all persons entering/exiting the suite;

+ Over sighting of the Holding Bay;

+ Reception of goods.

LOCATION AND RELATIONSHIPS

The Reception/Clerical Area is located at the entry to the Operating Suite with direct access to both the hospital corridor and the Operating Suite corridor.

Patient Areas

501301 520 .65.00 EXIT BAY

DESCRIPTION AND FUNCTION

The Exit Area is for the egress of the patient and used equipment at the conclusion of a procedure. This area may be shared between two or more Operating/Procedure Rooms.

Functions and Activities undertaken include:

+ Storage of patient bed while procedure is in progress;

+ Used linen trolley, optional;

+ Storage of table accessories.

To comply with Standard Components.

LOCATION AND RELATIONSHIPS

Direct access is required:

+ from the Operating/Procedure Room(s);

+ to the Operating Suite corridor.

501278 520 .66.00 PATIENT BAY - HOLDING

DESCRIPTION AND FUNCTION

The Pre-Operative Holding Bays are a preparation area for patients immediately prior to their procedures.

People occupying space: 4 patients, 2 staff, average.

The functions and activities include:

+ Holding patients prior to transfer to the Operating Suite/Procedures Room;

+ Premedication of patients, when appropriate;

+ Pre-procedural preparations, eg shaving, where appropriate;

+ Monitoring patients' condition prior to a procedure;

+ Pre-procedural documentation;

+ Pre-procedural identification;

+ Safe-keeping of personal effects (refer Operational Policy).

LOCATION AND RELATIONSHIPS

The Pre-Operative Holding Area should be located adjacent to the Operating/Procedure Rooms, the Patient Change Cubicles, Shower and Toilets and close to the Waiting Area and Reception Area.

503008 520 .67.00 PATIENT BAY - RECOVERY

DESCRIPTION AND FUNCTION

The Recovery Area/Room shall provide for the following main functions:

+ Recovery of patients from anaesthetic;

+ Observation of patients including skin tone, blood pressure and pulse rate measurement;

+ Resuscitation of patients, if required;

+ Bench level activities and storage;

+ Storage of clean linen;

+ Clinical handwashing;

+ Storage of drugs, some of which may require refrigeration.

LOCATION AND RELATIONSHIPS

Stage 1 Recovery Cubicles or rooms shall be designed in such a way to permit good observation from a Staff Station, when required. This will require either open fronts or wide central doors to any private Stage 1 Recovery Rooms.

Any private room provided for Stage 1 Recovery may also be used for pre-operative preparation, changing or waiting of patients.

Note: Nothing in these requirements prevents the possibility of integrating the Stage 1 Day Surgery Recovery Room with the main Recovery Room of the Operating Unit.

Stage 2 shall provide reasonable privacy for each patient such as curtained cubicles or private rooms of adequate size.

A Patient Toilet directly accessible from patient recovery shall be provided.

There shall be a clearance of at least 1.2 metres between patient beds and between patient bedsides and adjacent walls. Provision shall be made for the isolation of infectious patients.

Clinical handwashing facilities type A (see Part D) with hands-free taps shall be provided at the rate of at least one for every four beds. These shall be uniformly distributed to provide equal access from each patient bed.

Refer Part D of these Guidelines for Infection Control.

Staff Areas

501311 520 .68.00 ANAESTHETIC STORE

DESCRIPTION AND FUNCTION

An area for storage of consumables, monitors and spare parts for anaesthetic equipment.

LOCATION AND RELATIONSHIPS

Direct access from the Operating Suite corridor for staff and equipment, and to Workroom.

501310 520 .69.00 ANAESTHETIC WORKROOM AND BIOMEDICAL EQUIPMENT

DESCRIPTION AND FUNCTION

An area for the repair maintenance and calibration of both Anaesthetic and Biomedical equipment, and as a work base for anaesthetic and biomedical technicians when visiting the Unit.

LOCATION AND RELATIONSHIPS

Accessible from both the sterile and non-sterile areas of the Unit.

501318 520 .70.00 AUDIOVISUAL WORKROOM

DESCRIPTION AND FUNCTION

A room for audiovisual technicians to manage the recording, editing, broadcast and storage of video images used for teaching purposes.

LOCATION AND RELATIONSHIPS

In a non sterile part of the Unit with ready access from outside the Unit. Irregular access may be required to the Operating Rooms for camera maintenance.

501283 520 .71.00 BAY - BLANKET WARMER

DESCRIPTION AND FUNCTION

A Bay to accommodate a machine for the storing and warming of blankets.

LOCATION AND RELATIONSHIPS

This should be located off the Operating Suite corridor with ready access to the Operating Rooms and Holding/Anaesthetic Bays.

501315 520 .72.00 BAY - BLANKET/FLUID WARMER

DESCRIPTION AND FUNCTION

A Bay for a combined blanket and fluid warmer. This is likely to be used in a smaller Unit.

LOCATION AND RELATIONSHIPS

Centrally within the Unit accessible from Patient Care Areas such as Pre-Operative Holding and Operating Rooms.

501316 520 .73.00 BAY - FLUID

DESCRIPTION AND FUNCTION

A Bay for a fluid warmer.

LOCATION AND RELATIONSHIPS

Centrally within the unit accessible from Patient Care Areas such as Pre-Operative Holding and Operating Rooms.

501320 520 .74.00 BAY - PATHOLOGY

DESCRIPTION AND FUNCTION

Depending on the Operational Policy, an area for preparation and examination of frozen sections may be provided. This function may be performed by the general Pathology Laboratory if immediate results are obtainable without unnecessarily delaying the completion of surgery.

LOCATION AND RELATIONSHIPS

Centrally within the Unit, accessible from Operating Rooms and Patient Care/Holding Areas.

501319 520 .75.00 BLOOD STORE

DESCRIPTION AND FUNCTION

An area for refrigerated storage of blood and blood products.

LOCATION AND RELATIONSHIPS

Centrally within the Unit, accessible from operating rooms and patient care/holding areas.

501302 520 .76.00 FLASH STERILISING

DESCRIPTION AND FUNCTION

The Sterilising Bay is where instruments are sterilised within the Operating Suite.

People occupying space: 1-2 average.

The Sterilising Bay is fitted out for the washing and sterilising of instruments that are dropped in Operating Room procedures.

LOCATION AND RELATIONSHIPS

The Sterilising Bay, is immediately adjacent to the Operating Rooms and may be located in an alcove off the Sterile Stock Store or Set-Up Area.

The Sterilising Bay should not be located in either the Anaesthetic Induction or Scrub-up Rooms nor should it be located where steam could affect sterile stock.

Where possible one Sterilising Bay should be shared between two Operating Rooms.

501312 520 .77.00 PERFUSION ROOM

DESCRIPTION AND FUNCTION

An area for cleaning and maintaining perfusion equipment.

LOCATION AND RELATIONSHIPS

Direct access to the Operating Rooms in which the equipment is used.

Staff Areas

501306 520 .78.00 SET-UP

DESCRIPTION AND FUNCTION

The Set-Up Area is where trolleys for each case are assembled, ie loaded with instruments and sterile supplies, prior to delivery to the Operating/Procedure Rooms for set-up, which is the opening and laying out of the contents of the packs.

LOCATION AND RELATIONSHIPS

The Set-Up Area should have a direct relationship to the Operating Room(s) and the Central Sterile Supply Unit or Theatre Sterile Supply Unit, whichever is appropriate.

Direct access to:

+ Operating Rooms;

+ Procedure Room;

+ Central Sterile Supply Unit or Theatre Sterile Supply Unit, as appropriate.

501280 520 .79.00 STAFF STATION

DESCRIPTION AND FUNCTION

The Staff Station is the focal point controlling the functioning of the Operating Suite.

Functions and activities of the Staff Station include:

+ Staff handover;

+ Communications centre (telephone & computer) for the Operating Suite;

+ Preparation of operating lists;

+ Control and updating of drug records;

+ Stock control of Operating Suite supplies;

+ Report writing.

LOCATION AND RELATIONSHIPS

Operational Policies will affect the design and location of the Staff Station eg the Operational Policies may be such that the Staff Station has to overview one or more of the following areas: Reception/Entry Area, Holding Bay or Recovery.

501308 520 .80.00 STORE - EQUIPMENT - MAJOR

DESCRIPTION AND FUNCTION

The Equipment Store, provides for the storage of equipment not currently required in the Operating Rooms. Each item must be easily accessible. The area should not be so cluttered that fragile equipment is bumped or damaged.

LOCATION AND RELATIONSHIPS

Direct access is required:

+ To the Operating Suite corridor and Operating Rooms.

501309 520 .81.00 STORE - EQUIPMENT - MINOR

DESCRIPTION AND FUNCTION

Similar to Store - Equipment - Major.

This is a supplementary store to provide an alternative location for storage of equipment closer to where it may be used, especially in a larger Unit.

LOCATION AND RELATIONSHIPS

Similar to Store - Equipment - Major

501303 520 .82.00 STORE - NON STERILE/DEBOXING

DESCRIPTION AND FUNCTION

The storage of non-sterile goods on an open mobile shelving system for use in the Operating Suite.

LOCATION AND RELATIONSHIPS

Direct access is required to the Operating Suite corridor and from the Reception/Entry Area.

501313 520 .83.00 STORE - PERFUSION

DESCRIPTION AND FUNCTION

A room for the storage of consumable goods and spare parts for the perfusion equipment.

LOCATION AND RELATIONSHIPS

Direct access to the Perfusion Room.

APPENDICES

Schedule of Accommodation

501341 520 . Schedule of Accommodation for an Operating Unit at Levels 3, 4, 5 and 6 is at the end of this section.

501342 520 . See Schedule of Accommodation for notes.

500292 520 .84.00 A Schedule of Accommodation for Units at Levels 3, 4, 5, and 6 follows.

Quantities and sizes of some spaces will need to be determined in response to the service needs of each unit on a case by case basis.

ROOMS/SPACE	Standard Component		Level 2	Level 3	Level 4	Level 5/6	REMARKS
OPERATING UNIT:			Qty x m2	Qty x m2	Qty x m2	Qty x m2	*Optional
ADMISSIONS/RECEPTION AREA -							
RECEPTION / CLERICAL			1 x 9	1 x 12	1 x 12	15	Level 2 includes space for porter.
WAITING	yes			1 x 4	1 x 8	16	Near Unit entry & reception.
MEETING ROOM - 9M2	similar			1 x 9	1 x 9	9	May also accommodate office & interview function.
PRE-OPERATIVE HOLDING AREA -							Caters for inpatients, day of procedures & DOSA patients.
PATIENT BAY - HOLDING			1 x 9	2 x 8	4 x 8	8	1 per theatre; sized for trolleys, but some may be spaces for peri-operat chairs @ 5m2.
OFFICE - WRITE-UP BAY	similar			1 x 6	1 x 6	1 x 6	Staff Work Area; ready access from Ors, main corridor, quiet & privacy desirable.
STAFF STATION						6	Only allocated for L5/6 as Reception could be base used for other levels.
BAY - HANDWASHING	yes		1 x 1	1 x 1	1 x 1	1	Min 1 per 8 spaces. Accessible from OR & Patient Care/Holding Areas.
BAY - LINEN	yes					2	Min 1 per 16 spaces. Corridor with ready access to Holding/Anaesth Bays.
BAY - BLANKET WARMER						2	Min 1 per 8 spaces.
CLEAN UTILITY	yes					8	Direct access from Patient Holding Areas, may be shared with Recovery.
DIRTY UTILITY	yes					6	Direct access from Patient Holding Areas, may be shared with Recov & Post Op Lnge.
OPERATING ROOMS AREA -							
ANAESTHETIC INDUCTION	yes			2 x 15	4 x 15	15	1 per theatre
ANAESTHETIC INDUCTION - LARGE	yes					18	1 per larger theatre; in some instances may be suitable for L4.
OPERATING ROOM - GENERAL	yes		1 x 42	2 x 42	4 x 42	42	
OPERATING ROOM - LARGE	yes					52*	
SCRUB UP	yes		1 x 6	2 x 8	4 x 8	8	1 per theatre, may be shared. Located between Operating Rooms as required.
EXIT BAY			1 x 8	2 x 8	4 x 8	8	1 per theatre.
OR SUPPORT AREA -							
CLEAN UP	yes		1 x 15	1 x 15	2 x 15	15	1 per 2 theatres.
FLASH STERILISING			1 x 2	1 x 2	1 x 2	2	1 per 4 theatres. If area req'd to accomm a Steris machine, incr size to 6m2.
STORE - NON STERILE / DEBOXING			1 x 20	1 x 20	1 x 30	30	

STORE - STERILE STOCK	yes		1 x 12	1 x 24	1 x 44	10	Allows for 10-12 m2 per Operating Theatre. Direct relationship to CSSU/TSSU.
BAY - MOBILE EQUIPMENT	yes		1 x 2.5	2 x 2.5	4 x 2.5	2.5	1 per theatre.
SET-UP				1 x 8*	2 x 8*	8	Depends on Operational Policy eg may differ where case cart system used.
STORE - EQUIPMENT - MAJOR	yes		1 x 30	1 x 30	1 x 40	75	
STORE - EQUIPMENT - MINOR	yes			1 x 10	1 x 10	60	
ANAESTHETIC WORKROOM + BIOMEDICAL EQUIPMENT				1 x 10*	1 x 15*	20*	Assumes dedicated biomedical space for Levels 5/6.
ANAESTHETIC STORE				1 x 15	1 x 20	35	
PERFUSION ROOM						42*	
STORE - PERFUSION						30*	
BAY - LINEN	yes		1 x 2	1 x 2	2 x 2	2	1 per theatre. Corridor with ready access to OR.
BAY - FLUID/BLANKET WARMER			1 x 1	1 x 1			
BAY - FLUID					1 x 1	1	1 per 4 theatres.
BAY - BLANKET WARMER					1 x 1	1	1 per 4 theatres
AUDIOVISUAL WORKROOM						12	
CLEANER'S ROOM	yes		1 x 5	1 x 5	1 x 5	5	1 per 8 theatres; ready access to all areas of unit, pref on perimeter in non-critical area.
DISPOSAL	yes		1 x 10	1 x 10	1 x 10	10	
BLOOD STORE			1 x 2*	1 x 2	1 x 2	2	May be for whole facility.
BAY - PATHOLOGY				1 x 9*	1 x 9*	9*	May be collocated with Clean Workroom or Blood Storage area.
OFFICE - WRITE-UP BAY	yes		1 x 6	1 x 6	1 x 6	6	
RECOVERY AREA -							
PATIENT BAY - RECOVERY			2 x 9*	4 x 9	8 x 9	9	2 beds per theatre & Proc Rm. L2 assumes Day Surg Patients recover in that Unit.
STAFF STATION - RECOVERY				1 x 9	1 x 12	24	
CLEAN UTILITY	yes			1 x 10	1 x 12	24	Direct access from Recovery Areas, may be shared with Patient Holding Areas.
DIRTY UTILITY	yes			1 x 12	1 x 12	16	Direct access from Recovery& Post Op Areas, may be shared with Patient Holding.
BAY - LINEN	yes			1 x 2	1 x2	2	1 per 16 spaces.
BAY - BLANKET/FLUID WARMER				1 x 1	1 x 1	1	1 per 16 spaces.
STORE - GENERAL	yes			1 x 6	1 x 6	10	Low traffic area, access to pat holding; large eqt & deliv trolleys; wide & shallow preferred.
BAY - RESUSCITATION TROLLEY	yes			1 x 1	1 x 1	1	Central, access reqd from Operat'g R'ms & Patient Care/Holding Areas.
BAY - HANDWASHING	yes			1 x 1	2 x 1	1	1 per 8 spaces.

MEETING ROOM - 9M2	yes					9	
STAFF AREAS -							
CHANGE - STAFF	yes		2 x 25	2 x 20	2 x 35	2 x 120	Incl shrs & toilets; divide for female & male - refer relevant awards & legislation.
STAFF ROOM	yes		1 x 20	1 x 20	1 x 30	60	Minimise need to leave Unit. Smaller units - share as appropriate. Ext window desirable.
TOILET - STAFF	yes					3*	
DISCOUNTED CIRCULATION			35%	35%	40%	45%	
CLINICAL SUPPORT AREA* -							Depend on Operational Policy & management structure; HPUs may share.
OFFICE - SINGLE PERSON 9M2	yes			1 x 9	1 x 9	9	NUM clnical
OFFICE - SINGLE PERSON 12M2	yes				1 x 12	12	Nurse manager
OFFICE - SINGLE PERSON 9M2	yes					3 x 9	Recovery NUM, Anaesthetic NUM, IT Applications Manager
OFFICE - SINGLE PERSON 9M2	yes				3 x 9	3 x 9	Surgeon, Anaesthetist, CNC/Educator
OFFICE - 2 PERSON SHARED	yes				1 x 12	12	
OFFICE - 3 PERSON SHARED	yes				1 x 15	2 x 15	
MEETING ROOM - 12M2	yes		Shared	1 x 12			
MEETING ROOM - MEDIUM/LARGE	yes				1 x 15	30	1 per 8 theatres. With other office areas, ready access to main theatre corridor.
PERIOPERATIVE UNIT:							
ROOM/SPACE	Standard Component		Level 2	Level 3	Level 4	Level 5/6	REMARKS
			Qty x m2	Qty x m2	Qty x m2	Qty x m2	*Optional
ADMISSION/RECEPTION AREA -							
CLERICAL SUPPORT/ MEDICAL RECORDS			1 x 9	1 x 9	1 x 9	1 x 9	May be shared with Operating Unit or Ambulatory Care Unit.
ENTRY CANOPY			Varies*	Varies*	Varies*	Varies*	Only required where external access is available.
LOBBY/AIRLOCK			1 x 12*	1 x 12*	1 x 12*	1 x 12*	Only required where external access is available.
RECEPTION/CLERICAL			1 x 9	1 x 9	1 x 9	1 x 12	May be shared with Theatre or consolidated with Reception in smaller units.
TOILET - DISABLED	yes		1 x 5	1 x 5	1 x 5	1 x 5	
TOILET - PUBLIC	yes		2 x 3	2 x 3	2 x 3	2 x 3	
WAITING - WARD PERSON				1 x 6	1 x 6	1 x 9	
PRE-OPERATIVE AREA -							
WAITING	yes						Lounge area for waiting relatives and patients.
CHANGE CUBICLE - PATIENT	yes		1 x 2	2 x 2	3 x 2	4 x 2	

1 BED ROOM - ISOLATION (CLASS S)	yes		1 x 12	1 x 12	1 x 12	2 x 12	
BAY - RESUSCITATION TROLLEY	yes		1 x 2	1 x 2	1 x 2	1 x 2	
CONSULT ROOM	yes		2 x 12	2 x 12	3 x 12	4 x 12	
ENSUITE - ISOLATION ROOM	yes		1 x 5	1 x 5	1 x 5	2 x 5	For each Isolation Room.
PATIENT BAY - HOLDING			2 x 9	8 x 8	16 x 8	24 x 8	
BAY - PATIENT PROPERTY			1 x 2	1 x 2	1 x 4	1 x 4	
BAY - HANDWASHING	yes		1 x 1	1 x 1	1 x 1	1	Minimum 1 per spaces.
SHOWER - PATIENT	yes		1 x 3	1 x 3	1 x 3	1 x 3	
TOILET - PATIENT	yes		1 x 3	1 x 3	2 x 3	3 x 3	Additional may be required if colonoscopy performed.
TOILET - PATIENT DISABLED	yes		1 x 5	1 x 5	1 x 5	1 x 5	
CLEAN UTILITY/ MEDICATION	yes		1 x 10	1 x 10	1 x 12	1 x 12	Could be shared.
POST-OPERATIVE AREA -							
PATIENT BAY - RECOVERY			3 x 9	4 x 9	8 x 9	9 x 9	2 per theatre.
LOUNGE - PATIENT RECOVERY			1 x 12	1 x 16	1 x 16	1 x 20	
STAFF STATION - RECOVERY			1 x 9	1 x 9	1 x 12	1 x 16	
CLEAN UTILITY	yes		1 x 10	1 x 10	1 x 12	1 x 12	Could be shared.
DIRTY UTILITY	yes		1 x 14	1 x 14	1 x 14	1 x 14	Could be shared.
DISPOSALROOM	yes		1 x 8	1 x 8	1 x 8	1 x 8	Could be shared.
BAY - LINEN	yes		1 x 2	1 x 2	1 x 2	1 x 2	
BAY - BLANKET/FLUID WARMER			1 x 1	1 x 1	1 x 1	1 x 1	
STORE - GENERAL	yes		1 x 6	1 x 6	1 x 8	1 x 10	
BAY - RESUSCITATION TROLLEY	yes		1 x 1	1 x 1	1 x 1	1 x 1	
BAY - HANDWASHING	yes		1 x 1	1 x 1	1 x 1	1 x 1	
MEETING ROOM - 9M2	yes					9	May be shared with Ambulatory Care or Operating Unit.
STAFF AREAS -							
BAY/ROOM - BEVERAGE	yes		1 x 3	1 x 3	1 x 3	1 x 3	For patients post-procedure.
BAY - STAFF PROPERTY	yes		1 x 2	1 x 3	1 x 3	1 x 3	
BAY - PATHOLOGY			1 x 5	1 x 5	1 x 5	1 x 5	May be shared with Ambulatory Care or Operating Unit.
CLEANER'S ROOM	yes		1 x 5*	1 x 5*	1 x 5*	1 x 5*	May be shared with Ambulatory Care or Operating Unit.

OFFICE - CLINICAL/HANDOVER	yes		1 x 12	1 x 16	1 x 16	1 x 16	Write-up, multipurpose function.
OFFICE - SINGLE PERSON 9M2	yes		1 x 9	1 x 9	2 x 9	2 x 9	
STORE - GENERAL/ EQUIPMENT	yes		1 x 12	1 x 14	1 x 14	1 x 16	
PRE-ADMISSION CLINIC -							
CONSULT ROOM	yes		2 x 12	2 x 12	3 x 12	4 x 12	May be shared with Pre-Operative Area.
CLINICAL MEASUREMENT						1 x 12	Provided in Consult Rooms in smaller units.
OFFICE - SINGLE PERSON 9M2	yes		1 x 9	1 x 9	2 x 9	2 x 9	

Functional Relationships

501343 520 .85.00 A diagram showing key functional relationships is attached.

Checklists

502223 520 .86.00 A Security Checklist is attached to this document.

Operating Unit Flow Diagrams

910516 520 .87.00 The relationships between the various components within an Operating Unit are best described by process flow diagrams. The requirements for infection control and patient management result in a number of planning 'models' that have proved successful through numerous built examples and many years of practice.

Most Operating Unit plans are a variation of one of these 'models'. These have been provided in the Enclosures to these Guidelines.

A plan substantially based on one of these diagrams is 'deemed to satisfy' the requirements of these Guidelines.

A plan that is significantly different to these diagrams should be carefully examined against all the individual requirements of these Guidelines, especially those of Infection Control to determine if it is acceptable.

910517 520 .88.00 The enclosed Operating Unit flow diagrams also show the relationships between typical adjoining Units such as CSSU and possibly Day Surgery. For separate flow diagrams for CSSU, please refer to enclosures B1 to B6. For Operating Unit flow diagrams refer to enclosures B7 to B9. Flow diagrams B6 and B7 in combination create one complete surgical floor.

910518 520 .89.00 In reviewing and using the enclosed Operating Unit flow diagrams, designers should carefully consider a number of issues.

Each flow diagram represents a method of managing patient access, clean/dirty flow, air pressurisation, sterilisation of dropped instruments etc.

The diagrams are different, but each addresses the issues involved in a satisfactory manner. Each option may suit a different management mode or building configuration.

Designers are strongly cautioned against creating hybrid options by combining features of various diagrams. This may result in wrong clean/dirty flows or other unacceptable features. If in doubt, designers should seek advice from specialist Theatre consultants and Infection Control nurses.

910519 520 .90.00 Flow diagram in enclosure B7 shows a base model. This is a linear model. It can be stretched to create the number of Operating Rooms desired. The support facilities required also grow with the number of Operating Rooms. This base model integrates fully with the CSSU simple model provided in enclosure B6.

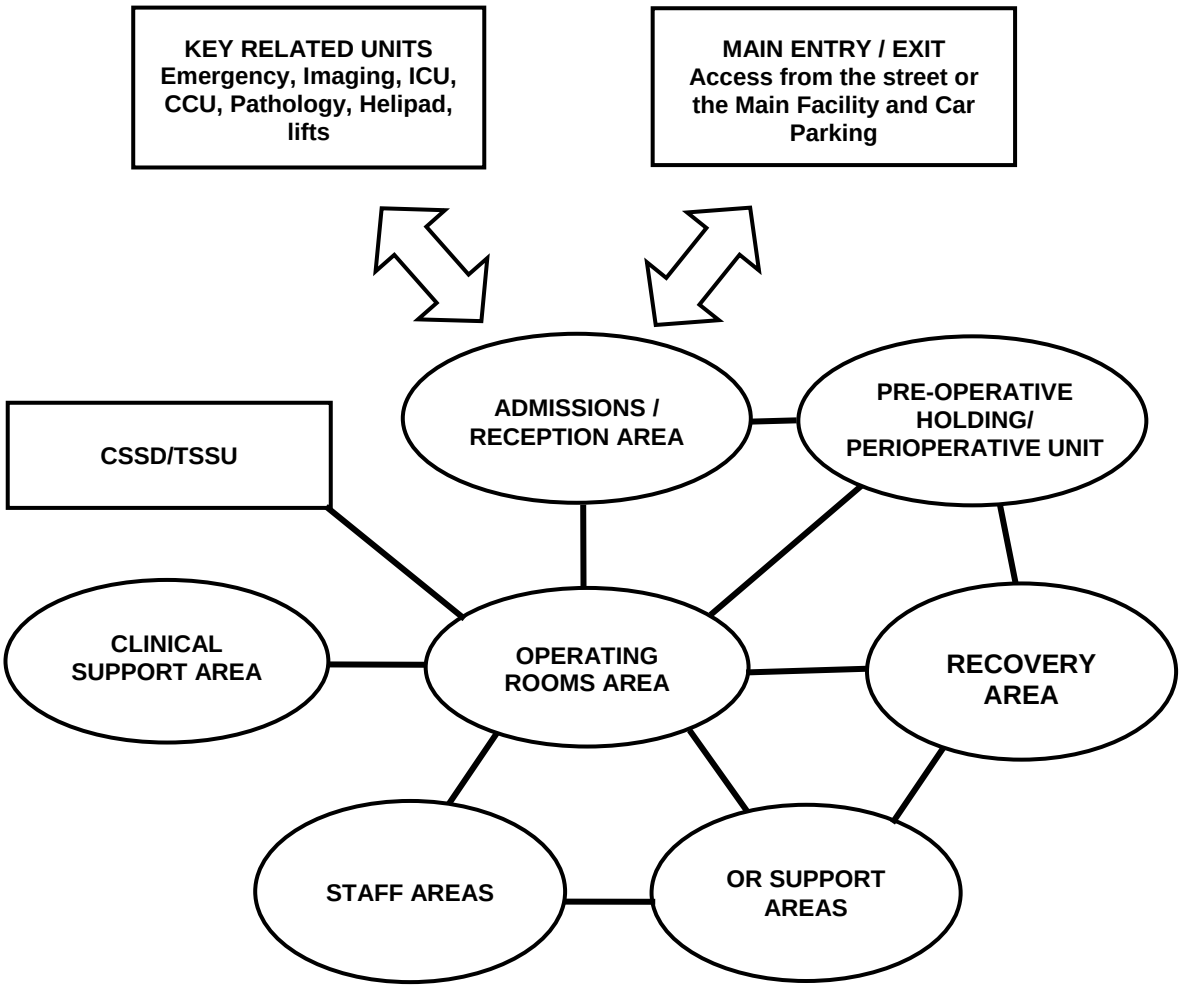
910520 520 .91.00 Enclosure B8 shows alternatives to a typical Operating Room Module. Each module includes the configuration of:

+ Operating Rooms;
+ Anaesthetic Induction Rooms;
+ Scrub Bays or Rooms;
+ Sterile Stock Store/ Set-Up Room;
+ Clean-Up Room;
+ Flash Sterilising Bay.

Enclosure B8 includes 4 alternatives that can be designed to work with the base Operating Unit model shown in Enclosure B7.

FUNCTIONAL RELATIONSHIP DIAGRAM – OPERATING UNIT

The following diagram sets out the relationships between zones in an Operating Unit:



SECURITY ISSUES TO BE CONSIDERED FOR OPERATING THEATRES

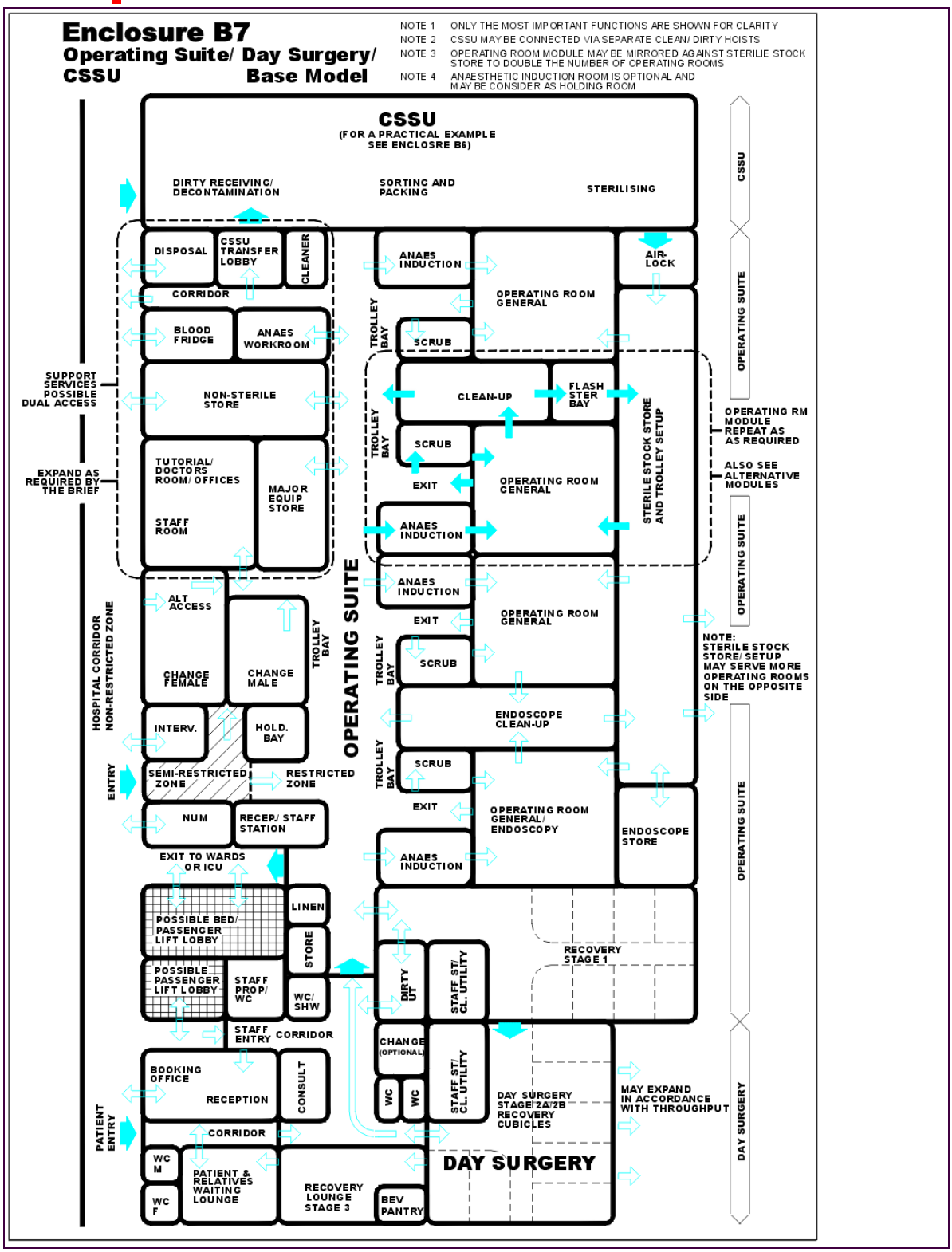
GENERIC SAFETY AND/ OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. To receive and return patients after undergoing surgery.	1. Minimise entry and exit doors and restricted area through to sterile areas.

SPECIFIC SAFETY AND/ OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Presence of drugs	1. Dangerous drug safe within the Clean Utility Area. 2. Dangerous drug safe in each Operating Room where mandated by Operational Policy.
2. Staff security.	1. Access doors to be locked at all times with key or card access provided to appropriate staff and monitoring system for personnel requiring access.
3. Furniture fittings and equipment including Computers and Office Equipment	1. Non-removable 'Asset No.' on all equipment above a predetermined value. 2. Keep equipment in lockable area.
4. Hospital personnel safety	1. Staff working in this area to have knowledge of where the fixed duress system is located and/or use a mobile duress pendant. 2. Restrict/minimise access by relatives to Recovery Area.
5. Staff personal effects	1. Provision for lockers in Staff Areas and lockable desk drawer to keep small personal effects.

SECURITY CHECKLIST – OPERATING THEATRES

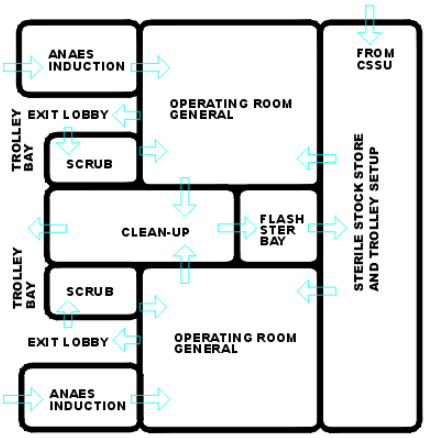
FACILITY:	DEPARTMENT: Operating Theatres
RISK ISSUE	**DESIGN RESPONSE**
1. Do staff have access to both fixed and mobile duress systems?	
2. Is access to patient records restricted to staff entitled to that access?	
3. Is a system implemented to prevent theft of equipment, files, personal possessions, etc?	
4. Are drug safes installed in accordance with current regulations?	
5. How is after hours access provided for staff?	
6. How is this area secured during and after hours?	
7. Are there lockable storage areas available for specialised equipment?	
8. Is lockable furniture provided for storage of staff personal effects?	
9. How is access monitored?	
10. How is access by relatives/visitors managed and monitored?	

DESIGN COMMENTARY/NOTES	DESIGN SIGN-OFF
	Name: …… Position: …… Signature: …… Date: ……
	Name: …….. Position: …….. Signature: …… Date: ……
	Name: …… Position: …… Signature: …….. Date: ……

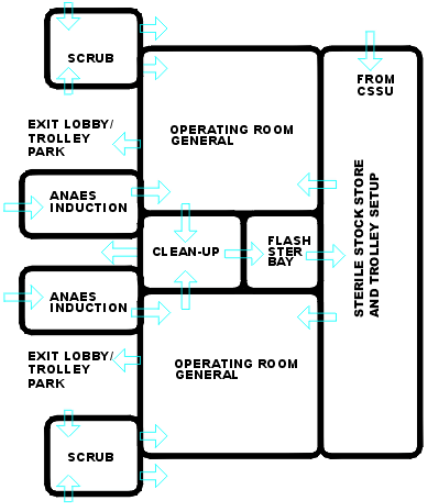

Enclosure B7
Operating Suite/ Day Surgery/ CSSU Base Model
NOTE 1 ONLY THE MOST IMPORTANT FUNCTIONS ARE SHOWN FOR CLARITY
NOTE 2 CSSU MAY BE CONNECTED VIA SEPARATE CLEAN/ DIRTY HOISTS
NOTE 3 OPERATING ROOM MODULE MAY BE MIRRORED AGAINST STERILIE STOCK STORE TO DOUBLE THE NUMBER OF OPERATING ROOMS
NOTE 4 ANAESTHETIC INDUCTION ROOM IS OPTIONAL AND MAY BE CONSIDER AS HOLDING ROOM
CSSU
(FOR A PRACTICAL EXAMPLE SEE ENCLOSRE B6)
DIRTY RECEIVING/ DECONTAMINATION
SORTING AND PACKING
STERILISING
DISPOSAL
CSSU TRANSFER LOBBY
CLEANER
CORRIDOR
BLOOD FRIDGE
ANAES WORKROOM
NON-STERILE STORE
TUTORIAL/ DOCTORS ROOM/ OFFICES
STAFF ROOM
MAJOR EQUIP STORE
SUPPORT SERVICES POSSIBLE DUAL ACCESS
EXPAND AS REQUIRED BY THE BRIEF
ALT ACCESS
CHANGE FEMALE
CHANGE MALE
INTERV.
HOLD. BAY
SEMI-RESTRICTED ZONE
RESTRICTED ZONE
NUM
RECEP/ STAFF STATION
EXIT TO WARDS OR ICU
HOSPITAL CORRIDOR NON-RESTRICTED ZONE
ENTRY
OPERATING SUITE
TROLLEY BAY
ANAES INDUCTION
OPERATING ROOM GENERAL
AIR-LOCK
SCRUB
CLEAN-UP
FLASH STER BAY
EXIT
STERILE STOCK STORE AND TROLLEY SETUP
OPERATING RM MODULE REPEAT AS AS REQUIRED
ALSO SEE ALTERNATIVE MODULES
NOTE: STERILE STOCK STORE/ SETUP MAY SERVE MORE OPERATING ROOMS ON THE OPPOSITE SIDE
ENDOSCOPE CLEAN-UP
OPERATING ROOM GENERAL/ ENDOSCOPY
ENDOSCOPE STORE
LINEN
STORE
POSSIBLE BED/ PASSENGER LIFT LOBBY
POSSIBLE PASSENGER LIFT LOBBY
STAFF PROP/ WC
WC/ SHW
STAFF ENTRY
CORRIDOR
DIRTY UT
STAFF ST/ CL. UTILITY
RECOVERY STAGE 1
CHANGE (OPTIONAL)
WC
WC
DAY SURGERY STAGE 2A/2B RECOVERY CUBICLES
MAY EXPAND IN ACCORDANCE WITH THROUGHPUT
BOOKING OFFICE
RECEPTION
CONSULT
PATIENT ENTRY
WC M
WC F
PATIENT & RELATIVES WAITING LOUNGE
RECOVERY LOUNGE STAGE 3
BEV PANTRY
DAY SURGERY
CSSU
OPERATING SUITE
DAY SURGERY

Enclosure B8
Operating Room Modules

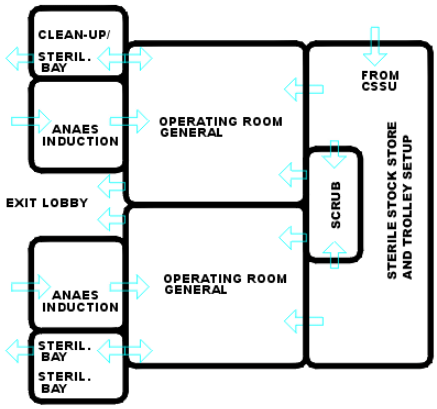
NOTE 1 ONLY THE MOST IMPORTANT FUNCTIONS ARE SHOWN FOR CLARITY
NOTE 2 CSSU MAY BE CONNECTED VIA SEPARATE CLEAN/ DIRTY HOISTS
NOTE 3 OPERATING ROOM MODULE MAY BE MIRRORED AGAINST STERILIE STOCK STORE TO DOUBLE THE NUMBER OF OPERATING ROOMS
NOTE 4 ANAESTHETIC INDUCTION ROOM IS OPTIONAL AND MAY BE CONSIDER AS HOLDING ROOM



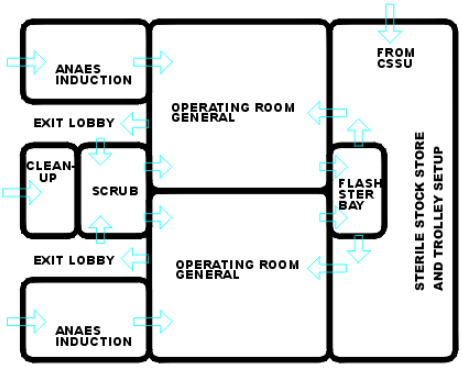
Operating Room Module Type A



Operating Room Module Type B

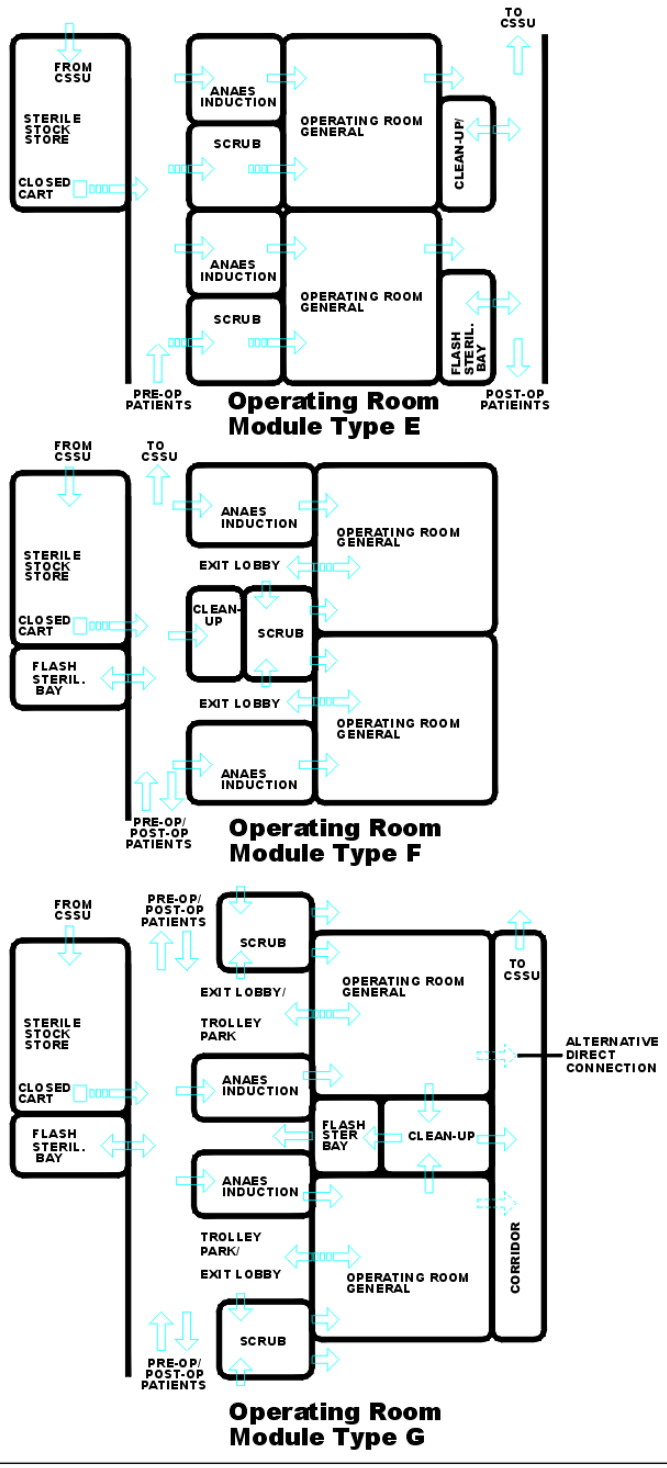


Operating Room Module Type C



Operating Room Module Type D

Enclosure B9
Operating Room Modules



540 PAEDIATRIC/ ADOLESCENT UNIT

INDEX

		Description
502346	540 .0.10	INTRODUCTION
		Preamble
		Introduction
		Policy Statement
		Description of Unit
		PLANNING
		Operational Models
		Models of Care
		Operational Policies
		Planning Models
		Functional Areas
		Functional Relationships
		DESIGN
		Access
		Car Parking Requirements
		Disaster Planning
		Infection Control
		Environmental Considerations
		Space Standards and Components
		Safety and Security
		Finishes
		Fixtures and Fittings
		Building Services Requirements
		COMPONENTS OF THE UNIT
		General
		Standard Components
		Non-Standard Components
		APPENDICES
		Schedule of Accommodation
		Functional Relationships Diagram
		Checklists
		Referenses and Further Reading

INTRODUCTION

Preamble

502347 540 .1.00 In the Guide to the Role Delineation of Health Care Facilities, (Third Edition 2002), Paediatric Medicine and Paediatric Surgery are separately defined services under Maternal and Child Health Services.

6 levels of service are defined for each and planners should use this to assist in determining facility needs in conjunction with the approved Service Plan. Staff establishment and in accordance with the Process of Facility Planning.

It is essential to be aware of the impact of:
- Operational Policies
- Changes in clinical practice and models of care
- Change in role delineation or role delineation "creep' – usually upwards
- New technologies.

502348 540 .1.05 The trend towards more ambulatory care, less hospitalisation and shorter hospital stays for children has impacted on the design of paediatric units. Paediatric inpatients are generally sicker and more dependent, requiring higher levels of nurse staffing and observation than in the past.

There has been increasing recognition of the special physical and psychological needs of children in hospital and more concern to provide for them an environment which, as far as possible, normalises their stay. Even sick children can be quite active and need continuing opportunities for play and education. In addition, the needs of children with disabilities must be addressed.

Ideally children should not be admitted to an adult ward and in small units it may be appropriate to provide "swing" beds as a means of overcoming such an eventuality.

Provision for participation by parents in the care of their children is now regarded as an important principle of paediatric inpatient care.

Special facilities for children elsewhere in a hospital should be considered under individual departments, e.g.:
- Emergency Unit
- Medical Imaging Unit
- Operating Suite Unit

Paediatric Intensive Care services are only provided in Level 6 centres and are not addressed in this Guideline.

It is assumed that every unit will have formal intra-Area links as well as a formal relationship with a Children's Hospital within the network. Refer to the Service Plans for the Area Health Service and the Service Plan for the facility.

Introduction

502349 540 .2.00 This Health Planning Unit (HPU) is a resource to assist project teams with the planning, design and construction of Paediatric and / or Adolescent Inpatient Units at any level of service. It should be read in conjunction with generic requirements and Standard Components (Room Data & Room Layout Sheets (RDS/RLS) in Parts A, B, C, D and E of these Guidelines.

All relevant information identified in the NSW Health Post Occupancy Evaluation Program 2, Paediatric Units dated February 2005 has been incorporated into this Guideline.
Facility design, must, where appropriate, also meet all necessary criteria to reach

accreditation standards with regard to design and equipment.

Policy Statement

502350 540 .3.00 Guidelines for Networking of Paediatric Services in NSW, NSW Health Department, 2002.

Protecting People and Property – NSW Health Policy and Guidelines for Security Risk Management in Health Facilities, Chapters 9-14, Core Security Risk Controls and Chapter 15 – Security in the Clinical Environment.

PD2005_576: Office Accommodation Policy – Public Health Organisations and Ambulance Service.

Description of the Unit

502351 540 .4.00 DEFINITION OF HPU

The Paediatric/ Adolescent Unit is an Inpatient Unit with special provisions for babies, toddlers, and children and adolescents up to 16 years, specifically designed to reflect the varying physical and psychological needs of these age groups.

This Guideline addresses only those Paediatric / Adolescent Units that are part of a General Hospital and not facilities in dedicated Children's Hospitals. However, the components of the Inpatient Unit as described in the Schedule of Accommodation may be used as the building blocks for major centres.

In Paediatric / Adolescent Inpatient Units generally, bed occupancy levels and the age / diagnosis mix of patients will vary considerably according to the Service Plan. The design of accommodation in these units must therefore be flexible in provision of beds, cots and bassinets and in the mix of single and multiple occupancy rooms.

A mix of one, two and four bed rooms provides for flexible use of accommodation.

- one-bed rooms provide accommodation for the multiple functions of isolation nursing, parent live-in and high dependency care provided there is the necessary monitoring equipment.

- two-bed rooms provide suitable accommodation for older children.

- four bed rooms may be used for high dependency care, short term acute assessment and day care depending on the individual hospital's operational policies. They must be sized to allow for parent privacy (breastfeeding), and confidentiality.

The unit should be designed to achieve the maximum possible level of observation of patient areas. The staff station should be the focal point of the Unit and should overlook any high dependency beds.

502352 540 .4.05 GENERAL ARRANGEMENT

The arrangement of facilities will / may depend on the level of service but where the Hospital only has one or two inpatient units, facilities for adolescents may profitably be designed as a special "wing" of the Unit.

Operational Models

502353 540 .5.00 HOURS OF OPERATION

The Paediatric/Adolescent Unit provides in-patient care 24 hours per day, 7 days per week.

Activities between 7a.m. and 8p.m. (i.e. supervised play, treatments, nursing care, visiting, elective surgery) means an increase in utilisation of the Unit's facilities in these hours.

502354 540 .5.05 NEEDS OF THE POPULATION

The needs of children and adolescents in hospital differ from those for adults.

It is a misconception to presume that because children are smaller they will need less space. In fact, a greater amount of space is required to accommodate such activities as parent participation in care, play by and between children, ambulation and family support.

Factors specific to paediatric care which will influence space utilisation and design features include:

- The mix of beds, cots and bassinets varies constantly. All rooms therefore must be of flexible use and sized to accommodate a bed. There must be adequate and easily accessible storage of the alternative beds, cots and bassinets..

- Rooms should be large enough to allow ambulation / play space for the child, space for parents to remain with the child and to allow some privacy for the family.

- Patients' special belongings, toys and drawings should be readily accessible and visible from the child's bed.

- More isolation facilities are required than in adult wards due to a higher incidence of contagious disease among children.

- Recreational playroom and facilities for continuation of education will be required for the developmental needs of differing age groups.

- Strollers, playpens and mobile toys such as tricycles are part of the everyday environment of children and storage space will be needed for this equipment.

- The need for observation of patients by nursing staff is greater in paediatric care, especially of infants and toddlers. However, the modesty of all patients and parents should be respected and adolescents will require more privacy.

- The need for parent/patient education activities and parent counselling means that an Interview Room is required.

- There is an increased need for attention to safety precautions and accident prevention.

- Patients should have an area which is "safe" i.e. where they know they will be free from treatments and distressing procedures.

- Areas which are likely to be occupied for any length of time by staff or patients should have windows.

Operational Models

503265 540 .5.06 MANAGEMENT OF BARIATRIC (SEVERELY OBESE) PATIENTS

Obesity in children and adolescents is becoming an increasing problem. It is important to ensure that at least one bedroom and en suite can accommodate a larger bed if necessary and easy use of lifting equipment. It may also be necessary to consider provision of a larger-than-usual examination couch in at least one Consult / Exam Room. (Also need to consider that the parent of a child may be very obese.

Refer to NSW Health Guideline - GL2005_070, September 2005: Guidelines for the Management of OHS Issues Associated with the Management of Bariatric (Severely Obese) Patients.

503256 540 .5.07 ACCOMMODATION FOR MENTAL HEALTH PATIENTS

There is an increasing trend to “mainstream” pre-pubescent children with mental health conditions alongside a paediatric service to allow children access to all available paediatric facilities and mix with other children their own age as appropriate. Design requirements are addressed in the HFG 132 Child and Adolescent Unit.

502355 540 .5.10 ASSESSMENT BEDS

In hospitals where Emergency Units have no dedicated facilities for those children who, after initial treatment, either need a period of observation prior to discharge or where the decision to admit is as yet uncertain, an appropriately staffed Assessment Unit in the Paediatric Ward may be an option, rather than mixing children with adults. This places the child in the appropriate environment, reduces pressure on Emergency staff and is a more user-friendly option for children and their families.

502356 540 .5.15 PAEDIATRIC “PRECINCT”

Depending on the size of the Paediatric service, consideration should be given to creating a “Paediatric Precinct” that incorporates facilities for inpatient care, emergency assessment / observation, day care and outpatient clinics.

Depending on the Service Plan, facilities for day care could be a 4 bed room a little removed from the main ward but with access to all necessary support facilities.

Similarly, depending on volumes and utilisation, it may also be appropriate to operate dedicated paediatric clinics through the Unit via a small number of Consulting Rooms.

Operational Policies

502357 540 .6.00 GENERAL

Detailed guidelines for the preparation of internal Operational Policies based on the overall Operational Policies of the Area Health Service are provided in Part B of these Guidelines and will vary between Paediatric/Adolescent Units according to local circumstances. These policies will cover such areas as:

- care by parents
- patient security
- age and other admission criteria
- the use of the unit for day only patients, outpatient clinics and assessment

- meals and formula preparation and storage.

An example of an internal Operational Policy may be:

Rate-minders are to be used for all intravenous infusions on all paediatric patients. (This policy requires a large number of rate-minders, mobile IV poles on which to site them, wheelchairs able to accommodate IV poles and storage space for these items when not in use).

502358 540 .6.05 FORMULA PREPARATION

The individual Hospital and Area Health Service will determine whether formula preparation will be carried out in the Unit or in the Neonatal Nursery.

It is assumed that sterilisation of bottles and teats will be carried out in the Central Sterile Supply Unit.

A Formula Room may be used for teaching parents.

502359 540 .6.10 INTENSIVE AND HIGH DEPENDENCY CARE

Children requiring intensive care will be stabilised and transferred to a major Children's Hospital – either by ambulance or helicopter. Whether or not they need to be temporarily transferred to the adult ICU will be a clinical decision.

However, there will be occasions when a child needs a greater than normal level of treatment and observation but is not sick enough to need intensive care. Each facility must determine its policy on how these children will be managed. Options include:
- treating the child in their own room
- establishing an HDU within the Unit itself
- transferring to a hospital with a higher delineation for paediatric services
- temporary transfer to an adult HDU in consultation with the Neonatal Emergency Transport Service (NETS) when there is no other option.

The final decision may depend on staffing levels and available expertise.

502360 540 .6.15 STAFFING

The staffing assumptions made in this guideline are that there will be:
- a designated Director of Paediatric Services
- a Nurse Unit Manager (NUM) with at least three years experience in paediatrics (with no combined adult/paediatric roles)
- access to a Paediatric CNC
- majority of registered nursing staff who have paediatric qualifications or equivalent experience
- service provided by a specialist paediatrician on 24 hour call supported by a designated resident medical officer. There may also be a Paediatric Registrar.

Also refer to the Service Plan.

502361 540 .6.20 SCHOOLING

The average age of the unit's occupants and average length of stay should be carefully assessed when determining the need – if any – of facilities for education – whether a dedicated space or bedside laptops etc.

Planning Models

502362 540 .7.00 LOCATION

Where possible, the Unit should be located on the ground floor to achieve direct access to an Outside Play Area, and to reduce the use of lifts and staircases

Where ground floor location is not possible, every attempt should be made to provide a secure open play area.

503257 540 .7.05 FLEXIBILITY

It is perhaps worth considering possible future use for adults with regard to room sizes etc.

Functional Areas

502363 540 .8.00 - FUNCTIONAL ZONES

- The Paediatric/ Adolescent Unit will comprise the following functional areas:

- Inpatient areas including Bedrooms, Isolation Rooms, Play Areas, Multipurpose Activities area, Nursery and Feeding areas, En Suites and Bathrooms

- Day Stay / Assessment and Clinic Areas – if required by the Service Plan

- Parent / carer facilities

- Support areas including Staff Station, Utilities, Formula, Store, Pantry, Cleaner's and Disposal Rooms. Support rooms may be shared with adjacent units if appropriate

- Staff Areas including Offices, Meeting Rooms, Staff Change and Toilets may also be shared with adjacent units if design permits.

502411 540 .8.01 RECEPTION

Provision of a Reception if separate from the Staff Station and not intended for the Ward Clerk is not recommended as there is rarely the recurrent funding to staff and these spaces remain either inhospitably vacant or converted to other uses.

502364 540 .8.05 SANITARY ARRANGEMENTS

- En-suites are recommended for every 1-bed room, with hand basin, shower and toilet to provide total flexibility in the use of each room for isolation, very ill (high dependency) patients or care-by-parent patients

- A general bathroom containing a bath, shower, 2 toilets (1 low set), hand basin (low set) and baby bathing facilities provides for the babies, toddlers and younger children. The bath may be used for regular or burns (to Level 4 management) bathing. The low set toilet and hand basin are to encourage the independence of small children. However, such a multiple occupancy space may be problematic and should to be carefully considered. There needs to be space for a wheelchair and to operate a hoist.

- Separate unisex shower and toilet are recommended for older children / adolescents

- All toilets must allow sanichair access and one toilet should provide for wheelchair access

The use of mobile baby baths is not recommended for occupational health and safety reasons.

502365 540 .8.10 HANDBASINS

Hand basins are provided to facilitate the frequent handwashing required to minimise cross infection in the ward. They are located in all single bedrooms, at the entry to the 1-bed rooms (at a ratio of 1 hand basin to 2 rooms), and between each pair of 2-bed rooms, in the Staff Station, in the treatment room and in the clean and dirty utility rooms.

502366 540 .8.15 TREATMENT ROOM

Where children share a room or even if in a single bedroom, it is preferable to carry out more complex and potentially painful treatments / procedures away from the bedside so that the child does not a) associate their bedroom with distressing activities and b) crying does not disturb other children. A parent often accompanies the child.

A Treatment Room should be provided in a zone away from the bed rooms and may be designed in conjunction with the Clean Utility Room where the supplies will be located.

The child may be brought into the room on the treatment room trolley but if transferred on their bed/cot, extra space will be required in the room for transfer to the treatment trolley and space to park the bed/cot outside the room.

Decor should help to distract the child and allay fears - ceiling and wall graphics may be considered.

502367 540 .8.20 CLEAN UTILITY ROOM

In addition to its normal functions, for safety's sake, it may be appropriate to locate the resuscitation trolley and the blanket warmer if provided in this room. In the latter instance, care should be taken to ensure the cabinet is not installed near the drug storage area where heat may adversely affect the drugs. The resuscitation trolley must however be readiliy accessible.

If this is the decision, an additional 1-2m2 will need to be added to the size of the room.

502368 540 .8.25 STORAGE

Storage will be required for toys and educational and recreational equipment. TVs where provided at the bedside should be ceiling-mounted.

Storage space shall be provided to permit exchange of cribs, cots and adult beds.

Provisions shall also be made for storage of equipment and supplies such as patient cots and recliners for parents and extra linen for parents who stay with the patient overnight.

Functional Relationships

502369 540 .9.00 The Paediatric/ Adolescent Unit should be located with ready access to the Emergency Unit, Operating Unit, Critical Care areas and Medical Imaging. It should be located to avoid the need for through traffic.

In small units, collocation with an adult ward with swing beds may facilitate management in times of high occupancy.

DESIGN

Access

502370 540 .10.00 EXTERNAL

Entrances to the hospital and routes to the Paediatric/Adolescent Unit should ensure minimal contact with sick or injured adult patients

502371 540 .10.05 INTERNAL

Internal access to the Unit needs to be controlled by either human or physical means at all times to prevent unauthorised access or patient egress. This may be by appropriate location of Staff Station or Reception or by video surveillance and electronic door controls, particularly after hours. However the Staff Station is not always occupied and in the absence of a ward clerk, the impact of monitoring video monitors on staffing levels needs to be considered.

Car Parking Requirements

502372 540 .11.00 For staff parking, refer to Part C, Clause 790 of these Guidelines for further information.

Disaster Planning

502373 540 .12.00 Refer to Part B Clause 80 and Part C of these Guidelines for further information.

Infection Control

502374 540 .13.00 The infectious status of many patients admitted to the Unit may be unknown. All body fluids should be treated as potentially infectious and adequate precautions should be taken particularly with small children.

Linen trolley bays must have doors to prevent contamination.

Refer to Part D of these Guidelines for further information.

Environmental Considerations

502375 540 .14.00 ACOUSTICS

Babies, toddlers and children are naturally boisterous at play and noisy when distressed. The sounds of children crying or in pain, the noise of unfamiliar equipment or, conversely, extreme quiet are all anxiety-provoking.

Ceiling acoustic tiles, absorbent panels, curtains, upholstered furniture and carpets can be used to absorb and soften sounds in all patient and most other areas.

The treatment room will require maximum acoustic containment to prevent the sounds of distressed children reaching those in the other patient areas. (In paediatric units, painful procedures are performed in the treatment room rather than at the bedside).

Auditory privacy will be required in the interview room and NUM office.

502376 540 .14.05 NATURAL LIGHT

Natural light to all bedrooms and to rooms such as playrooms, parent lounge.

502377 540 .14.10 PRIVACY VERSUS OBSERVATION

Design should allow nursing staff to have optimal observation of all patient areas and for the children to be able to see the staff in order to feel reassured and safe.

The need for observation and the safety of children must, however, be balanced against the need to protect the privacy, personal dignity of patients and their parents.. This can be achieved by curtains on windows and other glazed panels and the use of bed screens.

There is a particular need for privacy for children and adolescents during:
- examinations
- treatment
- bathing
- dressing
- times of distress

502378 540 .14.15 INTERIOR DESIGN

In the Paediatric/Adolescent Unit it is important to use decor to positively create an environment which is as non-institutional as possible.

Psychological reassurance will be provided by scaling the environment to the size of the child as far as possible.

Graphics provide distraction for children and visitors and can make areas more interesting and inviting. They can be used in all patient and common areas including corridors, treatment rooms, play room (inside) bed rooms and lounges.

Wall decorations should be at a height visible by children lying supine in bed and also some low enough for toddlers to see. Ceiling decoration should also be considered.

Display panels should be provided in bedrooms for the child to decorate in his/her own way. However, swallowed pins is a real issue with children so boards that do not need pins should be provided (velcrose-type material).

Also refer to Part C of these Guidelines.

Space Standards and Components

502379 540 .15.00 ERGONOMICS

Refer Part C of these Guidelines for information.

502380 540 .15.05 HUMAN ENGINEERING

Refer Part C of these Guidelines for information.

502381 540 .15.10 ACCESS AND MOBILITY

Refer Part C of these Guidelines for information.

502382 540 .15.15 WINDOWS

- The height of the windows should enable children in their cots/beds to see outside.

- Natural ventilation to all patient bed rooms (with means of restricted opening for patient safety) provides fresh air, cross-ventilation and enables the children to hear and smell the outdoors. However, insect screen must be provided to all external doors and openable windows and glass must comply with AS/NZS 2208: 1996 - Safety glazing material in buildings.

- A low and wide internal window ledge will be well used by children.

- The Treatment and Tutorial Rooms will require provision for blackout.

Also refer to Part C of these Guidelines for further information.

502383 540 .15.20 DOORS

Door swings must be planned and arranged so that there is no danger of hitting a small child on other side.

Refer Part C of these Guidelines for information.

Safety and Security

502384 540 .16.00 SAFETY

The design of the unit environment should be such that all possible risks to the safety of the children are minimised including risks of abduction, and take into account the natural curiosity of children.

Design and layout must prevent access by children to areas containing equipment or material likely to be harmful to them, including:
- beverage pantry and heated food trolleys
- utility rooms, cleaners rooms, storage rooms, linen bay
- resuscitation trolley
- disposal room
- treatment room
- medication room
- ward exits.

In order to prevent injury whilst patients undertake their normal daily activities in the ward area, surface finishes, furniture and glazing must be of design and material appropriate to their use (e.g. rounded edges on furniture at low levels, safety glass in patient areas)

Provision of warm (thermostatically controlled) water to all areas

Fitting of child-proof locks to all cupboards

Designing barriers and balustrades so they are non-climbable but can be seen through by toddlers

Provision of non-scalable safety fencing of adequate height around external play areas especially where this is not located at ground level

Service panels must be out of reach of small children

Similarly, nurse and emergency call buttons must be sited out of the reach of curious or mischievous hands.

Door handles out of the reach of small children.

Bedrooms to have doors with high and low vision panels and handles.

Power points in child-occupied areas must be above child height and shuttered

Consider the use of convex mirrors to blind corners.

Care with location of main access door so that if not at the ward perimeter, it does not impede access to rooms outside.

Glass observation panels in doors need to be sized so as to enable staff to see in and low enough to be able to see a small child on the other side.

As far as possible, safety measures should not cause avoidable inconvenience nor impair efficiency.

Space Standards and Components

502385 540 .16.05 SECURITY

Security issues are of increasing importance due to the prevalence of violence and theft in the hospital environment. In designing the unit, consideration should be given to:

- personal security of patients, parents and staff
- security of property of patients, visitors and staff
- security of hospital equipment and stores items
- drug security
- access and egress/unauthorised intrusion
- night staffing conditions
- security lighting

Egress points must be secured and should be monitored wherever possible to minimise and contain the risk of a child's unaccompanied egress or abduction from the unit and prevent interference from unauthorised persons.

Security measures may include
- direct staff observation
- closed circuit TV
- restricted window openings
- high level door latches
- stable doors
- locked doors. And monitoring unit access to

Security and safety issues need to be considered in conjunction to ensure that they do not conflict

Also refer to NSW Health Manual – Protecting People and Property, Section Two, Core Security Risk Controls.

Finishes

502386 540 .17.00 WALL PROTECTION

Refer to Part C of these Guidelines

502387 540 .17.05 FLOOR FINISHES

Carpet in corridors not suitable for children.

Refer to Part C of these Guidelines

502388 540 .17.10 CEILING FINISHES

If patients with mental health conditions such as anorexia are included in the patient population, care should be taken with regard to use of ceiling tiles that can be pushed up by a patient standing on the bed and where food can be secreted.

Refer to Part C of these Guidelines

Fixtures & Fittings

502389 540 .18.00 DOOR HARDWARE

Door hardware must be designed so as not to trap small fingers or be located out of reach.

502390 540 .18.05 Refer to part C of these Guidelines and to the Room Data Sheets (RDS) and Room Layout Sheets (RLS) for further detailed information

Building Service Requirements

502391 540 .19.00 INFORMATION TECHNOLOGY / COMMUNICATIONS

In addition to the usual hospital communication systems, the Paediatric/Adolescent Unit has particular needs. These include the need for close observation of patient areas and meeting the psychological needs of children in maintaining contact with family members and friends.

Communication systems may include:

- staff call and emergency assistance. Operational policy should cover such matters as whether or not a patient call can be cancelled from the staff station.

- closed-circuit television monitoring where this is necessary to ensure adequate observation of patient areas and access/egress points.

- telephone services for staff, patients, parents and visitors. The extent of provision, location, type (i.e. fixed or portable) and charging will need to be addressed by the operational policies.

- television in all single bedrooms, particularly isolation rooms.

- Internet access for older children and adolescents is very important

- alarm systems where necessary (e.g. dangerous drug cupboard opening)

Also refer to Part A, Section 80.17 of these Guidelines.

502392 540 .19.05 DURESS ALARM SYSTEM

Locate at Receptions and Staff Stations.

Refer to NSW Health Manual – Protecting People and Property, Chapter 11 – Alarm Systems and Chapter – Duress Response Arrangements.

502393 540 .19.10 CHILD MONITORING / TAGGING

May need to be considered especially for infants and toddlers.

502394 540 .19.15 CALL SYSTEMS

Non-scrolling annunciator panels with the ability to display all beds on one panel are preferred and must be easily visible in corridors.

COMPONENTS OF THE UNIT

General

502395 540 .20.00 GENERAL

The Paediatric/ Adolescent Unit will consist of a combination of Standard Components and Non-Standard Components.

Standard Components must comply with details in Standard Components described in these Guidelines. Refer also to Standard Components Room Data Sheets.

Standard Components

502396 540 .21.00 Provide the Standard Components as identified in the Schedule of Accommodation.

Non-Standard Components

502397 540 .22.00 Provide the Non-Standard Components as identified in this section and in the Schedule of Accommodation, according to the Operational Policy and Functional Brief.

502398 540 .22.05 BATHROOM – PAEDIATRIC

DESCRIPTION AND FUNCTION

The bathroom has adjustable height paediatric peninsula bath, shower, hand basin and toilet facilities to attend the hygiene and treatment needs of babies, toddlers and older children. (NOT adolescents)

A baby bath is required and should be bench-set, a baby change bench / table and baby and adult scales. Mobile baby baths are not recommended.

Functions include::
- bathing of patients for treatment purposes
- weighing and height measuring on admission

Unaccompanied patients may not have access to this room (refer Operational Policy).

LOCATION AND RELATIONSHIPS

Centrally located to the bed rooms, with good visual observation and quick access from the Staff Station.

CONSIDERATIONS

Storage of
- mobile patient lifter
- baby clothes and nappies
- baby care supplies.
- bath cleaning equipment

Effective ventilation

Warm water

It must be designed for use by more than one child at a time whilst preserving acoustic and visual privacy.

Consideration should be given to providing an extra room for admission procedures

502399 540 .22.10 PLAY ROOM – INTERNAL

DESCRIPTION AND FUNCTION

The Inside Play Room provides an area where children may go for play, recreation, education and remedial activities. The following designated area may be provided:
- Dining for small children
- Television
- Reading / playing board games

It is envisaged that parents and siblings will accompany their children at times.

Occupancy: Up to 10 – including the Play Therapist - at 3m2 per person plus storage.

Functions and activities will include:
- Structured and unstructured play activities
- Reading
- Watching television
- Drawing (chalkboard, paper)
- Board games
- Meals, snacks, drinks for patients
- Remedial therapy activities
- Education

The patients may be:
- ambulant / crawling
- in bed / cot / bassinet
- in a stroller / pram
- on a tricycle
- on crutches
- in a wheelchair

- in a playpen
- oxygen-dependent
- on IV therapy
- in traction.

LOCATION AND RELATIONSHIPS

Access must allow for a bed with orthopaedic fittings.

Direct access to the Outside Play Area

Good observation from Staff Station and general nursing circulation areas required.

CONSIDERATIONS

The following are required:
- Natural light (northerly aspect where possible)
- Bright and cheerful decor
- Acoustic absorption
- Means of restricted window opening for natural ventilation when required

Corridor wall and door to be glazed to allow observation of patients.

Dividing walls may be glazed to a height suitable to allow observation of patients.

Storage (not necessarily within the Play Area) required for:
- hospital-provided toys and games
- books, education material and CDs / DVDs
- chairs – stacking - several sizes
- high chairs
- tricycles
- playpen (fold-away)
- strollers and prams
- computers

If paints are to be used, a small sink should be fitted.

Consider a toddler-height handbasin for use before and after meals / snacks.

502400 540 .22.15 PLAY ROOM – EXTERNAL

DESCRIPTION AND FUNCTION

An outdoor area where children may go for play, recreation, remedial activities and family visiting.

Functions and Activities include:
- structured and unstructured play activities
- remedial therapy activities
- family interaction and quiet time

LOCATION AND FUNCTIONAL RELATIONSHIPS

Observation from the Staff Station.

Direct access to / from Inside Play Area

Consideration should be given to external access for maintenance purposes.

CONSIDERATIONS

Threshold should facilitate ease of manoeuvring for:
- patients in wheelchairs
- patient beds/cots/bassinet
- those who have difficulty in walking

Requires protection from extreme weather conditions.

Ground area may be covered with outdoor carpet or pavers but not loose materials such as gravel or woodchips.

Non-scalable safety fence high enough to prevent removal of children is required for the surrounding area.

Access and egress should only be form the ward area.

APPENDICES

Schedule of Accommodation

502401 540 .23.00 A Generic Schedule of Accommodation for a Paediatric and Adolescent Unit at Level 2, 3, 4, 5, and 6 follows.

Note: (o) in Qty/xm2 column = Optional

ROOM/SPACE	Standard Component			Levels 2 / 3	Levels 4 / 5	Level 6	Remarks
				Qty x m2	Qty x m2	Qty x m2	
				See remarks	Stand-Alone Unit	Children's Hospital	For Levels 2 / 3 -Swing bedded zone of adult IPU, eg Maternity

502402 540 .23.10 BEDROOMS

BEDROOMS				10 Beds	30 Beds	30 Beds	Bed numbers are nominal and "mix" may be adjusted
1 BED ROOM	yes			3 x 15	19 x 15	23 x 15	Bed/chair for parent. For mangement of airborne infections such as chickenpox.
BAY - HANDWASHING - TYPE B	yes			1 x 1	2 x 1	2 x 1	Outside 2 pairs of Standard Isolation Rooms
BAY - PERSONAL PROTECTIVE EQUIPMENT	yes			1 x 2	2 x 2	2 x 2	Collocate with Handwash Bays
1 BED ROOM - ISOLATION CLASS N	yes			0	2 x 15	2 x 15	Bed/chair for parent. Class N Isolation Rooms
ANTE ROOM	yes			0	2 x 6	2 x 6	For Class N Isolation Rooms
1 BED ROOM - SPECIAL	yes			1 x 18	1 x 18	1 x 18	For bariatric patients
2 BED ROOM	yes			1 x 25	2 x 25	2 x 25 (o)	For older children
EN SUITE - STANDARD	yes			4 x 5	25 x 5	27 x 5	To 1 & 2 bed rooms
EN SUITE - SPECIAL	yes			1 x 7	1 x 7	1 x 7	For bariatric patients
4 BED ROOM	yes			1 x 42	1 x 42	0	For babies and toddlers. May also be used for high dependency at Levels 4 / 5

SHOWER - PATIENT	yes			1 x 4 (o)	1 x 4 (o)	0	To 4 Bed Room. If used exclusively for babies, may not be needed
TOILET - PATIENT	yes			1 x 4 (o)	1 x 4 (o)	0	To 4 Bed Room. If used exclusively for babies, may not be needed
BAY - LINEN (& BLANKET WARMER)				1 x 3	2 x 3	2 x 3	

502403 540 .23.20 CHILD--SPECIFIC AREAS (At Levels 2 & 3, may be part of a Maternity Unit)

CHILD--SPECIFIC AREAS							
FEEDING ROOM	yes			1 x 9	1 x 9	1 x 9	Also for use of breast pump if necessary. NSW HFG recommended 9m2.
FORMULA ROOM	yes			1 x 7	1 x 7 (o)	1 x 7(o)	May be located in NICU
PLAY ROOM				1 x 12 (o)	1 x 60	1 x 60	4 patients & 20 patients respectively at 3m2 per patient; adjust as required. Also used by Play

502404 540 .23.30 OLDER CHILDREN-SPECIFIC AREAS

OLDER CHILDREN-SPECIFIC AREAS							
RECREATION ROOM				1 x 14 (o)	1 x 35 (o)	1 x 35 (o)	4 patients & 10 patients respectively @ 3.5m2 per patient. Computers, TV, music etc. Optional
QUIET STUDY ROOM				1 x 9 (o)	1 x 15 (o)	1 x 15 (o)	2 and 4 patients respectively

502405 540 .23.40 ASSESSMENT / DAY STAY / AMBULATORY CARE

ASSESSMENT / DAY STAY / AMBULATORY CARE							Assumes dedicated ED; Day Ward and Clinics @ level 6 Unit
RECEPTION	yes			0	1 x 10	0	
WAITING	yes			Share	1 x 20	0	16 people including 2 wheelchairs at 1.2 sqm and 1.5 sqm per person
CHILD PLAY AREA				Share	1 x 9	0	
TOILET / BABY CHANGE - DISABLED	yes			Share	1 x 5	0	
4 BED ASSESSMENT/DAY STAY ROOM	yes			1 x 42 (o)	42	42 (o)	4 beds. Unless there is a dedicated paediatric area in Emergency Unit, may be used for short
SHOWER - PATIENT	yes			1 x 4 (o)	1 x 4	0	
TOILET - PATIENT	yes			1 x 4 (o)	1 x 4	0	
CONSULT ROOM				1 x 14 (o)	14	0	. Larger size for children. Number of rooms will be dependent on anticipated occasions of
MEETING (INTERVIEW) ROOM				1 x 9 (o)	1 x 12	0	
BAY - LINEN TROLLEY	yes			Shared with ward	1 x 2	0	
STAFF BASE/CLEAN UTILITY				1 x 4	1 x 10	0	
DIRTY UTILITY - SUB	yes			Shared with ward	1 x 8	0	

502406 540 .23.50 SHARED SUPPORT AREAS

502406 540 .23.50

SHARED SUPPORT AREAS							
MEETING (INTERVIEW) ROOM				Shared	1 x 9	1 x 9	2-3 people
MEETING (INTERVIEW) ROOM				0	0	1 x 12	4-6 people
LOUNGE - PARENT				1 x 9 (o)	1 x 15	1 x 15	May include Beverage Bay & sofa bed
BATHROOM - PAEDIATRIC				1 x 16 (o)	1 x 16	1 x 16	Include a baby bath, change table and low-set toilet for toddlers
STAFF STATION	yes			Shared	1 x 14	1 x 14	
OFFICE - CLINICAL / HANDOVER	yes			Shared	1 x 15	1 x 15	
STORE - PHOTOCOPY / STATIONERY	yes			Shared	1 x 8	1 x 8	May be collocated with offices
BAY - PARKING W/CHAIRS & STROLLERS	yes			1 x 4	2 x 4	2 x 4	
BAY - RESUSCITATION TROLLEY	yes			Shared	2 x 2	2 x 2	Assumes one for infants, one for adolescents
CLEAN UTILITY / MEDICATION ROOM	yes			Shared	1 x 12	1 x 12	
TREATMENT ROOM	yes			Shared	1 x 14	1 x 14	Interconnecting door with Clean Utility if required
DIRTY UTILITY	yes			Shared	1 x 10	1 x 10	May need 2 rooms depending on ward layout
DISPOSAL ROOM	yes			Shared	1 x 8	1 x 8	
PANTRY	yes			Shared	1 x 8	1 x 8	Parent Access
THERAPY / MULTIPURPOSE ROOM				0	1 x 20	1 x 20	
STORE - BEDS / COTS				1 x 12	1 x 25	1 x 25	Total storage at 1.5 sqm per bed
STORE - EQUIPMENT	yes			Shared	1 x 20	1 x 20	Total storage at 1.5 sqm per bed
STORE - GENERAL	yes			Shared	1 x 9	1 x 9	
CLEANER'S ROOM	yes			Shared	1 x 5	1 x 5	
DISCOUNTED CIRCULATION %				32%	35%	35%	

502407 540 .23.60 STAFF OFFICES & AMENITIES

Note : Office/workstation and meeting room sizes are in accordance with NSW Health Policy Directive PD2005-576 - Office Accommodation Policy - Public Health Organisations and Ambulance Service

STAFF OFFICES & AMENITIES							
OFFICE - SINGLE - DIRECTOR	yes			0	1 x 12	1 x 12	

OFFICE - SINGLE - NUM	yes			1 x 9	1 x 9	1 x 9	
OFFICE - NURSING - SHARED	yes			0	12	12	Refer to staff establishment for numbers. May be mix of offices and open plan
OFFICE - MEDICAL - SHARED	yes			0	12	12	
OFFICE - WORKSTATION - MEDICAL	yes			5.5	5.5	5.5	
OFFICE - WORKSTATION - NURSING	yes			5.5	5.5	5.5	Refer to staff establishment for numbers. May be mix of offices and open plan
OFFICE - WORKSTATION - ALLIED HEALTH	yes			5.5	5.5	5.5	Refer to staff establishment for numbers. May be mix of offices and open plan
MEETING ROOM	yes			Share	1 x 20	1 x 20	
STAFF ROOM	yes			Share	1 x 15	1 x 15	
PROPERTY BAY - STAFF	yes			Share	1 x 2	1 x 2	
TOILET - STAFF	yes			Share	2x 3	2 x 3	
SHOWER - STAFF	yes			Share	1 x 2 (o)	1 x 2 (o)	
DISCOUNTED CIRCULATION %				20%	30%	30%	

Functional Relationships

502408 540 .24.00 A diagram of key functional relationships is attached.

Checklists

502409 540 .25.00 A Security Checklist is appended to this document. Refer also to Part C of these Guidelines for general requirements.

References and Further Reading

502410 540 .26.00 DS-22 HBG Paediatric / Adolescent Inpatient Unit, NSW Health, Capital Works Branch, August 1992

NH Estates Schedules of Accommodation v2.0 – HBN23 - Hospital Accommodation for Children and Young People, April 2005.

540 Paediatric / Adolescent Unit, Department of Human Services, Victoria, November 2005.

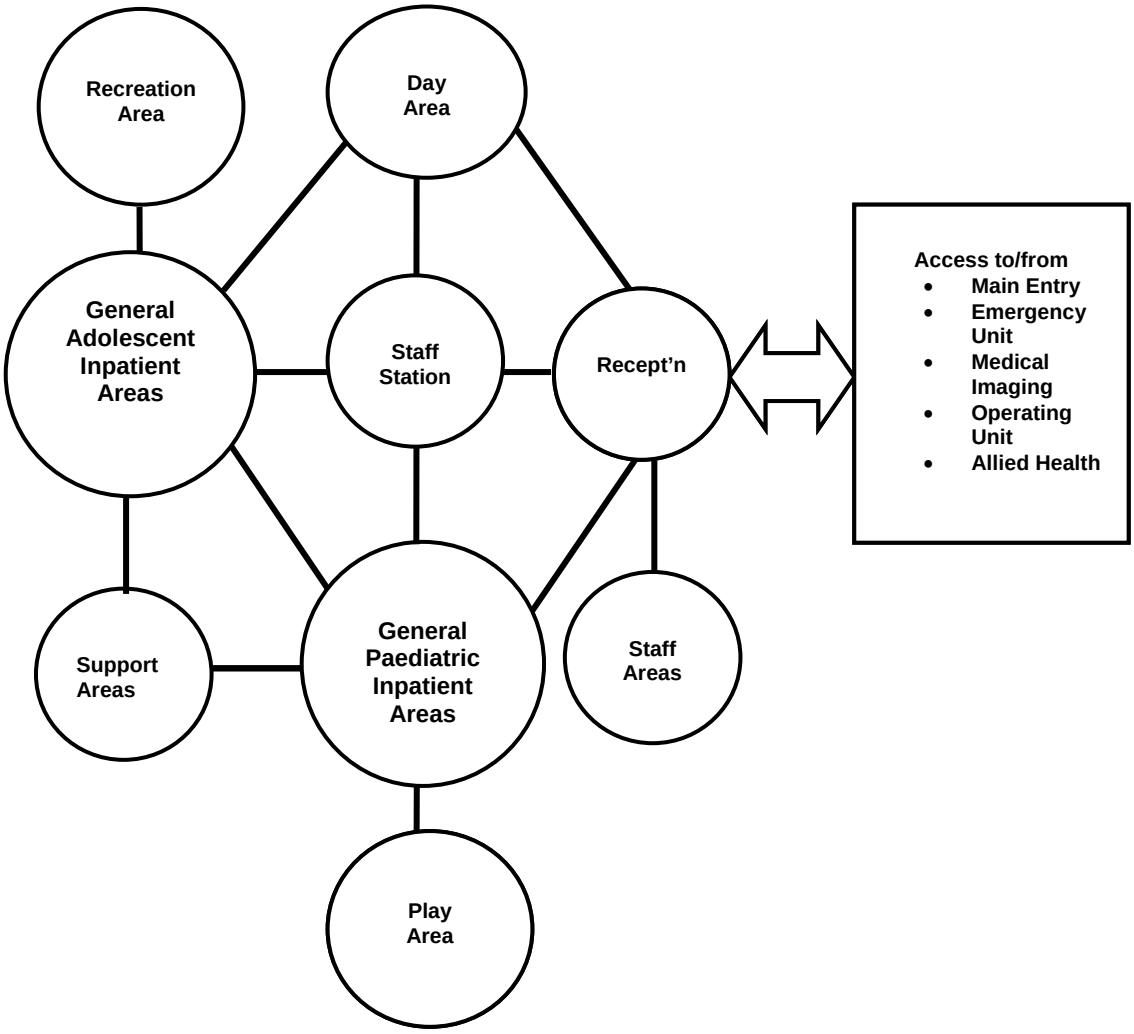
Guidelines for Networking of Paediatric Services in NSW, NSW Health, Department 2002

NSW Health Post Occupancy Evaluation Program 2 – Paediatric Units, February 2005

Maud Meates. "Ambulatory Paediatrics – Making A Difference", Archives of Disease in Childhood 1997, 76:468-476.

FUNCTIONAL RELATIONSHIP DIAGRAM –PAEDIATRIC AND ADOLESCENT UNIT

The following diagram sets out the relationships between zones in a Paediatric and Adolescent Unit:



SECURITY ISSUES TO BE CONSIDERED IN PAEDIATRIC AND ADOLESCENT UNIT

GENERIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Entry by all relevant personnel visiting or working within the Hospital.	1. CCTV monitoring of Ward entry and exit doorways. 2. After hours remote switch and intercom on entry doors. 3. Use of reed switches on all external doors and entries. Swipe card readers may be required to both sides of internal doors, to allow access for authorized staff.

SPECIFIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Relatives / Visitors	1. Good visibility from staff station to ward. 2. Manage relatives/visitors admittance in the area by restricting visiting hours and/or number of visitors.
2. Furniture fittings and equipment including Computers, Office and Medical Equipment	1. Non-removable 'Asset No.' on all equipment above a predetermined value. 2. Keep equipment in lockable area.
3. Hospital personnel safety	1. Staff working in this area to have knowledge of where the fixed duress system is located and/or use a mobile duress pendant. 2. Design shape of interview rooms and location of desks, etc, in such a way that minimises risk to health personnel. 3. Provide storage and store items not in constant use that could be used as weapons. (Operational Policy). 4. Minimise furniture that can be used as a weapon, ie, picked up and thrown.
4. Staff personal effects	1. Provision for lockers in staff areas and lockable desk drawer to keep small personal effects.
5. Drugs storage	1. Drugs safe to be located in area that can be monitored by staff.

SECURITY CHECKLIST – PAEDIATRIC AND ADOLESCENT UNIT

FACILITY:	**DEPARTMENT: Paediatric and Adolescent Unit**
RISK ISSUE	**DESIGN RESPONSE**
1. How is 'after hours' access provided for patients and how is this access point monitored?	
2. Do staff have access to both fixed and mobile duress systems?	
3. Is access to patient records restricted to staff entitled to that access?	
4. Is a system implemented to prevent theft of equipment, files, personal possessions, etc ?	
5. Are drug safes installed in accordance with current regulations?	
6. How is after hours access provided for staff?	
7. How are the offices secured during and after hours?	
8. Are there lockable storage areas available for specialised equipment?	
9. Is lockable furniture provided for storage of staff personal effects?	
10. What system has been implemented to prevent the illegal removal of children?	
11. Are interview rooms appropriately designed with specific reference to staff egress, furniture selection, furniture location, provision for storage of equipment, etc.	
12. What surveillance/monitoring system will be implemented to monitor access to rooms/wards?	

DESIGN COMMENTARY /NOTES	**DESIGN SIGN-OFF**
	Name: …… Position: …….. Signature: …….. Date: ……..
	Name: …… Position: …….. Signature: …….. Date: ……..
	Name: …… Position: …….. Signature: …….. Date: ……..

Description

502062 560 .0.10 INTRODUCTION

Preamble
Introduction
Policy Statement
Description of Unit

PLANNING

Operational Models
Operational Policies
Models of Care/Work Practices
Planning Models
Functional Areas
Functional Relationships

DESIGN

Access
Car Parking Requirements
Disaster Planning
Infection Control
Environmental Considerations
Space Standards and Components
Safety and Security
Finishes
Fixtures & Fittings
Building Service Requirements

COMPONENTS OF THE UNIT

General
Standard Components
Non-standard Components

APPENDICES

Schedule of Accommodation
Functional Relationships
Checklists

INDEX

Description

502163 560 .0.10 INTRODUCTION

Preamble
Introduction
Policy Statement
Description of Unit

PLANNING

Operational Models
Operational Policies
Planning Models
Functional Areas
Functional Relationships

DESIGN

Access
Car Parking Requirements
Disaster Planning
Infection Control
Environmental Considerations
Space Standards and Components
Safety and Security
Finishes
Fixtures and Fittings
Building Services Requirements

COMPONENTS OF THE UNIT

General
Standard Components
Non-Standard Components

APPENDICES

Schedule of Accommodation
Functional Relationships Diagram
Checklists
References and Further Reading

INTRODUCTION

Preamble

502164 560 .1.00

In the Guide to the Role Delineation of Health Care Facilities, (Third Edition 2002), Pharmacy is one of the eight Clinical Support Services essential to the successful provision of clinical core services.

Planners should use this document to determine the service profile and roles of the institution/s in which the Pharmacy Unit occurs to determine the extent of facility needs.

It is essential to be aware of the impact of:
- Operational Policies
- Changes to legislation
- New technologies and
- Changing role of the Pharmacist

on the Unit itself and associated facilities in other units.

In addition, facility design, must, where appropriate, meet all necessary criteria to reach accreditation standards with regard to design and equipment.

Introduction

502165 560 .2.00

This Health Planning Unit is a resource to assist in the planning, design and construction of a Pharmacy Unit. It must be read in conjunction with generic planning requirements and Standard Components described in Parts A, B, C, D & E of these Guidelines.

Policy Statement

502166 560 .3.00

NSW policies and other legislation and organisations that will/may impact on the establishment and delivery of Pharmacy services include:

- NSW Health PD2005_206, “Policy on the Handling of Medication in NSW Public Hospitals”

- NSW Health PD2005_590, “Principles for the Preparation of Pharmaceuticals in Hospital Pharmacy Departments in NSW”

- Pharmacy Act 1966

- Poisons and Therapeutic Goods Act 1966

- “Standard for the Preparation of Pharmaceuticals in Australian Hospital Pharmacy Departments”, National Coordinating Committee on Therapeutic Goods (NCCTG) September 1993 (AJHP Volume 24, No 2, 1994182-8).
-
- Protecting People and Property – NSW Health Policy and Guidelines for Security Risk Management in Health Facilities, Chapter 18, Security in Pharmacies. December 2003.

- Australian Standards particularly Cleanroom Standards.
-

503258 560 .3.01

PHARMACEUTICAL BENEFITS SCHEME (PBS) REFORMS

Under the current Pharmaceutical Benefits Scheme (PBS) in NSW, most patients are given up to five days of medication free of charge when discharged from public hospitals and need to visit their doctor within those five days for a prescription for ongoing supplies.

Reforms to the Pharmaceutical Benefits Scheme (PBS) are now being implemented in all states except NSW and under the reforms, eligible patients can receive up to a month's supply of each medicine on discharge or when attending a public hospital as an outpatient.

This has implications for storage both bulk and in dispensing areas that need to be considered.

Description of the Unit

502167 560 .4.00 DEFINITION OF HPU

A Hospital Pharmacy provides a facility for the following pharmaceutical services:

- inpatient and outpatient dispensing

- maintenance and monitoring of unit imprest systems

- patient advisory services including discharge planning, counselling and compliance monitoring

- controlled storage, recording and distribution of narcotics and accountable substances

- manufacture/preparation of non-sterile compounds (lotions, ointments etc)

- sterile manufacturing and IV admixture services (including parenteral nutrition)

- utilisation review and adverse drug reactions reporting

- drug monitoring, information and advisory services

- staff education and training

- preparation of drugs for clinical trials.

PLANNING

Operational Models

502168 560 .5.00 HOURS OF OPERATION

In general, the Pharmacy will operate during weekday business hours with a limited service on Saturdays, with an after-hours on call pharmacist service for emergencies and an after-hours drug cupboard accessible to authorised staff.

Level 5 & 6 Units may provide a more extensive service at weekends and on public holidays.

502169 560 .6.00 GENERAL ARRANGEMENT

Pharmacy services may be restricted to a single health care facility, or services may be extended to outlying facilities and the wider community, the latter particularly in remote rural areas. This will create specific requirements for storage, packing and dispatch of goods.

502170 560 .7.00 UNIT DOSE SYSTEMS

502170 560 .7.00

If a unit dose system is used, there will need to be additional space and equipment for supplies, packaging, labelling and storage, as well as for the carts.

502171 560 .8.00 PRIVATE PHARMACY

If it is proposed to establish a private Pharmacy as part of the Hospital's Retail Precinct, it needs to be determined what, if any, prescription drugs will be supplied by the private Pharmacy and the impact on Main Pharmacy outpatient dispensing.

Operational Policies

502172 560 .9.00 STORAGE OF PHARMACEUTICALS AND DRUGS OF ADDICTION

An early decisions needs to be made regarding the location of the Bulk Store and storage methods and systems bearing in mind the variety of transport containers and cartons in which products will be delivered, stock levels to be maintained and special storage needs.

Pharmaceuticals must not be left on loading docks but transferred immediately to a secure area and for this reason a bulk store directly attached to the Pharmacy is preferred. In particular, drugs of addiction must be transferred immediately to the Pharmacy Drugs of Addiction Store.

502173 560 .10.00 STORAGE OF IV / DIALYSIS FLUIDS

The storage of bulk IV and dialysis fluids do not present the same security concerns as do pharmaceuticals. If space within the Pharmacy Unit is limited, or large quantities are required to be held, a remote Bulk Store may be appropriate. There must be direct access to a loading dock, particularly if pallet storage is required.

In this instance, there will need to be an area within the Pharmacy Unit itself for delivery, unpacking and checking contents and an area for disposal of packing waste.

502174 560 .11.00 CYTOTOXIC PREPARATION

This may occur in-house in a dedicated Cytotoxic Suite or may be by external purchase depending on quantities required.

Isolators may be used in smaller centres.

Facilities must comply with the relevant Australian Cleanroom Standards and NSW Health policies for the preparation and safe handling of cytotoxic drugs.

502175 560 .12.00 IV ADMIXTURE

Individual hospital's Drug (or Drug and Therapeutic) Committee will determine who, other than the pharmacist, may load IV fluids (e.g. Clinical Nurse Specialists, ward nursing staff) and the impact this may have on both Pharmacy space and space in other unit medication areas if any.

PD2005-206 Section 6.4.4.4 states that "It is preferable that all additives to intravenous solutions are made under controlled environmental conditions. Such

conditions consist of either cleanroom facilities housing laminar flow clean workstations or pharmaceutical isolators which comply with the Australian Standards."

Para 6.4.4.5 goes on to state that "When not prepared under controlled environmental conditions, as defined above, IV medications must be prepared immediately prior to administration using aseptic techniques."

502176 560 .13.00 AUTOMATED DISPENSING SYSTEMS

Early consideration needs to be given to the use of these systems with regard to:
- who will stock and check
- impact on pharmacy storage
- impact on layout of unit medication rooms and
- access to necessary power and data outlets
- adequate security.

502177 560 .14.00 PNEUMATIC TRANSPORT SYSTEMS

If installed and used for transport of medications and scripts, location of stations in both the Pharmacy itself and outlying units must be carefully reviewed, particularly in outlying units regarding security. Note that it must NOT be used for transport of cytotoxic drugs.

502178 560 .15.00 PATIENT SELF-MEDICATION PROGRAMMES

Best in non-acute areas.
Bedside lockers.

503259 560 .15.00 PATIENT COUNSELLING

Consideration should be given to utilisation of newer technologies for patient education & as an adjunct to counselling, e.g.CD or web-based self-directed packages. Technology to support this needs to be available in reception and/or counselling areas & be suitable for disabled patients. Storage space for patient information resources & counselling aids such as placebo inhalers and written drug information sheets will need to be included.

503260 560 .15.01 QUALITY ASSURANCE

Some hospitals have the practice of having a second check on dispensed goods by a pharmacist before dispatch or giving to a patient. This will require additional space in the Assembly/Dispensing Area of the Pharmacy.

502179 560 .16.00 WASTE MANAGEMENT

Planning teams need to establish disposal techniques and associated storage requirements for all types of waste. The disposal of drugs, particularly drugs of addiction are subject to specific regulations.

"Pharmaceutical waste must be incinerated at a licensed controlled waste facility. Certain pharmaceuticals may only be destroyed by authorised persons under the Poisons and Therapeutic Goods Act 1966. Pharmaceutical waste must not be disposed through a sewerage system." (NSW Health – Waste Management Guidelines for Health Care Facilities, August 1998)

Other categories of waste will include:
- sharps
- cytotoxic waste
- packing waste
- general waste
- glass and containers.

Planning Models

502180 560 .17.00 SINGLE UNIT

The Pharmacy Unit should ideally be a single self-contained facility.

502181 560 .18.00 DEDICATED OUTPATIENT PHARMACY

In large facilities it may be necessary to establish a separate Outpatient Pharmacy if it is not possible to locate the main Pharmacy so as to be readily accessible to outpatients. However, this is less than desirable and can create major duplication and inefficiencies and should be avoided if at all possible.

502182 560 .19.00 SATELLITE PHARMACY UNITS

A Pharmacy Satellite Unit is a room or suite of rooms in a hospital that is located remote from the main Pharmacy Unit but is managed by Pharmacy Staff. Acceptable is a dedicated Cytotoxic Unit in a Cancer Centre, a room with an isolator in a Cancer Day Unit and also applies to the After-Hours Drug Cupboard .
The term “satellite” does not apply to ward medication areas. Under NSW legislation, once medication is supplied from the Pharmacy to the ward/unit, it becomes the responsibility of the nurse in charge of the ward/unit.

502183 560 .20.00 WARD / DEPARTMENT-BASED SATELLITES

Perhaps because of the increased clinical role of the pharmacist, ward-based satellites have proliferated. Impact on stock levels, staffing, security etc…

Functional Areas

502184 560 .21.00 FUNCTIONAL ZONES

The Pharmacy Unit may be divided into “accessible” and “restricted” functional areas.

502185 560 .22.00 ACCESSIBLE AREAS

- Outpatient reception, counselling and waiting areas Waiting may be shared with an adjoining unit. This area will also be designed for access by non-Pharmacy staff and couriers as a drop-off/collection point.

- goods receipt area (direct or from remote bulk store)

- dispatch exit for ward trolleys etc

- after-hours drug store that may be part of the Pharmacy accessible from outside or located in a 24 hour zone of the hospital

502186 560 .23.00 RESTRICTED AREAS

- inpatient and outpatient dispensing areas

- imprest stock storage, assembly and dispatch areas including trolley parking

- preparation and manufacturing areas – non-sterile

- bulk store & decartoning/unpacking area

- secure storage for accountable drugs

- refrigerated storage

- storage of flammable goods

- drug information area

- staff offices and amenities

502187 560 .24.00 OPTIONAL AREAS

Depending on its Role Delineation and Operational Policy, the Pharmacy may also include:

- sterile manufacturing, which may include sterile and cytotoxic manufacturing cleanroom suites

- facilities for clinical trials including dispensing areas, secured storage and records area and workstations.

- additional space for compounding products.

502188 560 .25.00 STERILE PREPARATION AREA

If sterile products – including cytotoxics - are prepared in the Pharmacy, either cleanroom facilities housing laminar flow clean workstations or pharmaceutical isolators will be required that comply with the relevant Australian standards.

Note: If manufacturing, refer to the NCCTG Standard (refer Section 3)

502190 560 .27.00 WARD / UNIT REQUIREMENTS

Assuming no ward-based satellites, each ward and department should have a dedicated, secure area for drug storage – including refrigeration - preparation and checking, with a computer and space for the pharmacist to work and space to park medication trolleys if used. This area may be part of a Clean Utility Room or a separate Medication Room. Space requirements and fitout may vary from unit to unit depending on unit size and clinical specialty.

503261 560 .27.00 STORAGE OF DD REGISTERS AND PRESCRIPTIONS

The requirements for storage of old Dangerous Drug (DD) registers have recently increased from 2 years to 7 years and some pharmacies also store ward/department registers. In addition, storage of prescriptions is now between 2

and 7 years thus increasing storage requirements.

Functional Relationships

502191 560 .28.00 EXTERNAL

Access to a loading dock and bulk storage if latter not part of main Pharmacy

502192 560 .29.00 INTERNAL

- Ambulatory Care Units / Outpatient Clinics with quiet areas for counselling.

- Cancer Unit/s if no Cytotoxic Satellite.

Installation of a pneumatic tube transport system and electronically-transmitted prescriptions when available make/will make relationships with inpatient units less critical for drug distribution but ready access is required by the Pharmacists to expedite their clinical role.

DESIGN

Access

502193 560 .30.00 EXTERNAL

From loading dock for delivery of bulk supplies

Access by couriers.

Ready access to lifts for transport of supplies to wards and departments.

502194 560 .31.00 INTERNAL

Points of access required by:
- Pharmacy staff
- Visitors
- Other staff collecting scripts
- Outpatients delivering and collecting scripts
- Supplies delivery

Access to an interview room for outpatients will be dual access and controlled from inside the Unit.

Access for large items of equipment and bulk stores.

Disaster Planning

502195 560 .32.00 Consideration needs to be given to requirements for storage of large volumes of drugs in the event of a major disaster.

Refer to Part C of these Guidelines for further information.

Infection Control

502196 560 .33.00 Handwashing facilities should be provided in each room/space where products are handled. Scrub facilities will be required in Sterile Suites.

Refer to Part D of these Guidelines for further information.

Environmental Considerations

502197 560 .34.00 GENERAL

Internal temperatures should not rise above 25oC.

Controlled temperature and humidity for drug storage.

502198 560 .35.00 ACOUSTICS

Not applicable.

502199 560 .36.00 NATURAL LIGHT

The Pharmacy Unit should be naturally lit and present external views for the benefit of staff. However, security considerations are of the utmost importance to prevent unauthorised entry and maintain privacy of the operations of the Unit. Windows should not be sited such that public walking past are able to see into the Unit.

502200 560 .37.00 PRIVACY

Required in patient consultation areas.

Space Standards and Components

502201 560 .38.00 ERGONOMICS

Accessible storage systems.

Refer to Part C of these Guidelines for information.

502202 560 .39.00 HUMAN ENGINEERING

Refer to Part C of these Guidelines for information.

502203 560 .40.00 ACCESS AND MOBILITY

Refer to Part C of these Guidelines for information.

502204 560 .41.00 DOORS, WINDOWS AND CORRIDORS

Refer to Part C of these Guidelines for information.

Safety and Security

502205 560 .42.00 SAFETY

Duress alarms particularly at Outpatient dispensing counter.

Safety and Security

502207 560 .43.00 SECURITY

Refer to “Protecting People and Property - NSW Health Policy and Guidelines for Security Risk Management in Health Facilities” Chapter 18 Security in Pharmacies” Also Section 2, Chapters 9 to 14 for further information on access control, key control, alarm systems, lighting and camera surveillance.

Also refer to Part C, Section 790.58 of these guidelines.

Security shutter at outpatient dispensing counter when not in use.

The Accountable Drugs Store/Safe should not be located on an outside wall or stairwell.

Finishes

502208 560 .44.00 WALL PROTECTION

Wall protection will be required to prevent damage from trolleys.

Also refer to Part C of these Guidelines

502209 560 .45.00 FLOOR FINISHES

Refer to Part C of these Guidelines

502210 560 .46.00 CEILING FINISHES

Refer to Part C of these Guidelines

Fixtures & Fittings

502211 560 .47.00 Refer to Part C of these Guidelines and to the Room Data Sheets (RDS) and Room Layout Sheets (RLS) for further detailed information

Building Service Requirements

502212 560 .48.00 INFORMATION TECHNOLOGY / COMMUNICATIONS

Bar coding

Electronic scripts

502213 560 .49.00 ELECTRONIC PRESCIBING & TRANSFER OF SCRIPTS

502214 560 .50.00 BARCODE TECHNOLOGY

For patient identification & tracking

502215 560 .51.00 ALARM SYSTEMS

Duress alarms

Movement sensors

Electronic door controls

COMPONENTS OF THE UNIT

General

502216 560 .52.00 The Pharmacy Unit will consist of a combination of Standard Components and Non-Standard Components.

Standard Components

502217 560 .53.00 Standard Components must comply with details in Standard Components described in these Guidelines. Refer also to Standard Components Room Data and Room Layout Sheets.

Provide the Standard Components as identified in the Schedule of Accommodation.

Non-Standard Components

502218 560 .54.00 Provide the Non-Standard Components as identified in this section and in the Schedule of Accommodation, according to the Operational Policy and Functional Brief.

Cleanrooms for sterile and cytotoxix manufacturing are covered by Australian Standards.

503264 560 .55.00 PHARMACY COUNTER

DESCRIPTION & FUNCTION

The “public” face of the Pharmacy Unit. Accessed by outpatients delivering and collecting scripts, staff from other units and first point of call for visitors to the Unit and couriers. Will need bench space for preparation and for computer use.

LOCATION & RELATIONSHIPS

Direct but discreet access to the outpatient dispensing area of the Pharmacy Unit. Direct internal access to the Interview Room for patient medication counselling.

CONSIDERATIONS

“Hatch” with roller shutter for security.
Duress alarm

502219 560 .55.05 ASSEMBLY / DISPENSING AREAS

DESCRIPTION & FUNCTION

The areas where prescription drugs are assembled, packaged and labelled & include quality control procedures. An additional checking area may also be required in those hospitals that have the practice of a second check on dispensed goods by a pharmacist before dispatch or giving to a patient.

The outpatient and inpatient workstations will usually be separately defined and in large units may be two distinct but adjoining areas. Location for pneumatic tube system station if installed.

It will be designed to store commonly used drugs (PBS Reforms will considerably add to storage requirements) and accommodate computers and label printers.

LOCATION & RELATIONSHIPS
The main core of the Unit.

CONSIDERATIONS
Accessible storage space will be required for labels drug information sheets etc.

Infrastructure for increasing use of computers for electronic patient information and script transfers, bar code technology, telephones and faxes.

Ample bench space is critical in these areas.

502220 560 .56.00 NON-STERILE MANUFACTURING AREA

DESCRIPTION & FUNCTION

Manufacture/preparation of lotions, ointments etc that do not require a sterile environment.

LOCATION & RELATIONSHIPS

Away from the general dispensing area. Access to bulk supplies.

CONSIDERATION

Separation of “wet” and “dry” zones.

A sink for washing the equipment used in manufacture of creams, medicines, powders etc is required.

APPENDICES

Schedule of Accommodation

502239 560 .57.00 A Generic Schedule of Accommodation for a Pharmacy Unit at Levels 3, 4, 5, and 6 follows.

Note: (o) in Qty/xm2 column = Optional

MAIN PHARMACY

ROOM/SPACE	Standard Component		Level 3 Qty x m2	Level 4 Qty x m2	Level 5 Qty x m2	Level 6 Qty x m2	Remarks
MAIN PHARMACY							
WAITING	yes		1 x 5	1 x 5	1 x 8	1 x 8	Discrete. 4 - 6 seats, some standing room
COUNTER - PHARMACY	yes		1 x 9	1 x 9	1 x 9	1 x 9	Incl. shelving for scripts. Also include dedicated staff entry
MEETING (INTERVIEW) ROOM - SMALL	yes		1 x 9	1 x 9	1 x 9	1 x 9	Interview / counselling. Dual access from Waiting & Pharmacy
AFTER-HOURS DRUG STORE	yes(draft)		0	1 x 4	1 x 4	1 x 4	May be remote or may be at the Pharmacy perimeter with inside/outside access
OFFICE - DRUG INFORMATION	yes		1 x 9	1 x 9	1 x 18	1 x 18	Will require internet access and storage space
OFFICE - SINGLE - DIRECTOR	yes		1 x 9	1 x 9	1 x 12	1 x 12	Near entry for observation & visitor access
STORE - ACCOUNTABLE DRUGS	yes		1 x 4	1 x 4	1 x 8	1 x 8	May be wall-mounted or walk-in safe. Near Assembly & Office for observation.
BAY - HANDWASHING	yes		2 x 1	3 x 1	4 x 1	4 x 1	Minimum
ASSEMBLY / DISPENSING - IP / OP	yes(draft)		1 x 20	6 x 2.2	8x 2.2	10 x 2.2	Base on 2.2m2 per pharmacist station. IP & OP may need to be be separate areas.Adjust for
STORE - DISPENSING SUPPLIES				1 x 4	1 x 6	1 x 6	Labets etc
OFFICE - WORKSTATION	yes		0	0	2 x 4.4	2 x 4.4	In Dispensing Area for computers
STORE - ASSEMBLY / DISPENSING	yes		1 x 9	1 x 9	1 x 24	1 x 24	Incl. Ward stock
STORE - REFRIGERATED			1 x 6	1 x 6	1 x 12	1 x 12	Refrigerators & Freezers
DISPATCH / COLLECTION (INPATIENTS)			0	0	1 x 11	1 x 11	Imprest trolleys
PREPARATION ROOM (MANUFACTURING)	yes(dradt)		1 x 12 (o)	6 x 2.2	8 x 2.2	10 x 2.2	2.2m2 per person. Preparation of extemporaneous componds. Adjust for staffing.
DISPENSING - CLINICAL TRIALS			0	0	1 x 12	1 x 12	Optional.
GOODS RECEIPT	yes(draft)		1 x 5	1 x 5	1 x 14	1 x 14	Direct and/or from remote Bulk Store
STORE - BULK	yes		1 x 30	1 x 30	1 x 150	1 x 150	May include pallets. Confirm size. ? In Pharmacy or Stores.
CLEANER'S ROOM	yes		1 x 5	1 x 5	1 x 5	1 x 5	
STORE - OLD DD REGISTERS/PRESCRIPTIONS	yes		1 x 6	1 x 6	1 x8	1 x 8	
STORE - IV FLUIDS	yes		0	0	1 x 20	1 x 20	May be part of bulk store. Access from sterile manufacturing suite

Schedule of Accommodation

502240 560 .57.10 STAFF AREAS (will depend on Staff Establishment)

STAFF AREAS							
STORE - PHOTOCOPY / STATIONERY	yes		0	1 x 8 (o)	1 x 8	1 x 8	
OFFICE - WORKSTATION (PHARMACISTS)	yes		0	5.5	5.5	5.5	As per Staff Establishment. Shared or open plan
PROPERTY BAY - STAFF	yes		1 x 2	1 x 2	1 x 2	1 x 2	
SHOWER - STAFF	yes		0	0	1 x 2	1 x 2	Emergency use
BAY - BEVERAGE	yes		1 x 3	1 x 3	0	0	May be part of Meeting Room
STAFF ROOM	yes		0	0	1 x 15	1 x 15	Includes Beverage Bay
MEETING ROOM	yes		0	1 x 12	1 x 15	1 x 15	

502241 560 .57.20 STERILE MANUFACTURING (2 Rooms - optional)

STERILE MANUFACTURING (2 ROOMS - OPTIONAL)							
AIRLOCK			0	0	2 x 8	2 x 8	
ANTEROOM			0	0	1 x 8	1 x 8	Used for scrubbing & gowning
ASEPTIC ROOM			0	0	1 x 20	1 x 20	
CHANGE ROOM - STAFF			0	0	1 x 8	1 x 8	SC includes shower & toilet. ? Used for scrub & gowning.
CYTOTOXIC PREP ROOM			0	0	1 x 15	1 x 15	
OFFICE - WORKSTATION			0	0	6	6	Number to be determined
STORE - STERILE STOCK			0	0	1 x 7	1 x 7	
DISCOUNTED CIRCULATION %			20%	25%	25%	25%	

Functional Relationships

502242 560 .58.00 A diagram of key functional relationships is attached.

Checklists

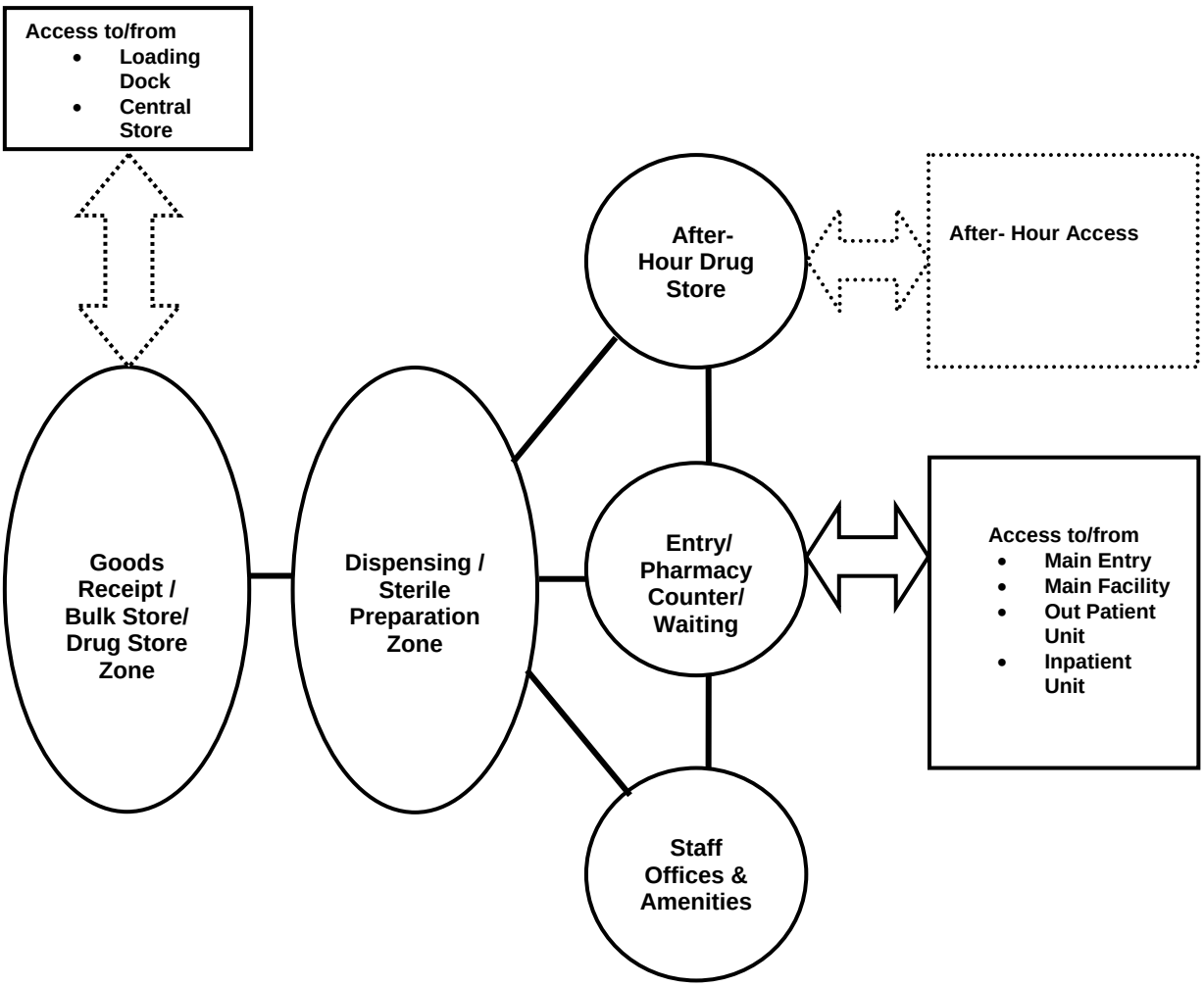
502243 560 .59.00 A Security Checklist is appended to this document. Refer also to Part C of these Guidelines for general requirements.

References and Further Reading

502244 560 .60.00 DS-23 – HBG – Pharmacy Unit, NSW Health, Capital Works Branch, August 1992.

FUNCTIONAL RELATIONSHIP DIAGRAM –PHARMACY UNIT

The following diagram sets out the relationships between zones in a Pharmacy Unit:



SECURITY ISSUES TO BE CONSIDERED IN PHARMACY UNIT

GENERIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Entry for personnel visiting or working within the clinic.	1. CCTV monitoring of entry and exit doorways. 2. Intercom on entry doors. 3. Use of reed switches on all external doors and swipe card entry to staff areas.

SPECIFIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Client / Visitor access	1. Client access to secure dispensing counter but not to 'secure' areas utilised to store and dispense drugs.
2. Furniture fittings and equipment including Computers, Office and Medical Equipment	1. Non-removable 'Asset No.' on all equipment above a predetermined value. 2. Keep equipment in lockable area.
3. Hospital personnel safety	1. Staff working in this area to have knowledge of where the fixed duress system is located and/or use a mobile duress pendant. 2. Locked doors between dispensing areas and clients. 3. Dispensing Counter to be constructed to prevent unauthorised client entry/access. 4. Determine risk of hold-up/break-in and design facility to meet risk.
4. Staff personal effects	1. Provision for lockers in staff areas and lockable desk drawer to keep small personal effects.
5. Drugs storage	1. Drugs safe to be located in area that can be monitored by staff. 2. Safes to comply with the Poisons Act in respect of secure storage provisions.

SECURITY CHECKLIST – PHARMACY UNIT

FACILITY:	**DEPARTMENT: Pharmacy Unit**
RISK ISSUE	**DESIGN RESPONSE**
1. Has a secure "barrier" been installed between staff and the dispensing area to: (a) monitor the dispensing area; and (b) provide staff contact with patients.	
2. Do staffs have access to both fixed and mobile duress systems?	
3. Is access to patient records restricted to staff entitled to that access?	
4. Is a system implemented to prevent theft of equipment, files, personal possessions, etc?	
5. Are drug safes installed in accordance with current regulations and the Poisons Act?	
6. Is the dispensing area furniture incapable of being utilised as a "weapon"?	
7. How is after hours access provided for staff?	
8. How is this area secured during and after hours?	
9. Are there lockable storage areas available for specialised equipment?	
10. Is lockable furniture provided for storage of staff personal effects?	
11. Has the potential risk of hold-up and/or break-in been addressed in the design?	

DESIGN COMMENTARY /NOTES	**DESIGN SIGN-OFF**
	Name: …… Position: …….. Signature: …….. Date: ……..
	Name: …… Position: …….. Signature: …….. Date: ……..
	Name: …… Position: …….. Signature: …….. Date: ……..

620 RENAL DIALYSIS UNIT

INDEX

		Description
503270	620 .0.10	INTRODUCTION
		Preamble Purpose Introduction Policy Statement Description of Unit
		PLANNING
		Operational Models Operational Policies Functional Areas Functional Relationships
		DESIGN
		Design Features Environmental Considerations Building Services Requirements
		COMPONENTS OF THE UNIT
		General Standard Components Non-Standard Components
		APPENDICES
		Schedule of Accommodation Functional Relationships Diagram Reference and further Reading

INTRODUCTION

Preamble

503271 620 .1.00

Renal Dialysis Units (referred to as Unit/s) are used by persons requiring haemodialysis and peritoneal dialysis services. Units may be located in a satellite centre or in a hospital.

Haemodialysis is a treatment for end stage renal failure where the function of the kidneys to remove substances from the blood is replaced by a machine. Treatment requires the patient to be attached to the machine for 3-6 hours per day on three days of every week. This process may be undertaken in a satellite dialysis centre or hospital, or a dialysis machine may be installed in a patient's home.

Peritoneal dialysis is an alternative to haemodialysis. Peritoneal dialysis involves the exchange of fluid to and from the abdomen on several occasions each day either manually or with the assistance of a machine. Peritoneal dialysis is usually performed at home but training in technique and problem solving may occur at the satellite dialysis centre or in a hospital.

Purpose

503272 620 .2.00 This guideline has been developed for the use of:

- Health service personnel involved in the planning and design of a Unit;
- Architects, engineers and others who have been engaged to plan and design a Unit;
- NSW Health personnel who are assessing the appropriateness of renal dialysis unit capital projects.

The inclusion of standard requirements for all aspects of the Unit is aimed at ensuring a consistent approach to the design of efficient Units which meet all necessary statutory and regulatory requirements. The standards set included in this guideline will be seen as the benchmark. While it is accepted that standards and requirements will change over time, any non-compliance with the guidelines will need to be justified to gain approval to the proposed non-compliant components.

Introduction

503273 620 .3.00 The role of the Unit is to provide an easily accessible, safe and serviced environment in which people can undertake haemodialysis on a regular basis. The Unit must be able to provide a reliable service for regular attendees as well as people who require unusual episodes of care because they are visiting the area or require dialysis while recovering from another illness.

The Unit will also provide treatment to people with infectious diseases including Vancomycin Resistant E Coli (VRE) and Acinetobacter. Every aspect of the design and fit out of the Unit must pay attention to design for infection prevention and control as well as the specific accommodation of persons with infectious diseases.

Policy Statement

503274 620 .4.00 Current NSW Health policy directions advocate the provision of sufficient renal dialysis capacity to meet the current and future needs of the population.

NSW Health is in the process of developing a Statewide Plan for Renal Dialysis to guide the future implementation of renal services across NSW. This guideline may require modification after that plan has been developed and approved.

Reference should also be made to the directions of the State Renal Services Planning Group which has been established by NSW Health to provide advice to the Director General on issues relating to the planning and development of Renal Services.

The Renal Services Network, which is comprised of renal clinicians (medical, nursing and allied health), consumers and NSW Health representatives will also act as an advisory resource to renal services across NSW.

Description of the Unit

503275 620 .5.00 Most units will treat adults only with some specific units designated to treat children. The functions of the Unit are to:

- receive and provide dialysis services to people who have been referred from the community or a hospital inpatient unit;

- provide training for people, family members and/or relevant others in procedures related to haemodialysis and/or peritoneal dialysis (optional);

- act as a resource to the community, other staff and agencies with regards to the requirements of renal health services.

PLANNING

Operational Models

503276 620 .6.00 The following issues should be considered in developing the operational model for the Unit, as they will impact on appropriate space provision.

503277 620 .7.00 ROLE DELINEATION OF THE ASSOCIATED HOSPITAL

Although the basic nature of the services is the same, there are different requirements for services providing a large tertiary service and those that may provide a satellite service. The role delineation of the associated hospital will influence the level of service provided as will the support systems able to be provided by the associated renal network to which the service belongs.

503278 620 .8.00 METROPOLITAN VS. RURAL LOCATION

Whether the service in located in a metropolitan or a rural location will have an effect on factors such as flexibility of the service, security issues, sharing of staff and other resources and the types of patients accepted for treatment.

The demand for renal services will also influence the size of the unit as will the availability of appropriately qualified clinicians and access to support medical services.

503279 620 .9.00 HOSPITAL-BASED OR SATELLITE UNIT

A distinction has been made in this document between a Unit located within a hospital and a 'satellite' or 'stand-alone' Unit which may or may not be located on a hospital site. This distinction has been made for the purposes of determining the extent of support services required e.g. laundry and waste collection, meal delivery, security requirements etc. Operationally this distinction does not infer that 'satellite' Units manage persons of a lesser equity.

503280 620 .10.00 ACADEMIC AND TEACHING ROLES

This factor will influence the requirements for meeting rooms, office space and general administrative space.

503281 620 .11.00 STAFF STRUCTURE

The staff structure of the Unit will have an impact on the nature, size and location of the Staff Station, office and administrative spaces, staff facilities such as staff rooms, toilets and property bays.

The staffing structure of the proposed Unit, including academic staff, should be developed prior to planning any new Unit.

503282 620 .12.00 NATURE OF PATIENT ACUITY AND COMPLEXITY

A clear understanding of the nature of the patient population to be served should be clearly articulated prior to planning a new unit. Factors that need to be taken into account are:

- The age mix of the patient group;
- Severity of the illness of the proposed patient group (acuity);
- Any comorbidity that may be expected in the patient group;
- The rate of infectious diseases to be expected in the patient group.

Operational Policies

503283 620 .13.00 Operational Policies have a major impact on facility requirements and the capital and recurrent costs of the Unit. These policies should be clearly articulated prior to the commencement of capital planning so that the facility design can reinforce the new practices proposed for the service.

While it is not possible to anticipate the full range of operational policies required for all new units, the following are offered as a guide for review and adaptation when a new service is proposed or an existing service is to be redesigned.

503284 620 .14.00 ACCESS - EXTERNAL

The Unit should be easily accessible to the public. A majority of persons requiring regular treatment will arrive at the Unit by vehicle. Easy and convenient access should be provided either horizontally or vertically (lifts, escalators).

Designated parking and covered drop-off areas for persons close to the entry point must also be considered.

Ambulance services may drop off and collect persons in a routine or urgent manner. Adequate covered space and parking needs to be designated for this purpose.

There should be easy access for regular and large amounts of disposable products and supplies to be delivered on palettes to the Unit's main store room by a mechanized palette lifter.

It should be easy and discreet to deliver food, laundry and other supplies to the Unit and take away general and contaminated waste as well as dirty laundry several times per day without disrupting the operations of the unit.

503285 620 .15.00 ACCESS - INTERNAL

The Unit (if on a hospital site) should be located for easy access to other relevant hospital departments such as inpatient units and clinical support services.

Within the unit, functional relationships should enable the easy execution of all tasks in a safe environment. This includes the provision of two egress points from each consultation/treatment room as stated in other sections of this document.

503286 620 .16.00 ADAPTABILITY AND FLEXIBILITY

While the functions of many of the core spaces within the Unit are set, there should be a high degree of flexibility to alter the function of support areas to meet changing demands. For example, storage areas may become office spaces and vice versa. Consult rooms may be used for training, meeting and interview spaces.

503287 620 .17.00 AMENITIES - PATIENTS

A full range of necessary amenities should be located within the Unit or in close proximity for the convenience of people receiving treatment. These should include:

- Toilet
- Shower
- Telephone
- Audiovisual entertainment
- Access to food and beverages

503288 620 .18.00 AMENITIES - STAFF

A range of amenities and services are required by staff so that they can perform their duties at an optimal level. These may be provided within the Unit or may be shared with another area adjacent to the Unit:

- Toilet
- Food and beverage preparation area
- Property bay in a secure environment
- Meeting room
- Recording space
- Computer, facsimile and printer access
- Internet/intranet access

503289 620 .19.00 AMENITIES - VISITORS

People receiving haemodialysis often require the support of family and friends to bring them to, and take them home from, their treatments and to provide them with ongoing support and assistance. Family and friends will need to be provided with amenities including:

- Toilet
- Beverage preparation area
- Consultation room access
- Comfortable waiting areas

503290 620 .20.00 CALL SYSTEM

The following call systems are required in the Unit:

- Patient call system back to staff station if all persons are not able to be in full view of staff at all times;
- Call buttons in toilets, showers and other areas where patients may need to call for assistance;
- Emergency call at the staff station (if the Unit is part of a campus such as a hospital) to a designated responder trained to provide a prompt and appropriate response;
- Duress alarm at the staff station to a designated responder trained to provide a prompt and appropriate response.

503291 620 .21.00 CATERING SERVICES/FOOD SAFTY

It is usual to provide a light meal to people receiving treatment and have beverages available. Food will be prepared elsewhere and delivered to the Unit for consumption in accordance with current catering standards.

An area is to be provided for relatives and friends to prepare light meals and beverages for persons receiving treatment (beverage bay).

Food supply and preparation must meet the requirements of the Food Safety Standards as defined in the Food Production (Safety) Act.

503292 620 .22.00 CLEANING REQUIREMENTS

The Unit requires a high standard of cleanliness to guard against infection:

- High levels of cleaning are conducted in the Unit including daily thorough cleaning of the Unit and 'terminal' cleaning of isolation rooms at least twice per day.
- All surfaces should be easy to clean and be absent from seams and creases which may harbour bacteria.
- Vinyl that requires a warm water wash and does not require daily polishing should be included in all treatment areas.
- Skirting should be coved to prevent dirt congregating in corners.
- Washable paint should be applied to all walls, ceilings and other unsealed surfaces.
- The Unit must be air conditioned and the system must be serviced regularly and filters cleaned or replaced in accordance with the manufacturer's requirements.
- Air agitation devices such as vacuum cleaners and air hand dryers should be omitted or used sparingly to prevent the production of air borne particles.
- Windows and other glass should be kept clean.
- Toilet and shower areas should be lined with vinyl with coving up walls in a seamless manner to enable easy and thorough cleaning.
- Kitchen areas should be kept clean including appliances such as microwaves and refrigerators.
- Cleaner's paper supplies are to be kept separate from cleaner's wet equipment in separate spaces to prevent contamination.

503293 620 .23.00 DECEASED PERSON MANAGEMENT

Any person becoming deceased in the Unit will be moved to an enclosed space (e.g. consult room, isolation room) until transferred discreetly to the mortuary, a hospital or collected by an undertaker.

503294 620 .24.00 ENERGY EFFICIENCY

The design of the Unit and the engineering systems included to meet service needs must take into consideration the need for efficient energy use to reduce consumption and minimise operating costs.

The Premiers' Memorandum 2003 – 2 High Environmental Performance for Buildings, requires that government agencies incorporate the requirements of the Environmental Performance Guide for Buildings in any asset strategies (including capital planning). This performance guide can be found at

http://asset.gov.com.au/environmentguide/ and should be completed for all new building designs.

503295 620 .25.00 INFECTION CONTROL (ALSO REFER TO CLEANING REQUIREMENTS)

Infection prevention and control involves identification of transmissible agents and intervention to minimise the spread of these infections. The design of all aspects of the Unit should take into account the need to ensure a high level of infection control in all aspects of practice.

Key factors that should be taken into consideration are:

- All surfaces and fixtures are to be designed to enable easy and thorough cleaning on a regular and repeated basis.

- The design should support high levels of handwashing by staff and other persons by the convenient and adequate placement of suitable hand wash basins at a rate of one per three (3) treatment bays as well as in all separate treatment areas, utility areas, toilets and showers.

- Alcohol hand-rub dispensers should be at the entrance of each treatment room and within each treatment bay for easy access by staff.

- Class S isolation rooms should be provided at the rate of one isolation room to every five (5) treatment bays (in hospital-based and Satellite Units) giving a cluster of six (6) treatment spaces. A Class S room is a single room with a shower/toilet en suite that is not shared. There is no special requirement for the air-conditioning system but a hand basin and a self-closing door is recommended. A Personal Protective Equipment (PPE) Bay should be provided immediately outside the room to hold gloves, goggles, face shield masks, gowns and a waterless alcohol-based hand rub dispenser. A PPE Bay can be shared between two isolation rooms.

- Air-conditioning rather than natural ventilation should be provided to the Unit. All air-conditioning filters for the systems that service the Unit should be changed/cleaned at a rate consistent with the manufacturer's requirements.

- Floors. Coverings must be easy to clean and resistant to disinfection procedures. All treatment areas should not be carpeted. Floors in food preparation areas should be water resistant and greaseproof. No joins or seams that are pervious to moisture should be included.

- Skirting. Wall bases in treatment areas, kitchens, clean and dirty utility rooms and toilets should be made integral to the floor, tightly sealed against the wall and constructed without voids. Skirting in showers should extend all the way up the wall to protect all potentially wet areas from infiltration.

- Walls. Wall finishes must be scrubbable and should be smooth and water-resistant especially in the immediate vicinity of plumbing fixtures.

- Ceilings. All exposed ceilings and ceiling structures must be easy to clean. All areas where dust fallout would present a potential problem must have finished ceilings that cover all conduits, piping, duct work and open construction systems.

- Window furnishings. Washable blinds are preferable to curtains as they retain less dust and are easier to clean.

Further reference should be made to:

- NSW Health, Infection Control Policy – Circular 2002/45.

- NSW Health, Part D – Infection Prevention and Control, Health Facility Guidelines, 2004.
- Standards Australia HB 260 – 2003.
- NSW Health, Technical Series 11 - Engineering Services Guidelines, 2003

503296 620 .26.00 INFORMATION TECHNOLOGY

The following systems should be provided in the Unit:

- Telephone, facsimile and computer access;
- Intranet and internet access;
- Access to all ordering and recording systems currently utilised by the Area Health Service to supply and collect data;
- Teleconferencing and videoconferencing amenities may be useful to either access information or provide information.
- Closed circuit television (CCTV) may be required to ensure staff can oversee entry and egress points.
- A decision about the need for other Telehealth technology (such as access to digital radiology or pathology systems) should be made early in the planning process in consultation with the AHS and NSW Health.

503297 620 .27.00 LAUNDRY MANAGEMENT

Suitable areas are to be provided for storing clean laundry in an orderly and easily accessible manner.

A holding area for bagged used laundry is to be provided for safe storage prior to collection. Ideally this holding area should be located on the external perimeter of the Unit so that the collector does not need to enter the Unit.

503298 620 .28.00 MAINTENANCE

The Unit must have a fully developed and documented Asset Maintenance Plan in place to ensure that replacements and upkeep are undertaken on a preventative basis for all equipment and engineering systems. Where the Unit is a part of a larger hospital this plan should be part of the campus-wide strategy.

503299 620 .29.00 MEDICAL RECORDS MANAGEMENT

Medical records for all persons receiving treatment in the Unit are to be kept in a central location that can be appropriately secured.

Where the Unit is part of a hospital the records should be integrated with other medical records for each patient as part of an integrated medical record system.

Once a person is no longer receiving treatment in the Unit the medical records shall be returned to the central records management department.

Where an electronic medical records management system is in operation, the Unit's information management system shall be designed to participate in this system.

503300 620 .30.00 MEDICATIONS MANAGEMENT

All medications will be held in the locked Pharmacy Store in the Clean Utility Room. Scheduled drugs will be stored in the Pharmacy Store in accordance with the requirements of the Poisons Regulations.

503301 620 .31.00 OPERATING HOURS

Units commonly operate between 7am and 9 pm, per day, allowing two sessions per machine per day.

Units will operate a varying number of days per week from three (3) days in a small rural Unit to six (6) days in a large tertiary Unit depending on demand.

There will be a wide range of variations to these operating hours depending on the needs of the patient group, staff availability and the demand that needs to be addressed.

503302 620 .32.00 RESUSCITATION

All areas of the Unit accessed by patients must enable the delivery of resuscitation in an appropriate manner. This requires:

- Central location (adjacent to the centralised Staff Station) for the Resuscitation Trolley;
- Adequate space in each treatment space/room for resuscitation procedures to be performed;
- Oxygen and suction sources either piped to each space and room or from mobile units.
- Emergency call system to gain a prompt response from extra support resources, as required.

503303 620 .33.00 SAFETY

All aspects of the Unit must ensure the required standards of personal safety for people visiting the Unit and staff. Issues that need to be considered include:

- Application of Occupational Health and Safety standards to all components of the Unit.

- Sufficient space to enable the required activities to be undertaken in a safe manner.

- Recognition of the fact that people using the services may have varying degrees of physical and sensory disability that require consideration during their stay.

- The Unit must be fully accessible for persons in wheelchairs or being moved around the Unit on a patient trolley or patient bed.

- Wherever possible, especially in newly designed units, palette lifters will be used to deliver supplies to the Storeroom and this must be achieved in a safe and unobstructed manner.

- Fittings and fixtures must be robust and of safe design to prevent injury.

- Large pieces of equipment (e.g. haemodialysis units) and furniture (e.g. patient

chairs) must be selected for their ease of movement by staff as well as their appropriate design features.

- Chemicals and concentrates utilised within the Unit will be handled as per their 'Material Safety Data Sheets'.

- Reference should be made to the following policy documents:

o NSW Health, Health Facility Guidelines – Safety and Security (PD 2005-293), Working Draft, January 2005;
o NSW Health, Protecting People/Property: NSW Health Policy/Guidelines for Security Risk Management in Health Facilities (PD2005_339), January 2005

503304 620 .34.00 SECURITY

A secure environment needs to be provided which complies with the requirements of the NSW Health Safety and Security Standards Manual.

Key features that need to be included are:

- Unit design must facilitate good sight lines for staff to all key areas of the Unit;

- Controlled access through the clustering of functional spaces or grouping of spaces, as required;

- Minimise entry and exit doors and ensure staff areas are optimally places to oversee entry/exit points;

- Provide staff with duress and emergency call capabilities and procedures especially after hours;

- Procedures must be in place for management of persons who are aggressive or a threat to patients and staff;

- Patient files must be kept in a secure environment that prevents access by unauthorised persons;

- Non-removable 'Asset No.' on all equipment above a predetermined value;

- Dangerous drug safe in the Clean Utility Room;

- Provision of lockers for staff personal effects in a secure environment;

- Closed Circuit Television may be required to provide an adequate view of external areas. This should be considered during the detailed design phase of planning.

503305 620 .35.00 STORAGE

Large quantities of liquid substances, disposable equipment and other supplies are delivered on palettes to the Unit on a regular basis. This activity requires the following:

- Provision of an adequately sized main storeroom with sufficient aisle width to enable access by a palette lifter. A roller door access may be required to provide adequate width to the entry into this space;

- Areas designated as wet and dry need to be provided to prevent the contamination of dry sterile stores and meet the requirements of AS/NZS

4187:2003.

- Location of the main storeroom on the external perimeter of the Unit with a roller door to facilitate palette lifter access.

- Easy access from a loading dock to the main storeroom;

- Heavy duty shelving to hold the large quantities of supplies in an orderly manner;

- Additional dispersed storage to enable the Unit to be kept clear of collision obstacles;

- The stability of liquid concentrates (especially those which are glucose-based) is dependent on air temperature. Consideration should be given to the need for air-conditioning in some storage areas if the temperature cannot be maintained within required limits. Reference should be made to the storage requirements of stored items to determine the need for this requirement.

503306 620 .36.00 WASTE MANAGEMENT

Substantial quantities of waste (both general and contaminated) are generated by the Unit. Waste management practices must include:

- Application of Universal Precaution Standards in the management of waste;

- Provision of suitable receptacles for all waste categories that are convenient to use, service and move;

- Provision of adequate storage areas to hold waste (general, contaminated, sharps etc) in an appropriate manner while awaiting collection;

- Provision of a disposal room on the external perimeter of the Unit to enable collection of used laundry and waste without intruding into the Unit.

Functional Areas

503307 620 .37.00 The Unit includes clusters of spaces for the following:

- Reception/waiting,
- Treatment,
- Staff areas,
- Support areas.

There are various ways in which these components of the service can be configured to ensure efficient and thoughtful management practices that make each day easier for people receiving treatment, their relevant others and staff.

503308 620 .38.00 KEY INTERNAL RELATIONSHIPS

- Staff Station requires an unobtrusive view of all patient treatment areas;
- Reception requires a clear view of entry and exit/egress points of the Unit;
- Easy access from the Waiting Area to the Patient Treatment Area for the convenient arrival and departure of patients.

A Functional Relationship Diagram which displays the above associations is included in the Appendices.

Functional Areas

503309 620 .39.00 KEY EXTERNAL RELATIONSHIPS

• Easy access to the Unit where a high percentage of people will arrive by car on a daily basis. This should include convenient, designated parking spaces close to the entry point with direct horizontal or vertical travel to the Unit.

• Easy access to the Unit's Main Storeroom from the loading dock for the regular delivery of stores on a palette lifter.

503310 620 .40.00 SIGNAGE/PATHFINDING

• Access to the Unit should be identified from all site access points with clear directions to parking areas and building entry.

• If the Unit is not directly accessible from external areas, clear signage must provide direction to the Unit.

Functional Relationships

503311 620 .41.00 • The satellite Unit must be self-sufficient with easy access for walking persons and those arriving by vehicle for treatment. There must be easy access for the delivery of food, clean laundry, equipment, supplies and files and the removal of waste and dirty laundry.

503312 620 .42.00 • The hospital-based Unit will ideally require the following:

o Pathology. Easy access for staff to attend the Unit to collect specimens. Inclusion in the pathology results management system to access results in a timely manner.

o Medical Imaging. Easy access to the Medical Imaging Department to allow portable equipment to be brought to the Unit and for persons to travel to the Unit for procedures.

o Medical Records. If a hard copy system is in use, there should be easy access to the Medical Records Unit for the retrieval of files and the return of files after treatment is completed. If an electronic system is in use, the Unit must have the necessary workstations to permit staff the required level of access to patient files.

o Inpatient Units. The Unit should be closely related to any inpatient unit which refers or accepts patients from the Unit.

o Pharmacy. Easy access for staff to retrieve supplies and for Pharmacy staff to provide inventory and counseling services to the Unit.

o Mortuary. Easy and discreet access to the mortuary for the delivery of persons who may become deceased in the Unit.

o Security. The hospital-based Unit should enjoy the same level of scrutiny from Security Services as all other sections of the hospital to maintain a high level of security integrity. For satellite Units, a standard of security should be in place commensurate with the requirements of the Unit and any untoward factors that may compromise security such as extended operating hours, location on a busy road etc.

General

503313 620 .43.00 Reference should be made to NSW Health, Health Facility Guidelines, Part C – Design for Access, Mobility, OHS and Security, 2004, for detailed information on the design features of the Unit.

503314 620 .44.00 The following categories are covered in Part C which is of relevance to the Unit:

- Corridor widths;
- Ceiling Heights;
- Ceiling reinforcement for fitted patient lifters;
- Door types;
- Door widths;
- Door swing;
- Doors in the path of fire egress;
- Doors – security;
- Door openings;
- Door handles;
- Door grilles and undercuts;
- Hold-open devices;
- Locks;
- Self closers;
- Observation glass;
- Handwashing facilities;
- Window Types;
- Window sizes;
- Window cleaning;
- Window security;
- Fixtures and fittings with regards to ergonomics, human engineering, safety, security and infection control;
- Ceiling, Floor, Surface and Wall Finishes, and Protection;
- Acoustics.

503315 620 .45.00 SAFER BY DESIGN

Many satellite units are not part of an integrated building and are therefore more susceptible to security breeches. The Design Team should be mindful of this in planning the Unit in a way that promotes a secure environment.

The Safer by Design Program, promoted by the NSW Police Department, is based upon the principles and practice of Crime Prevention through Environmental Design (CPTED). It is a co-operative initiative involving the NSW Police, local Councils, government departments and key private sector organisations. The aim of the program is to ensure police officers and council planners trained in Crime Prevention through Environmental Design (CPTED) assess and minimise crime risk in development applications and plans.

CPTED is a situational crime prevention strategy that focuses on the design, planning and structure of cities and neighbourhoods. It aims to reduce opportunities for crime by employing design and place management principles that minimise the likelihood of essential crime ingredients from intersecting in time and space.

CPTED is primarily accomplished through the work of architects, engineers, builders and landscape gardeners and those who develop purchasing procedures. The four principles of CPTED are:

- Territorial reinforcement to stimulate community ownership and policing;
- Surveillance through supervision of those who overlook or pass the site;
- Access control through physical and symbolic barriers as well as monitoring

procedures;
- Space management to ensure space is well used and maintained.

Environmental Considerations

503316 620 .46.00 ACOUSTIC

Many functions undertaken in the Unit require consideration of acoustic privacy including:

- Discussions/interviews with people and families;
- Isolation of noisy areas such as waiting rooms from Treatment Areas;
- Staff discussions regarding confidential matters.

Solutions to be considered include:

- Selection of sound absorbing materials and finishes;
- Use of sound isolating construction;
- Planning to separate quiet areas from noisy areas;
- Changes to operational management. This may include separate areas for patients with special needs.

503317 620 .47.00 NATURAL LIGHT AND VIEWS

Natural light contributes to a sense of wellbeing, assists orientation to building locations and improves service outcomes. The use of natural light should be maximised throughout the Unit.

Natural light and a view to pleasant and interesting outdoor areas is of particular importance for people who spend long periods of time sitting in dialysis chairs. Every effort should be made to provide a view to all treatment areas either by locating treatment bays adjacent to a window or enabling unobstructed sight lines through areas to an outdoor view.

503318 620 .48.00 PRIVACY

Confidentiality for persons receiving treatment is a highly important consideration to be addressed. The Unit should be designed to:

- Ensure confidentiality of personal discussions and medical records;
- Provide an adequate number of rooms for discreet discussions and treatments to occur whenever required;
- Enable sufficient space within each treatment space to permit curtains to be easily drawn whenever required;
- Appropriately locate windows and doors to ensure privacy.

503319 620 .49.00 DECOR

This includes style of design, furnishings, colour, textures, ambience, perceptions and taste. The décor of the Unit should be of a standard that meets the expectations of people using the services and make every effort to reduce an institutional atmosphere. This is very difficult with the high degree of equipment, services and infection control conditions that are required to deliver the service. Suggestions to achieve this balance include:

- Use of design features such as colours and artworks to distract the sight from clinical areas;

- Inclusion of soft furnishings that act as a design feature such as screening, lounges in waiting areas and window treatments;
- Elimination of corridors through good design wherever possible;
- Inclusion of corridors at the minimum required widths to meet the service need. Wide corridors are a feature that potentiates institutional environments.
- Provision of a beverage bay for people to use while waiting;
- Background music through a piped system or a centralised unit;
- Television systems with head set access.

Building Service Requirements

503320 620 .50.00 CLOCKS

A wall clock should be located in the Reception/Waiting and Treatment Areas in clear view.

503321 620 .51.00 COMMUNICATIONS

The following communications systems will be included in the Unit:

- Telephone (fixed and cordless for use by persons on dialysis);
- Paging system for staff if part of the campus-wide communications system;
- Computer with internet and intranet access;
- Document Centre including facsimile;
- Physical transfer systems such as pneumatic tubes and automated trolley systems for hospital-based Units if part of the campus-wide communications system;
- Teleconferencing capability in the meeting room;
- Videoconferencing capability if there is an identified need as part of the Area-wide strategy or network;
- Some other Telemedicine modalities may also be required especially in remote and rural sites. This will be in accordance with NSW Health and Area-wide policies regarding access and service networks. The need for these modalities and how they are expected to operate should be confirmed prior to the commencement of capital planning.
- Patient/nurse call system if all persons receiving treatment cannot be visualised at all times;
- Emergency and duress systems capability in line with Area-wide policies to ensure patient and staff safety;
- Early Warning Information System (EWIS) for evacuation warnings and public address alerts;
- Workspaces, bench design and suspension devices must permit the appropriate accommodation of computer terminals, keyboards, drivers and printers. The centralisation of printers, scanners, facsimile machine and photocopier should facilitate shared use.
- Closed circuit television should be considered where the functional design of the Unit does not permit staff to oversee all necessary entry and egress points.

503322 620 .52.00 ELECTRICAL SERVICES

Refer to TS 11: Engineering and Sustainable Design, NSW Health, 2003 and Room Data Layout Sheets included in this guideline for details of electrical needs for this Unit.

503323 620 .53.00 WATER TREATMENT SERVICES

A Key component of the Renal Dialysis Unit is the need to treat the water that will be used in the haemodialysis process to remove any contaminants. Different commercial water treatment systems may undertake the water treatment activities in slightly different ways but in general the main phases of water treatment occur in the following sequence:

Phase 1 Particle filtration to 20 microns.

Phase 2 Water softening to remove calcium and magnesium carbonate.

Phase 3 Carbon filtration to remove chlorine. Chlorine is taken out as late as possible in the process so that its disinfection properties are utilised.

Phase 4 Particle filtration to 5 and 1 micron.

Phase 5 Reverse Osmosis Process.

Reverse osmosis (RO) is a process where water is demineralised using a semipermeable membrane to encourage mineral salts to pass out of the water to be used in dialysis. Industrial RO uses spiral wound membranes mounted in high pressure containers to activate this process.

The aim of all the above processes is to improve the purity of the water to be used by removal of particulates, salts and bacteria before it comes into contact with the person receiving haemodialysis.

Booster pumps may also be required to ensure a certain speed of water (at least 10 metres/second) and a certain pressure of water (varies dependent on the concentration of the salt solution on the reject side of the membrane) to enable these processes and to limit the ability of tubing contamination by bacteria and moulds. These contamination processes are also reduced by the application of heat (85 – 90 degrees Celsius), eliminating any right angle bends, ensuring the internal surfaces of tubing have a high level of smoothness and by keeping tubing runs as short as possible.

The Plant Room for water treatment is ideally located as part of the Renal Dialysis Unit to keep tubing runs short and to make it easy for staff to monitor and service the water treatment systems.

The Design Team should gain expert input from the agency that will provide these services early in the Design Process to ensure that all requirements are identified as early as possible in the planning process.

503324 620 .54.00 DRAINAGE SYSTEM

Services that facilitate the drainage of fluids from the haemodialysis machines must be ventilated to prevent condensation and the subsequent growth of mould. This fact should be kept in mind when designing covers or screens for the drainage systems. Commercial models which comply with the relevant Australian Standards are available.

503325 620 .55.00 DURESS ALARMS

Should be in accordance with NSW Health Policy – refer to Health Facility Guidelines, Part C – Design for Access, Mobility, OHS and Security, 2004.

503326 620 .56.00 EMERGENCY & STAFF CALL

All treatment spaces, clinical areas, bathrooms and toilets should have access to emergency and staff call systems for patients and staff to summon the appropriate level of assistance. The Nurse Call/Emergency Call system is to comply with AS3811.

503327 620 .57.00 LIGHTING

The lighting design needs to provide for both comfort and function and should be inherently flexible. There are different considerations for different areas within the Unit.

It should be possible to vary lighting conditions between individual treatment bays and rooms.

Refer to the Room Data Sheets for the detailed lighting requirements of each specific space.

503328 620 .58.00 MEDICAL GASES

Patient treatment spaces and treatment rooms require access to oxygen and suction. Refer to the Room Data Sheets for the detailed requirements of each space.

COMPONENTS OF THE UNIT

General

503329 620 .59.00 As previously advised the key components or clusters of a Unit are:

- Reception/waiting,
- Treatment,
- Staff areas,
- Support areas.

Within each of these clusters there will be variable additions to meet the special needs of each service depending on the outcomes of the needs analysis and the approved Service Plan, both of which should be completed before commencing capital planning of the Unit.

This section should be read with reference to the following sections of this guideline:

- Functional Relationships Diagram;
- Schedules of Accommodation;
- Room Data Sheets.

Standard Components

503330 620 .60.00 The standard components in the Unit must comply with Health Facility Guidelines, NSW Health and other policy documents including the Office Accommodation Policy for Public Health Organisations and Ambulance Services, April 2005. Reference should be made to those documents for details of all standard components.

The reference documents used in developing this guideline are listed in the specific sections to which they relate for convenience and at the end of the guideline in alphabetical order.

Non-Standard Components

503331 620 .61.00 MAIN ENTRY/WAITING AREA

This area must be inviting, have comfortable domestic furniture and a beverage pantry for the use of people waiting. The entry doors should be observable from the Reception Area.

Benchmarks Used to Determine Space

- 1m2 per person;
- Two persons per treatment space.

503332 620 .62.00 TRAINING ROOM - OPTIONAL

Units must be able to support people who are using all forms of dialysis. Likely future requirements for services such as Peritoneal Dialysis training and Home Haemodialysis training for people and their family and/or carers should be considered. For larger units where significant numbers of people will require training and support in the Unit on a regular basis that cannot be undertaken in a spare treatment space or room, the inclusion of Training Room should be considered. This space could also be used for minor procedures such as the insertion of catheters.

503333 620 .63.00 TREATMENT AREA

This area should be designed with treatment bays adjacent to each other in sight of a Staff Station. Each Treatment Bay is sized to take a chair or a bed. Optimally an external view should be provided for all persons participating in haemodialysis either through being adjacent to a window or by keeping sight lines to further windows clear of obstruction. This may require the slanting of chairs or beds away from the traditional vertical alignment. Instead of the foot of the chair or bed pointing at a perpendicular angle to the staff station, this could be amended to 225 degrees to facilitate the view.

For larger units several clusters of treatment bays may be designed around smaller sub staff stations for better management. It should be kept in mind that the usual management practice is for one nurse to manage four (4) persons undergoing haemodialysis at any one time. It is estimated that up to 12 treatment bays can be served by a staff station of 10 m2 .

503334 620 .64.00 ISOLATION ROOM

Reference should be made to the following documents for further information:

- Infection Control Policy – Circular 2002/45, NSW Health, 2002.
- HB260 – 2003. Handbook: Hospital acquired infection – Engineering down the

risk, Standards Australia, 2003.
- Health Facility Guidelines, Part D – Infection Prevention and Control, NSW Health, 2004.
- AS/NZS 4187:2003 Australian/New Zealand StandardTM Cleaning, disinfection and sterilizing reusable medical and surgical instruments and equipment, and maintenance of associated environments in health care facilities.

The increasing prevalence of infections such as Vancomycin Resistant E Coli (VRE) and others requires the inclusion of isolation rooms to separate infected persons during treatment. Advice on the rates of infection demonstrates that persons with a less acuity who will attend satellite renal haemodialysis units have lower rates of infection than those persons of a higher acuity who will attend a hospital-based unit. Due to this fact the ratio of isolation rooms to open treatment bays has been set as follows:

- Satellite Unit. One isolation room to each five (5) treatment bays (giving a total of six (6) treatment spaces in the cluster);
- Hospital-Based Unit. One isolation room to every five (5) treatment bays (giving a total of six (6) treatment spaces in the cluster).

Class S Isolation Rooms (standard) are required to meet the range of common infections currently encountered. Each isolation room must have access to a dedicated en suite. Each isolation room must contain a general staff hand basin.

Entry to the isolation rooms must be preceded by a Personal Protective Equipment (PPE) Bay. One PPE bay can be shared between two isolation rooms.

No special air-conditioning requirements are associated with Class S Isolation rooms. Self-closing doors are preferred.

Isolation rooms should be located close to open treatment bays.

503335 620 .65.00 EQUIPMENT CLEANING AREA

This room is required for the cleaning and routine maintenance of haemodialysis machines and other equipment. It must include:

- Cupboards for holding commonly used supplies and parts;
- A sink with a drainer;
- General staff hand basin.

503336 620 .66.00 WATER TREATMENT PLANT ROOM

This room must be located with easy access to the external perimeter of the Unit while being adjacent to the Treatment Area and requires the following specific attributes:

- Space for water treatment components which may include booster pumps (usually two which alternate), particle filters (approximately two), water softener, carbon filter and reverse osmosis system as well as products to keep these units operational.

- There must be workable space around all sides of the units (at least 0.5 metres) to enable routine calibration, servicing and maintenance to be conducted in a safe and easy manner.

- Sufficient space to have soft curving of tubing to prevent right angle bends.

- Adequate ventilation, air-conditioning and/or exhausting to remove the heat

load generated by the equipment.

- Noise attenuation is important to prevent any sound disturbance to treatment and other areas.

503337 620 .67.00 MAIN STORE ROOM

A space designed hold general stores, fluids and equipment.

This space must be placed on the perimeter of the Unit and have an external door of at least two (2) metres in width to allow access by a palette lifter.

There must be easy access from the loading dock to the Main Store Room either through horizontal or vertical travel.

Shelves must be heavy duty to hold 100 kg in weight and be spaced at 400 mm. Adjustable shelves are preferred.

Schedule of Accommodation

503338 620 .68.00 The following schedules of accommodation (spaces) demonstrate the range of functional areas required for Units of 6, 12, 18, 24 and 30 treatment spaces. This table assumes that units under 18 spaces are satellite units and that units of 18 spaces and over are hospital-based. In each box the first number denoted the number of spaces and the second number the square metres of each individual space. For example “2 x 12” implies 2 spaces of 12 square metres each (a total of 24 square metres).

MAIN ENTRY/RECEPTION CLUSTER

Note 1: Training/Treatment room
OPTIONAL. Where there is a developed program of training for Home based dialysis as approved in the Service Plan a dedicated space is to be provided. This space could also be used for related procedures such as the insertion of catheters etc.

ROOM/SPACE	Standard Component	6 chairs*	12 chairs*	18 chairs	24 chairs*	30 chairs*	Remarks
MAIN ENTRY/RECEPTION CLUSTER							
MAIN ENTRY/WAITING AREA	yes	1 x 12	1 x 24	1 x 36	1 x 48	1 x 60	Public phone may be located here. Small beverage bay to be located here.
RECEPTION/CLERICAL	yes	1 x 6	1 x 8	1 x 10	1 x 12	1 x 14	
STORE/DOCUMENT PRODUCTION AREA	yes	1 x 6	1 x 8	1 x 10	1 x 12	1 x 15	Adjacent to the reception/clerical area to hold printers, facsimile, printer functions as well as
OFFICE - NURSE UNIT MANAGER	yes	1 x 9	1 x 9	1 x 9	1 x 9	1 x 9	
MEETING ROOM	yes	1 x 12	1 x 24	1 x 30	1 x 40	1 x 45	For staff meetings, community training and other functions. Should be fitted with teleconferencing
CONSULTATION/INTERVIEW ROOM	yes	1 x 12	1 x 12	2 x 12	2 x 12	3 x 12	
TRAINING/TREATMENT ROOM	yes	1 x 14	1 x 14	1 x 14	1 x 14	1 x 14	See note 1.
TOILET - PUBLIC	yes	No	1 x 3	2 x 3	2 x 3	2 x 3	Directly access from the waiting room. Door location should not permit a view into the toilet
TOILET – PUBLIC (DISABLED ACCESS)	yes	1 x 5	1 x 5	1 x 5	1 x 5	1 x 5	Directly access from the waiting room. Door location should not permit a view into the toilet
DISCOUNTED CIRCULATION		30%	30%	30%	30%	30%	

503339 620 .69.00 TREATMENT CLUSTER

Note 2 : Treatment Bays
Bay size need to be 9 square metres with a clear width of 3 metres along the back of the bay to ensure appropriate service placement, machine accommodation and curtain track placement.

Spaces of 12m2 will need to be considered where more than 50% of patients are receiving dialysis in the unit in patient beds rather than chairs or trolleys. This is of particular relevance for Level 5 and Level 6 renal services located in tertiary referral hospitals.

* It is proposed that the Unit may utilise chairs or beds, or a combination of both.

TREATMENT CLUSTER							

STAFF STATION	yes	1 x 10	1 x 12	1 x 14	2x 10	2 x 12	May need to be subdivided in larger units
TREATMENT BAYS		6 x 9	12 x 9	18 x 9	24 x 9	30 x 9	See note 2
TOILET – PUBLIC (DISABLED ACCESS)	yes	1 x 5	1 x 5	2 x 5	2 x 5	2 x 5	For use by persons in open treatment bays
SHOWER - PUBLIC (DISABLED ACCESS)	yes	1 x 5	1 x 5	2 x 5	2 x 5	2 x 5	For use by persons in open treatment bays
ISOLATION ROOMS	yes	1 X 12	2X 12	3 X 12	4 X 12	5 X 12	Must be designed as a Class S (standard isolation) room.
PPE BAY	yes	1 x 2	1 x 2	2 x 2	2 x 2	3 x 2	A Personal Protective Equipment Bay (one shared between two rooms) outside the isolation
TOILET/SHOWER FOR ISOLATION ROOMS	yes	1 x 5	2 x 5	3 x 5	4 x 5	5x 5	One toilet/shower for the dedicated use of each isolation room
HANDWASHING BAYS	yes	2 x 1	4x 1	6 x 1	8 x 1	10 x 1	One handwashing basin per three (3) bays or part thereof is required.
KITCHENETTE/MEAL TROLLEY HOLDING	yes	1 x 4	1 x 4	1 x 5	1 x 6	1 x 6	To receive and issue meals and beverages to persons receiving treatment
DISCOUNTED CIRCULATION		35%	35%	35%	35%	35%	

503340 620 .70.00 STAFF AREAS

STAFF AREAS							
STAFF RESOURCE ROOM	yes	1 x 12	1 x 12	1 x 15	1 x 15	1 x 15	Discreet section of the Unit. May be shared if an easily accessible facility is available
TOILET - STAFF	yes	1 x 3	1 x 3	1 x 3	2 x 3	2x 3	Discreet location . Adjacent to Staff Resource Room if provided in the Unit .
PROPERTY BAY - STAFF	yes	1 x 2	1 x 2	1 x 2	1 x 2	1 x 2	Discreet and secure location. Adjacent to Staff Resource Rm.
DISCOUNTED CIRCULATION		25%	25%	25%	25%	25%	

503341 620 .71.00 SUPPORT AREAS

SUPPORT AREAS							
CLEAN UTILITY ROOM	yes	1 X 12	1 X 12	1 X 14	1 X 16	1 X 18	
EQUIPMENT CLEANING AREA		1 x 6	1 x8	1 x 10	1 x 12	1 x 14	For the cleaning and servicing of haemodialysis and other machinery
DIRTY UTILITY ROOM	yes	1 x 10	1 x 10	1 x 10	1 x 10	1 x 10	
WATER TREATMENT PLANT ROOM		1 x 12	1 x 15	1 x 18	1 x 20	1 x 24	Close to treatment areas to reduce piping runs.
DISCOUNTED CIRCULATION		15%	15%	15%	15%	15%	

503342 620 .72.00 STORAGE AREAS

Note 3 : Main Store Room
To hold general stores, fluids and equipment. Must be placed on the perimeter of the Unit and accessible by a palette lifter. Shelving must have 100 kg weight capacity and shelves need to be at least 400 mm apart and adjustable. A benchmark of 1m2 for each treatment bay and isolation room has been determined by assessing operational units.

Note 4 : Disposal Area
Area to hold receptacles for general and contaminated waste and dirty laundry. May be an open bay with receptacles or an enclosed room.

Note 5 : Bay - equipment holding
May be subdivided to place in convenient locations to keep wheelchairs, trolleys etc out of corridors and work areas.

Note 6 : Cleaner's Wet Store
To hold cleaning liquids, mopping, scrubbing and other equipment. Will include a cleaner's sink.

Note 7 : Cleaner's Dry Store
Cupboard to hold paper supplies and other goods that must be kept dry to eliminate potential water contamination.

Note 8 : Dialysis Fluid Bay
To hold dialysis fluid in a convenient location close to treatment bays. May be subdivided to enhance staff access. Temperature is important for some diasylate and this area may require air-conditioning.

STORAGE AREAS							
BAY - RESUSCITATION TROLLEY	yes	1 x 2	1 x 2	1 x 2	1 x 2	1 x 2	Adjacent to staff station.
MAIN STORE ROOM	yes	1 x 7	1 x 21	1 x 32	1 x 42	1 x 53	See note 3.
BAY - CLEAN LAUNDRY	yes	1 x 2	1 x 2	1 x 2	2 x 2	2 x 2	Cupboard or trolley bay to hold clean laundry
DISPOSAL AREA	yes	1 x 2	1 x 3	1 x 4	1 x 6	1 x 8	See note 4.
BAY - EQUIPMENT HOLDING	yes	1 x 2	1 x 3	1 x 4	1 x 5	1 x 6	See note 5.
CLEANER'S WET STORE	yes	1 x 5	1 x 5	1 x 5	1 x 5	1 x 5	See note 6.
CLEANER'S DRY STORE		1 x 1	1 x 1	1 x 1	1 x 1	1 x 1	See note 7.
DIALYSIS FLUID BAY		1 x 1	1 x 1	1 x 2	1 x3	1 x 4	See note 8.
DIASYLATE PREPARATION AREA		1 x 1	1 x 1	1 x 1.5	1 x 1.5	1 x 2	Space adjacent to Dialysis Fluid Bay. May be subdivided to enhance staff access.
DISCOUNTED CIRCULATION		25%	25%	25%	25%	25%	

Functional Relationships Diagram/s

503343 620 .73.00 A diagram of key functional relationships is attached.

References and Further Reading

503344 620 .74.00 Reference has been made to the following documents to inform these guidelines. A full review of the following documents should be taken by persons embarking on the planning and design of a Renal Dialysis Unit.

- AS/NZS 4187:2003 Australian/New Zealand StandardTM Cleaning, disinfection and sterilizing reusable medical and surgical instruments and equipment, and maintenance of associated environments in health care facilities.

• HB260 – 2003. Handbook: Hospital acquired infection – Engineering down the risk, Standards Australia, 2003.

• Health Facility Guidelines, Part D – Infection Prevention and Control, NSW Health, 2004.

• NSW Health, Health Facility Guidelines – Safety and Security (PD 2005-293), Working Draft, January 2005
• NSW Health, Health Facility Guidelines, Part C – Design for Access, Mobility, OHS and Security, 2004

• NSW Health, Infection Control Policy – Circular 2002/45.
• NSW Health, NSW Health Facility Guidelines, Standard Components, 2005
• NSW Health, NSW Standard Project, Room Data Sheets, 2005
• NSW Health, Part A – Introduction and Instructions for Use, NSW Health Facility Guidelines, 2004

• NSW Health, Part B – Health Facility Briefing and Planning, NSW Health Facility Guidelines, 2004

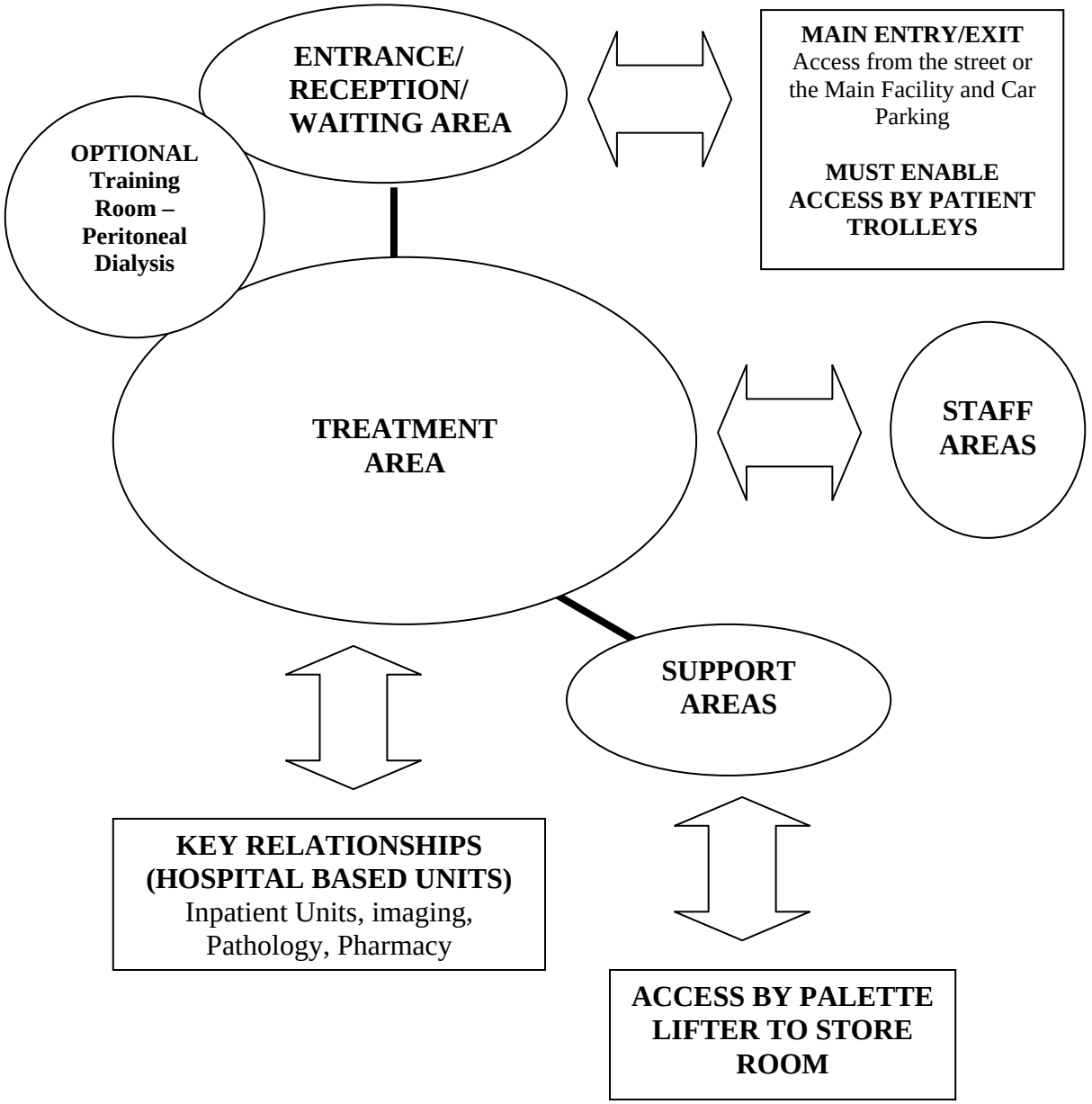
• NSW Health, Part D – Infection Prevention and Control, Health Facility Guidelines, 2004.

• NSW Health, Protecting People/Property: NSW Health Policy/Guidelines for Security Risk Management in Health Facilities (PD2005_339), January 2005
• NSW Health, Technical Series 11 – Engineering Services Guidelines, 2003
• Office Accommodation Policy for Public Health Organisations and Ambulance Services, April 2005.

• Poisons Regulations.
• Standards Australia HB 260 – 2003.

FUNCTIONAL RELATIONSHIP DIAGRAM –RENAL DIALYSIS UNIT

The following diagram sets out the relationships between zones in a Renal Dialysis Unit:



CHECKLIST

Name of HPU: _____ (Print and complete one per HPU)

Agreed Role Delineation Level: _____

No	Item	Yes	No
1.0	**Planning:**		
1.1	Have all Mandatory Functional Areas of the Unit been provided?	☐	☐
1.2	Have Functional Relationships been considered?	☐	☐
2.0	**Design:**		
2.1	Have the required Finishes been provided (if specified)?	☐	☐
2.2	Have the required minimum Fixtures and Fittings been provided?	☐	☐
2.3	Have Infection Control Issues been addressed?	☐	☐
2.4	Have Access, Mobility & OH&S Issues been addressed?	☐	☐
2.5	Space Standards and Components: Have Minimum Room Dimensions been provided (if specified)? Have Minimum Room sizes been provided as specified? Have sufficient clearances been provided (if specified)?	☐ ☐ ☐	☐ ☐ ☐
2.6	Have Safety and Security Issues addressed: Patient Area Staff Areas Drug Storage Areas	☐ ☐ ☐	☐ ☐ ☐
2.7	Does the Design Brief comply with the nominated Standards and Codes?	☐	☐
2.8	Has the Health Planning Unit provided a Schedule of Accommodation?	☐	☐
3.0	**Components of the Unit**		
3.1	Have all mandatory Components been included?	☐	☐

Checked and certified by:

Name: _____ Date: _____

Company: _____

Position _____

Signature: _____

1 TABLE OF CONTENTS

INDEX

		Description
500323	1 .0.10	10 INTRODUCTION

Introduction and General Requirements:
- Purpose
- Content
- Objectives

705 PHYSICAL PLANNING MODELS AND POLICIES

Physical Planning:
- Planning
- Planning Models
- Planning Policies
- Efficiency Guidelines

710 SPACE STANDARDS & DIMENSIONS

Building Elements:
- Corridors
- Ramps
- Ceiling Heights
- Doors
- Observation Glass
- Handwash Facilities
- Windows
- Fixtures & Fittings
- Finishes

730 HUMAN ENGINEERING

Access and Mobility:
- General
- Planning
- Australian Standard 1428
- Grab Rails
- Ramps
- Staircases

Ergonomics:
- Overview
- Standards Table
- Staff Station
- High Counter
- High-Low Design
- Low Counter
- Security Barriers
- Workbench
- Computers
- Workstation - Typical
- Shelves

503052 1 .0.11 750 SIGNAGE

General
External Signs:
- External Directional Signs

- External Illuminated Signs
- Road Markings
- Street Signs

Internal Signs:
- Bed Numbers
- Patient Information
- Door Signs
- Room Signs
- Exit Signs
- Directional and Area Identification Signs

Fire Service Signs:
- General

Miscellaneous Signs:
- General

790 SAFETY AND SECURITY PRECAUTIONS

Safety:
- Introduction
- References and Further Reading
- Floor Finishes
- Glazing
- Glutaraldehyde Use
- Noise Reduction
- Insect Control
- Patient Handling and Lifting
- Soft Furnishings

Security:
- Definition
- Recurrent Costs
- Crime Prevention Through Environmental Design
- Internal Security Risks
- Security Risk Management
- Design for Security
- Building Elements
- Key Areas for Security Provision
- Building Elements
- Building Services
- Property
- Medical Gases

10 INTRODUCTION

INTRODUCTION AND GENERAL REQUIREMENTS

Purpose

501424 10 .1.00 Part B of these Guidelines covers the briefing and planning issues that result from the translation of health service delivery requirements into a brief for a physical facility.

This section of the Guidelines draws together a range of issues that guide the detailed planning of Health Care Facilities and looks in more detail at specific issues guiding the development of the detailed physical design for a facility. The first section sets out a range of planning issues that are applicable to the physical design of any Health Care Facility.

It recognises the framework of authority requirements, industry standards, codes and manuals that apply to every project.

The information is presented so that it may be used as a starting point for the work of a designer, as information for the users involved in a project, and as a checklist for assessment of design. It is not intended to replace the professional skill, knowledge and judgment of an experienced designer in the development of a Health Care Facility.

Content

501425 10 .2.00 This section contains information regarding physical planning models and policies that are believed to contribute to the procurement of well- designed Health Care Facilities.

It includes space standards and dimensions for commonly occurring building elements, guidelines for designing for disabled access and an outline of signage requirements for Health Care Facilities.

Occupational Health and Safety (OHS) issues are covered in terms of avoiding or minimising design practices that often contribute to hazardous or harmful features in the built environment.

Finally, design practices that enhance the security of people, premises and property are outlined in Section 790.

PHYSICAL PLANNING

Planning

500006 705 .1.00 Planning of Hospitals and Health Care Facilities requires an understanding of the appropriate relationships between the various components as well as an understanding of site constraints and conformity with various codes and guidelines.

A thorough assessment of the service planning requirements for the proposed project should be made prior to commencing capital planning.

500790 705 .3.00 Good planning relationships can :

+ increase the efficiency of operation;
+ promote good practice and safe health care delivery;
+ minimise recurrent costs;
+ improve privacy, dignity and comfort;
+ minimise travel distances;
+ support a variety of good operational policy models;
+ allow for growth and change over time;
+ maximise safety, security, OHS and Infection Control.

Planning Models

500048 705 .4.00 The design of Health Care Facilities has evolved around a number of workable Planning Models. These can be seen as templates, prototypes or patterns for the design of new facilities. Typically each model will best suit a certain facility size and site condition.

None of these models override the need for compliance with relevant statutes (such as OHS, planning, building regulations, etc) and government policy.

500008 705 .5.00 The planning team must define a clear model of operation for the facility. This should be readily described in a simple and clear flow diagram. Planning teams are encouraged to seek planning relationships that can satisfy more than one operational model, rather than satisfy limited, unusual or temporary operational policies.

500791 705 .6.00 Requirements for proximity to other components or for independent access to a Unit will govern the planning relationships for each facility. The need for future expansion or change of function should also be reasonably anticipated in all designs.

501426 705 .7.00 The following general planning models and design notes are used to promote good planning, efficiency and flexibility for the design of health facilities.

Planning Principles

500010 705 .8.00 FLEXIBLE DESIGN

In health care, Operational Policies change frequently. The average cycle may be as little as five years. This may be the result of management change, government policy, turnover of key staff or change in the market place. By contrast, major Health Care Facilities are typically designed for 30 years, but may remain in use for more than 50 years.

If a major hospital is designed very tightly around the Operational Policies of the day, or the opinion of a few individuals (who may leave at any time), then a significant investment may be at risk of early obsolescence.

Flexible Design refers to planning models that can not only adequately respond to today's Operational Policy but have the inherent flexibility to adapt to a range of alternative, proven and forward looking policies.

At the macro level, many of the commonly adopted Hospital Planning Models have proved flexible in dealing with multiple Operational Policies.

At the micro level, designers should consider simple, well proportioned, rectangular rooms with good access to simple circulation networks. Interior features should not be achieved by creating unnecessary complexity.

500011 705 .9.00 ROOMS SHARED BETWEEN UNITS

This concept refers to models that allow for changes in operating mode as a function of management rather than physical building change. For example, two Inpatient Units can be designed back to back so that a range of rooms can be shared. The shared section may be capable of isolation from one or the other Inpatient Unit by a set of doors. This type of sharing is commonly referred to as Swing Beds. It represents a change to the size of one Inpatient Unit without any need to expand the unit or make any physical changes. This is also an example of flexible design.

Designers should consider issues such as compatibility of use, access to Treatment Rooms, Utility Rooms, storage, etc and the supervision of patients when using Swing Rooms, and in particular, the ability to switch nurse call systems to the new Staff Station.

The same concept can be applied to a range of Health Planning Units to achieve greater flexibility for the management of these units.

500012 705 .10.00 OVERFLOW DESIGN

Some functions can be designed to serve as overflow for other areas that are subject to fluctuating demand. For example, Waiting Areas for different services can be collocated; Procedure Rooms can be equipped to provide capacity for emergency operating needs; day and ambulatory care areas can be adapted for overnight use in emergencies such as those relating to natural disasters.

500050 705 .11.00 STAGED USAGE

Health Care Facilities of all sizes may be subject to fluctuating demand. It is desirable to implement a Staged Usage policy to close off certain sections when they are not in use. This allows for savings in energy, maintenance and staff costs. It also concentrates the staff around patients and improves communication. In designing for staged usage or progressive shutdown, designers must ensure that:

+ none of the requirements of these Guidelines are compromised in the remaining open sections;

+ the open sections comply with other statutory requirements such as fire egress;

+ the open patient care sections maintain the level of observation required by these Guidelines;

+ in the closed sections, lights and airconditioning can be shut off independently of other areas;

+ the closed sections are not required as a thoroughfare for access to other functions;

+nurse call and other communication systems can adapt to the shutdown mode appropriately;

+ the shutdown strategy allows access to items requiring routine maintenance;

+ a section can be isolated to facilitate the management of an outbreak of infectious diseases.

500013 705 .12.00 ZONING FOR HOURS OF OPERATION

The design should, where appropriate, collocate Units with similar operating hours to allow easy shutdown of larger floor areas or even whole floors after hours. This can bring significant benefits in operating costs, particularly in the areas of light and power, air-conditioning and security. Safe transit routes through the facility must be maintained, and staff shall not be required to traverse closed areas after hours.

Planning teams should take particular care to ensure that staff are not working in isolation after hours, ie 24 hour zones within 8 hour zones. The reverse situation is preferably also avoided.

500014 705 .13.00 OPEN ENDED PLANNING

A Health Care Facility designed within a 'finite' shape, where various departments and functions are located with correct internal relationships, may look and function very well at first; however, any expansion will be difficult. Some expansion requirements can be accommodated in new external buildings with covered links; but over time the site will become complicated with random buildings and long walkways.

The opposite of this scenario is to use planning models and architectural shapes that have the capability to grow, change and develop additional wings (horizontally or vertically) in a controlled way.

The configuration of the circulation system, both vertical and horizontal, on which all functions depend, is critical to the success of Open Ended Planning. Some of the concepts involved in Open Ended Planning Policies include the following:

+ major corridors located so that they can be extended outside the building

+ as far as possible, Health Planning Units (HPUs) to have one side exposed to the outside to permit possible expansion;

+ if a critical HPU must be internal, it should be adjacent to other areas that can be relocated, such as large stores or administration areas;

+ avoid HPUs that are totally land-locked between corridors;

+ external shapes should not be finite;

+ external shapes should be capable of expansion;

+ finite shapes may be reserved for one-off feature elements such as Main Entrance Foyer;

+ roof design should consider expansion in a variety of directions;

+ stairs should not be designed to block the end of major corridors;

+ the overall facility flow diagram should be capable of linear or radial expansion whilst keeping all the desirable relationships intact;

+ fixed internal services such as plant rooms, risers, service cupboards should be placed along major corridors rather than in the centre of HPUs.

+ open Ended Planning Policies can be applied to entire facilities as well as individual HPUs.

500015 705 .14.00 MODULAR DESIGN

This is the concept of designing a facility by combining well designed standard components. For example a designer may create a range of Patient Bedrooms, a range of utility rooms and other common rooms that are based on a regular grid such as 300 or 600mm. These rooms can then be combined to create larger Units such as an Inpatient Unit. The Inpatient Unit can then be used as a module and repeated a number of times as required.

This approach has many benefits. Modules can be designed only once, to work very well. No redesign is necessary to adjust to different planning configurations. Instead the plan is assembled to adapt to the modules. Errors in both design and construction can therefore be minimised.

Modular Design should not necessarily be seen as a limitation to the designer's creativity, but a tool to achieve better results. Designers are encouraged to consult with clients and user groups to agree on ideal modules, then adopt them across all HPUs.

In practice, especially in refurbished facilities, it is common for the 'ideal module' to be adjusted to suit the particular circumstances.

500016 705 .15.00 SINGLE HANDING

It is common design practice to design identical and adjoining planning modules in mirror image. Typical examples include Operating Theatres and Patient Bedrooms with En Suite. This may be cost effective due to the sharing of plumbing services and circulation spaces.

Single Handing refers to situations where mirror image (Handing) may not be necessary or appropriate.

In areas requiring a high level of staff training, such as in Operating Suites, it may be more appropriate to 'hand' all key rooms in identical manner. This makes the

task of staff training easier.

For example, a staff member entering any Operating Room, regardless of its location and approach from corridor, will find the service panel on the left, x-ray viewer on the right and the door to the Sterile Stock Room in the front.

At a micro level, medical gases may always be located to the left side of patient's bedhead regardless of the direction of approach. A similar situation may apply to the layout of Consult/Exam Rooms to allow for right-handed examination of a patient.

Note: Planning teams should consider and evaluate the benefits of Single Handing on a case by case basis.

Planning Policies

910537 705 .16.00 UNIVERSAL DESIGN

This concept is similar to Modular Design. Universal Design refers to Modules (or standard components) designed to perform multiple functions by management choice.

For example, a typical Patient Single Bedroom can be designed to suit a variety of disciples including Medical/ Surgical/ Maternity and Orthopaedics. Such a room can be standardised across all compatible Inpatient Units. This will permit a change of use between departments if the need arises. Such Universal Design must take into account the requirements of all compatible uses and allow for all of them. The opposite of this policy is to 'specialise' the design of each component to the point of inflexibility.

Other examples of Universal Design are as follows:

+ universal Operating Rooms which suit a range of operations;

+ bed cubicles in Day Surgery which suit both Pre-operative and Post-operative Care;

+ offices that are standardised into only a limited number of types for example 9 m2 and 12 m2;

+ toilets may all be designed for disabled access or as unisex.

The main point of Universal Design is to resist unnecessary variation in similar components, where the change in functionality can be accommodated in one standard design.

Efficiency Guidelines

910493 705 .17.00 GENERAL

The concept of efficiency refers to the ratio between nett functional areas and circulation space. Simplistic guidelines on efficiency tend to be misleading and should not be applied to vastly different functional briefs.

It is more appropriate to allocate different circulation percentages for generically different Planning Units. Such a guide has been provided under the Schedule of Circulation Areas in this section.

Inadequate circulation allowance in briefing documents is not recommended. It can result in undue pressure on designers to reduce sizes and therefore

functionality. It must also be noted that the circulation percentages are a guide only. They apply to the Planning Units included in these Guidelines under Generic Schedules of Accommodation.

910507 705 .18.00 NETT FUNCTIONAL AREAS

In briefing documents, Nett Functional Areas represent the sum of individual room areas without any corridors.

If areas are measured off the plans, then the following measurement method will apply:

+ external wall thickness is excluded;

+ internal wall thicknesses and columns are included;

+ wall thickness is divided equally between adjoining rooms;

+ corridor walls are allocated to adjoining rooms;

+ passing service risers and service cupboard are excluded.

910508 705 .19.00 GROSS DEPARTMENTAL AREAS

Gross Departmental Areas are calculated by adding the Nett Functional Areas and departmental corridors. These are corridors that are entirely within one department (or Planning Unit).

In calculating the departmental corridors the following should be taken into account:

+ service cupboards and passing risers are excluded;

+ corridor wall thicknesses are excluded as these are included in room areas;

+ columns are included;

+ fire stairs are excluded;

+ lifts and lift shafts are excluded.

501427 705 .20.00 TRAVEL

'Travel' represents arterial corridors that connect the Units. Travel is required to allow passage from one Unit to another without going through the internal corridors of another Unit. A target of 10-12.5% is appropriate for Travel in a hospital of one to three storeys.

In calculating travel, the following should be considered:

+ wall thicknesses are excluded as these are part of the Gross Departmental Areas;

+ fire stairs are included once for each floor to floor connection;

+ external wall thicknesses are included;

+ lift shafts are excluded;

+ service cupboards are excluded.

910510 705 .21.00 ENGINEERING

Engineering refers to the area of plant rooms and other service areas. In calculating the Engineering allowance the following areas should be included:

+ service cupboards;

+ lift motor rooms;

+ service shafts and risers.

Lift shafts should be excluded. The target of 10-12.5% applied to Gross Departmental Areas may be used for a typical one to three storey hospital building.

501428 705 .22.00 DEPARTMENT SIZES

The actual size for a department will depend upon its role as set out in the Service Plan and supporting Operational Policies and the organisation of services within the hospital. Some functions may be combined or shared provided that the layout does not compromise safety standards and medical and nursing practices.

Note: Departmental sizes also depend on design efficiency. For guidelines on this subject refer to Efficiency Guidelines - Schedule of Circulation Areas in this section.

501429 705 .23.00 ROOM SIZES

Room sizes may require adjustment in response to current or predicted usage and Furniture, Fittings and Equipment (FFE) requirements. For example, the size of equipment may change over time and this needs to be considered in determining room sizes for specific purposes.

501430 705 .24.00 SCHEDULE OF CIRCULATION AREAS

The following Circulation Areas are recommended as a starting point for briefing typical Health Planning Units (HPUs). Clearly circulation percentages will vary as a result of the configuration of the Unit, including the use of a 'racetrack' arrangement or double loaded corridors.

The figures given are a guide only. The actual spatial allocation will depend on the role delineation of the service, the re- use of existing buildings and the skill of the individual designer.

The provision of appropriate area for circulation requirements will be tested during the preliminary design phases; both under and over provision of circulation space should be avoided.

DEPARTMENT		CIRC'N - %	NOTES
ADMINISTRATION		20	
ALLIED HEALTH		25	
AMBULATORY CARE		32	

BIOMEDICAL ENGINEERING		20	
CATERING UNIT		25	
CENTRAL STERILE SUPPLY		20	
CHAPEL		10	
CHILD CARE		20	
CLEANING/HOUSEKEEPING		10	
CLINICAL INFORMATION		15	
CORONARY CARE		35	
DAY ONCOLOGY		30	
DAY PROCEDURES UNIT		35	
DENTAL		20	
EDUCATION & TRAINING		15	
EMERGENCY UNIT		40	
ENDOSCOPY UNIT		35	
ENGINEERING & MAINTENANCE		15	
INPATIENT UNITS		32	
INTENSIVE CARE		40	
LAUNDRY		10	
LINEN SERVICE		10	
LONG TERM CARE		32	
MEDICAL IMAGING		35	
MORTUARY		20	
NUCLEAR MEDICINE		30	
OBSTETRIC UNIT		35	
OPERATING UNIT		35-40	
OUTPATIENT UNIT		20	Class 5
OUTPATIENT UNIT		25	Class 9A
PAEDIATRIC/ADOLESCENT		32	
PATHOLOGY		25	
PHARMACY		25	
PSYCHIATRIC UNIT		32	
PUBLIC AMENITITES		10	
RADIOTHERAPY		30	

REHABILITATION INPATIENT		32	
RENAL DIALYSIS		32	
STAFF ACCOMMODATION		10	
STAFF AMENITIES		10	
SUPPLY UNIT		10	
WASTE MANAGEMENT UNIT		20	

501431 705 .25.00 SCHEDULE OF ALLOWANCES FOR TRAVEL AND ENGINEERING
(Source: NSW Cost Planning Guidelines)

The allowance for travel and engineering should be determined in conjunction with the planning team to take account of the requirements of the specific project.

Although these are previously discussed separately in this document, where no other information is available the allowance for combined travel and engineering should be as follows:

TRAVEL & ENGINEERING		AREA %	
ONE STOREY		20	
TWO STOREY		23	
THREE STOREY		25	
FOUR STOREY		28	

Corridors

501432 710 .1.00 PERFORMANCE REQUIREMENTS

The requirements set out in this section for corridor widths shall be regarded as the minimum required. These requirements take into account the need to allow for the safe movement of trolleys, beds, wheelchairs and other mobile equipment, including the passing of such equipment and situations where oversized additional equipment such as bed extensions are in use, or when other equipment is attached.

In areas where patient beds, trolleys and stretchers will be moved regularly, such as Inpatient Units, Operating Units, Birthing Units and Intensive Care Units, the minimum clear corridor width shall be 2100 mm.

The width of major inter-departmental corridors and public corridors generally shall be as wide as is deemed necessary for the proposed traffic flow, but shall not be less that 2100 mm, with a recommended width of 2200mm.

600360 710 .1.05 The overriding principle in setting the minimum corridor width is the need to allow for a workable width that, in the event of an emergency evacuation procedure, does not impede egress.

Designers should note that the Building Code of Australia (BCA) also specifies minimum corridor widths for Patient Care Areas. The requirements of these Guidelines for certain areas may be higher than the BCA as Fire Safety is not the only focus of these Guidelines.

Most large hospital Health Planning Units include a range of patient and staff only corridors. If staff-only areas are clearly designated by planning and are not required for patient access, then the guidelines for patient corridors do not apply.

All corridor widths are clear of hand rails and/or crash rails. For design purposes (and considering construction tolerances) 100 mm shall be allocated to each hand rail.

501433 710 .2.00 The recommended corridor width in areas where there is frequent bed and trolley movement is 2200 mm, to accommodate the safe turning of trolleys and beds to ensure staff and patient safety, including situations where additional equipment such as bed extensions are in use, or when other equipment is attached.

Even at this dimension, special consideration must be given to the width of doorways into adjacent rooms and widening corridors at the entry to the affected rooms to accommodate turning trolleys and beds.

Corridor widths in the above areas may be considered at lesser dimensions where an existing building is utilised, but special design and planning detail must be incorporated to overcome the problems of congestion and the potential risk to patients and staff in an emergency evacuation.

Note: In any event, the corridors may not be narrower than that required by the BCA for Patient Care Areas.

501434 710 .3.00 In areas where irregular trolley or bed movement is expected, corridor widths can be reduced to 1800 mm. Special consideration must be given to the door widths to ensure the movement of trolleys or beds from corridor to adjacent rooms is not

restricted including situations where additional equipment such as bed extensions are in use, or when other equipment is attached.

501435 710 .4.00 In Outpatient Units and areas not routinely used for patient transportation on trolleys or stretchers, the corridor widths may be reduced to 1200 mm.

Note 1: Designers should note that the areas subject to this clause must be capable of being classified as Class 5 under the BCA.

Note 2: This width only applies to corridors used by patients. Staff only corridors are excluded from this requirement.

501436 710 .5.00 In areas where there is no patient transportation requirement and where corridor runs are no longer than 12 metres, such as a corridor spur to a group of offices, corridor widths of 1200 mm are acceptable providing they are in accordance with AS 1428.

300042 710 .6.00 Corridor widths of less than 1200mm are unacceptable in patient care areas, except where forming part of an existing facility, and where written approval has been obtained for the lesser width.

501437 710 .7.00 Generally, fire compartment doors should be held open by magnetic door hold-open devices, connected to the fire alarm system. This is to ensure that these doors do not impede travel, create manual handling risks or create line of sight risks under normal circumstances.

Note: In these Guidelines, the inter-departmental corridors are referred to as 'travel'.

501438 710 .8.00 The minimum requirements for Health Care Facility corridors are summarised in the following table:

LOCATION	BCA CLASS	Trolley Movemen	Min Clear Width	Rec Clear	Hand Rails	Wall Protection	Notes
PATIENT CARE AREAS (EXAMPLES)							
OPERATING, EMERGENCY, INPATIENT, BIRTHING, ICU	9a	Patients - Freq/regul	2100	2200	Yes	Yes	Consider door widths into adj rms, wider corridors at entry pts for turning trolleys/beds.
MEDICAL IMAGING, AMBULATORY CARE	9a	Patients - Occas/reg	1800	2100	Yes	Yes	Door widths to ensure movt of trolleys/beds from corridors to adj rooms is not restricted.
AMBULATORY CARE/ OUTPATIENTS	9a	Patients - Rarely/Ne	1800	1800	Yes	Yes	Part of Acute Care facility.
OUTPATIENTS/COMMUNITY HEALTH/CONSULTING ROOMS	5	Patients - Never	1200	1200	Yes	Yes	Separated in accordance with BCA req'ts from acute facility, or stand alone.
STAFF AREAS							
OFFICES	5	None	1200	1200	No	No	Corridor length to be less than 12m.
AMENITIES	5	None	1200	1200	No	No	Corridor length to be less than 12m.
OTHER AREAS							
INTER-DEPARTMENTAL CORRIDORS	9a	Services & Patients	2100	2200, but depends	Yes	Yes	

HOTEL SERVICES EG KITCHEN, LAUNDRY, STORES		Services	1800	2100	No	Yes	Major eg connecting to other units, large traffic flow.
HOTEL SERVICES EG KITCHEN, LAUNDRY, STORE		None	1200	1500	No	Yes	Minor - within unit.

503048 710 .9.00 Notes:

1. Minimum clear width is set by the BCA for fire egress purposes; the minimum width recommended by these Guidelines will generally exceed that set by the BCA for other reasons including the safe movement of patients on trolleys and safe staff work practices.

2. Where hand rails are required, these should be installed in accordance with AS1428.

3. Where indicated, wall and corner protection should be provided to suit the likely traffic flow.

4. 'Clear corridor width' means clear, unobstructed widths. Items such as hand rails, drinking fountains, hand basins, telephone booths, vending machines and portable/mobile equipment of any sort shall not reduce the minimum width or impede traffic flow.

Ramps

501439 710 .10.00 Ramps may also be required as part of general facility circulation. Ramps for disabled access are covered under 'Disability Access'.

Ramps for disability access are frequently used for general access and for moving beds, ambulance trolleys and other equipment between different levels. They should therefore be designed accordingly.

They should have the required slope, width and turning circles based on the size and weight of an occupied bed plus space for passing. In this situation, ramps may need to be wider, have bigger turning circles and sometimes have lower gradients than those needed for wheelchairs.

Ceiling Heights

300047 710 .11.00 PERFORMANCE REQUIREMENTS

The minimum ceiling height in occupied areas and in areas such as corridors, passages and recesses shall be 2400 mm.

600361 710 .11.05 Consideration should be given to the size (aesthetic consideration) and use of the room. 2700 mm is considered a more appropriate ceiling height in work areas, eg Therapy Rooms, Conference Rooms, Intensive Care (open plan), Kitchens, etc. Ceiling heights in En Suites may be reduced to 2250 mm where required, to accommodate building services, structure etc.

501440 710 .12.00 In portions of remodelled existing facilities, the corridor ceiling height may be reduced to 2250 mm, but only over limited areas such as where a mechanical duct passes over a corridor.

300049 710 .13.00 In areas where access is restricted, eg, drinking fountain recess, a minimum ceiling height of 2250mm is acceptable.

501441 710 .14.00 Rooms with ceiling mounted equipment, such as X-Ray Rooms and Operating Rooms or other rooms where ceiling-mounted patient lifting devices are fitted may require increased ceiling heights. Heights should comply with equipment manufacturers' recommendations. The most common ceiling height in such areas is 3000 mm.

501442 710 .15.00 Minimum ceiling (soffit) heights of external areas such as entry canopies, ambulance entries and delivery dock canopies should suit the requirements of the vehicles expected to use them. Special consideration should be given to the impact of whip aerials fitted to emergency vehicles, or specialist emergency vehicles designed and fitted to transport bariatric (obese) patients, which may result in increased vehicle height and width.

501443 710 .16.00 Ceiling and door heights in Plant Rooms are to suit the equipment and allow safe access for service, maintenance and future replacement of equipment. A minimum recommended ceiling height is 2400 mm.

501444 710 .17.00 Reinforcement of the ceiling support structure shall be provided for overhead patient hoists where installed. This should be noted in the project brief.

In addition, information provided by equipment manufacturers shall be reviewed in terms of the needs of particular items of equipment for passage through full height door openings eg to en suite bathrooms; or that may affect the positioning of bed screen tracks or other such fixtures in Multiple-Bed Rooms.

Doors

501445 710 .18.00 PERFORMANCE REQUIREMENTS

Comply with the requirements of the BCA for the provision of doors including all related ancillary requirements such as construction, hardware and signage.

600362 710 .18.05 AUTOMATIC DOORS

Automatic sliding doors may be used in high traffic areas. They may also be used successfully in areas where 'hands-off' access is necessary, such as entries to an Operating Unit. Where installed, they shall satisfy the requirements of emergency egress and to close at a rate that provides sufficient time for disabled and frail patients and visitors to enter/exit.

They should not be used in areas where access control is required.

501446 710 .19.00 SLIDING DOORS

Sliding doors are not recommended, but may be used subject to compliance with the BCA and mandatory requirements.

These Guidelines recommend against the use of sliding doors in Health Facilities due to hygiene concerns, maintenance problems and potential for locking in place.

Cavity sliders shall not be used in the following areas:

+ Planning Units containing Patient Care Areas or Treatment Areas;

+ Planning Units containing sterile equipment;

+ Planning Units containing patient diagnostic equipment;

+ Catering Facilities;

+ Laboratory Areas;

+ Mental Health Facilities.

Surface mounted sliding doors may be used subject to the requirements of access in emergency situations.

Sliding doors, if used should be of solid core or metal frame type to resist warping. Sliding doors should have tracks on top and bottom to ensure safety of operation.

501447 710 .20.00 DOOR SWING

Doors must not open into a zone which impedes the manoeuvring of patients/residents, nor swing out into a circulation area in a manner that might obstruct traffic flow or reduce the required corridor width.

However, doors may be required to swing out or in both directions for reasons of patient safety eg patient bedrooms in Mental Health Units, for reasons of staff safety such as in Consultation Rooms, or where they form part of an escape route.

501449 710 .21.00 DOORS IN THE PATH OF FIRE EGRESS

All doors on the path of fire egress shall be single or double swing type. These shall comply with the requirements of the BCA. (Note: if such doors also form part of a fire or smoke compartment, they shall maintain those properties in the closed position).

Fire doors linked to hold-open devices controlled by smoke detectors reduce impediments to safe patient/resident handling and should be used where possible. (Refer to Victorian WorkCover Authority, 1999)

Sliding doors may only be used for exit doors in accordance with BCA restrictions and requirements.

501450 710 .22.00 DOORS - SECURITY

All perimeter doors should be locked and access restricted to one or the minimum necessary points in the building especially at night.

For design standards refer to Security - Building Elements - Doors, in these Guidelines.

501451 710 .23.00 DOORS USED BY PATIENTS

Doors to rooms likely to be used by patients without staff assistance should be single or double swing type.

Swing doors should generally open from corridors and distribution spaces into rooms. However doors that should open out include:

+ doors to small patient ensuites;

+ doors to disabled toilets and showers;

+ doors to small change cubicles;

+ doors in areas accessed by mental health patients to prevent patients locking/barricading themselves in the room.

Doors required to enable emergency access shall open out or open in both directions. Refer to 'Doorswing'.

910494 710 .24.00 DOOR OPENINGS

Clear door openings between two sections of a corridor or from one corridor to another shall be as specified by the BCA for doors in the path of fire egress. In effect, for the purpose of these Guidelines all corridors are on the path of egress.

Note: In Class 9a Patient Care Areas, the minimum door width for doors on the path of egress is the corridor width less 250 mm.

300053 710 .25.00 The minimum dimensions of clear door openings to Inpatient Bedrooms in new areas shall be 1200 mm wide and 2030 mm high, to ensure clearance for the movement of beds. Existing doors of lesser dimensions may be considered acceptable where function is not adversely affected and replacement is impractical.

501452 710 .26.00 Door openings need to be high enough to allow access for equipment likely to be used such as IV poles, fracture frames and electric beds. Generally, 2030 mm high (standard door opening) will suffice. In special circumstances, this may be increased to 2400 mm high.

Consideration should be given to the weight of the door to ensure that it is easy to open and close as full height doors can be relatively heavy. (Refer to Victorian WorkCover Authority, 1999)

501453 710 .27.00 In general, clear door openings to rooms that may be accessed by stretchers, wheeled bed stretchers, wheelchairs or handicapped persons, shall be a minimum of 900 mm. For situations such as hoists and shower trolleys 1000 mm is the minimum recommended. Designers should review the manufacturer's recommendations for the equipment selected, consider the need to cater for future equipment design changes and design in a reasonable safety margin for these.

501454 710 .28.00 While these Guidelines are intended to facilitate access by personnel and mobile equipment, consideration must be given to the size of furniture and special equipment that is to be delivered via these access ways.

For example, plant room door openings should allow for safe access for maintenance, service and replacement of equipment.

501455 710 .29.00 EMERGENCY ACCESS

Certain rooms that are used by patients shall be equipped with doors and hardware that will permit emergency access from outside the room.

These rooms can be defined broadly as rooms that:

+ are used independently by patients;

+ have only one door;

+ are smaller than 6 m2;

+ have less than 2.5 m of clear space behind the single door;

+ form Patient Bedrooms, Bathrooms and Ensuites in Mental Health Facilities;

+ form secure rooms in Mental Health Facilities.

When such rooms have only one opening and if the door normally opens inwards, in case of emergency, the staff must be able to open the door outwards without any need to use a key, Allen key or special device.

The use of retractable doorstops within flat metal door frames together with coin operated door snibs is recommended. The snib can be opened with a coin while the door can be opened outward by simply pushing the doorstop into the frame.

501456 710 .30.00 MENTAL HEALTH SECURE ROOMS

In Mental Health Secure Rooms, the following configuration shall apply:

+ one single leaf door opening inward wide enough to accommodate a patient with a nurse on either side;

+ a second outward opening egress door in case of emergency may be provided;

+ both doors with external locks and no internal handles;

+ door locks to 'fail safe' in case of fire;

+ doors and frames should be of solid construction with multiple hinges and multiple locking points. Viewing panels should be constructed from non-breakable material with concealed fixings.

Note: Alternative operational policy may be considered whereby all staff carry a key that will operate doors to mental health secure areas and thereby control egress from these areas in a fire situation.

501457 710 .31.00 DOOR HANDLES

GENERAL

The following considerations shall be given to the particular hardware requirements and special fittings needed for certain areas:

DOOR HANDLES GENERALLY

In areas where staff frequently pass doors, the shape of the door handle should be selected so that it is does not catch on pockets of overalls or other clothing. Handles with a full return are recommended.

Lever handles are recommended for hinged doors and 'D' pulls for sliding doors.

Handles should be located at an appropriate height to enable staff to easily open doors whilst supporting or manoeuvring patients/residents.

MENTAL HEALTH

Door handles in a Mental Heath Unit shall prevent self-harm by not providing a supporting point. This can usually be achieved by using recessed, concealed or flush hardware. Alternatively, specially formed knobs are available which do not allow 'grabbing'.

PAEDIATRIC ROOMS

In Paediatric Rooms consideration should be given to providing two sets of door handles; one at high level and one at low level.

LOCKS

Door handles may incorporate locks, snibs, push buttons and indicators. Designers and specifiers should consider flexible hardware systems where the functionality of the door may be changed without necessarily changing the hardware.

The type of locking function shall be appropriate for the use of the room. In any event, the locking device shall prevent a person being inadvertently locked in a room.

Security locks such as ‘proximity’ and swipe card systems may be required for controlled access areas.

PUSH / PULL PLATES

In many instances a door lock or latch is not necessary. Rooms that do not require locking may work well with only push/pull plates and a self closer. Push/pull plates are recommended in rooms that are used frequently by staff holding objects in their hands. Dirty Utility Rooms are a good example.

501458 710 .32.00 DOOR GRILLES AND UNDERCUTS

The Heating, Ventilation and Air Conditioning (HVAC) design may require door grilles or undercuts. These are usually required for return air, makeup air or pressure relief.

Door grilles or undercuts may be used in areas that do not compromise the requirements of the BCA and other requirements of these Guidelines.

Door grilles or undercuts may not be used in the following locations:

+ areas with a particular air-pressurisation scheme Isolation Rooms;

+ room requiring acoustic isolation;

+ rooms requiring radiation shielding;

+ Fire Doors and Smoke Doors.

Door grilles should not be used in any patient accessible areas in Mental Health Facilities, due to the potential for door grilles to suffer impact and damage, or to be used as a weapon.

The following non-mandatory recommendations also apply to grilles and

undercuts:

+ door grilles are not recommended for areas used by people in wheelchairs due to potential impact and damage;

+ door grilles are not recommended for bathrooms or ensuites;

+ large undercuts close to bathroom showers are not recommended as they can result in water leaking or splashing outside to adjoining rooms;

+ as an alternative to a door undercut, designers may consider an inward sloping door slot approximately 200 mm above the floor to reduce water egress whilst providing the same functionality as a door undercut.

501459 710 .33.00 HOLD-OPEN DEVICE

Door hold-open devices should also be considered for doors that should remain open, such as doors on main traffic routes and delivery doors.

The following requirements shall apply:

+ hold-open devices shall be capable of activation and de-activation without any need for the staff to bend down, reach upwards or reach behind the door;

+ hold-open devices shall not be fitted to doors where this compromises doors that are required to achieve a specific air pressurisation or isolation scheme by these Guidelines;

+ hold-open devices shall not be fitted to the side of a door that may permit a disturbed patient to lock the door from inside, or where they may provide a potential hanging point for patients who are at high risk of self harm;

+ in areas frequently used by staff holding objects or pushing trolleys, the use of delayed action combined self closer/hold-open device is recommended;

+ hold-open devices used for fire doors should be controlled by smoke detectors, or by activated fire alarms.

501460 710 .34.00 SELF CLOSERS

Self closers are required for fire and smoke doors nominated in the BCA and shall comply with its requirements. This section covers other door types.

Self closers shall be provided for the following doors:

+ doors required to achieve a certain airflow or air pressurisation scheme required by these Guidelines;

+ entrance doors to any area nominated as a restricted area by these Guidelines including:

- Operating Unit;

- CSSU;

- Kitchen;

- Sterile Stock Room;

- Isolation Rooms;

- Birthing Rooms.

501461 710 .35.00 Apart from the above doors, self closers are not required or encouraged. Over-provision of self closers can lead to unnecessary capital and maintenance costs. Door closers should not be fitted where they exacerbate or create manual handling risks, where they impede the movement of patients, or where they reduce the independence of patients.

501462 710 .36.00 Self closers to the following rooms are discouraged:

+ Offices;

+ Patient Rooms;

+ Bathrooms and Ensuites;

+ Rooms used independently by people with disabilities;

+ Meeting Rooms and Interview Rooms;

+ Store Rooms - unless a hold-open device is fitted to allow for equipment movement in and out of the room.

501463 710 .37.00 HARDWARE

Self closers shall be designed and installed to allow for the door to open at least a full 90 degrees. Allowance should be made for the nib space required for the self closer arm.

Self closers used in double doors shall be accompanied by suitable sequencer hardware to allow the doors to be closed in the right sequence.

Self closers that duplicate the functionality of a hold-open device may also be considered.

Observation Glass

501738 710 .38.00 PERFORMANCE REQUIREMENTS

Glazed panels, installed in accordance with AS 1288 - Glass in Buildings - Selection and Installation, shall be provided in doors where visual observation for reasons of safety, security or patient observation is required.

In fire doors the size must comply with AS 1905.1 Components for the Protection of Openings in Fire Resistant Walls - Part 1 - Fire Resistant Door Sets.

600363 710 .38.05 The height of an observation panel shall be determined to suit the majority of people using the room, including people in wheelchairs.

501739 710 .39.00 Observation glass is recommended for doors in the following areas and situations:

+ Entry/Exit to Operating Rooms or Procedure Rooms;

+ Scrub Room to Operating Room;

+ Air-locks;

+ Clean and Dirty Utility;

+ Work Rooms frequently used by staff;

+ rooms used to interview mental health or disturbed patients (mandatory in WA);

+ rooms requiring an observation window but with no physical possibility of providing a window, such as Mental Health Secure Rooms;

+ Kitchens and Pantries.

501740 710 .40.00 Observation glass is not recommended in the following areas:

+ rooms requiring acoustic isolation;

+ where patient or staff privacy is required, although safety requirements may need to be balanced against this in some situations.

Observation glass shall have a mechanism, device or material to obscure the glass in the following areas:

+ Patient Bedrooms to facilitate privacy where required;

+ Operating Rooms and Procedure Rooms where laser may be in use;

+ Rooms requiring X-ray or other radiation shielding;

+ Rooms requiring electromagnetic shielding (such as a Faraday Cage).

Observation glass may be semi-frosted in areas where a clear vision of the room is not required. This type of glass or applied film may suit rooms where the primary concern is to avoid danger to staff passing through the door and to enhance patient privacy. Semi-frosted glass is usually adequate to enable staff to avoid the danger. Semi-frosted glass is recommended in doors to the following rooms:

+ Clean Utility;

+ Dirty Utility;

+ Operating and Procedure Rooms;

+ Examination/Treatment Rooms.

The use of safety glass should be considered where there are potential risks for security, violence or self harm. Refer 'Safety Glazing'.

Handwash Facilities

501741 710 .41.00 PERFORMANCE REQUIREMENTS

Hand basins shall be large enough and taps positioned in such a manner to prevent splashing on the floor creating a safety hazard.

Location and arrangement of fittings for handwashing shall permit their proper use

and operation.

Handwashing facilities shall be securely anchored to withstand an applied vertical load of not less than 115 kg on the front of the fixture.

Refer to section on 'Infection Control' for details of basin types and locations.

501742 710 .42.00 Particular care should be given to the clearances required for elbow action type handles. Non-thermal transmitting standard handles with effective finger grips are preferred. Heights are to suit the particular function, such as paediatric, disabled, and standard.

Windows

501744 710 .44.00 PERFORMANCE REQUIREMENTS

All rooms occupied by patients or staff on a regular basis shall have glazed windows or doors to achieve external views and/or make use of direct or borrowed natural light, where practical.

All Patient Bedrooms shall have external windows overlooking external areas. An external area is defined as the perimeter space around a building as well as naturally ventilated and lit atriums and courtyards.

501746 710 .44.05 The performance requirement for windows to patient areas is summarised in the following schedule:

ROOM/SPACE			External Window	Alternatives	Alternatives	Required	REMARKS
BEDROOM			Yes			Yes	
BIRTHING ROOM			Yes			Yes	
PATIENT BAY - CRITICAL			Yes	Skylight	Internal		CCU/ICU Bed Cubicle, Pre-op Cubicle
PATIENT BAY - NON ACUTE			Yes	Skylight		No	
PATIENT BAY - ACUTE			Yes	Skylight		No	
NURSERY			Yes			Yes	
PATIENT LOUNGE			Yes	Skylight		Yes	
PATIENT ACTIVITY ROOM			Yes	Skylight	Internal	Yes	
PATIENT DINING			Yes			Yes	

501745 710 .45.00 All Patient Bedrooms shall have external windows overlooking external areas. An external area is defined as the perimeter space around a building as well as naturally ventilated and lit atriums and courtyards.

Note 1: It is also a requirement of the BCA that all overnight Patient Bedrooms must have an external window. This does not apply to the Operating Unit, Emergency Unit, and similar areas.

Note 2: Where possible, the provision of external windows to ICU and CCU bed areas is required by these Guidelines.

Note 3: For the purpose of this clause, an internal atrium with artificial ventilation will be accepted if it complies with BCA requirements.

Window Types

501747 710 .47.00 PERFORMANCE REQUIREMENTS

In multi-level hospitals with ducted airconditioning systems, or in buildings in cyclone prone areas, it is not always possible or desirable to utilise openable windows. In these circumstances, fixed windows are acceptable, although access for external window cleaning shall be considered.

Some openable windows shall be provided to allow for ventilation in case of breakdown of mechanical ventilation systems such as airconditioning.

The use of openable windows shall be regulated in this situation by the use of key operated openings managed by staff.

501748 710 .48.00 Openable windows should have the provision to restrict the degree of opening. Locks should be heavy duty, affixed to both sides of the window and fixed securely through the frame with tamper-proof fixings. Window winders should be avoided.

501749 710 .49.00 Top hung windows, also known as ‘awning’ or ‘hopper’ windows should not be used in multi-storey buildings because they can act as smoke/heat scoops from fires in storeys below.

501751 710 .50.00 If it is considered undesirable to allow patients to open windows, for reasons such as avoiding potential problems with the central airconditioning, then the opening section of the windows should be operated with a lock or allen key held by the staff. See clause above.

Note 1: Any opening section of the window or door as described above shall be provided with a fly screen.

Note 2: The provision of opening windows also facilitates energy management and conservation as artificial lighting and airconditioning systems may not be necessary at certain times of the day and year. However, Infection Control requirements may override this - refer to Part D of these Guidelines.

Note 3: Window opening mechanisms should be selected to prevent persons from climbing in and out of windows. This applies particularly to areas that may accommodate children or persons with dementia or confusion, or mental illness.

Window Size

501750 710 .51.00 PERFORMANCE REQUIREMENTS

The total area of required external windows and/or external glazed doors shall have a net glazed area of not less than 10 per cent of the floor area of the room concerned.

600364 710 .51.05 An opening component equal to not less than five per cent of the floor area of that same room is considered highly desirable but not mandatory. These requirements

together will ensure natural light and ventilation in the event of an electrical or air handling system failure.

Window Cleaning

501752 710 .52.00 PERFORMANCE REQUIREMENTS

Window cleaning shall be considered and appropriate provisions made.

600365 710 .52.05 The selection of a cleaning method will depend on the type and location of openable window used.

For example:

+ inward opening windows allow for the cleaning of the outside surface in a safe manner while standing inside the building;

+ with alternate outside opening windows it is possible to open one window to reach and clean the next window; however this type of window will require secure harness anchor points for the cleaner;

+ a window cleaning ledge or balcony may be provided only for window cleaning with no patient access. If no hand rail is provided, a continuous harness system shall be provided with a harness cable or rail that must reach a safe access point. See not below;

+ a window cleaning cradle that typically descends from the roof may be used. Cradles must be accessible from a safe position on the roof and comply with all safety legislation;

+ extension arms may be used to clean windows that are one level above the ground or accessible from a terrace;

+ Health Service management may enter into a window cleaning contract with a contractor who uses a mobile Cherry Picker or other approved safe work practices and equipment.

Note: For safety reasons cleaning windows using a ladder is not recommended.

Note: In NSW compliance is required with OHS Regulation Clause 56 on fall protection wherever window cleaning or other external building maintenance /construction or excavation work would put a person at risk of falling more than 2 m. The Code of Practice: Safe Work on Roofs Part 1 - Commercial & Industrial Buildings; Safety Guide: Use of Fall-Arrest Systems also apply. Refer to WorkCover NSW website: www.workcover.nsw.gov.au

Windows - Security

501753 710 .53.00 WINDOWS SECURITY

External perimeter windows shall have treatments to minimise unauthorised entry such as bars security screens etc.

For building design standards refer to Security - Building Elements - Windows, in these Guidelines.

501754 710 .54.00 SUMMARY

Fixtures and Fittings refer to items that are generally factory made or otherwise manufactured off-site then installed in the building. Some fixtures and fittings may be present at the time of the completion of the construction or renovation. Others may be installed at a later date. For the purpose of these Guidelines, all fixtures and fittings that are 'installed', that is, fixed to the building, are part of the building and subject to the requirements of these Guidelines. As such, they should comply with requirements of all parts, and in particular:

+ Ergonomics;

+ Human Engineering;

+ Safety Precautions;

+ Security;

+ Infection Control.

Selection of Fixtures and Fittings is covered in detail in a separate section of these Guidelines.

Note: The OHS Act and Regulation requires consultation with employees and the identification, assessment and control of risks when selecting, purchasing and installing FF&E.

Refer to 'Safety and Security Precautions' in this section of the Guidelines.

Ceiling Finishes

501755 710 .55.00 PERFORMANCE REQUIREMENTS

Selection of the finish shall satisfy design, acoustics, fire protection, durability and security requirements.

Interior ceiling finishes for use in Health Care Facilities shall meet the criteria for acceptable fire index figures required by the BCA, in accordance with AS 1530.

600366 710 .55.05 Ceiling finishes have an impact on the aesthetics, acoustics and general atmosphere of a room. The effect of the ceiling finish on the level of lighting within a room shall be considered.

Part D of these Guidelines covers Infection Control issues. This section (Part C) covers issues which affect Access, Mobility, and Occupational Health & Safety Issues.

501756 710 .56.00 SELECTING CEILING FINISHES

SUMMARY

The following issues should be considered when selecting a ceiling finish.

Surface durability and soil resistance are key considerations where ceilings may be damaged, or need to be kept clean. Other factors may include the need for effective noise reduction, light reflection, moisture resistance or the need to accommodate the support of heavy equipment such as medical imaging or other screening machines, patient lifters and other devices.

Generally ceilings should be easy to maintain and repair. They will generally be

subjected to the cleaning protocols documented in the Operational Policies for the facility or for the specific Unit.

There are also increased demands for ceiling finishes to meet more exacting sustainable design criteria.

501757 710 .57.00 RESISTANCE TO SURFACE DAMAGE

Ceilings in areas like corridors, emergency receiving areas and mental health units may need to withstand surface impact or other forms of abuse.

In any areas where inlaid ceiling panels frequently need to be removed for access, resistance to surface scratching is highly desirable.

Test results for the proposed finish that evaluate impact resistance, surface scratch resistance, resistance to mould and mildew, and even air diffuser soiling resistance, should be reviewed against the particular requirements for each location.

501758 710 .58.00 INFECTION CONTROL

Although ceilings rarely become soiled with any hazardous matter and present reasonably minimal infection risks, a smooth washable finish should be used in areas where splash spillage may occur, for example, Resuscitation Rooms in Emergency Departments, or Operating Rooms.

For further information regarding Infection Control refer to Part D of these Guidelines.

501759 710 .59.00 USE OF ACOUSTIC FINISHES

Acoustic tiles or plasterboard may be used in areas where acoustic regulation is either desirable or critical, such as Operating Suite Support Areas, Interview Rooms, corridors, Waiting Rooms etc.

A cleaning problem may be generated due to the use of acoustic tiles in areas where splash spillage may occur and should be avoided.

501760 710 .60.00 ACCESS TO SERVICES

Generally ceilings in areas other than Operating and Procedure Rooms should provide access to services. If access panels are used in procedural areas, they should be provided with an effective positive seal.

Suspended ceiling systems may be used where access to services is required and a smooth seamless finish is not vital.

In mental health units patients should be prevented from accessing services in ceiling spaces.

501761 710 .61.00 AVOIDANCE OF DEFORMATION AND SAGGING

Sagging ceilings are often the result of moisture exposure in high humidity areas such as laboratories, kitchens, locker rooms, shower areas and indoor pools.

By avoiding where possible the following situations, the incidence of ceilings

sagging may be reduced or removed:

+ intermittent, seasonal use of facilities or long refurbishment, where HVAC systems might be shut down for extended periods;

+ installation of ceiling systems prior to the activation of the HVAC system in new construction or renovation projects;

+ attempted refreshment of indoor air quality by increasing the percentage of outside air that is circulating through a ventilation system.

501762 710 .62.00 SUSPENDED AND EXPOSED GRID SYSTEMS

In a suspended, exposed grid ceiling system attention should be paid to the specification of the grid, especially in terms of corrosion resistance.

Floor Finishes

501764 710 .64.00 PERFORMANCE REQUIREMENTS

Floors in areas and rooms in which flammable anaesthetic agents are stored or administered to patients shall comply with AS 1169: Minimizing of combustion hazards arising from the medical use of flammable anaesthetic agents.

600367 710 .64.05 Floor finishes have an impact on various requirements of these Guidelines. Part D covers those aspects which affect Infection Control issues. This section (Part C) covers those aspects which affect Access, Mobility, Occupational Health & Safety issues.

In Order to reduce the risk of slips and falls, floor surfaces shall comply with AS/NZS 3661: ‘Slip Resistance of Pedestrian Surfaces’

501765 710 .65.00 Selection of floor coverings can impact on staff work practices in five main ways:

1. Cleaning/maintenance procedures eg too rough a surface may lead to arm and shoulder injuries in the use of a mop;

2. Manoeuvrability of equipment - including push/pull turning forces;

3. Risk of slipping or tripping;

4. Spread of flame and the density of smoke produced;

5. Fatigue on feet and legs (the types of shoes worn by staff should also be considered.) (Refer to Designing Workplaces for Safer Handling of Patients/Residents – Victorian WorkCover Authority, 1999).

Fire safety compliance is also a special consideration. A 'duty of care' exists where professionals such as architects and interior designers are involved in the selection of products and responsibility must be addressed by purchasing officers and retailers/agents when purchasing replacement products.

Floor finishes also have a direct impact on the whole of life costs of any building where cleaning and maintenance is concerned. This is especially true in a Hospital. Low capital cost may result in high whole-of-life costs.

501766 710 .66.00 SELECTING FLOOR FINISHES

SUMMARY

A number of issues should be considered and balanced when selecting the floor finish. Designers are encouraged to investigate alternative materials and if necessary organise for realistic onsite tests before making major decisions. The following clauses set out the issues to be considered.

501767 710 .67.00 MOVEMENT OF OBJECTS

The floor finishes chosen should make the movement of such objects as trolleys, bed trolleys and wheelchairs sufficiently easy to minimise the potential for injury to staff.

The following should be considered when selecting floor finishes:

+ floor finishes and equipment should be compatible. For example, wheeled equipment used on carpeted floors should have polyurethane wheels, while rubber wheels may suit vinyl surfaces. If both carpet and vinyl is to be used in clinical areas, then the wheeled equipment should be selected for the highest friction surface ie carpet;

+ standard vinyl and similar products are the easiest materials for the movement of trolleys and wheelchairs;

+ carpet, if used should be direct stick, commercial density with short piles, preferable loop piles; a 90/10 or 80/20 wool/nylon mix is recommended;

+ flocked carpet should be considered where the 'look and feel' of carpet is desired with the ease of movement over vinyl;

+ many hospital staff consider that it is harder to move objects over cushioned vinyl. However, cushioned vinyl may still be preferred to standard vinyl for its sound absorption qualities.

501768 710 .68.00 NOISE GENERATION AND SOUND ABSORBTION

Carpet type finishes not only minimise noise generation, they also dampen the noise generated by other sources. Carpet is particularly effective in corridor areas outside Patient Bedrooms where a great deal of noise can be generated. This quality should be balanced against the ease of movement by trolleys, bed trolleys and wheelchairs. Reduction in noise levels should not be at the expense of employee or patients safety.

Cushioned vinyl is also effective in minimising noise generation but it does not dampen other noises as effectively as carpet. Ceramic tiles, terrazzo and similar hard surfaces generate noise from walking staff and visitors.

501769 710 .69.00 EASY ON THE FOOT

Surfaces such as carpet and vinyl, both standard and cushioned are considered easy to stand on for long periods of time. Most OHS experts consider surfaces such as ceramic tiles and terrazzo too hard to stand on for more than a few hours. These are therefore not recommended in hospital work areas. However, they may be used with caution in public areas such as foyers and courtyards, with appropriate slip resistance coefficients especially when wet.

501770 710 .70.00 INFECTION CONTROL

Infection control issues play an important role in the selection of floor finishes. Refer to Part D Infection Control for further information.

501771 710 .71.00 EASE OF CLEANING

Floor materials shall be easy to clean and have wear resistance appropriate for the location involved.

501773 710 .73.00 CONDUCTIVE FLOORING

Conductive flooring may be omitted in anaesthetising areas where flammable anaesthetic agents will not be used and appropriate notices are permanently and conspicuously affixed to the wall in such areas and rooms. Otherwise, appropriate conductive flooring shall be provided.

501774 710 .74.00 SELECTION AND INSTALLATION

In Victoria, refer to VIC WorkCover, 1999 - 'Designing for Safer Handling of Patients/Residents'

ROOM	FACILITY	FLOOR FINISH
Bedrooms	Acute	Cushioned Vinyl or Carpet
	Aged Care	Carpet or cushioned vinyl.
	Rehabilitation	Cushioned Vinyl or Carpet
Bathrooms/ Ensuites	All	Non slip vinyl or epoxy
Corridors	Acute	Vinyl or Carpet
	Aged Care/ Rehabilitation	Carpet
Dining Rms	All	Vinyl or Carpet
Lounge Rms	All	Carpet

Notes:

Note 1: A hazard can exist at the junction of different floor finishes (eg where vinyl meets carpet). At such points careful consideration shall to be given to low profile junction or diminishing strips, to facilitate use of wheelchairs and trolleys.

Note 2: The use of different types of floor finishes in the one room (eg carpet and vinyl) shall be avoided as it often results in varying floor levels (diminishing strips) and can create a feeling of unsure footing.

Note 3: Unexpected changes in floor friction may create a greater risk of slipping.

Note 4: Carpet shall be low profile and securely attached to the floor structure to allow for easy movement of wheeled equipment and wheelchairs. However, this may contribute to fatigue, aches and pains for staff who walk or stand on the

surface for long periods. Careful consideration needs to be given to reducing such impact whilst not impeding staff who are pushing/pulling equipment.

Note 5: Shock absorbent underlays to carpet, or the use of cushioned vinyl may reduce stress on staff provided they do not make equipment difficult to move.

Note 6: In aged care and rehabilitation environments, the continence of patients shall inform decisions re floor finishes. Carpet may be considered where the sub floor surface is appropriately sealed and maintenance regimes permit its use.

Note 7: Expansion and seismic joints shall be constructed to resist the passage of smoke.

501776 710 .76.00 The choice of floor finish shall consider the slip resistance appropriate for different conditions. The following can be used as a guide:

+ studded vinyl flooring balances slip resistance with ease of cleaning, and is suitable for wet areas such as patient showers where water, soap and body fat are present;

+ conventional safety vinyl flooring suits wet areas without soap or body fat where trolley movement is also expected, such as Dirty Utility and CSSU Decontamination Areas;

+ standard vinyl is suitable for dry areas where patients and staff are expected to wear shoes;

+ standard vinyl - Textured is similar to standard vinyl but provides greater dry-condition slip resistance;

+ stone and terrazzo are sometimes used in entrance foyer areas; however, when wet these finishes may present a danger to staff and visitors and in such circumstances proprietary non-slip chemical treatments shall be used to increase slip resistance.

501777 710 .77.00 Floor finishes that are subject to traffic whilst wet such as showers and bathrooms, kitchens and similar work areas shall be capable of maintaining a non-slip surface.

Note: The same applies to dry floors subject to the presence of fine powder such as talcum powder.

Wall Finishes

501779 710 .78.00 PERFORMANCE REQUIREMENTS

Interior wall finishes for use in health care buildings shall meet the criteria for acceptable fire index figures required by the BCA in accordance with AS1530.

600368 710 .78.05 GENERAL

Wall finishes are often the largest visual element in an area and thus can have an impact on the aesthetic appeal of the space. Selection of appropriate wall finishes may help create a non-institutional atmosphere; however other aspects such as the ease of cleaning, infection control, fire safety and patient care requirements are often higher priorities in terms of finish selection.

Part D of these Guidelines covers Infection Control issues. This section (Part C) covers issues which affect Access, Mobility, and Occupational Health & Safety Issues.

501780 710 .79.00 SELECTING WALL FINISHES

SUMMARY

Wall finishes should be selected on the basis of:

+ durability and resistance to impacts from furniture, trolleys, aggressive patients, etc;

+ ease of cleaning and retention of appearance over time;

+ fire resistance and flammability indices;

+ requirements for infection control.

Ceramic tiles are not recommended as a wall finish due to their potential to compromise infection control. They are also susceptible to damage from trolleys if cracked or broken, individual tiles may be difficult to replace.

501781 710 .80.00 WALL PROTECTION:

Wall protection is recommended to improve the longevity and retain appearance of most wall finishes, particularly in Patient Care Areas, service corridors and other areas where wheeled furniture and other equipment may be used.

501782 710 .81.00 SKIRTINGS

Skirtings provide vital protection from scuffing and marking by wheeled equipment, maintenance machinery and feet, but also can help provide a continuous barrier against bacterial penetration and the build up of contaminants.

Skirtings should be coved to form a radius along the floor/wall junction to provide a smooth and continuous transition between the horizontal and vertical surfaces. The skirting should be continuously welded to the floor material in the case of sheet vinyl and rubber materials, or be a continuation of the floor material itself, for example where ceramic tiles, compound applied coatings and vinyl sheet are used.

Coved skirting is required to continue up the wall to a minimum of 150 mm. The skirting can either be tapered at the top to provide a minimal horizontal dust catching edge, or it can be covered with a special feathered edge strip.

Skirtings may also be finished against the underside of cupboards or as an overhanging wall finish. In the case of vinyl wall finishes, these can either be welded to a vinyl floor finish, should their thickness be identical, or carried down over the upstand of the vinyl with an overlap of approximately 10-12 mm.

In the case of textile floor coverings an applied coved or feathered edge vinyl skirting is preferred to a timber skirting which may leave a gap at the junction or make a very sharp corner which may be difficult to clean without special cleaning equipment accessories.

501783 710 .82.00 CORNER GUARDS AND HAND RAILS

501783 710 .82.00

Corner guards, bumper rails and hand rails should be provided to protect against impacts in:

+ Inpatient, Outpatient and Public Circulation Corridors;

+ Support Services Corridors, Storage Bays, Equipment Rooms;

+ any areas with trolley or bed traffic.

Each department should also be assessed individually for disabled staff and visitor requirements.

501784 710 .83.00 SPLASH PROTECTION

Splash protection should be applied to walls in areas such as Labs, Formula Rooms, Beverage Bays, Kitchens, Bathrooms, Showers, Dirty Utility Rooms as well as around hand basins, scrub troughs and cleaners and laundry sinks.

501785 710 .84.00 RADIATION PROTECTION

Radiation protection will depend on individual room requirements. Material used and the extent of radiation shielding should be determined by a Radiation Services consultancy in accordance with individual jurisdiction acts and regulations.

503037 710 .85.00 BENCH TOPS

Bench tops should be of a smooth, impervious finish with rounded corners, and resistant to damage and stains. Joins should be avoided if possible because they are difficult to keep clean. A range of products are suitable, eg laminates, synthetics and stainless steel. Consideration should be given to the use of the bench tops and the type of material most suitable to their task.

General

501786 730 .1.00 PEFORMANCE REQUIREMENT

Comply with the relevant Acts, regulations and policies of each Controlling Authority, including:

-BCA – Building Code of Australia;
-OHS – Occupational Health and Safety Act
-DDA – Disability Discrimination Act

It is a requirement of these Guidelines that sections of a Health Care Facility designed for frequent use by people with disabilities comply with the relevant sections of the AS 1428 series. It is, however, not a requirement of these Guidelines that a facility comply with every part of the AS 1428 series in every area of the health facility. Parts of the Health Care Facility may be specialised for use by patients (or staff) with particular disabilities. In such areas, the needs of the most common disabilities shall be considered and allowed for.

'Specialisation' is not seen by these Guidelines as ‘non-compliance’ in relation to AS 1428.

600369 730 .1.05 GENERAL

The subject of Human Engineering covers aspects of the design that permit effective, appropriate, safe and dignified use by all people, including those with disabilities. It includes occupational ergonomics, which aims to fit the work practices, FF&E and work environment to the physical and cognitive capabilities of all people.

As the requirements of Occupational Health and Safety (OHS) and Anti-discrimination legislation will apply, this section needs to be read in conjunction with the section on Safety and Security in these Guidelines, in addition to OHS related guidelines.

The AS 1428 series covers certain aspects of design for Access and Mobility for people with disabilities. These are often referred to in these Guidelines and should be followed in relevant areas. Human Engineering for able bodied persons also requires careful consideration. Some of the common issues are covered in this section.

501787 730 .2.00 There is increased public awareness of barriers that make reasonable utilisation of facilities difficult or impossible for the physically impaired. A hospital facility will have a high proportion of occupants, patients and visitors, who are unable to function without some form of assistance. Some staff may also be impaired. To ensure minimum patient dependence on staff, consideration should be given to design provision for optimum patient independence and enhanced staff productivity.

Consideration must be given to the wide range of disabilities including:

+ mobility impairment;

+ visual impairment;

+ bearing impairment;

+ cognitive impairment eg patients with brain injury or dementia;

+ mental illness.

In addition, cultural and literacy issues should also be considered as they can impact on access and safety.

501788 730 .3.00 The design of buildings and services should acknowledge the needs of a wide range of users who may include:

+ able bodied people;

+ clients being assisted by one or more people (eg a reluctant mental health patient);

+ clients/visitors with baby prams, carrying or walking with young children;

+ staff pushing beds, patient trolleys, other wheeled equipment;

+ clients/visitors with a walking frame or other walking aid such as a stick;

+ clients/visitors with impaired vision;

+ clients/visitors with literacy issues;

+ staff who may have a permanent or temporary disability;

+ maintenance staff needing access to plant.

Planning

501789 730 .4.00 To minimise overall costs and to avoid the need for expensive modification of finished work, initial designs shall include specific consideration of the needs of the physically, visually, hearing and mentally impaired. The majority of requirements can be easily accommodated during the planning stage at little or no additional cost; modifications required at a later time may be prohibitively expensive or impractical.

Australian Standard 1428

501790 730 .5.00 The AS 1428 - Design for Access and Mobility Parts 1, 2 & 3 cover the issues of access for people with disabilities. Particular attention is given to access ways and circulation. Continuous traffic paths are required for consistent linkages suitable for use by people using wheelchairs. Facilities shall be provided for people with ambulatory disabilities and for people with sensory disabilities.

Parts of the AS 1428 series are referenced in the BCA and must be complied with. For these requirements refer to both the BCA and AS 1428.

These Guidelines require that a minimum number of rooms be sized and designed for use by people with disabilities regardless of the anticipated number of patients with disabilities. These are covered in the relevant sections of the Planning Units in Part B. These Guidelines cover the everyday use of facilities by able bodied persons.

501791 730 .6.00 DEPENDENT PATIENTS

AS 1428 primarily considers access by people with disabilities who are

independent. Consideration shall also be given to access by people who are physically dependent and who may be assisted by one, two or more people and/or who may be transported on a bed or trolley as these considerations will have significant implications for the slope, width and turning circles on ramps, width of doors and corridors, size of lifts and vehicle access.

Grab Rails

501792 730 .7.00 The design, sizing and fixing of grab rails and hand rails is nominated in AS1428 - Design for Access and Mobility.

It is highlighted that the fixing of such supports 'shall be able to withstand a force of 1100N applied at any position and in any direction without showing visible signs of deformation or loosening of the fittings.' (Refer to Victorian WorkCover Authority, 1999)

501793 730 .8.00 Grab rails, hand rails, vertical adjustable shower supports, towel rails, soap holders, footrests and any other fixture that may be used for support, shall have sufficient anchorage and strength to resist the sustained concentrated load of a falling heavy human.

501794 730 .9.00 Consideration needs to be given to the design of grab rails in areas where patient self-harm may be an issue eg Emergency Departments and Mental Health Units. The use of grab rails as a hanging point should be prevented by appropriate in-fill design.

Ramps

501795 730 .10.00 Where ramps are required for patient access, gradients are to comply with the requirements of the Building Code of Australia.

Ramps in other areas such as service roadways shall comply with good design practice and be suitable for the task. Australian Standards, wherever applicable, shall be used.

Ramps are necessary for general facility purposes such as moving beds, ambulance trolleys and other equipment between different levels.

Ramps therefore need to have slope, width and turning circles based on the size and weight of an occupied bed plus space for passing as a minimum. This means that ramps will be wider, have bigger turning circles and lower grades than needed for wheelchairs. Ramps that are suitable for bed movement will also be suitable for wheelchair access.

Staircases

501796 730 .11.00 All open staircases pose a risk to patients, children and others who may fall through the centre of the stairwell. They may also be used by patients intending self harm.

The design of staircases and suspended walkways should recognise this issue and also the need to prevent the throwing of objects from them which may injure people at lower levels.

Hand rails should be designed to assist people with mobility problems and those who may be visually impaired.

ERGONOMICS

Overview

501797 730 .12.00 All facilities shall be designed and built in such a way that patients, staff, visitors and maintenance personnel are not exposed to avoidable risks of injury.

Badly designed recurring elements such as workstations and the layout of critical rooms have a great impact on the Occupational Health and Safety (OHS) of staff as well as the welfare of patients.

Designers should be vigilant to ensure that designing out one risk doesn't result in the introduction of another eg designing out a security risk doesn't result in a manual handling risk.

The field of Ergonomics covers some aspects of the design of objects for common use. However, research indicates that experts disagree on some aspects of ergonomic standards such as the best sitting posture or angle of view for monitors. On most ergonomics issues, however, there is broad agreement amongst the experts.

It is not appropriate for any standard to be regarded as ideal for every person. It is also unreasonable to expect all items to be designed in such a way that they can be adjusted for all users.

Given these limitations, the role of ergonomics standards is to provide a reasonable and common base for design. It is strongly recommended that the actual design allows for modification where required to accommodate the special needs of staff.

The ergonomics standards included in these Guidelines are those commonly required in Health Care Facilities.

For items not covered in these Guidelines, it is highly recommended that the Australian Standard for Ergonomics is followed. Refer to the following:

+ SAA HB59 Handbook - Ergonomics - The Human Factor, A Practical Approach to Work Systems Design;

+ AS 3590.2 Screen Based Workstations, Part 2: Workstation Furniture.

Where a facility is designed for staff or patients with special needs, some deviation from these standards may be appropriate. In such circumstances, it is highly recommended that designers seek the opinion of specialist ergonomics experts or OHS professionals and obtain written advice.

Standards Table

501798 730 .13.00 For simplicity, the Ergonomics standards are presented in a table form under several categories. All items should be regarded as high recommendations. Items which are required are clearly noted.

ITEM	COND'N	DEPTH MM	HEIGHT* MM	THICKNESS MM	REQ'D		REMARKS
WORK BENCH	Utility	600	900	32	No		No computer.
WRITING BENCH 1	Typing	900	720	max 50	No		CRT monitor.
WRITING BENCH 2	Typing	750	720	max 50	No		Flat monitor.
TOP COUNTER	Over bench	250	1150	20-32	No		750 reach.

SHELVING	Over 900h bench	350	1520-1820	20	No		2 shelves.
SHELVING	Over 720h bench	350	1370	20	No		2 shelves.
SHELVING UNIT	Full height	350-400	150-1820	20	No		7 shelves.
							* Bench heights should be raised to suit equipment to be accessed by staff.

Staff Station

501799 730 .14.00 A Staff Station may be used for a variety of purposes including:

+ a clerical workstation;

+ reception;

+ Staff Base;

+ Reporting Station or Sub-Station.

Part of a typical Staff Station is used as a workbench or workstation. For the ergonomic standards of these functions, refer to the appropriate sections of these Ergonomics Guidelines. The balance of the Staff Station standards are covered below.

High Counter

501801 730 .15.00 This is used to shield objects, equipment and records from outside view. It may also provide a convenient writing surface for visitors and staff alike. A high counter is also referred to as Parcel Shelf or Service Counter. A high counter used for direct interaction between staff and visitors or patients shall be designed to avoid the need for excessive 'reach' across the work surface.

However, in some instances additional width of the high counter top provides a safety barrier without the intimidating effects of security glass, polycarbonate or a security grille.

A high counter shall be designed in such a way to permit the location of CRT type computer monitors whilst achieving an effective work surface width of 900 mm. A high counter shall allow for the location of a flat panel display whilst achieving an effective work surface width of 750 mm.

The use of CRT monitors is not recommended for this location.

The recommended height of the top counter used against a work surface designed at 720 mm above the floor is 1150 mm above the floor. This height will allow a typical person to gain sufficient privacy for work whilst being able to look over the top at visitors who are standing or sitting. The recommended height to the top counter used against a work surface designed at 900 mm to 1000 mm above floor level is between 1200 mm and 1250 mm above the floor level.

Care needs to be taken when determining counter design as high counters can make it difficult for staff and clients to communicate, especially where the client is of short stature, a child, in a wheelchair, or if the client or staff member is hearing impaired. This can exacerbate the risks of frustration and aggression. High and wide counters can also create ergonomic risks for staff, particularly short staff.

High-Low Design

501802 730 .16.00 Where children or visitors using wheelchairs are expected at the Staff Station or

Reception counters, a design incorporating a high section (for staff privacy) as well as a low section is highly recommended. The low section is typically at 720 mm above the floor or a height that matches the staff work surface.

Low Counter

501803 730 .17.00 In some situations, a lower counter at which staff and patients sit, may be considered.

These have the advantage of creating a more intimate situation, and they are easily accessed by people of all heights and those who may be in a wheelchair. It has also been stated that people are less likely to become aggressive and physically threatening when they are seated.

Security Barriers

501804 730 .18.00 PERFORMANCE REQUIREMENTS

All counters provided for Public/Staff interaction should comply with the recommendations of AS/NZS 4360 Risk Management.

600370 730 .18.05 In some situations it may be necessary to provide a security barrier at the counter. This may be in security. In such situations, the barrier will include a vertical or horizontal slot that is sufficient to allow the passage of sound and small objects. A slot of 125 mm is recommended. If a security barrier such as glazing is provided at a counter used for public interaction, then an intercom system shall be provided to amplify the sound for the hearing impaired.

At Pharmacy Dispensing counters, it may be necessary to pass larger objects from one side to the other. In such situations a two-way drawer or cupboard may be used. These shall be lockable.

If the Staff Station or counter is the only barrier between a department and outside areas, it may be necessary to provide after-hours security. If a full height barrier such as security glazing has been provided as described, this may be sufficient. Alternatively, a lockable security grill or similar device shall be provided. The grill or similar device shall be operable by the staff from the normal standing height.

Refer to Safety – Screens and Grilles.

Workbench

501805 730 .19.00 GENERAL

Workbenches may be designed for two typical work practices - sitting position or standing position. For example, some nursing staff prefer the workbench in a Staff Station to be used in the standing position whilst some staff prefer the sitting position. Both options are equally valid and acceptable. However, the ergonomic standards for the two will vary.

501806 730 .20.00 SITTING POSITION

A workbench used in the sitting position should be at 720 mm above the floor. The typical minimum depth is 600 mm. This should be increased to 900 mm for the use of conventional CRT computer monitors or 750 mm for the use of flat panel computer displays.

Workbench

501807 730 .21.00 STANDING POSITION

This position suggests that the primary use of the work bench will be in the standing position. However allowance may be made for the use of this type of workbench while sitting.

If the bench is almost exclusively used in the standing position with a requirement for occasional typing, then the bench height of 1000 mm above the floor is recommended. If the bench is mostly used in the standing position with the occasional typing in the sitting position, then a bench height of 900 mm is recommended.

The first option (1000 mm) is most often requested for Staff Stations, Reporting Stations and smaller Reception counters. The second option (900 mm) is most often used in Utility Rooms, Laboratories, Beverage Bays, Kitchens and similar areas.

501808 730 .22.00 FOOT SUPPORT

Shorter staff may use foot rests in the sitting position to lift the feet to the optimum ergonomic position. Chairs used at workbenches used in the standing position should have foot support rings and be height adjustable.

501809 730 .23.00 BENCH SUPPORT

A workbench should be able to support the weight of people sitting on it in addition to any equipment located there. Although the practice of sitting on workbenches should be discouraged, the reality is that it may occur.

Computers

501810 730 .24.00 GENERAL

Computers are used in a variety of ways. It is difficult to dictate a particular position to suit all people. The following Guidelines represent the most typical preferences and standards.

Design of computer workstations should be considered in conjunction with planning for FF&E. Re-used computers may differ from new equipment, and the design of the workplace should respond to the actual equipment used.

501811 730 .25.00 COMPUTER MONITOR

The type of monitor will dictate the depth of the work surface. Typically, conventional CRT (Cathode Ray Tube) monitors require greater depth to permit a comfortable distance from the users eyes. Most IT specialists believe that in the near future almost all CRTs will be replaced by economical flat panel displays using liquid crystal, gas plasma or similar technology. These will require less depth of work surface. They are also easier on the eye as they almost eliminate the flicker that is present in CRT monitors. If a choice is available, flat panel displays should be preferred to CRT monitors.

501812 730 .26.00 MONITOR POSITION

Within the work surface depth defined in these Guidelines, the exact horizontal location of the monitor should be adjustable to suit different users. The vertical

position of the monitor will depend on the height of the user. The best option is for an adjustable monitor arm. A cost-benefit analysis may be required to justify their use. A fixed monitor is acceptable. The angle of view to the centre of the monitor should be within a range defined by a horizontal line taken from the users eye down to 15 degrees depending on the user's preference.

501813 730 .27.00 LAPTOPS

Laptop computers may be used as replacements for desktop computers. This type of computer is acceptable for occasional typing and is highly recommended for maximum space saving.

Note that laptops used for frequent or prolonged typing should be used with a docking station, and normal keyboard and mouse. Depending on the size and height of the laptop screen, a docking station with normal size monitor may also be required. Connection to data cabling for mainframe, intranet and internet access will still be required.

Security issues should be considered in the selection of laptops - their use in areas accessible to the public should be carefully considered.

Workstation - Typical

501814 730 .28.00 These Guidelines apply to the typical 'L' shaped workstation as well as desks with or without a return.

A workstation intended for working, writing or typing while in a seated position should be 720 mm high.

If a computer with a conventional CRT type monitor is used, the depth of the main work surface containing the CRT should be 900 mm. If the CRT is positioned in the corner, the 900 mm depth is measured diagonally, and must allow for accommodation of the monitor to be used.

If a computer with a flat panel display is used, the depth of the main work surface containing the display should be 750 mm. This option is preferred due to the reduced need for the staff to 'reach' across the work surface.

The depth of the return to the main work surface may be between 450 mm and 750 mm with 600 mm being the optimum recommendation. This will allow for underbench storage and file or drawer units.

The optimum recommended configuration for a workstation includes one work surface of 750 mm wide, one work surface of 600 mm wide with the computer position in the corner.

If a computer is positioned in the corner, then the corner should be angled with a minimum dimension of 400 mm wide.

The workstation should be designed to allow for adequate knee space. The space must be large enough so that the action of turning to use underbench units does not result in hitting the knees against these units.

One end of the workstation may be shaped to form a meeting table. For this purpose rounded edges are recommended.

If visitors are expected to sit across the workstation, then a modesty panel may be considered appropriate.

Workstations should have provision for safe cable management. The simplest

system will involve an open tray under the work surface.

In proprietary workstations, GPOs and data points may be internally run with outlets above the work surface. Alternatively these outlets may be on the adjoining wall at a height of 550 mm above the floor level with access to the work surface via the cable tray and a plastic cable access cap.

Shelves

501815 730 .29.00 GENERAL

The design of shelves should consider issues of depth, reach, spacing and strength. Shelves described in this section may be in the form of joinery shelf units, strip shelving, upright book cases, metal racks or similar devices. These standards also apply to shelves within a cupboard.

501816 730 .30.00 DESIGN CRITERIA

DEPTH (front to back):

The recommended depth for shelves below a workbench is the approximate full width of the bench. The recommended average depth for wall mounted shelves is 350 mm. This will suit wall cupboards in Utility Rooms or over workstations. If a door is provided over the shelf unit, then 350 mm will be the total depth.

The recommended depth of shelves for medical records shelving units is 400 mm. This depth also allows for metal dividers.

REACH and SPACING:

A shelf may be installed as low as 150 mm above the floor or as high as 1810 mm above the floor. Any surface above 1810 mm should be regarded as inaccessible without the use of a safe step ladder.

The recommended starting point for wall mounted shelves above a work surface designed at 720 mm above the floor is 1370 mm above the floor. This brings the underside of the shelf to 650 mm above the desk.

The recommended starting point of wall mounted shelves above a work surface designed at 900 mm - 1000 mm above the floor is 1520 - 1600 mm above the floor. This brings the underside of the shelf to 1500 - 1580 mm above the floor.

Clearance of shelves above a workbench should be a minimum of 600 mm clear to accommodate, where required, computer monitors that should be set at an appropriately ergonomic height for users.

A typical Medical Records storage unit will be a joinery or metal unit 2100 mm high with seven shelves starting from 150 mm above the floor and finishing with a top shelf at 1800 mm.

The recommended depth for wall shelves used for the storage of linen is 450 mm spaced 400 mm apart vertically.

Where possible and practical, all shelving should be adjustable. Typically the first and last shelf in a joinery unit will be fixed.

Note: In heavy use areas of hospitals, the conventional metal pins inserted into joinery walls often fail. In such situations, proprietary metal strips are recessed into the joinery walls to hold shelf support pins.

STRENGTH:

Shelves must be designed to suit the weight of the objects most likely to be stored upon them. It should be noted that adjustable shelves are not as strong as fixed shelves. Additional strength may be gained by using thicker and stronger material or by providing an edge downturn.

DISABLED ACCESS:

Shelves designed for use by disabled patients or staff should comply with the requirements of AS 1428 Parts 2 or 3 as appropriate. It should be noted that this is not a mandatory requirement of these Guidelines to comply with the ergonomics standards of AS 1428 Parts 2 or 3 for all areas and all users.

References and Further Reading

600371 730 .31.00 SA Dept for Administrative and Information Services, Building Management Division, Disability Access Guide, 2004.
http://www.buildingmanagement.sa.gov.au/pdf/disability_access_guide.pdf

Government of South Australia, Compliance Obligations of Building Asset Owners - A Guide for SA Government Agencies, 2004
http://www.buildingmanagement.sa.gov.au/pdf/obligations_of_government_agencies.pdf

General

501817 750 .1.00 PERFORMANCE REQUIREMENTS

Appropriate and comprehensive signposting shall be provided for all Health Care Facilities. Signposting shall clearly identify staff, patient and visitor areas, and draw attention to restricted areas.

600372 750 .1.05 Signs are often the first line of defence against intruders because they define those areas where persons are allowed to enter.

501818 750 .2.00 The preferred lettering style is 'Helvetica Medium' upper and lower case generally. Upper case only is recommended for the building Main Entry Sign.

501819 750 .3.00 Internationally recognised symbols (pictograms) in lieu of room titles are acceptable.

501820 750 .4.00 Sizes of letters in relation to reading distances, mounting heights, etc, shall comply with the relevant standards.

In NSW, refer to the NSW Health TS2 - Signposting for Health Care Facilities for further information.

External Signs

501821 750 .5.00 PERFORMANCE REQUIREMENTS

The marking and signage for Helicopter Landing Areas shall comply with the requirements of the Regulating Authority.

Street signs shall be in accordance with the requirements of the Local Council and/or the appropriate section of the state roads and traffic authority.

600373 750 .5.05 External directional signs shall have white reflective letters on a blue background. The signs shall preferably be of steel or aluminium construction.

501822 750 .6.00 EXTERNAL ILLUMINATED SIGNS

External illuminated signs for an Emergency Department shall have white letters on a red background.

External illuminated signs for the Main Entry and Night Entry shall have white letters on a blue background.

Note: Emergency Department is referred to as Emergency Department in these Guidelines. The sign, however should refer to ‘Emergency’.

501823 750 .7.00 ROAD MARKINGS

Road markings such as parking bays, arrows, symbols and instructions should be white generally, blue for disabled and yellow for restricted zones.

501824 750 .8.00 STREET SIGNS

Accreditation Standards require that the facility has street directional signs sufficient to enable it to be easily located from the major access road in the area.

The entry to the Emergency Unit should be clearly signposted by an illuminated sign that is visible from the main entry points to the Hospital site.

Internal Signs

501825 750 .9.00 PERFORMANCE REQUIREMENTS

Comply with the relevant Acts, regulations and policies of the authorities for safety symbols and symbolic signs, including all referenced Australian Standards, Occupational Health and Safety and Disability Discrimination requirements.

600374 750 .9.05 BED NUMBERS

Bed numbers shall be shown outside the Patient Bedroom. There shall be one number per bed.

In Bedrooms with more than one bed, all bed numbers or the range of numbers should be shown on the sign outside the room for example:

-Beds 78 & 79 or;

-Beds 78 to 81.

In Bedrooms with more than one bed, the bed number shall be displayed at the bedhead also.

Bed numbers outside the room must be clearly visible from the corridor and not be obscured by other objects or wall returns.

The provision of a room number is optional. When provided, it should not visually compete with the bed numbers.

501826 750 .10.00 PATIENT INFORMATION

It is no longer recommended that signs display information about a patient, such as patient details, doctor identification and special instruction at the patient bedhead or in a visible place within the Patient Bedroom.

This is considered inappropriate due to the requirement for the privacy of patient records. Designers and managers wishing to install patient information holders in the rooms are advised to fully consider the impact on patient privacy.

501827 750 .11.00 DOOR SIGNS

Door/Frame Numbering or tags may be required by the management as part of an asset and maintenance register. This is a separate or in addition to room

signage designating the function or the room. Door numbering is not mandatory. Unlike room signs, door numbering may be small and unobtrusive.

501828 750 .12.00 ROOM SIGNS

Non-illuminated, internal and external room-function identification signs located on doors require the following considerations:

+ the format used should allow easy replacement of the sign or sign inset when the room function changes;

+ it may be appropriate to deliberately omit signs on certain doors used only by staff;

+ special notes may be installed to identify rooms with restricted access to certain rooms or departments.

Note 1: Vinyl-cut signs have proved to be a practical and economical option and can be changed easily over time. However removing them can damage some surfaces.

Note 2: Some signs using removable slats can be easily stolen unless a locking cap is used.

Note 3: Door signs in general are not mandatory.

501830 750 .14.00 DIRECTIONAL SIGNAGE

Non-illuminated directional and area identification signs should be as follows:

+ ceiling or wall mounted;

+ text on contrasting background - dark lettering on light background preferred;

+ a guide for the patient or visitor until they reach a room or door sign for the intended destination;

+ not obscure other critical ceiling fixtures such as emergency lighting or fire exit signs.

Serious consideration should be given to the provision of alternate low level signs in Braille in Hospital Entrance Foyers leading to major departments and lifts. Although this is not a mandatory requirement, it may become a requirement of the Disability Discrimination Act (DDA) in the future. It is recommended that such signs be installed immediately above the hand rail required by AS 1428.

Fire Services Signs

501831 750 .15.00 PERFORMANCE REQUIREMENTS

Fire services and exit signs shall be installed in accordance with the following as applicable:

+ BCA - Building Code of Australia

+ Fire Extinguishers: AS 2444 Portable Fire Extinguishers Selection and Location;

+ Fire Hose Reel Cabinets: Signposting on cabinet doors shall be 50 mm high

white letters on a contrasting background, to read 'Fire Hose Reel', or if equipment is together in a single cabinet, 'Fire Equipment';

+ Hydrants: AS 2419 Part 1 'Fire Hydrant Installations, Systems Design, Installation and Commissioning'.

+ Exit signs: AS/NZS 2293.3 Emergency luminaires and exit signs.

Miscellaneous Signs

501832 750 .16.00 MISCELLANEOUS SIGNS

GENERAL

Miscellaneous signs, illuminated and non-illuminated are to be provided as required. These could include illuminated 'X-ray Room in Use' signs. The colours used should meet the requirements of the relevant code or regulating authority.

Refer to Part B or these Guidelines for signs, symbols or marking required for individual planning units including hazard and safety signs.

Multi lingual signs and symbols should comply with relevant regulations and policies.

790 SAFETY AND SECURITY PRECAUTIONS

SAFETY

Introduction

501833 790 .1.00 PERFORMANCE REQUIREMENTS

Comply with the relevant OHS – Occupational Health and Safety Acts and Regulations and policies within each jurisdiction, and with relevant safety regulations issued by Regulating Authorities.

600375 790 .1.05 Safety and security issues are of prime importance as their neglect can generate considerable yet avoidable costs to Health Care Facilities if patients, staff or visitors are injured, or property is damaged or stolen. This section provides advice on the design of facilities to facilitate safety and security and minimise capital and recurrent costs. It also provides references for where specific information, such as on the selection of duress alarms, can be found.

501834 790 .2.00 Refer to Part B of these Guidelines – General Requirements – for more detailed information on OHS and sources of information.

501835 790 .3.00 The focus of OHS regulations is on the safety of employees in the workplace. Other regulations, codes of practice and policy documents cover other safety aspects of the Built Environment. These may be found within general regulations such as the Building Code of Australia (BCA) and Utility Supply Authorities.

Specific planning units, processes, activities or materials require specific design input, consultations and approvals regarding access, security, labelling, warning alarm and communications systems and may include:

+ building maintenance, fixed walkways, ladders, hatches, window cleaning, roof safety etc;

+ plant rooms, substations, liquid gas storage etc;

+ electromagnetic interference, radiation, toxic materials etc;

+ helicopter landing areas, Police, Fire Brigade etc;

+ building services;

+ laboratories, Radiotherapy etc

501836 790 .4.00 DESIGN ASPECTS

Design aspects of a project may impact on the health, safety and welfare of employees and the health and safety of others in the workplace (eg patients and visitors). These design issues are discussed in more detail in each Unit Specific Guideline.

600392 790 .4.01 Design of spaces so that manual handling risks are minimised giving particular attention to things such as:

+ slope (gradient) of ramps;

+ turning circles for equipment;

+ size of rooms;

+ placement of fittings (eg toilets so that nurse access to the patient is possible);

+ location of services and fittings;

+ height and widths of doorways;

+ floor coverings and changes in floor levels;

+ location, size and configuration of storage spaces;

+ fitting of door closers and door holders.

600393 790 .4.02 Ergonomics, ie matching of workplace design and layout to the human form and physical and cognitive capabilities. Examples are:

+ height, depth and width of counters and workbenches; taking into account any equipment that may be used on the bench;

+ positioning of bedpan racks;

+ positioning of viewing panels in doors;

+ positioning of light switches and door handles;

+ height of monitors;

+ push/pull forces;

+ ability to accommodate very obese (bariatric) patients who may need oversized equipment;

+ design of geriatric units for people with dementia;

+ clarity of signage and directional cues.

600394 790 .4.03 Selection of furniture, fittings and equipment (FF&E) to reduce risks to employees and others, including compatibility of different types of FF&E with each other. Examples of these are:

+ drop down grab rails in Ensuite Bathrooms to allow staff access to patient;

+ infill grab rails in Mental Health Units;

+ compatibility of hoists with beds;

+ emergency access to bathrooms/toilets/ensuites;

+ tamper proof air conditioning outlets and light fittings in Mental Health Units.

600395 790 .4.04 Security issues such as:

+ access control;

+ ability to observe Waiting Areas;

+ application of Crime Prevention Through Environmental Design (CPTED) principles;

+ location of car parks and staff entries (including provision of parking for afternoon and night staff);

+ lighting;

+ organisation of HPUs so that staff are not working in isolation, especially when 8-hour operational areas close down for the day;

+ design of reception counters;

+ choice of glazing;

+ location of security office;

+ location and installation of duress alarms in high risk areas and where staff may work alone in isolation;

+ location and installation of CCTV systems;

+ location and installation of intercom systems;

+ design of waiting rooms;

+ provision of escape routes;

+ location of service panels;

+ resistance of building materials to assault.

600396 790 .4.05 Patient and visitor safety, including designing the facility to minimise risks for patients who may be confused, disoriented or have cognitive or sensory impairment and patients who may be behaviourally disturbed or at risk of attempting self harm. Examples include:

+ design of stairwells to reduce risk of falls (either accidental or deliberate);

+ design of rooms to accommodate very obese patients and the over-sized equipment needed to provide them with health care;

+ design of doors (hinges) in mental health unit and dementia/aged care unit patient rooms;

+ choice of glazing.

+ choice of light fittings.

+ infection control.

References and Further Reading

501837 790 .5.00 Resources available include:

+ Design Guideline for Security;

+ Designing Workplaces for Safer Handling of Patients/Residents, Victorian WorkCover Authority, 1999;

+ Hoist election checklist (under review);

+ Bed selection checklist (under review);

+ Better Practice Guide: Occupational health and safety;

+ Policy and Best Practice Guidelines for the Prevention of Manual Handling Incidents in NSW Public Health Services, Circular 2001/111, NSW Health, 2001;

+ Protecting People and Property: NSW Health Policy and Guidelines for Security Risk Management in Health Facilities, Circular 2003/92, NSW Health, 2003; (available from www.health.nsw.gov.au/audit/manuals/protecting_people_property.pdf);

+ Zero Tolerance Response to Violence in the NSW Health Workplace, Circular 2003/48, NSW Health, 2003;

+ NSW Occupational Health and Safety Act 2000;

+ NSW Occupational Health and Safety Regulation 2001;

+ DS36 NSW Health Guidelines Safety and Security, Circular 2003/13, NSW Health, 2003;

+ OHS Consultation: Code of Practice 2001, Victorian WorkCover Authority, 2001;

+ AS 4485.1 Security for Health Care Facilities (Part 1 - General Requirements);

+ South Australia, Occupational Health Safety and Welfare Act 1986 http://www.parliament.sa.gov.au/Catalog/legislation/Acts/o/1986.125.un.htm

+ South Australia, Occupational Health Safety and Welfare Regulations 1995 http://www.parliament.sa.gov.au/Catalog/legislation/Regulations/O/1995.12.un.htm

Queensland Workplace Health and Safety Act 1995 www.legislation.qld.gov.au

+ Government of South Australia, Compliance Obligations of Building Asset Owners - A Guide for SA Government Agencies, 2004 http://www.buildingmanagement.sa.gov.au/pdf/obligations_of_government_agencies.pdf

+ AS 4485.1 Security for Health Care Facilities (Part 1 - General Requirements);

+ Designing Workplaces for Safer Handling of Patients/Residents, Worksafe Victoria, June 2002 (refer Occupational Health and Safety Act 2004)

-Protecting People/Property: NSW Health Policy/Guidelines for Security Risk Management in Health Facs - PD2005_339 - Jan-2005

-Zero Tolerance Response to Violence in the NSW Health Workplace - PD2005_315 - Jan-2005

-Incident - Effective Incident Response Framework for Prevention & Management in the Health Workplace, PD2005_234, Jan-2005

Floor Finishes

501838 790 .6.00 Safety Issues to be considered in the selection of floor finishes are covered under

'Floor Finishes - Floor Safety'.

Glazing

501839 790 .7.00 PERFORMANCE REQUIREMENTS

Comply with the requirements of this BCA – BCA with the relevant security Acts and regulations within each jurisdiction and with the recommendations of AS/NZS 4360 Risk Management.

600376 790 .7.05 Glazing shall be in accordance with AS 1288 as applicable to public buildings except that:

+ all glazing in balustrades shall comply with Part 1 of the above standard, irrespective of the area or support of the glazing;

+ fully framed glazing to windows, doors partitions and screens, shall comply with the above standard.

501840 790 .8.00 Doors, sidelights, borrowed lights and windows subject to possible breakage, shall comply with AS/NZS 2208 - Safety Glazing Materials in Buildings.

Notwithstanding this, all entrance areas shall be glazed with safety glazing as these spaces can be the site for aggressive incidents.

Glazing in Emergency Departments, Drug and Alcohol Units, Mental Health Units and Community Mental Health Facilities should be safety glazing - refer to specific Health Facility Guidelines for each of these Units.

501841 790 .9.00 Safety glass shall also be used for wall openings in activity areas such as recreation and exercise rooms and for shower screens, internal doors and full height windows, including those in Paediatric, Acute Mental Health and Emergency Units.

Glutaraldehyde Use

501842 790 .10.00 PERFORMANCE REQUIREMENTS
Comply with the relevant regulations and policies of each regulating authority.

In NSW, refer to Policy Directive PD 2005-108 Glutaraldehyde in NSW Public Health facilities (Policy & Guidelines for safe use of).

In Queensland refer to Environmental Protection (Waste Management) Regulation 2000.
www.legislation.qld.gov.au/LEGISLTN/CURRENT/E/EnvProtWaMR00.pdf

600377 790 .10.05 For detailed design and ventilation requirements for the use of glutaraldehyde in health care settings, refer to:

+ Australian Standards for Laboratory Fume Cabinets;

+ AS/NZS 2243.8 Safety in Laboratories – Fume cupboards;

+ AS/NZS 2243.9 Safety in Laboratories – Recirculating fume cabinets;

+ NSW Health Policy Directive PD2005-108 Glutaraldehyde in NSW Public Health facilities.

Noise Reduction

501843 790 .11.00 PERFORMANCE REQUIREMENTS

Comply with the relevant sections of legislation within each jurisdiction.

600378 790 .11.05 The design and construction shall address Hearing Conservation aspects of the work environment. The major design issues to be considered include:

+ workplaces shall be designed to minimise the occupant's exposure to noise; noisy machines and activities should be remote or isolated from other work areas;

+ noisy equipment shall be acoustically enclosed where practicable;

+ noisy work areas such as workshops shall have acoustically absorbent ceilings to reduce the amount of noise other staff working nearby are exposed to;

+ noise levels of equipment shall be an integral part of equipment selection/purchasing procedures;

+ consideration shall be given to the impact of ultrasonic noise generation. (Refer to AS/NZS 2243.5).

501844 790 .12.00 Note: Acoustic separation for privacy reasons is a different subject covered separately in these Guidelines.

Note: 'Nuisance' noise is also an issue as it can degrade patient comfort and impair staff function, even though it may not be of a sufficient level to cause hearing loss.

Noisy patient environments may also exacerbate the risk of aggression.

Insect Control

501845 790 .13.00 External doors that open directly into food preparation areas and are used for service deliveries or regular access shall be fitted with air curtains, flexible doors or an equal control system to restrict the ingress of insects. Flyscreen doors, which can be propped open, and electronic insect traps within the kitchen, are not suitable as the only means of insect control.

For flyscreen requirements to door and window openings refer to 'Building Elements - Doors, and Windows' in these Guidelines. Flyscreens are generally required to all openable windows.

Patient Handling and Lifting

501846 790 .14.00 PERFORMANCE REQUIREMENTS

Comply with the relevant sections of OHS legislation within each jurisdiction, and with the relevant regulations and policies of each regulating authority.

600379 790 .14.05 Poor workplace and FF&E design are major contributing factors to staff and patient injuries, especially in patient rooms, toilets, bathing areas and corridors. These injuries are costly and preventable. Poor design may also increase patient dependency and negatively impact on productivity.

Restricted space may lead to constrained and awkward postures during handling tasks, and poor workplace design may lead to unnecessary or double handling of patients/residents. The design of FF&E including beds is also an issue.

The BCA addresses questions of access for independent disabled people, but it does not consider the extra needs of access for disabled people who require assistance or for the carers of disabled people.

501847 790 .15.00 Given the requirements of OHS legislation to provide safe premises and plant, and to identify, assess and eliminate/control risks, the design of facilities should:

+ facilitate the implementation of operational and other policies that aim to eliminate or reduce the need for patient handling and double handling, eg door and corridor widths should allow for a patient's bed to travel with them rather than force repeated transfers from bed to trolley;

+ accommodate the storage and safe use of manual handling aids including patient hoists, commodes, wheelchairs, walking belts, slide sheets and patient scales. The quantity and size of equipment, functional space for use of equipment and storage close to proximity of use must be considered.

501848 790 .16.00 To be consistent with OHS legislative requirements, these decisions should be taken in consultation with employees, eg direct care staff and business unit managers, in order to achieve the best solutions and a unity of commitment.

501849 790 .17.00 In Victoria, for more details regarding functional requirements and operational issues in regard to patient handling, refer to the Victorian WorkCover Authority, 'Designing Workplaces for Safer Handling of Patient/Residents' and to the section of these Guidelines that deals with FF&E.

In NSW, refer to NSW Health Policy Directive PD2005-224 'Manual Handling Incidents NSW Public Health Services' and Policy/Best Practice Guidelines Prevention.

In Queensland, refer to Workplace Health and Safety Act 1995 – Manual Tasks and Advisory Standards.

Soft Furnishings

501850 790 .18.00 PERFORMANCE REQUIREMENTS

Comply with the relevant environmental legislation and policies within each jurisdiction, including procurement and risk management policies.

600380 790 .18.05 Certain plastics and materials, in quantities, are known to produce large amounts of toxic gases.The use of these materials in mattresses, upholstery, floor coverings, curtains, other items and applied finishes shall be avoided as far as practical.

Refer Green Star 'Health – as Built Tool', Indoor Environmental Quality and Materials'.

501851 790 .19.00 Cubicle screens, bed screens and curtains/window treatments shall be non-combustible or rendered flame retardant and shall comply with the Building Code

of Australia, Section C1.10.

The fabric should be capable of withstanding Hospital standard laundry treatment without losing its fundamental properties.

600381 790 .19.05 ENVIRONMENTAL REFERENCES

-Green Building Council Australia (GBCA) – Green Star Healthcare Pilot
-Ecospecifier – www.ecospecificer.org

SECURITY

Definition

501852 790 .20.00 PERFORMANCE REQUIREMENTS

Comply with the relevant sections of OHS legislation within each jurisdiction, and with the relevant regulations and policies of each regulating authority. Security risk assessment should comply with the recommendations of AS/NZS 4360 Risk Management.

600382 790 .20.05 INTRODUCTION

Security risks can arise from two main sources:

+ internal security risks - eg client and visitor related violence;

+ external risks - eg those who enter the premises/grounds with criminal intent such as thieves, vandals and those who plan to commit violent acts.

+ design for terrorism shall be provided for all buildings subject to this classification. Refer to the relevant Acts and regulations within each jurisdiction.

501853 790 .21.00 OHS legislation demands that all risks of violence be identified, assessed and eliminated/controlled. It also makes good financial sense to address security risks.

The impact of security incidents can be considerable in human and financial terms and include:

+ workers compensation claims;

+ public liability claims;

+ adverse publicity and reputation;

+ personal costs to staff and visitors from theft and vandalism;

+ recruitment and retention costs;

+ high maintenance costs, eg from vandalism of security lighting, CCTV and graffiti;

+ High insurance costs and cost of replacing stolen facility property.

501854 790 .22.00 PURPOSE AND SCOPE

501854 790 .22.00

Effective planning and design is required to minimise and, where possible, eliminate foreseeable risks associated with the facility design.

Identify potential areas of risk and options for risk control that must be addressed during the planning, design and construction phases of a Health Facility Project, to achieve a safe, functional and affordable solution to the planning and design of Health Care Facilities.

The planning and design standards outlined in the section that follows shall be regarded as the recommended standard to be achieved.

It is however recognised that in a number of circumstances, departure from these requirements will be necessary to meet operational requirements or to manage any unusual risks that might be specific to a particular circumstance or location. As for other departures from these Guidelines, these will normally be subject to subsequent Departmental approval process within each jurisdiction.

It should be noted that Departments cannot exempt facility capital developments from legislative requirements such as planning, environmental protection, OHS and discrimination laws.

In NSW, comply with recommendations of :

Protecting People and Property: NSW Health Policy and Guidelines for Security Risk Management in Health Facilities (2003/92).,

Effective Incident Response: A Framework for Prevention and Management in the Health Workplace (2002/19)' and the

NSW Health Zero Tolerance Response to Violence in the NSW Health Workplace (2003/48)'.

Recurrent Costs

501855 790 .23.00 The issue of 'recurrent costs' should be considered in the context of the provision of an appropriately designed and constructed safe working environment in a Health Care Facility. That is, the safety and security issues should be addressed during the planning process and incorporated into the 'structure' of the facility. If the planning and design process follows the requirements of this Guideline and undertakes an appropriate level of consideration of safety and security issues, there should be no significant increase in recurrent costs. In fact, addressing and minimising security risks may be expected to reduce costs.

Designers and managers need to recognise that recurrent costs also include injuries to staff, patients or other persons, or damage to property that may arise from poor design. In the case of safety and security issues, this includes the direct and indirect costs associated with crime and violence.

Crime Prevention Through Environmental Design

501856 790 .24.00 Crime Prevention through Environmental Design (CPTED) is a situational crime prevention strategy that focuses on the design, planning and structure of cities and neighbourhoods. It aims to reduce opportunities for crime by employing design and place management principles that minimise the likelihood of essential crime ingredients from intersecting in time and space.

501857 790 .25.00 For NSW, NSW Health has developed the document DS36 ‘Health Facility Guideline – Safety and Security’ (C2003/13) as part of its health building design

and technical guideline series. Its purpose is to assist health facility planners and designers minimise security and safety risks by providing appropriately designed and built facilities, work spaces, building services and systems based on CPTED principles. The information it contains may also assist members of user groups during the construction and consultation process.

501858 790 .26.00 CPTED is primarily accomplished through the work of architects, engineers, builders, landscape gardeners and those who develop purchasing procedures.

The four main CPTED principles are:

+ 'Territorial reinforcement' which stimulates community ownership and policing. It includes maintaining the space so that it has a clean and well cared for appearance, using actual and symbolic territorial markers such as signage and site maps and the location of activities to avoid conflict;

+ 'Surveillance' through supervision by those who overlook or pass through spaces. It includes effective sightlines between public and private space, effective use of lighting and paths to group people, landscaping, strategic positioning of buildings and activities, and use of CCTV;

+ 'Access control' through physical and symbolic barriers that attract, channel or restrict pedestrian and vehicle movement, eg paths, roads, fences, lines of lighting, signs, gardens, gates, locks and doors. Making it clear where people can and can't go makes it more difficult for criminals to reach potential victims and targets;

+ 'Space management' which is linked to territorial reinforcement. It ensures that space is well used and maintained, eg by coordination of activity and rapidly repairing vandalism or graffiti.

501859 790 .27.00 The Crime Prevention Officer in the Police Local Area Command where a new/refurbished facility is located should be consulted on the CPTED implications of the proposed design. This would initially occur in the early stages of planning, ie at the concept stage.

Internal Security Risks

501860 790 .28.00 PERFORMANCE REQUIREMENTS

Provide Security Risk Assessment to AS/NZS 4360: Risk Management.

600383 790 .28.05 CLIENT RELATED VIOLENCE

Design is also an issue for the prevention and management of client related violence. It is particularly important for high risk areas such as:

+ Mental Health Inpatient Units;

+ Community Mental Health Centres;

+ Emergency Departments;

+ Drug and Alcohol Units/Methadone Clinics;

+ Aged Care Units;

+ Brain Injury and Rehabilitation Units;

+ any location where staff may work alone in isolation;

+ any area where child protection may be an issue, eg Paediatric Wards, Maternity Wards and Birthing Units.

501861 790 .29.00 The prevention and management of client related security risks has implications for the design of Units, and the selection of FF&E, such as:

+ perimeter security (doors and windows, entrances, property perimeter including fences and access control);

+ control of access to the buildings, individual HPU and rooms;

+ cash handling and transit routes;

+ location of shops and banking facilities;

+ avoidance of areas where staff work alone or in isolation;

+ location and design of Car Parks;

+ location, design and lighting of access routes to Car Parks, bus stops, and between entrances and the street;

+ provision of duress alarms, intruder alarms, proximity alarms and CCTV;

+ design of Reception Areas;

+ design of Consultation Rooms, Treatment Rooms, Triage Areas and Staff Stations to avoid entrapment points;

+ design and location of Staff Stations;

+ glazing;

+ visibility and lines of sight;

+ cultural issues such as the size of personal space, privacy of groups such as Muslim women and the need for a patient to have an escort, eg the use of a facility by Muslim women may have implications for the size and design of Waiting Rooms, Consultation Rooms and the like.

501862 790 .30.00 Advice on risk control strategies is included in each specific unit section - this has been drawn from the NSW Health Safety and Security Guideline.

In Queensland, refer to Queensland Health Safety and Security Policy at www.health.qld.gov.au/hacc/NationalStandardsPol/Pol_SafetySec.doc

Security Risk Management

501863 790 .31.00 PERFORMANCE REQUIREMENTS

Provide Security Risk Assessment to AS/NZS 4360: Risk Management.

600384 790 .31.05 Areas of potential risk should be identified from consultation with employees,

600384 790 .31.05 managers, the OHS committee, security personnel and the Police Local Area Command Crime Prevention Officer. This coordination shall occur during the preparation of the Project Feasibility Plan and the Project Definition Plan to ensure all issues are adequately addressed and funded. Known high risk areas have been listed above though there is potential for security risks and violence in any part of a facility including indoor and outdoor environments.

501864 790 .32.00 Having identified and documented the relevant risks the planning process must then eliminate or minimise those risks through suitable planning and design solutions.

It is not intended that these Guidelines will identify all risks in all facilities. Planners, designers and managers are expected to undertake a detailed risk analysis of their facility, taking into account the location, all of the circumstances that are appropriate to that facility, and should include consultation with a wide range of stakeholders.

501865 790 .33.00 In undertaking the risk analysis and the risk management process, facility managers and planners should take into account the differences between remote/rural facilities and metropolitan facilities. Issues such as response times to violent events must be addressed not only by the facility design but also by Operational Policies.

Design for Security

501866 790 .34.00 The issue of security is raised throughout the Guidelines in areas such as hardware and external lighting. However, consideration shall also be given to the overall solution with good initial planning and detail design to overcome the principal problems of concealment of, and ease of access by the undesirable element, and containment of certain categories of patients.

Facility design should ensure that the space allocation for safe and secure circulation within and between Units is efficient and appropriate for the functional activities of the space, having regard to the allowance provisions defined in the relevant schedule of accommodation.

501867 790 .35.00 A Health Care Facility, even without an Emergency Department, is often functioning for 24 hours per day. Visitors and staff enter and leave the building at all times, often on an informal and unscheduled basis. At these times, there is greater potential for unauthorised entry into the building and attacks on visitors and staff when walking to and from car parks and bus stops, especially at night.

501868 790 .36.00 The work environment may increase or decrease the risks associated with occupational violence and aggression depending on a range of issues, which are set out in the following section.

501869 790 .37.00 The following issues with respect to security should be addressed in every Health Care Facility:

ENTRY/EXIT ISSUES

+ management of access to various areas and departments;

+ managing access of relatives/visitors;

+ managing access of clients;

+ managing entry of personnel visiting or working within the hospital;

+ managing entry to facility grounds, eg 'no through' access for pedestrians and vehicles to minimise unauthorised entry and vandalism.

PATIENT SAFETY AND SECURITY

+ reduction of triggers for conflict with patients and relatives eg through design of Waiting Rooms, Reception Areas, signage;

+ minimise the risk of illegal removal of babies and children from maternity and paediatric units;

+ management of patient 'wandering' from Rehabilitation, Aged Care Units and Emergency Departments;

+ manage and supervise hydrotherapy pools;

+ mental health and other behaviourally disturbed patients - safe areas for containment and observation, personal space, means of preventing absconding (eg proximity alarms);

+ manage risks associated with the security of police and Corrections Officer weapons and equipment.

STAFF SAFETY AND SECURITY

+ admitting patients (close contact with public being admitted and relatives);

+ management of conflict with patients and relatives;

+ risk of violence from non-custodial, alcohol or drug affected parents/visitors;

+ working after hours;

+ working in isolation;

+ staff movement around hospital sites, eg to and from public transport, Car Parks, staff accommodation etc;

+ clinical state of patient;

+ access to assistance and support from colleagues;

+ ability to observe patients and others, and provide early intervention;

+ access to alarms.

SECURITY OF PROPERTY

+ location of public telephones in retail areas;

+ cash handling;

+ furniture, fittings and equipment ;

+ waiting Area furniture;

+ computer, high tech, AV equipment etc;

+ personal effects - staff;

+ personal effects - patients;

+ access control;

+ intruder alarms;

+ Car Park security.

SECURITY AND CONFIDENTIALITY OF RECORDS AND FILES

+ medical records;

+ financial records;

+ employee files;

+ medico-legal files.

SECURITY OF DRUGS AND OTHER SUPPLIES

+ dangerous drugs and drugs of addiction;

+ other supplies/stores.

These issues are addressed on a Unit specific basis within the relevant sections of these Guidelines. A checklist is also provided for each Unit to assess the response of the building brief to each issue listed.

501870 790 .38.00 In determining specific requirements and design, the impact of new technology and clinical work practices should be reviewed in relation to safety and security prior to adoption.

501871 790 .39.00 Consideration shall be given to any additional facility requirements that result in a secure and safe environment for staff, patients and visitors.

Building Elements

501872 790 .40.00 PERFORMANCE REQUIREMENTS

Provide Security Risk Assessment to AS/NZS 4360: Risk Management.

600385 790 .40.05 ACCESS CONTROL

All Health Services shall ensure, in consultation with staff and key stakeholders, that all reasonably foreseeable security risks associated with access to workplaces are identified, assessed and eliminated where reasonably practicably or effectively controlled.

501873 790 .41.00 Effective access control involves:

+ securing perimeters, including doors and windows;

+ controlling access to the land on which the facility is situated (eg fences, roads, traffic and pedestrian access and flow);

+ providing safe access and exit especially after hours and during emergencies;

+ controlling access to vulnerable areas;

+ clear signage;

+ instituting staff identification systems that allow members of the organisation to be identified.

600386 790 .41.05 In NSW, for details of an effective access control system refer to 'Protecting People and Property: NSW Health Policy and Guidelines for Security Risk Management in Health Facilities' and to DS36 'NSW Health Guideline Safety and Security' (C2003/13).

501874 790 .42.00 DOORS

All openable external building perimeter doors shall be lockable. Perimeter doors should meet the following building design standards:

+ be fitted with a quality single cylinder lockset that complies with fire regulations (refer to AS4145.2-1993/Amat 1-1996 Locksets - Mechanical locksets for doors in buildings);

+ have a metal frame or have a strip of metal securely mounted to the frame from the top to the bottom of the lock-side, with allowance for the lock tongue to be inserted;

+ have protected hinge pins in order to resist removal by either replacing the existing hinges with fixed pin, security butt hinges or having dog bolts installed to prevent pins being removed;

+ have entry alarms or warning buzzers fitted to doors that need to remain unlocked or open or to indicate that someone has entered the area;

+ have alarms fitted to doors that are normally externally locked to signal when the doors are chocked open or fail to close properly.

Fire isolated exit doors should meet the requirements of the Building Code of Australia.

After hours public entry points should be access controlled and fitted with video/CCTV intercoms to allow screening of members of the public presenting at the door.

Glazing in doors and panels beside doors must be resistant to breakage and not shatter on impact.

501875 790 .43.00 WINDOWS

Opening windows create security problems. These include glazing, locks, ability for people outside to look in and the potential to facilitate break-ins. All openable external building perimeter windows and doors shall be lockable.

Entry through perimeter windows should be minimised by the use of options such as:

+ reinforcing windows to resist unauthorised entry;

+ using heavy gauge glass bricks or laminated glass panels (in areas which require natural light but no ventilation) that are securely mounted in the frame;

+ permanently closing unused windows by fixing with bolts or screws;

+ fitting key operated locks to all other windows;

+ applying film to glass to resist breakage or fit safety glass as per design guidelines.

501876 790 .44.00 SCREENS AND GRILLES

Generally, openable external windows, vents and doors shall be fitted with flyscreens. Doorways that are used on a regular basis such as service and main entries, need not be flyscreened but shall be fitted with a self-closing device. Other exceptions to the above are windows, in multi-storey or fully airconditioned buildings, that are used for service access, or pivot/swing/tilt for cleaning purposes.

501877 790 .45.00 Security grilles, and appropriate impact resistant glass or an electronic security system should be installed wherever high security areas have external windows, such as Pharmacy Stores and Workrooms; and Medical Records Stores.

600387 790 .45.05 Special consideration should be given to the design of counters in areas where the protection of staff from violence or criminal acts is required. The design issues should include the provision of glazed screens, pass through documents/currency trays, communication systems and should include the design of doors/hardware, viewing panels and partitions/ceilings adjacent to counters. The design should provide for the type and level of violence anticipated eg liquids, objects and firearms. It may be necessary to see advice how the Police or an independent security consultant.

Refer to AS/NZA 2208 Safety Glazing Materials in Buildings and AS/NZS 2343 Better Resistant Panels and Elements.

501878 790 .46.00 Security flyscreened doors, where installed, shall not compromise emergency exit.

Key Areas for Security Provision

501879 790 .47.00 The following notes are supplemented by a detailed risk analysis and response in the unit specific sections of these Guidelines.

501880 790 .48.00 ENTRY/EXIT

The workplace design should minimise public access to all areas of the workplace.

Ideally, visitors should have access to one main entrance and security should be placed at this entrance if necessary.

However, support services such as emergency response teams should have maximum access to all areas of the workplace to facilitate their intervention in

emergencies.

Staff should also have ready access to exits as escape routes if an aggressive incident occurs.

All staff, including sessional specialists and casual staff, should be provided with training on aggression minimisation and emergency response procedures.

501881 790 .49.00 EMERGENCY DEPARTMENT

In hospitals, security should also be provided adjacent to the Emergency Department. Emergency Departments should be designed to allow secure separation of Treatment Areas from Public Areas.

Security barriers may include glass fronted counters and access doors with card or keypad access.

In Emergency Units the provision of video security is highly recommended.

Any ambulance entrance should have the same level of security protection as the main entrance.

Duress alarms should be provided - fixed alarms for counter staff, and mobile location finding alarms for staff who do not work in a fixed location, eg clinicians.

501882 790 .50.00 RECEPTION/WAITING AREAS

Reception and Waiting Areas should be easily identifiable and accessible to patients and visitors. The design and layout should provide reception staff with a clear view of all persons in the Waiting Area. The activities of clinical staff should not be visible from the Waiting Room or Reception Area.

501883 790 .51.00 Personal space is especially important in Waiting Areas particularly in Emergency Departments where clients are more stressed. Cultural differences are also an issue for consideration - consider local demographics.

There is some evidence which indicates that persons experiencing high tension need greater interpersonal distance than others. Reception Areas should be spacious and quiet with comfortable seating. Seating should be either individual or bench type. To reduce boredom, activities such as television, toys, books and games should be provided. Public telephones should be provided to enable ready communication with friends, relatives and employers.

501884 790 .52.00 Furniture should be attractive and comfortable, but should be selected with regard to its safeness and the possibility that it may be used as a weapon. Colour is an important factor and should be selected for its calming rather than stimulating qualities. Climate control will help maintain a comfortable and calming environment. Easy access to amenities such as phones, water and snack dispensers, and public toilets is important to enhance comfort and reduce stress levels.

Seating should be spaced to allow room for baby strollers, wheelchairs and mobility aids. It should also be selected and spaced to allow for bariatric people to sit comfortably.

To reduce the incidence of vandalism or client frustration, Waiting Areas should be clean and well-maintained with all fittings in working order.

501885 790 .53.00 In Emergency Departments, unless a glass barrier is provided, counters shall be high enough to discourage an adult climbing over them. They shall also be wide enough to make it difficult for a client to strike a staff member.

The design shall also be ergonomically sound so desks or counters do not introduce new risks. For example, while inquiry desks can be designed to be wide enough to make it difficult for a client to strike a staff member or high enough to make it difficult to climb over, this will not protect a staff member from a thrown object, and may introduce manual handling risks from constantly having to lean forward.

It should be noted that high counters can also increase client frustration as it can make communication more difficult, especially where a client is of short stature or in a wheelchair.

Risk analysis shall be used to determine the most appropriate design strategies to control security risks.

Vertical partitions shall be provided to the extent required, to allow for some privacy when people are discussing private matters with staff. Each counter shall be provided with a duress alarm system.

A well designed screen that does not impede communication shall be installed in high risk areas such as Emergency Departments, Drug and Alcohol Units and Mental Health Areas. Appropriately placed openings or document transfer trays shall be provided for communication or passage of documents.

501886 790 .54.00 The ends of the Reception counter should be closed to prevent clients walking into Staff Areas. Entry doors should be full height and fitted with security access. A one-way viewing panel will enhance security of these doors.

501887 790 .55.00 TREATMENT/INTERVIEW AREAS

Separate sound insulated rooms should be provided to isolate distraught or emotionally disturbed patients, families or friends; people with acute behavioural disturbance; and intoxicated or very noisy people.

501888 790 .56.00 Treatment, Interview, Meeting and Consultation Rooms that are likely to be used by Mental Health or disturbed patients should be fitted with two doors on different walls to allow easy escape by staff. One door should lead in from the public area and the other from a corridor, staff or public area.

Doors should open outwards where possible to facilitate quick exit of staff.

501889 790 .57.00 Treatment and Interview Rooms that may be used by Mental Health or other potentially behaviourally disturbed patients should be connected to a location finding mobile duress alarm system. Fixed duress alarms are not recommended as they may be out of reach when an incident occurs and they can be interfered with by patients or others. Glass viewing panels should be on at least one door to allow observation by colleagues.

501890 790 .58.00 PHARMACY

As part of the risk management process for the Pharmacy Area, the following risk

control strategies should be considered:

+ constructing walls, floor and ceilings of the pharmacy out of solid material, with as few windows as possible;

+ extending walls, where practicable, to the underside of the floor slab above to prevent any intrusion over the wall;

+ reinforcing windows on the perimeter walls to prevent entry; existing windows may be reinforced with shatter resistant film or by replacing the glass with laminated glass;

+ incorporating laminated glass windows into the design of the front of the pharmacy to enable staff to carry out transfer operations with safety, while maintaining communication with staff and patients;

+ designing a two door entry approach (ie one door for the public and hospital staff to access glass transaction windows and a separate door for the entry of pharmacy staff to the pharmacy);

+ incorporating provision for closing off open areas at the front of the pharmacy when closed, (eg by a locked door from the corridor or locked shutter doors);

+ fitting doors to the pharmacy with quality single cylinder dead locks to comply with fire regulations and where practicable locks are to be key code or card operated externally and fitted with either a turn snib or handle internally to enable occupants to escape in emergencies;

+ ensuring doors are kept closed and locked to restrict entry;

+ installing an intruder alarm system that meets Australian Standard AS2201 and incorporates a duress alarm/s to enable staff to activate the alarm in the event of an emergency;

+ restricting access to the pharmacy to authorised staff only and controlling this by:

+ fitting single cylinder key, code or card operated dead locks to perimeter doors;

+ having a restricted keying system fitted to the locks in order to prevent duplication of keys;

+ strictly regulating the issue of keys, codes or cards at all times, including provision for after hours access;

+ keeping doors closed and locked to restrict entry;

+ installing closed circuit television monitors at access doors to screen entry of personnel and record any access to the pharmacy after hours.

501891 790 .59.00 PARKING

Staff parking should be provided under or within close range of the workplace. The area should be well lit and protected from the elements. In high risk areas the Car Park may need to be monitored by security personnel or cameras.

501892 790 .60.00 Risk control strategies to be considered include:

+ provide, where practicable, afternoon and night shift staff with designated,

controlled parking spaces as close as possible to the facility in a well lit, easily observed area connected to the facility by well lit paths;

+ ensure entry to designated staff parking areas in dual purpose car parks is controlled by gates in the afternoon and night (eg boom gate could be left up in the morning and put down about 1-2 hours before afternoon shift commences so they are operated by staff pass cards). Exit boom gates should operate automatically (i.e. after a certain time a card is needed to enter but exit can occur any time);

+ ensure vehicle entry to car parks is by automated gates or doors, via camera and intercom, or by passing through an entry/exit gate staffed by security personnel;

+ display signs in car parks reinforcing theft awareness (eg park smarter, lock it or lose it);

+ display signs that advise that regular patrols are undertaken and CCTV monitoring is in place;

+ ensure landscaping is done in a way to provide minimal protection for intruders eg dark spots or hiding places;

+ ensure single and multi-storey car parks have:

- good lighting (refer to AS 1158.3.1 and the NSW Guidelines for Security Risk Management in Health Facilities);

- emergency telephone or intercoms direct to security staff or switchboard;

- landscaping which leaves the area open and does not intrude on line of sight;

- as few dark corners and support columns in the design as possible;

- flexibility to close some entrances and exits during low traffic periods;

- approved locks on exits intended for emergency exit only;

- frequent patrols by security staff;

+ restrict the parking of delivery vehicles to designated spaces;

+ ensure facility vehicles are parked in a secure overnight car park with good lighting and regular security patrols. A fenced compound or lock-up garage is preferable;

+ provide security for bicycles and motorcycles (ie lockers or storage areas, a stationary rack that secures the frame and both wheels without a chain, or a stationary object the user can lock the frame and wheels to with their own cable chain and lock).

501893 790 .61.00 LOADING DOCKS

Goods delivery, loading and unloading areas should be well lit, protected from the weather and their security ensured. In particular entry to the facility by unauthorised personnel in these areas should be prevented.

501894 790 .62.00 LIGHTING

As part of the facility security risk management process, Health Care Services must ensure, in consultation with staff and key stakeholders, that internal and external lighting is sufficient to eliminate, where reasonably practicable, or control security related risks and meet the relevant Australian Standards.

501895 790 .63.00 Security lighting is both internal and external lighting that is used to improve security in the vicinity of the light. The external lighting system recommended for Health Care Facilities uses luminaires of the High-Pressure Sodium (HPS) type.

501896 790 .65.00 External security lighting should be installed in vandal resistant containers and mounted to restrict tampering (eg too high up to be readily broken)

501897 790 .66.00 Posts for security lights should be designed in such a way that they do not provide a 'ladder' or foothold to allow access to the light fitting

501898 790 .67.00 Ensure security lights are connected to an electrical circuit separate to that of the main facility

501899 790 .68.00 Locate lights to gain the maximum benefit and coverage

501900 790 .69.00 Provide lights bright enough to ensure a safe entry to and safe exit from the workplace (including footpaths/accessways), and provide acceptable levels of light in car parks.

Lighting should avoid creating dark spots, be sufficiently bright to deter crime and provide sufficient light to allow facial recognition and prevent slips, trips and falls. Where the facility does not have dedicated on-site parking, consultation on street lighting should occur with local councils.

501901 790 .70.00 Ensure lighting used meets the relevant parts of AS 1680 series, AS 1158 series (including 1158.3.1), AS 4485.1 and AS 2890 where applicable.

501902 790 .71.00 Determine the needs of areas requiring special lighting treatment (eg Entrance Foyers, Emergency Departments, Staff Entry and Exit points, Pharmacies and Car Parks).

501903 790 .72.00 Ensure a back up generator is available, where practicable, to ensure continuity of electrical supply for security lighting.

501904 790 .73.00 ALARM SYSTEMS

501904 790 . 73.00

As part of the facility security risk management process, Health Services shall establish their requirements for alarm systems (eg duress and intruder alarms) to ensure that staff members, patients, and Health Service assets are secure. A regular review of all alarm systems must occur as part of the risk management process.

600388 790 . 73.05 In NSW, refer to 'Protecting People and Property: NSW Health Policy and Guidelines for Security Risk Management in Health Facilities', Circular 2003/92, NSW Health, 2003.

501905 790 . 74.00 In assessing the requirement for alarms, Health Services should consider the following issues:

+ potential for violence against staff;

+ the type of work being carried out by staff;

+ staff working in isolation;

+ cash handling;

+ goods and equipment stored in the area;

+ level of external security risks;

+ level of internal security risks;

+ exits that may be left open by staff or patients;

+ the security needs of 'at risk' patients such as wandering elderly patients in wards, mental health patients, or children at risk of unauthorised removal from the facility;

+ potential for use of emergency exits (eg fire escapes) by thieves to remove assets;

+ potential for break in via doors and/or windows to remove assets;

+ potential for break into and theft of vehicles.

501906 790 . 75.00 PERFORMANCE REQUIREMENTS

Provide Security Risk Assessment to AS/NZS 4360 Risk Management.

600389 790 . 75.05 In assessing the requirement for alarms Health Services shall consult with staff working in or using relevant areas or facilities such as:

+ Mental Health Services;

+ Emergency Departments;

+ Pharmacy and other drug storage areas;

+ Women's Health and Maternity Units;

+ Youth Health Units;

+ Sexual Assault Units;

+ cash handling and storage areas;

+ isolated facilities/units;

+ car Parks and grounds;

+ vehicles (eg ambulances);

+ Alcohol and other drugs services;

+ Aged Care Wards/Dementia Units/Brain Injury Units/Rehabilitation Units;

+ Community Services.

501907 790 .76.00 INTRUDER ALARM

Intruder alarm systems are highly recommended for parts of Hospitals as well as Day Procedure Units that are closed after-hours.

Intruder alarm systems are required in the following areas:

+ Pharmacy Units where dangerous drugs (schedule 8) are kept;

+ all Satellite Pharmacy Rooms where dangerous drugs (schedule 8) are kept;

+ all drug safes where dangerous drugs (schedule 8) are kept;

+ Mortuary areas where bodies are stored;

+ External doors or windows to Baby Nurseries including NICU;

+ Clinical Records Unit and any remote archival areas.

501908 790 .77.00 Many different intruder alarm systems are available. The required intruder alarm systems shall be equal to or better than, in terms of coverage and functionality the following:

+ reed Switches for doors and windows;

+ movement detectors to cover spaces that can be used for access.

A required intruder alarm should adequately indicate the location where security has been breached. The acceptable systems may indicate the location by:

+ a local audible alarm;

+ a remote indicator panel with a readout;

+ a security signal sent to a monitoring base, 24 hour Security Room or Staff Station computers;

+ a general audible alarm and security pager signal indicating the location on pagers carried by a security officer and other staff;

+ another system with equal or better functionality;

+ one or more of the above in combination, especially where 24hour security offices or staff stations are not available.

501909 790 .78.00 In larger facilities with sophisticated nurse call systems it is advisable to integrate the security systems including the intruder alarm, duress alarm and video with the nurse call system.

Nurse call and pager systems should generate different noises and signals for different events.

Ideally, the system will send a security signal to a dedicated Security Office or the 24 hour Staff Stations. The signal as well as video surveillance images may be seen on standard computer monitors that also pinpoint the location of the intrusion.

It should be noted that staff should never investigate an intruder alert alone.

501910 790 .79.00 The relevant requirements from the Australian Cabling Regulations, Australian Standards (AS2201- Intruder Alarm Systems) and International Electro-Technical Commission standards shall be incorporated into all aspects of commissioning, installing, activating and maintaining intruder alarms:

501911 790 .80.00 DURESS ALARM

A duress alarm system is a signal for assistance sent by a person(s) who is under attack or threatened by the situation they face. The main purpose of the alarm will be to:

+ to seek assistance for staff who may be directly exposed to a threat of violence;

+ to indicate inappropriate or aggressive behaviours by visitors or patients.

501912 790 .81.00 A duress alarm system should be installed in all high risk areas including:

+ all Staff Stations;

+ all Reception Counters;

+ Consultation and Treatment Rooms where there is a risk of aggression from behaviourally disturbed patients;

+ Mental Health Inpatient Units and Community Health Centres;

+ Emergency Units;

+ Confused and Disturbed Elderly CADE and Aged Care Units;

+ Drug and Alcohol Units;

+ Brain Injury Units;

+ anywhere that staff work alone or in isolation;

+ areas where child protection may be an issue;

+ carparks and grounds.

501913 790 .82.00 There are two generic types of duress alarms recommended for use:

FIXED

This type of duress alarm is intended to call for discreet assistance without causing local alarm to the aggressor or others who may be present. The signal is sent to a Remote Security Office or 24 hour Staff Station, and to pagers carried by response staff.

Fixed alarms may be used in well defined areas where there is no or little opportunity for an aggressor to get between a staff member and the alarm button, and the person works from a static position (eg where staff are behind a screen such as a pharmacy distribution window or behind a counter). Fixed alarms may not be appropriate for areas accessible to patients and the public (eg corridors, as mischievous tampering with alarms may occur).

Note: AS 3811: Hard wired patient alarm systems provides for incorporation of a patient activated duress function.

MOBILE

Mobile duress alarms may be used where the staff member is mobile in the course of their work in areas such as Wards or Emergency Departments where there is a risk of being confronted by aggressive behaviour.

Mobile duress alarms should be worn attached to the clothing (eg clipped to a pocket or belt). They should not be worn around the neck.

Mobile duress alarms for use within a facility and the immediate area shall comply with AS 4607 Personal response systems. This standard references other legal, regulating and insurance requirements.

The device sends a signal to a Remote Security Office or 24 hour Staff Station and to pagers carried by at least 3 response staff. The device is automatically activated if the staff member collapses to the floor. The system shall indicate the location of the staff member at the time of the signal activation.

Location finding mobile alarms shall be provided to all staff who work in medium to high risk environments and who do not work in a fixed position eg porters, nurses, medical officers.

501914 790 .83.00 PERFORMANCE REQUIREMENTS

Refer to Australian Draft Standard DR 06133 (To be AS 4806.4) for information relating to the installation of Closed Circuit Television (CCTV) systems for remote video monitoring. This standard references AS 2201 and ISO standards covering control centres and other related legislation and guidelines covering broadcasting, evidence, privacy and OHS.

600390 790 .83.05 VIDEO SECURITY

Video security shall be considered for all areas that may be used after-hours. Video security is required in the following areas:

+ Emergency Unit after hours patient entrance;

+ Ambulance Bay after hours entrance;

+ any entrance used for access to a Birthing Unit after hours;

+ any other entrance that is used for the above purposes after-hours;

+ corridors, courtyards and Secure Rooms in an Acute Psychiatric Unit which can not be adequately observed from a Staff Station;

+ other Units where access control is desirable eg Intensive Care Unit, Paediatric Inpatient Unit and Maternity Inpatient Unit.

501915 790 .84.00 The video security system required at entrance points shall have the following features:

+ show those who intend to enter with their facial features being recognisable;

+ include an intercom system to communicate with those who intend to enter;

+ provide a remote signal to open the door.

501916 790 .85.00 The video security system required in Psychiatric Units shall have the following features:

+ adequately cover hidden areas;

+ camera protected and discrete;

+ the direction of the camera should not be obvious.

501917 790 .86.00 The monitoring point for video security may be a dedicated Security Office or a 24 hour Staff Station. The duress response should be discussed with staff working in the vicinity of video security.

501918 790 .87.00 The need to escort the person seeking entry to their destination should be considered in the implementation and operation of a video/intercom entry system.

501919 790 .88.00 Note: The provision of video security at the main entrance of Hospitals is highly recommended.

501920 790 .89.00 Specifications to be included:

+ colour;

+ digital;

+ CCTV used for monitoring patients eg in acute mental health units should not record.

+ lighting and clarity of picture;

+ requirements for video recording.

Property

501921 790 .90.00 PEFORMANCE REQUIREMENT

Provide Security Risk Assessment to AS/NZS 4360 Risk Management.

600391 790 .90.05 GENERAL

To minimise the risk to property, all attractive portable items (calculator, cameras, tape recorders, laptop computers, PDAs etc) should be stored separately in locked areas. Only designated staff should have access to these areas.

The following areas require specific attention.

501922 790 .91.00 CATERING

Ensure that external doors can be locked at all times, with only one exit point that can be visually monitored by the Catering Officer. Fire Exit doors shall only be able to be opened from the inside, and should have an audible alarm.

501923 790 .92.00 STORES

Locate, as far as practical, Stores away from public areas and Change and Lunch Room Areas.

Restrict entry/exit to the Store to only one door that can be visually monitored from the Supply Officer's office. Fire exit doors shall only be able to be opened from the inside and should have an alarm that activates when opened.

Ensure that stocks held in areas are securely stored and not easily accessible to patients and unauthorised staff. Where possible, ward stores shall be locked and accessible only to the nurse or unit manager or their delegate.

501924 790 .93.00 PATIENTS' PROPERTY

Provide a means of securing individual wardrobe lockers or closets for clothing (if these are provided).

501925 790 .94.00 STAFF PROPERTY

Ensure that staff are provided with a lockable storage area (eg locker or cupboard) for safe keeping of their property.

Ensure Car Parks have good lighting to deter theft and vandalism.

Medical Gases

501926 790 .95.00 Ensure access to any storage areas is restricted by use of doors, barriers and signs. Sources are to be secured against unauthorised removal, tampering, vandalism and misuse. Design should comply with relevant Australian Standards and the regulations and policy of the regulating authority eg bulk oxygen storage.

The requirements of the Dangerous Goods Act and Regulations may apply to the design of locked areas and provision of signage.

Radioactive Substances

501927 790 .96.00 Ensure stores (including waste stores) are properly marked with approved warning signs, and regulations regarding their use are posted at access points.

Ensure access to any storage areas is restricted by use of doors, locks, barriers and signs. Sources are secured against unauthorised removal and tampering. `

Mail and Other Deliveries

501928 790 .97.00 Health Services should establish a screening point for all mail, that is, a central processing point for all mail for the workplace. At which point in the process mail passes through this central area, between arrival and delivery to the relevant officer, will vary according to the size and function of the workplace.

CHECKLIST

Name of HPU: _____ (Print and cesignomplete one per HPU)

Agreed Role Delineation Level: _____

No	Item	Yes	No
1.0	**Space standards & Dimensions:**		
1.1	**Corridors:** Have corridors been designed with the minimum required clearance?	☐	☐
1.2	**Ceiling Heights:** Are ceiling heights in rooms and corridors appropriate? Have the ceiling mounted items of equipment been allowed for?	☐ ☐	☐ ☐
2.0	**Ergonomics**		
2.1	Does the facility comply with the nominated Standards in regard to access for people with disabilities?	☐	☐
2.2	Are fixed equipment and furniture appropriately designed and located?	☐	☐
2.3	Are desk and benches suitable for the people using them and the tasks they are performing, i.e. height and depth?	☐	☐
2.4	Where shelving is indicated, is the depth and height appropriate?	☐	☐
2.5	Has sufficient space been provided in patient rooms and bed bays for movement of objects and patients around the bed?	☐	☐
3.0	**Human Engineering**		
3.1	Have Human Engineering issues been considered and addressed?	☐	☐
4.0	**Signage**		
4.1	Is the signposting specified appropriate and sufficient?	☐	☐
5.0	**Doors**		
5.1	Have the door/s swings and clear door widths been checked for compliance?	☐	☐
6.0	**Grab Rails & Hand Rails**		
6.1	Do all grab rails and handrails comply with AS 1428?	☐	☐
6.2	In corridors accessed by patients, are sufficient grab rails provided?	☐	☐
7.0	**Windows**		
7.1	Have all patient rooms used for overnight stay been provided with external windows?	☐	☐
7.2	Do all external windows have restricted access?	☐	☐
7.3	Do all external windows have access for cleaning?	☐	☐

Part C - Access, Mobility, OHS Security

No	Item	Yes	No
8.0	**Floors**		
8.1	Are the floor finishes for each room and corridor appropriate for the usage of the area?	☐	☐
8.2	Do the floor finishes specified have the appropriate slip resistance level?	☐	☐
9.0	**Acoustics**		
	Is the design capable of compliance with the Acoustic guidelines?	☐	☐
10.0	**Security**		
10.1	Are all external perimeter doors lockable?	☐	☐
10.2	Are security provisions in Entry, Carparking, Reception and Waiting areas appropriate?	☐	☐
10.3	Are duress alarms provided to the specified areas?	☐	☐

Checked and certified by:

Name: _____ Date: _____

Company: _____

Position _____

Signature: _____

1 TABLE OF CONTENTS

INDEX

		Description
500324	1 .0.10	820 GENERAL REQUIREMENTS
		Introduction: - General
		Building Elements: - Handwashing - Staff - Handwash Basin Types and Uses - Handwash Basin Types - Schedule - Handwash Basins - Placement - Isolation Rooms
		860 PHYSICAL ENVIRONMENT
		Physical Planning: - Airconditioning and Ventilation - Environmentally Sustainable Design - Patient Accommodation
		880 SURFACES & FINISHES
		Physical Planning: - General - Floors - Skirtings - Walls - Ceilings - Gaps - Surface Materials
		900 CONSTRUCTION & RENOVATION
		General Risk Management Construction Verification Construction Risk Assessment and Action Plan
		1000 REFERENCES
		References and Further Reading

General

501929 820 .1.00 Infection prevention and control involves identification of transmissible agents and intervention to minimise the spread of these infections.

300606 820 .2.00 A number of strategies contribute to the control of infection, such as handwashing, careful aseptic technique and the observance of 'standard precautions'. Isolation rooms to separate immunocompromised or infectious patients from other patients are also a vital part of infection control. These rooms may be standard rooms or special rooms with positive or negative pressure.

300607 820 .3.00 Infection prevention and control requirements are critical to the planning of a Health Care Facility and need to be incorporated into plans and specifications.

501930 820 .4.00 All areas of the facility shall be designed, constructed, furnished and equipped in keeping with the principles of infection control.

300609 820 .5.00 By far the most important of the infection control strategies is effective handwashing. Handwashing facilities shall be installed in all patient care areas, and in all areas where careful attention to hygiene is essential, such as Kitchens, Laundries, Pharmacies, Laboratories, etc, and staff amenities areas, such as Bathrooms, Toilets and Change Rooms. Refer to detailed requirements for staff hand-basins, later in this document.

300610 820 .6.00 Facets of construction and fit-out that contribute to effective infection control are covered in various sections of these Guidelines. They include ventilation, floor coverings, waste management, provision for ease of cleaning, provision for sterilisation and disinfection of equipment and instruments, and provision for the isolation of infectious patients as required.

Handwashing - Staff

501931 820 .7.00 Staff should be encouraged to wash their hands before and after every patient contact. In all Health Care Facilities the following handwashing facilities should be available:

+ Hand basins with warm and cold water supplies;
+ Taps with hands-free operation;
+ Supplies of soap or detergent;
+ Disposable paper towels or single use cloth towels.

Handwashing facilities should comply with appropriate Australian Standards. Refer References and Further Reading.

501932 820 .8.00 Taps should be fitted with an anti-splash-back device, and should ideally be operated without hand contact, that is, by elbow, knee, foot or an infra-red or

similar 'no-touch' mechanism. Where filters are fitted to taps in place of anti-splash devices, they should be cleaned REGULARLY - a cleaning regime shall be in place.

501933 820 .9.00 Mirrors shall not be installed at handwashing facilities in food preparation areas, nurseries, clean and sterile supply areas, scrub sinks or other areas where aseptic control would be lessened by touching hair.

300097 820 .10.00 Provision for 'hands off' liquid soap dispensing should be included at all handwashing facilities. All standard basins should be fitted with 'hand cleanser' liquid soap and all scrub-up basins (clinical handwashing) with 'antimicrobial' liquid soap. Soap dispensers are to be the non-refillable type.

300098 820 .11.00 Provision for hand drying shall be included at all hand washing facilities, except Operating Unit scrub-up troughs.

300099 820 .12.00 Hand drying facilities shall be single use, separate and individual linen/paper units enclosed in such a way as to provide protection against dust or soil and ensure single unit dispensing.

501934 820 .13.00 Hot air hand dryers are not recommended in Class 9a buildings or in sterile stock areas and should not be installed in staff or visitor toilet areas.

501935 820 .14.00 A disposable glove dispenser, sufficient to hold all glove sizes, should be located in close proximity to hand basins. The dispenser should allow re-stocking without the need to touch new gloves.

Handwash Basin Types and Uses

501936 820 .15.00 TYPE A - CLINICAL SCRUB BASIN

This is used in areas requiring clinical handwashing for sterile procedures, for example ICU Rooms, Treatment Rooms and Cardiac Catheterisation areas, Clinics and Day Procedure Rooms.

The hand basin type is a large clinical type. The taps are wall mounted, hands-free operation (elbow, foot or electronic).

501937 820 .16.00 TYPE B - GENERAL STAFF HAND BASIN

This is used in areas requiring general staff handwashing, for example inpatient unit corridors, and 1 Bed Rooms.

The basin type is a medium wall mounted basin. The taps are either wall mounted or basin mounted with hands-free operation (elbow or wrist).

501938 820 .17.00 TYPE C - SMALL STAFF/PATIENT/VISITOR HAND BASIN

This is used in areas requiring general staff and patient handwashing, for

example patient and staff Amenities and toilet areas.

The basin type is a small wall mounted basin. The taps are either wall mounted or basin mounted.

501939 820 .18.00 SCRUB SINK

Refers to a long sink that can accommodate one or more staff scrubbing for a sterile procedure at the one time. Refer to Part C, Ergonomics for the heights, width of space per person and type of taps.

Handwash Basin Types - Schedule

501940 820 .19.00 The following indicates recommended basin and tap combinations for particular rooms. For rooms not listed refer to a similar area.

The waterspout should be positioned so that the water flow does not flow directly into the drain and cause a splashback to the hands of the user. It should be positioned in a way to ensure that the water flow hits the basin in/on the front (splashback) to avoid contamination from the down pipe on to the hands of the user.

Note that a domestic style one lever operation is considered an appropriate substitute for a wrist operated tap.

ROOM/SPACE	BASIN TYPE	WALL TAP	BASIN TAP	WRIST/ LEVER	ELBOW	INFRA-RED	NOTES
BIRTHING ROOMS, PROCEDURE ROOMS	A	yes			yes	optional	
INTENSIVE CARE - ENCL ROOMS/ OPEN BAYS	A	yes			yes	optional	
CLEAN UTILITY, EXAMINATION, POST MORTEM	B	yes	Optional		yes		
ACUTE INPATIENT BEDS INCL 1 BED RMS	B	yes			yes		
HANDWASH BAYS - CORRIDOR	B	yes			yes		
ISOLATION/ANTEROOM/AIRLOCK	B	yes			yes		
RECOVERY AREAS	B	yes			yes		
PATIENT BAYS - RESUC, TRAUMA IN EMERGENCY	B	yes			yes		
CONSUTL, TREATMENT, FORMULA ROOMS	B	yes	optional	yes	optional		
BATHROOMS, CLEAN-UP ROOMS, DIRTY UTILITY	B		yes	yes			
PARENTING ROOMS, BABYCHANGE ROOMS	B		yes	yes			
BEVERAGE PANTRY, FOOD SERVERY, PATIENT DINING	B		yes				
ADL KITCHEN	B		yes				
STAFF TOILET, PUBLIC/VISITOR TOILET, PATIENT ENSUITES	C		yes				
OPERATING ROOM, PROCEDURES, SCRUB-UP	Sink/trough	yes				yes	

Handwash Basins - Placement

501941 820 .20.00 Handwash Bays should be provided in the following ratios:

+ ICU - one per enclosed room, one per two open bays;

+ Emergency - one per four open bays;

+ Ambulatory Care - one per four open bays;

+ Inpatient Unit - as per the following tables;

+ Other patient treatment areas - generally staff should not be more than 10 - 12 metres from a Handwash Bay.

ROOM	PURPOSE	TYPE	LOCATION
4 BED ROOM	Patient ablutions	C	Ensuite bathroom
	Staff hand hygiene	B	Room Entry
	Surgical Scrub	Not required	Not required
ISOLATION ROOMS (ALL TYPES), 2 BED ROOM	Patient Ablutions	C	Ensuite or bathroom
	Staff hand hygiene	B	Room Entry
	Surgical Scrub	Not required	Not required
CORRIDOR HANDWASH BASINS	Staff hand hygiene	B	Within 5m of PPE Bay
INTENSIVE CARE UNIT	Staff hand hygiene	A	Adj pat bays, 1 per encl
EMERGENCY & AMBULATORY CARE	Staff hand hygiene	B	Adj pat bays, 1 per encl
OTHER PATIENT TREATMENT AREAS	Staff hand hygiene	B	Staff should not be >10-

Isolation Room/s

501942 820 .21.00 INTRODUCTION

This Guideline describes and identifies facility spatial requirements that are appropriate for the isolation of patients with known or suspected infectious conditions and to assist the project planning teams with the planning and design of Isolation Rooms. It does not however address Isolation Rooms for the care of patients with implanted isotopes.

It has been prepared with input from stakeholders experienced in Infection Control, Microbiology, Facility Planning, Disaster Planning, Tuberculosis and Paediatrics.

Isolation Rooms when not required for the care of infectious patients can have multipurpose functions once the room is vacated and cleaned as per the Infection Control Policy of the facility/organisation.

It is critical that Operational Policies and the Functional Relationships between the Isolation Room/s within the Health Planning Unit, and the Health Planning Units within the Health Care Facility support the planning of the Isolation Rooms.

Details of engineering requirements and services for Isolation Rooms will form part of TS11, Engineering and Sustainable Services. Details of Infection Control practices and education are available in the NSW Health Infection Control Policy (Circular 2002/45, NSW Health 2002) and are not contained within these Guidelines.

501943 820 .22.00 TYPES

Four types of Isolation Rooms are required:

Class S	Standard
Class N	Negative Pressure
Class P	Positive Pressure
Class Q	Quarantine

These types of room and their uses are described in more detail below.

501944 820 .23.00 CLASS S : STANDARD ISOLATION ROOMS

Class S or Standard Isolation Room is a single room with a shower/toilet ensuite that is not shared.

There are no specific requirements for airconditioning. A hand basin and self-closing door are recommended. A PPE Bay should be provided outside the door.

A Class S room can be used for patients who require contact or droplet isolation, to minimise the potential for such infections being transmitted to other patients and staff.

501945 820 .24.00 CLASS N : NEGATIVE PRESSURE ISOLATION ROOMS

Class N or Negative Pressure room is a single room with a shower/toilet ensuite that is not shared.

Sufficient and appropriate storage space should be provided for linen and waste inside the room, and for storage of gowns, gloves and masks outside in the alcove, Anteroom or Personal Protective Equipment Bay.

A Class N room can be used for patients who require airborne droplet nuclei isolation (eg varicella, measles, pulmonary or laryngeal tuberculosis) to reduce transmission of disease via the airborne route.

Negative pressure rooms operate at a lower pressure with respect to adjacent areas such as the corridor. Air in negative pressure rooms will be exhausted to the outside in accordance with AS 1668-1991 Part 2 6, to prevent air recirculation. The discharge points should be located as far as possible from air intakes, persons and animals. If external exhaust is not possible, air should be recirculated through high-efficiency particulate air (HEPA) filters. A separate exhaust system dedicated to each room must be provided. This must be separate to the building's common exhaust air system to reduce the risk of contamination.

A communication system should be provided so that staff can communicate with people outside the room without leaving the room.

Further detail is provided in Room Data Sheets and TS11.

501946 820 .25.00 CLASS P : POSITIVE PRESSURE ISOLATION ROOMS

Class P or Positive Pressure room is a single room with a shower/toilet ensuite that is not shared.

Positive pressure rooms operate at a higher pressure with respect to adjacent areas. Air exhausted from these rooms is not infectious and therefore does not require filtration.

Patients with airborne transmitted infections such as varicella, measles, pulmonary or laryngeal tuberculosis are not to be accommodated in positive pressure rooms.

Class P rooms may be used to reduce the risk of airborne transmission of infection to susceptible patients such as allogenic bone marrow transplant recipients. These rooms will only be required for transplants and oncology patients.

Patients requiring precautions to prevent the transmission of pathogens by the airborne route will not be accommodated in Class P Isolation Rooms.

Evidence for a protective effect from positive pressure is largely limited to studies of patients at high risk of nosocomial aspergillosis, where laminar airflow at ultra-high airflow rates was used to create a positive pressure. Evidence for use of such rooms for other purposes is lacking. Further difficulties arise when the patient requiring protective isolation is also infectious to others, particularly with airborne-spread infections (eg renal transplant patient with varicella zoster). In these instances, consideration of placement in positive or negative pressure isolation rooms will depend on the patient's neutrophil count and should be made following consultation with infectious diseases, infection control and microbiology staff.

Further detail is provided in Room Data Sheets and TS11.

501947 820 .26.00 CLASS Q - QUARANTINE ISOLATION ROOMS

Class Q or Quarantine Isolation Room is a single room with an ensuite not to be shared and includes all design requirements as noted in the negative pressure rooms. In addition, the Quarantine Isolation Room will require an Anteroom designed to function as an airlock.

Consideration or incorporation of good electronic communication systems (intercoms) between the isolation room and outside may assist in eliminating or reducing unnecessary traffic into the room.

One hospital in each Australian capital city will have designated Class Q rooms. Westmead Hospital is designated with the quarantine status within New South Wales, and provides facilities for patients with highly infectious pathogens such as haemorrhagic fevers, Hantavirus pulmonary syndrome. These patients require a further level of containment over and above the standard negative pressure isolation room.

501948 820 .27.00 ANTEROOMS

Anterooms are required for staff and visitors to change and dispose of personal protective gear used on entering and leaving these rooms when caring for infectious patients.

Anterooms increase the effectiveness of the Isolation Room by minimising the potential escape of airborne nuclei into the corridor when the door is opened.

Anterooms should be provided for Class N rooms in ICU, Emergency Departments, Infectious Diseases Units, and for an agreed number of patient bedrooms within Inpatient Units accommodating Respiratory patients. The need for Anterooms for Class N rooms in other Health Planning Units should be considered on a case by case basis.

The Anteroom should not be shared between rooms. The Anteroom will not need to function as an airlock for Class N rooms with the exception of ICU.

The Class Q rooms will require an Anteroom to function as an airlock with interlocking doors (ie the two doors cannot be opened simultaneously). Anterooms in Class Q rooms will need to be large enough to incorporate additional disposal facilities as well as allowing bed movement with doors interlocked.

501949 820 .28.00 See attached table for the functional classification of Isolation Rooms

501950 820 .29.00 COMBINED ALTERNATING PRESSURE ISOLATION ROOMS

Combined alternating pressure rooms (enabling the room to have either negative or positive pressure) are NOT permitted due to the following concerns:

+ Difficulty in the configuration of appropriate airflow for two fundamentally different purposes;

+ Risk of operator error;

+ Need for complex engineering;

+ The absence of failsafe mechanisms.

501951 820 .30.00 CALCULATION OF NUMBERS OF ISOLATION ROOMS

GENERAL:

In the redevelopment of Health Care Facilities, Project Planning Teams should use available service planning and incidence data to determine the number and type of Isolation Rooms required. They will need to collect data from existing facilities progressively during the service planning phase to assess the actual demand for the use of facilities to isolate patients known or suspected to have an infection that requires a particular form of isolation.

Assessment of actual demand to isolate patients should include:

+ Number of patient admissions with infections known or suspected to require isolation;

+ The duration of isolation required;

+ Clustering of cases that may be influenced by seasonal and other trends;

+ Type of unit where patient isolation may be necessary;

Estimates of numbers and types of isolation rooms should consider the following:

+ Trends in disease in the general population and the particular population served by the facility;

+ Demographic trends in the population served by the facility;

+ Specialties of the Health Care Facility, along with any projected changes in the facility's activities.

Data collected over one year or longer provide more reliable estimates and will assist in determining peak needs for diseases with marked seasonal variations.

Retrospective data (based on discharge) should be used with caution as the data may not include suspected but unconfirmed cases of certain infections requiring isolation, thereby causing an underestimation of requirements. For planned new facilities, data from comparable facilities serving comparable populations may be available in place of retrospective data.

501952 820 .31.00 CLASS N ROOMS:

When calculating requirements for persons known or suspected of having infections that require airborne precautions (such as chicken pox, measles, infectious pulmonary and laryngeal infections) it is also important to collect data on patients suspected of having tuberculosis. Patients will require isolation until confirmed as un-infected by clinicians or until the treatment renders the patient non-infectious.

501953 820 .32.00 CLASS P ROOMS:

Requirement for such rooms should be determined by collecting data on local threats from pathogens such as Aspergillus, as well as evidence (from within and beyond the facility) on the role of particular environments in protecting vulnerable patients.

The final assessment of the requirements for numbers and types of Isolation Rooms should be made in consultation with clinical specialists and the Infection Control Committee.

501954 820 .33.00 PERSONAL PROTECTIVE EQUIPMENT BAYS

Personal Protective Equipment (PPE) Bays shall be provided immediately outside all Isolation Rooms - including Class S.

A PPE storage unit should be provided in the purpose built bay for the storage of gloves, goggles, faceshield masks, gowns and waterless alcohol-based handrub dispensers.

A PPE Bay may be shared between two rooms.

See room data sheets and room layout sheets for more detail.

501955 820 .34.00 AREAS REQUIRING CLASS N ROOMS

Health Planning Units that require either one or more Class N rooms include:

+ Emergency Unit;

+ Intensive Care Unit;

+ Infectious Diseases Unit;

+ Procedure areas such as bronchoscopy units or sputum induction rooms.

Paediatric areas may also have a need for Class N rooms.

501956 820 .35.00 DESIGN PRINCIPLES FOR ISOLATION ROOMS

The aim of environmental control in an isolation facility is to control the airflow so as to reduce the number of airborne infectious particles such that they are unlikely to infect another person within the environment of the Health Care Facility. This is achieved by controlling the quality and quantity of intake and exhaust air, diluting infectious particles in large volumes of air, maintaining differential air pressures between adjacent areas and designing patterns of airflow for particular clinical purposes.

The location and design of the Isolation Rooms within a Health Planning Unit (Department or Ward) should enable isolation of rooms from the rest of the Health Planning Unit. Where possible a different route could be provided for the transport of contaminated waste and linen away from the main traffic area.

Multiple Isolation Rooms should be clustered and located away from the main entrance of the department.

When Health Care Facilities are developed, consideration should be given to one whole floor level, or a defined section, of inpatient accommodation being designed with separate airconditioning and exhaust. This will enable Health Care Facilities to accommodate an infectious outbreak incident within the Area Health Service.

Planning should consider:

+ Sufficient and appropriate storage space for linen and waste containers inside the room and for gowns, gloves and masks inside or outside the room;

+ Use of an observation window will allow staff to observe patients without opening and closing the door of the Isolation Room, thus ensuring good visual observation for staff and privacy for patients;

+ For privacy, a blind within double glazing should be considered;

+ Provision of a communication system such as a phone or intercom to allow communication between staff, patients, interpreters, visitors, etc without leaving the room.

+ Should both Class N and P rooms be needed within the same facility they should be planned to minimise the likelihood of these patients using, or meeting in, the same corridors or circulation paths.

501957 820 .36.00 POSITIVE AND NEGATIVE PRESSURE IN OTHER AREAS

A number of other areas of a Health Care Facility may require either positive or negative pressure, these could include:

+ Operating theatres;

+ Procedure rooms;

+ Mortuary.

The airconditioning requirements for these areas are described in TS11.

FUNCTIONAL CLASSIFICATION OF ISOLATION ROOMS

	CLASS S	CLASS N	CLASS P	CLASS Q
KEY VENTILATION CRITERIA	No air pressure difference between room and the adjacent corridor	Lower air pressure in the room than in the adjacent corridor or anteroom	Greater air pressure in the room than in the corridor	Lower air pressure in the room than in the adjacent corridor
TRANSMISSION-BASED PRECAUTIONS	To prevent contact or droplet transmission	To prevent airborne transmission	To prevent transmission of pathogens from the outside environment to profoundly immuno-compromised persons	To prevent airborne transmission
EXAMPLES	VRE, gastroenteritis, cutaneous anthrax, hepatitis A.	Measles, varicella, suspected or proven pulmonary or laryngeal tuberculosis, suspected contact of measles, varicella, SARS, etc.	Prevention of aspergillosis in bone-marrow transplant recipients	Highly infectious pathogens such as haemorrhagic fevers, Hantavirus pulmonary syndrome

Airconditioning and Ventilation

501958 860 .1.00 The control of infection risk in general and special areas of a hospital is greatly influenced by the design and efficacy of the airconditioning system. Considerable care and effort is required to ensure the appropriate results are achieved. TS11 provides detailed technical specifications on the airconditioning requirements.

501959 860 .2.00 Ventilation equipment should maintain the temperature, humidity and purity of the air, plus the inflow of fresh air, all within prescribed limits. Airconditioners and cooling towers should not be a source of contamination, particularly with respect to Legionella. Refer to the NHMRC - NSW Legislation, Australian Guidelines for the Control of Legionella Infection and to the NSW Code of Practice for the control of Legionnaire Disease for further information. Airconditioners and cooling towers should also comply with and be maintained in accordance with Federal/State/Territory guidelines on cooling towers and hot and cold water services and with relevant Australian Standards.

501960 860 .3.00 Retro fitting of split system airconditioners is a common way of resolving local cooling problems. Care should be taken when using this approach in Patient Care Areas. Issues to be considered include:

+ Routing of condensate drains;

+ Air flow and turbulence effects;

+ Maintenance and adequacy of filters.

Environmentally Sustainable Design

501961 860 .4.00 Provision of natural ventilation to Patient Care Areas should be approached with caution.

The management of airflows and the creation of a stable environment is essential to the control of the spread of infection.

Non airconditioned spaces rely on natural airflows to achieve comfort conditions. In many cases, when natural breezes are not available, supplementary ventilation in the form of ceiling fans or portable fans are used to achieve comfort conditions.

Both the natural airflows required to achieve comfort conditions and the airflows generated by supplementary ventilation generate turbulence and unpredictable airflows. These have the potential to spread infection from patient to patient.

Patient Accommodation

501962 860 .5.00 In Acute Care situations it is essential that an adequate number of 1 Bed Rooms is available.

501963 860 .6.00 Patient Waiting Areas for non-inpatient units, including Ambulatory Care Services and Community Health, should have provision for separating patients who may be highly infectious, for example, patients diagnosed with or suspected to have communicable infectious disease.

PHYSICAL PLANNING

General

501964 880 .1.00 The nature and type of surfaces and finishes used in Heath Care buildings are integral to the overall management of infection control risks.

This is covered in more detail in Part C of these Guidelines. Some basic issues are discussed below.

Floors

501965 880 .2.00 Floor coverings must be easy to clean and resistant to disinfection procedures. This applies to all items in patient care environments.

501966 880 .3.00 Treatment Areas should not be carpeted.

In both Patient and Treatment Areas, the flooring should be easily cleaned and in good repair.

300108 880 .4.00 Floors in areas used for food preparation or food assembly shall be water resistant and greaseproof to comply with the Food Hygiene Regulations. Floor surfaces, including joints in tiles in such areas, shall be resistant to food acids (epoxy grout). In all areas subject to frequent wet cleaning methods, floor materials shall not be physically affected by germicidal cleaning solutions.

Skirtings

501967 880 .5.00 Wall bases in Kitchens, Operating and Birthing Rooms, Clean and Dirty Utility Rooms, CSSU areas and other areas subject to frequent wet cleaning methods shall be made integral with the floor, tightly sealed against the wall, and constructed without voids.

Walls

300100 880 .6.00 Other than special treatments included as feature face work in public or staff relaxation areas, wall finishes shall be scrubbable, and in the immediate vicinity of plumbing fixtures, shall be smooth and water-resistant.

Ceilings

300101 880 .7.00 All exposed ceilings and ceiling structures in areas occupied by patients or staff, and in food preparation or food storage areas, shall be finished so as to be readily cleanable with equipment routinely used in daily housekeeping activities.

501968 880 .8.00 In food preparation and other areas where dust fallout would present a potential problem, there shall be a finished ceiling that covers all conduits, piping, duct

work and open construction systems.

300103 880 .9.00 Ceilings in Operating and Delivery Rooms, Isolation Rooms, Nurseries, and Sterile Processing Rooms shall be monolithic from wall to wall without fissures, open joints, or crevices that may retain or permit passage of dirt particles. Light fittings shall also be recessed, flush fitting and sealed to prevent dust ingress.

501969 880 .10.00 Acoustic and/or lay-in ceilings shall not be used where particulate matter may interfere with hygienic environmental control.

Gaps

500293 880 .11.00 A gap is defined as a space where two materials do not meet leaving a space or opening that can harbour dust, microorganisms, moulds or vermin.

301283 880 .12.00 In construction of Health Care Facilities, gaps between surfaces are not permitted, and must be properly sealed. In particular gaps in the following area are not allowed.

+ Between skirting and floor;

+ Between utility benches and walls;

+ Between cupboards and floor or wall;

+ Between fixtures attached to floors and walls.

501970 880 .13.00 Floor and wall construction, finishes and trims in dietary, food preparation areas, sterile stock areas and Pharmacy shall be free of spaces that can harbour rodents and insects. Details should comply with the relevant Public Health Regulations.

300115 880 .14.00 Floor and wall penetrations by pipes, ducts and conduits shall be tightly sealed to minimise entry by rodents and insects. Joints of structural elements shall be similarly sealed.

Surface Materials

206023 880 .15.00 Regular routine cleaning of the Health Care Facility can be carried out much more efficiently if the design of the building is adapted to its function. Unnecessary horizontal, textured, moisture retaining surfaces or inaccessible areas where moisture or soil will accumulate should, if possible, be avoided.

501971 880 .16.00 All fixtures and fittings should be designed to allow easy cleaning and to discourage the accumulation of dust. Blinds are preferable to curtains for this reason.

206025 880 .17.00 Where there is likely to be direct contact with patients, or with blood or body fluids, floors and walls should be surfaced with smooth, impermeable seamless materials, such as vinyl. In equipment processing areas, work surfaces should be non-porous, smooth and easily cleaned.

501972 880 .18.00 In hospitals, all surfaces of patient care areas in high risk treatment areas, including the Operating Unit, Intensive Care Unit, Obstetrics Unit and Neonatal Special Care Nurseries, should be smooth and impervious and not liable to be damaged by disinfectants.

General

501973 900 .1.00 Infection control precautions during construction should be integrated into the design and documentation of the facility from the beginning of the design stage. It is important that the dust control and infection control principles developed during the pre-design stage are integrated at the initial stages of the design development. It is important that the pre-design team comprehensively brief the design team and submit the findings of the survey and risk profile.

501974 900 .2.00 Building, renovation and maintenance activities within a Health Care Facility impose risks upon the incumbent population unlike any other building site. Building practices therefore require a range of precautions appropriate to the risk. Identification of the 'at risk' population, a knowledge of the transmission route of a likely pathogen and location of the 'at risk' population in relation to the construction, all need to be taken into account in the planning stages.

Risk Management

208006 900 .3.00 A formal approach to risk management must be part of all building and renovation activities.

A process for assessing risk during construction projects, and adopting appropriate precautions is provided below.

208007 900 .4.00 A more detailed review of risk is beyond the scope of this document, but adherence to Australian Standard 4360 - Risk Management principles will provide the framework to assemble a relevant risk management strategy.

208014 900 .5.00 The risk profile should contain as a minimum:

+ Identify the location of high-risk patients in relation to the site;

+ Identify ventilation system types and potential impact;

+ Determine air monitoring requirements, methodology and frequency;

+ Take air quality samples to establish a baseline;

+ Identify possible contaminants and their locations (contaminants may be present in ceiling dust, service shafts (especially if dampness is present), sprayed on fire retardants and bird droppings.

208008 900 .6.00 Airborne sampling should be part of any risk management program. Cumulative data is used to establish indoor and outdoor background levels of filamentous fungi for a particular site. This will enable establishment of risk profiles for particular locations in and around the hospital.

501975 900 .7.00 It is important to consult with a Microbiologist experienced in environmental sampling to identify what outcomes are required of the sampling. Equally important it is necessary to have an approximate idea of the expected number of fungi that will be obtained. This will determine the appropriate sampling system.

Construction

501977 900 .8.00 Infection control measures to consider during construction are:

+ Infection control site induction of building workers should be carried out as a major component of the OHS induction. This induction process should be documented and signed off by each person inducted.

+ Worker compliance with procedures should be monitored and the results of this monitoring should be fed back to the workers routinely through the Builder. A system must be in place to manage major breaches.

+ Ensure that adequate inspections by the nominated representatives take place during the construction of the barriers. These inspections should be monitored and reported on.

501979 900 .9.00 Movement in and out of the site shall be controlled by restricting access to only those who have undergone site induction. This will assist greatly in reducing the spread of contaminants.

208027 900 .10.00 All inspections should be documented including a non-conformance system for defaults, complete with a corrective and preventative action loop.

501978 900 .11.00 After handover it is the responsibility of the hospital to ensure the area complies with hospital standards for occupation.

As a minimum the hospital should:

+ Thoroughly clean and decontaminate all the surfaces including walls, ceilings, windows and in high-risk areas ventilation systems, service cavities and ceiling spaces.

+ Conduct air sampling and particle counts and implement a program of regular air sampling in high-risk areas, allowing time for culturing and results and repeat cleaning and testing prior to occupation.

+ On completion, re-certify HEPA filters and laminar/clean flow systems where installed.

Refer also to the Commissioning section of these Guidelines.

Verification

206035 900 .12.00 All infection control measures described in this section are required to be verified by inspection. There must be no barriers in place to prevent the checking and validating the measures described.

Construction Risk Assessment and Action Plan

501980 900 .13.00 The Construction Risk Assessment and Action Plan comprises four main steps.

STEP 1 - SELECT CONSTRUCTION ACTIVITY TYPE FROM TABLE BELOW

Definition of Construction Activity Type is defined by :

+ The amount of dust that is generated

+ The duration of the involvement of the Heating Ventilation and Airconditioning systems (HVAC).

501981 900 .14.00 STEP 2 - SELECT THE INFECTION CONTROL RISK GROUPS FROM TABLE BELOW

Definitions of Infection Control Risk Groups are defined based on the project location and the occupancy by patients. Contact the Infection Prevention & Control Unit if any type of location is not mentioned as examples in the guideline.

Where possible, as in outpatient facilities and day treatment centres etc work should be conducted after patient care hours, as these areas have limited times when patients are seen.

501982 900 .15.00 STEP 3 - DETERMINE THE CONSTRUCTION CLASSIFICATION CLASS

Using the Construction Activity Type and the Infection Control Risk Group selected from the above tables, use the matrix below to determine the Construction Classification Class.

The Construction Classification Class determines the procedures to be followed during construction and renovation projects.

501983 900 .16.00 STEP 4 - IMPLEMENT THE INFECTION CONTROL CONSTRUCTION GUIDELINES

Implement the appropriate Infection Control Construction Guidelines based on the Construction Activity Matrix (above) Step 3.

Infection Control Construction Guidelines are procedures to control releases of airborne contaminants resulting from construction demolition or renovation activities.

DEFINITIONS OF CONSTRUCTION ACTIVITY

TYPE A: **INSPECTIONS AND GENERAL UPKEEP ACTIVITIES**
Includes but is not limited to : removal of ceiling tiles for visual inspection (limited to 1 tile per 5 m2); painting (but not sanding); installation of wall covering; electrical trim work; minor plumbing; any activities that do not generate dust or require cutting into walls or access to ceiling other than for visual inspection.
TYPE B: **SMALL SCALE, SHORT DURATION ACTIVITIES, WHICH CREATE MINIMAL DUST**
Includes, but is not limited to, installation of telephone and computer cabling, access to chase spaces, cutting into walls or ceiling where dust migration can be controlled.
TYPE C: **ANY WORK THAT GENERATES A MODERATE TO HIGH LEVEL OF DUST**
Includes, but is not limited to, demolition or removal of built-in building components or assemblies, sanding of wall for painting or wall covering, removal of floor covering/wallpaper, ceiling tiles and casework, new wall construction, minor ductwork or electrical work above ceiling, major cabling activities.
TYPE D: **MAJOR DEMOLITION AND CONSTRUCTION PROJECTS**
Includes, but is not limited to heavy demolition, removal of a complete ceiling system, and new construction.

DEFINITION OF INFECTION CONTROL RISK AREA / LOCATION

GROUP 1 LOW	GROUP 2 MEDIUM	GROUP 3 MEDIUM HIGH	GROUP 4 HIGHEST
• Office areas • Non-patient/ low risk areas not listed elsewhere	• Patient care & other areas not covered under group 3 or 4 • Laundry • Cafeteria • Dietary • Materials Management • PT/OT/Speech • Admission/ Discharge • MRI • Nuclear Medicine • Echocardiography • Laboratories not specified as Group 3 • Public Corridors (through which patients, supplies, and linen pass)	• Emergency Rooms • Radiology • Recovery Rooms • Delivery Wards • High dependency Unit • Newborn Nurseries • Paediatrics (except those listed in Group 4) • Microbiology lab • Virology lab • Long term/sub-acute Units • Pharmacy • Dialysis • Endoscopy • Bronchoscopy areas	• Oncology Units • Radiation Therapy • Clinical areas • Chemo Infusion • Transplant • Pharmacy Admixture – clean room • Operating Rooms • Sterilisation - processing Departments • Cardiac Catheterisation • Outpatient Invasive Procedure Rooms • Anaesthesia and Pump areas • Newborn Intensive Care Unit (NICU) • All Intensive Care Units (except those listed in Group 4)

CONSTRUCTION ACTIVITY MATRIX

CONSTRUCTION ACTIVITY RISK LEVEL	TYPE A	TYPE B	TYPE C	TYPE D
GROUP 1	Class I	Class II	Class II	Class III/IV
GROUP 2	Class I	Class II	Class III	Class IV
GROUP 3	Class I	Class III	Class III/IV	Class IV
GROUP 4	Class III	Class III/IV	Class III/IV	Class IV

INFECTION CONTROL CONSTRUCTION GUIDELINES

CLASS I	• Execute work by methods to minimise raising dust from construction operations. • Replace any ceiling tile displaced for visual inspection as soon as possible.
CLASS II	• Provide active means to prevent air-borne dust from dispersing into atmosphere. • Seal unused doors with duct tape. • Contain construction waste before transport in tightly covered containers. • Wet mop and/or vacuum with HEPA filtered vacuum. • Place dust-mat at entrance and exit of work area and replace or clean when no longer effective. • Isolate HVAC system in areas where work is being performed. • Wipe casework and horizontal surfaces at completion of project.
CLASS III	• Isolate HVAC system in area where work is being done to prevent contamination of the duct system. • Complete all construction barriers before construction begins. • Maintain negative air pressure within work site utilising HEPA filtered ventilation units or other methods of maintain negative pressure. Public safety will monitor air pressure. • Do not remove barriers from work area until complete project is thoroughly cleaned. • Wet mop or vacuum twice per 8 hour period of construction activity or as required in order to minimise tracking. • Remove barrier materials carefully to minimise spreading of dirt and debris associated with construction. Barrier material should be wet wiped, HEPA vacuumed or water misted prior to removal. • Contain construction waste before transport in tightly covered containers. • Place dust-mat at entrance and exit of work area and replace or clean when no longer effective. • Wipe casework and horizontal surfaces at completion of project.
CLASS IV	• Isolate HVAC system in area where work is being done to prevent contamination of duct system. • Complete all construction barriers before construction begins. • Maintain negative air pressure within work site utilising HEPA filtered ventilation units or other methods of maintain negative pressure. Public Safety will monitor air pressure. • Seal holes, pipes, conduits, and punctures to prevent dust migration. • Construct Anteroom and require all personnel to pass through the room. Wet mop or HEPA vacuum the Anteroom daily. • During demolition, dust producing work or work in the ceiling, disposable shoes and coveralls are to be worn and removed in the Anteroom when leaving work area. • Do not remove barriers from work area until completed project is thoroughly cleaned. • Remove barrier materials carefully to minimise spreading of dirt and debris associated with construction. • Barrier material should be wet wiped, HEPA vacuumed or water misted prior to removal. • Contain construction waste before transport in tightly covered containers. • Place dust-mat at entrance and exit of work area and replace or clean when no longer effective. • Keep work area broom clean and remove debris daily • Wet mop hard surface areas with disinfectant at completion of project, HEPA vacuum carpeted surfaces at completion of project. • Wipe casework and horizontal surfaces at completion of project.

References and Further Reading

501984 E+03 .17.00 Morbidity and Mortality Weekly Report: Guidelines for Environmental Infection Control Health Care Facilities, Centres for Disease Control and Prevention, June 2003.

Guidelines for the Classification and Design of Isolation Rooms in Health Care Facilities, Department of Human Services, Victoria, July 1999.

Infection Control Policy - Circular 2002/45, NSW Health Department, 2002.

Technical Series 11 - Engineering and Sustainable Design, NSW Health Department, 2005

AS1288 - 1994 Glass in Building - Selection and Installation, Standards Australia, 1994.

AS 1668-1991 Part 2, Standards Australia, 1991.

HB 260 - 2003. Handbook: Hospital acquired infections - Engineering down the risk, Standards Australia, 2003.

Capital Works Guidelines - Building and Refurbishment Infection Control Guidelines, Queensland Health., 2002.

The Epic Project: Developing National Evidence-based Guidelines for Preventing Healthcare Associated Infections. Part 1 Guidelines for Preventing Hospital Acquired Infection - Standard Practices for Hand Hygiene, Journal of Hospital Infection, 2001 - 47 (Supplement), Sections 3-4.

Western Australia Health Facility Guidelines for Infection Control 2006 - http://www.health.wa.gov.au/hrit/infrastructure/procedures/facility.cfm

CHECKLIST

Name of HPU: _____ (Print and complete one per HPU)

Agreed Role Delineation Level: _____

No	Item	Yes	No
1.0	**Handwashing Facilities:**		
1.1	Are the handbasin types specified appropriate for the room usage?	☐	☐
1.2	Are sufficient numbers of handbasins provided?	☐	☐
2.0	**Isolation Rooms**		
2.1	Are sufficient numbers of Isolation Rooms of the appropriate type provided?	☐	☐
2.2	Do the Isolation Rooms meet the minimum requirements for the class specified?	☐	☐
3.0	**Physical Environment**		
3.1	Do operating areas sufficiently separate clean and contaminated areas?	☐	☐
3.2	Do cleaning and clean-up areas sufficiently separate clean and contaminated areas?	☐	☐
3.3	Are staff eating and recreational areas sufficiently separate from work areas and patient treatment areas?	☐	☐
4.0	**Surfaces and Finishes**		
4.1	Are the following finishes appropriate for the room usage? • Floors • Skirtings • Walls • Ceilings	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

Checked and certified by:

Name: _____ Date: _____

Company: _____

Position _____

Signature: _____

1 TABLE OF CONTENTS

INDEX

Description

600099 1 .0.10 1 GENERAL REQUIREMENTS

2 COMMUNICATIONS

3 ELECTRICAL

4 FIRE

5 HYDRAULIC

6 MECHANICAL

7 MEDICAL GASES

8 SECURITY

9 TRANSPORTATION

10 EQUIPMENT

11 APPENDICES

INTRODUCTION AND GENERAL REQUIREMENTS

Introduction

600110 1 .1.00 Part E is written specifically as a guideline and not as a performance or outline specification. It precedes the 'Technical Brief' which directly references regulations and standards, and provides performance benchmarks for use by the Design Team in preparation of the Developed Design and Tender Documentation. Currently, Technical Briefs and Guidelines exist for some States (e.g. NSW, Victoria and WA). [Refer to References and Further Reading].

600100 1 .1.05 Engineering services account for a significant part of the capital cost of Health Facility construction and for this reason require equal attention in terms of whole of life costs, energy efficiency and sustainability.

600101 1 .1.10 Large buildings require complex engineering systems involving a project team of experts. To achieve an integrated building solution and an optimum project delivery process, members of the team need to have a general understanding of the areas of concern specific to each discipline. The increasing specialisation in Project procurement, combined with the introduction of new legislation and developments in risk management has added to the number of consultants in the team; making coordination and communication across design disciplines all the more necessary.

600102 1 .1.20 The preliminary briefing and design stage is one of the most important in the design process; the spatial and building design requirements for each engineering service need to be fully understood by Architects in particular, and by other members of the team to achieve the best outcome and avoid costly redesign.

Introduction

600103 1 .1.30 This section of the guidelines addresses the provision of engineering services in Health Facilities as defined in HFG Part A. – Subsection 30: How to read – The Structure of these Guidelines, and lists the range of engineering services applicable to Health Facilities and the specific functions and issues relating to their provision.

600104 1 .1.40 The information provided is intended to be used by the design team in the preliminary stages of the project and is presented as subjects for consideration; which in turn can be used as a checklist to generate the brief. It is for individual members of the team to select and develop the information relevant to their discipline.

600105 1 .1.50 The early design process addresses the selection of appropriate engineering services systems, spatial requirements and the modification or reduction of particular services by a review of the climatic or building design options.

600106 1 .1.60 The procurement of capital infrastructure and the project delivery process for Health Facilities are covered by policy in most jurisdictions. Reference should be made to deliverables and reporting required at each stage of the project delivery process.

Reporting will generally identify elemental costs and life cycle costing - enabling comparison and assessment; it will also identify any additional costs caused to services by the building design.

Economical whole-of-life cost options should be implemented in preference to low capital/initial cost options. It should be noted however that 'Whole of Life' cost studies are part of a larger decision making process.

600107 1 .1.70 Part E is to be used in conjunction with the other parts of the Australasian Health Facility Guidelines for the design and operation of Health Facilities. Refer to:

+ Part A for all general information relating to use and aims of this guideline, and for facilities covered, glossary, references, regulations and accreditation.

+ Part B for Hospital Planning Unit (HPU) specific requirements.

+ Part C for general OHS and security issues.

+ Part D for infection control issues.

+ Part F for Furniture, Fittings and Equipment, and Operational Commissioning

The topics covered in Part A are not repeated or expanded in Part E except where considered necessary.

Objectives

600108 1 .2.00 Part E has the following overall objectives:

+ Flexibility and innovation in design.

+ Improvements in the delivery of engineering services and sustainable outcomes by addressing advances in technology.

+ Cost efficiency.

+ ntegration of relevant design disciplines.

+ Principles of quality management.

600109 1 .2.10 The specific objective is to assist members of the design team in the preparation of the design brief and documentation for engineering services by covering the subjects that most frequently occur at this stage of the Health Facility design process.

600111 1 .2.30 The engineering services disciplines are listed in alphabetical order, to avoid conflict with existing construction classification systems which vary between countries, agencies and consultancies.

600112 1 .2.40 Structural and Civil engineering sections are omitted on the basis that the design issues are fully covered by regulation, standards and published specifications. Facility management, operation and maintenance, and traffic management are omitted except where these might influence the provision of Engineering Services.

Regulations and standards do not necessarily draw attention to all site and structural risks that apply to hospitals; these should be identified for each project and allowed for in the facility risk management plan (see 1.5.00).

600113 1 .2.50 The minimum requirements for the provision of all services installations in HealthCare Facilities will be covered by the Technical Brief. Australian Standards may apply in addition to the minimum requirements in Part E, and these will be governed by the type of facility and engineering services proposed.
Some of the information in the following sections may be additional to any statutory requirements.

600114 1 .2.60 It is assumed that accepted engineering practice, relevant codes and statutory regulations will be observed as part of normal professional services, and that these aspects require no specific reference.

General

600115 1 .3.00 The design and layout of engineering services should ensure that they are located to avoid compromising possible developments, either that are currently proposed or in the future.

600116 1 .3.10 For alterations and additions to part of a medical service, all the supporting services appropriate to the required function should be included. The integrity, quality and reliability of site services should be maintained during and after the work. Planning should consider the sustainability and future life costs of the whole facility and not just the alteration or addition.

600117 1 .3.20 Healthcare procedure-specific equipment is normally excluded from the engineering services and scheduled separately. However engineering services should be provided for the equipment briefed and consideration should be given for the inclusion of an approved margin for growth and change.

600118 1 .3.30 Access points should be located outside patient areas and circulation areas to

600118 1 .3.30 prevent disturbance to occupant and traffic. Controls should be tamperproof. Each type of service should be easily identifiable, and designed for minimal dust/contamination collection and easy cleaning.

600119 1 .3.40 Engineering services should be designed for safe usage, and for ease and economy of maintenance. Maintenance should cause minimal disruption to healthcare procedures and minimal disturbance to patients.

The building and services should be designed to allow for maintenance and replacements to be undertaken with the minimum interference to the building fabric.

600120 1 .3.50 Services design and equipment selection should address the need to minimise maintenance in locations where technical resources may be scarce and should be coordinated with the existing protocols or requirements of 'local' Area Health Services.

Consideration should also be given to the issue of remote monitoring and control of building services.

600350 1 .3.60 For existing sites undergoing redevelopment a current services profile should be done. Eg. Electrical, water and sewer infrastructure should be known and the impact of an increase in load evaluated.

Environment

600121 1 .4.00 Engineering services in health care facilities should satisfy the relevant requirements for general comfort, healthcare procedures and patient care, within acceptable noise levels. The operation, monitoring and control of services should be designed for the specific patient and healthcare procedure needs of the area serviced.

600122 1 .4.10 General acoustic requirements and acceptable noise levels must comply with AS 2107 recommendations. Vibration in occupied spaces must comply with AS 2670.1 and be prevented by design, selection, installation and operation of equipment or systems.

600123 1 .4.20 All equipment should be selected for the required use and for the environmental conditions in the intended location.

600351 1 .4.30 Sites should be investigated to determine they are free from contamination.

Risk Management

600124 1 .5.00 Part E does not attempt to cover all engineering options or define the requirements of a risk management system for engineering services. These systems should be developed during the design phase of the project to the relevant standards (e.g. AS 4360), statutory regulations and duty of care. Operating policies for engineering services for each stage of the project should be included.

600125 1 .5.10 Engineering services should not cause any unacceptable hazard resulting from loss of operation. The particular risks involved with patients and healthcare procedures need to be considered. Where loss of service could cause an unacceptable risk, including post disaster function, services must be designed to operate reliably and meet statutory and critical demand requirements as covered by the Technical Brief.

600126 1 .5.20 Engineering services must be protected from unauthorised interference, or from conditions that will affect operation or damage the service, assets or persons. Protection should be provided with specific alarms, controls, warning devices or security devices; underground and all other services should be clearly identified and protected where required.

600127 1 .5.30 All services should be designed and installed in a manner that will minimise the opportunities for patient self-harm.

600128 1 .5.40 Services should not contribute to any risk to the environment. [Refer Sustainability]

600129 1 .5.50 At the completion of the works, or section of the works, testing will be required to prove the suitability and operation of the works or section of the works, and to ensure that the installation complies in full with the brief. The supply of as-built drawings and detailed Operation and Maintenance Manuals will be required at the end of a project.

Handover and commissioning procedures should provide for adequate pre-handover training for operations and maintenance personnel, especially in respect to complex control algorithms.

Commissioning should include implementation of operating and maintenance arrangements that will deliver risk mitigation and designed whole of life performance.

Design Brief

600130 1 .6.00 Project specific issues that may be expected to be covered in the Design Brief should address:

+ Nomination and listing of critical and sterile areas, including unacceptable risks.

+ Application of life cycle cost analysis and other financial requirements.

+ Provisions for foreseeable modifications and expansion.

+ Provisions for foreseeable developments in health care practice and technology.

+ Minimisation of environmental impact on surrounding environment.

+ Stanby power generation and distribution.

+ Facility specific requirements.

+ Specific risks and risk management policy.

+ Trade wastes.

+ Service requirements for health care equipment.

+ Access for vehicles and equipment for Fire Fighting.

+ Access for vehicles and equipment, and provision of heavy lifting facilities for plant installation and removal.

+ Safe access for service providers.

+ Specific Management and Maintenance requirements.

+ Critical safety and performance parameters for inclusion in the maintenance regime.

+ Energy recovery systems were justified by life cycle cost analysis and budget constraints.

600352 1 .6.10 For existing sites undergoing redevelopment input should be sought from the current Facility Maintenance contractor, either in-house or outsourced.

Sustainability

600131 1 .7.00 Engineering Services should comply with all relevant Environmental Sustainability Development polices and legislation. Sustainability must be included as a part of risk and cost management strategies.

600132 1 .7.10 The total impact of energy saving strategies should be considered in the evaluation of options, including new or innovative renewable energy technology.

600133 1 .7.20 Cost analysis should be prepared at the project level, whole of life costs considered for all project components, and options assessed in accordance with the relevant policies and standards.
[Refer to AS 3595 Energy Management programs – Guidelines for financial evaluation of a project].

600134 1 .7.30 Sustainability targets should be set for the project - to be reviewed and monitored throughout the project. A long term maintenance strategy should be provided for all plant and equipment.

600135 1 .7.40 An energy and environment management plan (EMP) including environmental performance benchmarks and targets should be prepared. Design and financial criteria for EMP should be provided for major plant and reticulation systems in terms of capital and recurrent costs, payback periods and life-cycle energy costs. An energy management continual improvement process should be initiated.
[Refer to AS/NZS ISO 14000 (Set): Environmental management Standards Set].

600136 1 .7.50 Services systems (including standby and emergency arrangements) should be low maintenance and comply with the energy efficiency requirements of the Building Code of Australia.

Sustainability

600137 1 .7.60 An Asset Management and Waste Management Plan including a maintenance strategy should be prepared for all plant and equipment, and handed over immediately after commissioning to Facility Management personnel for implementation.

2 COMMUNICATION

INTRODUCTION AND GENERAL REQUIREMENTS

Scope

600138 2 .1.00 The following Communications services should be considered in the Design Brief:

+ Assistance call systems including:

+ Emergency call.

+ Patient nurse call.

+ Staff assistance call.

+ Building services and equipment monitoring.

+ Communications cabling systems.

+ -Data communications.

+ Duress alarm systems [Refer Security section].

+ Emergency warning and intercom systems (EWIS).

+ Intercom systems.

+ MATV signal distribution system.

+ Microwave systems

+ Pocket paging.

+ Public address.

+ Radio.

+ Radio frequency screening.

+ Voice communications.

+ Video systems

General

600139 2 .2.00 Communications services should in addition to their technical and functional requirements not interfere with the delivery of healthcare services, nor cause disturbance to patients.

Design

600140 2 .3.00 Communications generally make a minimal demand on building design and planning, however the size and placement of communication and data equipment rooms can impact on layout and budget, especially if under provided for in the initial planning stages. The design of equipment enclosures will be governed by client, equipment manufacturer and supply authority requirements.

600141 2 .3.10 Other early design issues to consider may include the placement of antenna and masts for relay, and the provision for access to these.

3 ELECTRICAL

INTRODUCTION AND GENERAL REQUIREMENTS

Scope

600142 3 .1.00 The following Electrical services should be considered in the Design Brief:

Electrical supply including:

+ General services.

+ Critical care services.

+ Essential services.

+ UPS and Standby Power

+ Electrical equipment.

+ Emergency lighting and signage.

+ Heating and cooling.

+ Lighting, including site and security lighting.

+ Patient protection systems.

+ Supply and Distribution.

+Switchgear and circuit protection.

+ Transformer equipment.

+ Strategy for expansion.

General

600143 3 .2.00 Electrical services should be designed to provide:

+ Safety and reliability.

+ Capacity for all equipment and plant.

+ Capacity for expansion.

+ Flexibility for isolation, shutdown and maintenance.

+ Compatibility with existing on-site and facility systems.

+ Compatibility with provider network.

+ Cost efficiency.

+ Minimise electromagnetic interference.

+ Distribution systems that will not see all modules of any critical service affected by any one interruption event, e.g. modules of intensive care services should not be off a common sub main or one switchboard.

600144 3 .2.10 Lightning protection although a requirement, is not usually a design issue for

600144 3 .2.10 consideration in the preliminary design stages.

Design

600145 3 .3.00 Consideration should be given to the location and requirements for:

+ Cabling.

+ Emergency battery supply.

+Standby generating plant and fuel supply.

+ Substations and transformers.

+ Switchboards.

+Switch rooms.

600146 3 .3.10 Electrical supply is governed by supply authority regulations, standards and client policy. Sub stations are generally owned by the supply authority. Easements, substation location, security, access and egress for personnel and equipment should be considered.

600147 3 .3.20 Attention should be paid to the placement of sub stations and electrical mains as the former may provide a fire hazard, and both can adversely affect electrical and communications equipment. Later relocation or rectification can be costly.

4 FIRE

INTRODUCTION AND GENERAL REQUIREMENTS

Scope

600148 4 .1.00 The following Fire services should be considered in the Design Brief:

+ Fire detection and suppression systems.

+ Hydrants and Hose Reels.

+ Portable Extinguishers.

+ Smoke control and air pressurisation. [Refer Mechanical Section].

+ Signs and Evacuation Plans.

+ Warning and Information Systems.

+ Water Supply.

+ Water Storage.

General

600149 4 .2.00 Fire protection is usually designated as an Active or Passive system. Both require consideration in the preliminary design stages.

Active systems involve engineering services solutions. Passive systems include compartments, egress routes, and fire and smoke rated construction. The employment of active systems can influence both the building design, and the extent and cost of passive provisions.

Design

600150 4 .3.00 The following active systems may require equipment enclosures and adequate access for fire fighting personnel and equipment:

+ External hydrants/hose reel layout.

+ Fire control rooms.

+ Pumps, tanks, sprinkler boosters.

+ Water supply and distribution issues.

+ Fire detection system.

600151 4 .3.10 The passive systems may include:

+ Compartmentation.

+ Construction.

+ Fire egress arrangements.

+Fire separation.

Design

600152 4 .3.20 The requirement for sprinklers for example will add a vertical component to the ceiling space requirement, which in turn will affect the overall building height.

600153 4 .3.30 Passive solutions can play a major role in early planning and particular consideration should be given to compartment size and design. By building in flexibility and area safety margins, changes in briefing can be anticipated and incorporated in later planning. The repositioning or addition of an egress stair as a result of modifications to compartment and egress layout can be difficult and costly.

5 HYDRAULIC

INTRODUCTION AND GENERAL REQUIREMENTS

Scope

600154 5 .1.00 The following Hydraulics services should be considered in the Design Brief:

+ Fire Hydrant and Fire hose reel systems.
+ Hydrotherapy pools.
+ Natural or liquefied petroleum gas services.
+ Process waste water discharge conditioning facilities.
+ Roof plumbing.
+ Sanitary drainage service.
+ Sanitary fittings and fixtures.
+ Sewerage treatment facilities.
+ Storm water drainage.
+ Sub soil drainage.
+ Water services.
+ Recycle water system.
+ Rainwater storage and service.

600155 5 .1.10 Water Services may be expanded to include:

+ Bore water supplies.
+ Cold potable water service.
+ External irrigation systems.
+ Flush services.
+ Hot potable water service.
+ Non potable cold water service.
+ Non potable hot water service.
+ Warm potable water service.
+ Water conservation.
+ Water filtering and conditioning equipment.
+ Special water services (Renal Dialysis. Laboratory).
+ Water storage tanks.

General

600156 5 .2.00 For Health Facilities associated with local disaster and post disaster roles, or for maintaining continuity of some acute medical services, design for security of supply consistent with failure risks.

600157 5 .2.10 Decisions concerning the scope, extent and type of services may affect cost and should be clarified early in the planning stages. These may require more detailed design decisions on the suitability of warm water system versus thermostatic mixing valves, heat recovery and sustainability measures.

600158 5 .2.20 Location, specifics of the site or buildings, and level of service may make additional demands on the provision of services.

Design

600159 5 .3.00 Any requirements for water storage and plant including access should be an early design decision, as these may impact on the building design and structure.

6 MECHANICAL

INTRODUCTION AND GENERAL REQUIREMENTS

Scope

600160 6 .1.00 The following Mechanical services should be considered in the Design Brief:

+ Air cooling and heating services.

+ Building automation control systems.

+ Compressed air systems.

+ Energy management systems.

+ Fume and dust extraction systems.

+ Heat recovery systems.

+ Pneumatic transport systems.

+ Refrigeration (Cool and freezer rooms).

+ Smoke control systems.

+ Steam systems.

+ Ventilation services.

+ Sterilizer equipment.

+ Water treatment and microbial control systems.

General

600161 6 .2.00 Each planning unit and special functional area within Health Care Facilities is covered by regulation, policy, or industry standards. Early consideration should be given to provision for the following:

+ Car park ventilation and exhaust.
+ Contaminated exhaust air.
+ Clean air systems (e.g. operating theatres).
+ Duplex systems for critical areas.
+ Emergency power for critical area HVAC.
+ Infection control.
+ Kitchen exhaust.
+ Smoke control [Refer Fire services].
+ Ventilation systems.
+ Cytotoxic room ventilation

600162 6 .2.10 The following functional criteria should be considered:

+ Energy efficiency and conservation.
+ Flexibility.
+ Passive security measures.
+ Reliability.

In addition to heating, cooling and ventilation, occupant comfort factors should include acoustic control.

Design

600163 6 .3.00 Climatic conditions are a known variable; however building position and orientation require careful consideration. The concept of energy/ performance modelling should be considered

600164 6 .3.10 The principal building design elements that influence HVAC systems comprise:

-Active or Passive solutions.
-Building occupancies and loadings.
-External walls and roof.
-HVAC Zone layout.
-Orientation.

600165 6 .3.20 The external envelope is the element most subject to variation throughout the design process. A variety of functions are served by the external wall design, these include; day lighting, view, external noise control, privacy control, thermal insulation and solar shading. Late changes to reduce costs e.g. the removal of external sun shading can have a major effect on the HVAC design.

600166 6 .3.30 Mechanical engineering systems occupy a significant proportion of the floor area allowance for services, and often suffer from inadequate space provision and inappropriate location. Adequate sizing of services risers and attention to the coordination of services risers with circulation routes will enable flexibility in planning options especially in later stages.

600167 6 .3.40 Inadequate height allowance in ceiling voids cannot be rectified easily in the later design stages without affecting cost. For this reason an accurate assessment of the structural system in the early stages is essential, including factors such as post disaster classification.

600168 6 .3.50 Other Services factors to consider are:

-Central plant, including
-Chilled water supply.
-Plant capacity.
-Upgrade and replacement of existing equipment.
-Existing services.
-Provision of adequate space and facilities (incl. services, hoists etc.) for maintenance.
-Plant access/egress (avoiding treatment areas).
-Underground services.

7 MEDICAL GASES

INTRODUCTION AND GENERAL REQUIREMENTS

Scope

600169 7 .1.00 The following Medical gas services should be considered in the Design Brief:

-Medical breathing air storage and reticulation.
-Medical breathing air compression and conditioning.
-Medical suction pumping storage and reticulation.
-Nitrous Oxide storage and reticulation.
-Oxygen storage and reticulation.

600170 7 .1.10 In addition the following gas services may be included:

+ Carbon dioxide systems.

+ Dental compressed air and suction.

+ Industrial and instrument compressed air systems.

+ Laboratory special gas supplies.

+ Mortuary equipment.

+Nitrogen systems.

General

600171 7 .2.00 The cost of Medical Gas services is directly proportional to the number of outlet points. For this reason the development of the briefing document in the form of the Room Data sheets should be carefully monitored.
[Refer to HFG Standard Components – Room Data Sheets].

600172 7 .2.10 The scope and detailed definition of medical gases should be determined and included in the Design Brief Some early detailed decisions are required; one of these would be the choice between central vacuum and venturi systems for suction.

Design

600173 7 .3.00 The spatial requirements for medical gases and plant may often be low but consideration should be given to the effect of the building layout on the distribution or replication of plant.

600174 7 .3.10 In the early design stages an assessment of plant distribution and plant room areas should be made and incorporated into preliminary planning for the building.

600175 7 .3.20 Both plant and storage for each service should be centralised and reticulation provided throughout the facility from this central source. Plant and storage are subject to regulation which may dictate area, construction and location, e.g. bulk oxygen storage.

8 SECURITY

INTRODUCTION AND GENERAL REQUIREMENTS

Scope

600176 8 .1.00 The following Security services should be considered in the Design Brief:

-Access control and tracking systems.
-Door intercommunication systems.
-Duress systems.
-Intrusion detection systems.
-Parking control systems.
-Safes and strong rooms.
-Security staff location.
-Security information systems .
-Security lighting. [Refer Electrical services].
-Security hardware, barriers, screens and fencing.
-Video surveillance systems.

In some cases security systems may integrate and form part of a communications system, to be covered under that section.

General

600177 8 .2.00 Security services together with Communications are subject to rapid change and growth. To establish a realistic brief some measure of forecasting is required. Since the services generally have low demands for space, the major consideration will be equipment costs. These will be determined by the type of service, and the extent of functions and coverage.

Design

600178 8 .3.00 Most design issues will relate to detailed design, however access control can influence decisions regarding entry points and circulation in early planning. Security solutions through environmental design and the elimination of design elements generating a security risk should be considered.

600179 8 .3.10 The required locations and area allowances for security staff should be adequately covered in the Schedules of Accommodation.

600180 8 .3.20 The levels and type of security will depend on the use and location of the Facility.

System selection may depend on availability of maintenance personnel in remote and rural areas.

9 TRANSPORTATION

INTRODUCTION AND GENERAL REQUIREMENTS

Scope

600181 9 .1.00 The following Transportation services should be considered in the Design Brief:

-Document and specimen conveyors [Refer to Mechanical services].
-Escalators.
-Goods conveyors.
-Hoists.
-Lifts

General

600182 9 .2.00 Transportation represents a significant cost element, with the provision for lifts accounting for the major outlay. The number and location of lifts should be determined as early as possible, and result from the early traffic studies.

Design

600183 9 .3.00 Lift traffic studies require a developed functional plan. This will show the distribution of Hospital planning units (HPUs), car parking and other functional areas within the facility, and include primary circulation routes and points of access and egress. In some cases the early implementation of a survey may improve accuracy in the outcome.

600184 9 .3.10 Security considerations, restrictions to access and hours of operation for specific areas should be included in the traffic studies.

600185 9 .3.20 The size of lift cars and shafts are determined by the intended use, this will vary from general public, patient bed transfer, to full critical care team requirements and special goods lifts.

600186 9 .3.30 Lifts for special use will usually be restricted to that use and exclude other uses such as public access; this can involve infection control issues, and may affect the number and distribution of lifts. Other special requirements such as patient transfer to and from Helipads need to be considered.

600187 9 .3.40 The location of lift motor rooms, building height restrictions, and access requirements should be considered at an early stage.

10 EQUIPMENT

INTRODUCTION AND GENERAL REQUIREMENTS

Scope

600188 10 .1.00 The following Equipment or plant/storage areas requiring connection to services should be considered in the preliminary Equipment schedule:

+ Catering and kitchen equipment.

+ Chemical storage.

+ Cleaning equipment.

+ Cool rooms and freezer rooms.

+ Film processing equipment.

+ Flammable liquid storage.

+ Laboratory equipment.

+ Laundry equipment.

+ Medical electrical equipment.

+ Sterile supply equipment.

+ Ward equipment.

+ Ground Equipment.

+ Materials Handsling Equipment.

+ Reverse Osmosis plant and cooling systems for Medical Imaging equipment.

General

600189 10 .2.00 An assessment of equipment or plant/storage areas requiring connection to services can be extracted from the following sources:

-The HFG Standard component Room Data Sheets (RDS) provides information on the generic type and quantity of equipment and the associated services requirements.

-The Room Layout Sheets (RLS) provide spatial information and floor areas; they can also be used for early testing and adjustment of floor areas for the incorporation of non-standard equipment.

600190 10 .2.10 A preliminary schedule of generic equipment established in the early stages and will assist in determining the requirements for services and space. An early equipment budget will improve the accuracy of the total project cost estimate.

600191 10 .2.20 The schedules of accommodation in HFG Part B provide floor area information including circulation for each generic HPU (Hospital Planning Unit), any specific area requirements in the Room Data Sheets would be incorporated in the Project schedules of accommodation. Note: Interdepartmental Travel and Engineering is additional to the combined HPU area.

600192 10 .2.30 For information on the process of procuring and installing Furniture, Fittings and Equipment for a Health Care Facility. Refer to Part F Project Implementation, Subsection 680 Furniture, Fittings and Equipment.

Design

600193 10 .3.00 In addition to the general allowances for equipment listed above, other factors involving decanting or the transfer of existing equipment for reuse will affect the staging and final cost of the project.

600194 10 .3.10 The delivery and removal of equipment and plant should be considered by allowing adequate tolerances for horizontal and vertical transportation. This may require larger corridors, door openings, special sized lift cars, floor and ceiling hatches and provision for hoisting.

References and Further Reading

600195 11 .1.00 ENGINEERING TECHNICAL BRIEFS

NSW Health 2005, Technical Series TS 11 - Engineering Services And Sustainable Development Guidelines, NSW Health.

Department of Human Services, Victoria 2004. Part E - Building Services And Environmental Design, Design Guidelines for Hospitals and Day Procedure Centres, DHS Victoria.

Western Australia Health Facility Guidelines for Engineering Services 2006. The guidelines are available at:
http://www.health.wa.gov.au/hrit/infrastructure/procedures/facility.cfm

PUBLICATIONS

HCAMC (Health Capital Asset Management Consortium) 2006. Australasian Health Facility Guidelines. UNSW (University of New South Wales) Sydney..

Construction Information Systems Limited. NATSPEC SERVICES combined worksections.

LEGISLATION AND STANDARDS

Australian Building Codes Board (ABCB). Building Code of Australia (BCA) 2006

SAA. AS/NZS 2107:2000 Acoustics–Recommended design sound levels and reverberation times for building interiors

SAA. AS 2670 Evaluation of human exposure to wholebody vibration.
AS 2670.1–2001 General requirements

SAA. AS 3595:1990 Energy management programs–Guidelines for financial evaluation of a project

SAA. AS/NZS ISO 14000 (Set):2004: Environmental management Standards Set

CHECKLIST

	Item	Yes	No
1	Mechanical		
	Have all mandatory elements of Enclosure E1 been met? Have all mandatory elements of Part E been met?	☐ ☐	☐ ☐
	Checked and certified by: _____ Date:_____ Company: _____ Position _____ Signature:_____		
2	Electrical	Yes	No
	Have all mandatory elements of Part E been met?	☐	☐
	Checked and certified by:_____ Date_____ Company: _____ Position _____ Signature:_____		
3	Medical_Gases	Yes	No
	Have all mandatory elements of Part E been met?	☐	☐
	Checked and certified by:_____ Date_____ Company: _____ Position _____ Signature: _____		
4	Hydraulics	Yes	No
	Have all mandatory elements of Part E been met?	☐	☐
	Checked and certified by:_____ Date_____ Company: _____ Position _____ Signature: _____		
5	Fire	Yes	No
	Have all mandatory elements of Part E been met?	☐	☐
	Checked and certified by:_____ Date_____ Company: _____ Position _____ Signature: _____		
6	Transportation	Yes	No
	Have all mandatory elements of Part E been met?	☐	☐
	Checked and certified by:_____ Date_____ Company: _____ Position _____ Signature: _____		
7	Communications	Yes	No
	Have all mandatory elements of Part E been met?	☐	☐
	Checked and certified by:_____ Date_____ Company: _____ Position _____ Signature: _____		

INDEX

		Description
500320	680 .0.10	INTRODUCTION AND GENERAL REQUIREMENTS

Preamble
Introduction
Objectives
Scope
Operational Commissioning
FF&E Groups
Glossary of Terms
References and Further Reading

FF&E PROCUREMENT

Activities
Planning
Resourcing
Scheduling
Selection
Purchasing
Government Purchasing Policies and Processes
Receipt
Installation
Post Installation

COSTING

Objectives
Cost Planning Stages
FF&E Rates
Project Specifics
Transfer Items
General Items
Contingency Sum
FF&E/Building Budget Delineation

STANDARD FF&E ITEMS

Standard FF&E Items and Requirements

APPENDICES

Performance Specification Proforma

Preamble

500030 680 .1.00 The procurement and installation of furniture, fittings and equipment (FF&E) is an important activity in the establishment and ongoing operation of Health Care Facilities. The FF&E incorporated in a facility is determined by the nature of the services offered. It is important that the FF&E is carefully selected as it can have wide-ranging impacts upon facility design, Operational Management and associated costs.

This Facility Planning Guideline provides assistance to those who are involved in the procurement of FF&E including budgeting, selection and installation.

The NSW Health Department published DS-31 Guidelines for Furniture Fittings and Equipment Budgeting for Health Building Projects in 1992. This Guideline aimed to provide Health Planning Unit rates for costing of furniture, fittings and equipment for Health Care Facilities on a functional area basis. Over time, the rates contained within it have become obsolete. It is now common practice to apply a multiplier to reflect current costs.

Changes in healthcare environments, practices in health service delivery technology and equipment design have all impacted on FF&E requirements and consequent costs. As FF&E tends to be managed at a local level, consistent cost data across a range of facilities is difficult to obtain. However, the introduction of a database format in this revised Guideline permits rates to be updated as data becomes available.

It was also identified as being desirable to broaden the scope of the Guideline to include information on the process of procuring FF&E.

The successful procurement of the correct FF&E will enable the required Health Care Services to be delivered in an optimal environment, maximising successful client outcomes and operational efficiencies, whilst reducing risks such as occupational health and safety and infection control.

Description

501213 680 .2.00 This Guideline describes the process of procuring and installing furniture, fittings and equipment for a Health Care Facility, also called equipping. This process is relevant whether it is part of a capital works development or whether it is simply the provision of new equipment within an existing facility.

The Guideline is divided into four sections:

1. Introduction - outlining the scope and objectives of the Guideline;

2. Procurement - outlining the processes for identifying needs, selection, purchasing and installation of FF&E;

3. Costing - outlining the process of budgeting and costing FF&E at various stages of a project, together with a review of cost rates;

4. Standard FF&E Items - providing a list of standard FF&E items.

Objectives

500726 680 .3.00 The purpose of this Guideline is:

1. To offer a methodology for determining the furniture, fittings and equipment requirements for a Health Care Facility;

2. To provide information and direction on the ordering of any additional FF&E that may be required and maximise the opportunities to gain efficiency;

3. To provide Cost Planners with Health Planning Unit (HPU) rates for costing furniture, fittings and equipment for Health Care Facilities on a functional area basis;

4. To assist with the standardisation of terminology and descriptions of FF&E items.

Scope

501214 680 .4.00 For capital works projects, this Guideline addresses procurement of FF&E following approval of the Project Definition Plan.

Operational Commissioning

501464 680 .5.00 Equipping is an integral part of the operational commissioning of new or refurbished facilities. As such, FF&E activities need to be incorporated into the Commissioning Plan. FF&E personnel form part of the Commissioning Team.

Refer to Operational Commissioning Guideline.

FF&E Groups

501465 680 .6.00 CLASSIFICATION OF FF&E

For NSW Health capital projects, FF&E is classified into four (4) groups:

Group 1 - Items supplied and fixed by the contractor. These are included in the construction contract.

Group 2 - Items supplied by the client and fixed by the contractor. These include items that are transferred but require installation by the contractor, or where the client chooses to buy a piece of equipment and give it to the contractor for installation.

Group 3 - Items supplied and installed by the client. These include all moveable items that can easily be transferred or installed by staff and major items of electromedical equipment that are purchased from the project budget, but are installed and commissioned by a third party.

Group 4 - Consumable items purchased and installed by the client outside the capital budget. This category includes bed linens, foodstuffs and disposable supplies.

Glossary of Terms

501216 680 .7.00 Refer to Part B of these Guidelines for a comprehensive list of terms used. For the purposes of this Guideline, the following terms are defined:

501217 680 .8.00 Project Specifics: Items of a variable nature specifically costed for individual projects over and above the cost derived from pricing Functional Areas and Travel/Engineering Areas.

501218 680 .9.00 Health Planning Unit (HPU): All the rooms and spaces, including internal circulation, making up a particular health service department, which are necessary for that department to function.

References and Further Reading

501219 680 .10.00 DS-31 Guidelines for Furniture, Fittings & Equipment Budgeting for Health Building Projects, NSW Health Department, 1992.

501220 680 .11.00 Guideline on the Commissioning of Health Facilities, Draft, Queensland Health Department, 2003.

501221 680 .12.00 Commissioning Hospital Buildings, King Edward's Hospital Fund, London, 1981.

500294 680 .13.00 Capital Development Guidelines, 1-4, Hospital Project Planning Benchmarks, Department of Human Services, Victoria, 2003.

F,F & E PROCUREMENT

Activities

501222 680 .14.00 The principal activities in the procurement of FF&E may be summarised as follows:

+ Planning;

+ Resourcing;

+ Scheduling;

+ Selection;

+ Purchasing;

+ Receipt;

+ Installation;

+ Post Installation, including commissioning of equipment and training staff in its use.

Planning

501466 680 .15.00 Generally, planning for the acquisition of furniture, fittings and equipment (FF&E) needs to be commenced early in the facility planning process and must be programmed.

This planning should take account of:

+ Time required for selection of FF&E, including consultation with staff, conducting risk assessments and equipment trial;

+ Time required for delivery of FF&E (including construction, assembly, shipping, etc);

+ Need and capacity for temporary storage of FF&E during capital works;

+ Time required for installation, assembly on site, testing, etc;

+ Time for commissioning of FF&E to enable clinical use;

+ Implications of transfer of equipment from existing facilities;

+ Determining the value of FF&E (including impact of fluctuations in the exchange rate, life cycle costing, etc);

+ Potential for gaining volume discounts by aggregating FF&E items across NSW Health and bulk purchasing or leasing these items through networks on an AHS, Quadrangle or state wide basis.

501469 680 .16.00 COST PLANNING

The programming of FF&E procurement must be undertaken in close liaison with the Finance Department of the facility so that appropriate provision is made for future expenditure on FF&E. This may be spread over two or more years.

Resourcing

501471 680 .17.00 FF&E COORDINATOR

An FF&E Coordinator should be appointed to manage the procurement of FF&E. For Capital Works projects, the FF&E Coordinator is an integral member of the Commissioning Team and should:

+ Be involved in the planning discussions on equipment from the early design stages of a project. Preparatory work on the scheduling and selection of FF&E for a project commences as soon as Room Data Sheets are available.

+ Liaise with relevant personnel regarding detailed specification and selection of items required. These may include consideration of models, material and colours that are not determined at the time of preparation of Room Data Sheets.

+ Be responsible for following up deliveries and coordinating the receipt and temporary storage of items.

+ Ensure compliance with OHS legislation in selecting FF&E.

501473 680 .18.00 EXISTING PERSONNEL

Where possible, existing personnel should undertake FF&E procurement for capital projects and routine equipping activities. This ensures that:

+ Established procedures for approval, ordering, contract management and maintenance requirements are followed;

+ Personnel who will be responsible for the management and maintenance of the purchased FF&E once the Project Team leaves the site, are involved in the scheduling, ordering and receiving process.

501472 680 .19.00 MAJOR PROJECTS

For major projects, FF&E procurement activities may be undertaken by a number of different people. Planning and clinical personnel may be responsible for the scheduling, specification and selection of FF&E items.

A Purchasing Officer may be appointed to manage the purchasing and receipt of FF&E.

Commissioning personnel may be responsible for installation and post installation activities.

501470 680 .20.00 MINOR PROJECTS

For minor capital projects and routine equipping activities, all activities will normally be undertaken by one person.

503040 680 .21.00 ADVISORY ORGANISATIONS

A number of organisations are available to assist with the procurement of FF&E. These include:

+ Peak Purchasing Council;

+ Area Purchasing Services or Product Evaluation Panels;

+ State Contract Control Board.

Refer to Purchasing section of this Guideline.

Scheduling

501474 680 .22.00 At early planning stages, FF&E Schedules shall be prepared, listing all FF&E required in the facility. These shall be developed and reviewed as the project develops.

500734 680 .23.00 TYPES OF SCHEDULES

The method of scheduling FF&E may vary depending on the resources available to the Health Service and the Project Team. Considerations in selecting a method include:

+ Consistency;

+ Coherence;

+ Compatibility with other systems in use.

Computerised systems facilitate the compilation of schedules. The various systems that can be considered include:

+ Spreadsheets (such as Microsoft Excel);

+ Database (such as Microsoft Access);

+ DOHRS Scheduling Package;

+ Proprietary software packages.

500736 680 .24.00 ASSET MANAGEMENT

The FF&E schedule should be able to be readily incorporated into an asset management system. The system used for a facility may determine the method of scheduling adopted.

500732 680 .25.00 PRIMARY FF&E SCHEDULES

The Project Definition Plan (PDP) fully defines the functions of each room and includes Room Data Sheets that list the general FF&E requirements for each room. Following the approval of the PDP, designing can commence and a Primary Schedule of FF&E can be prepared. This schedule assumes all items are new until transfer items have been identified.

501475 680 .26.00 The Primary Schedule is not usually specific about actual pieces of equipment. Fixed equipment, which is installed by the contractor, will be specified in the construction contract documentation. This includes both Group 1 and Group 2 items.

Scheduling FF&E

501476 680 .27.00 When scheduling FF&E, the items should be considered on a room-by-room basis in the first instance. They should then transferred be to a combined list to identify any duplication of major items and to simplify the ordering and costing process.

Large equipment items with long lead times should also be identified. It may be appropriate to order this equipment in advance of the project program.

Scheduling

500737 680 .28.00 TRANSFER ITEMS

Once all items have been listed an evaluation should be undertaken of existing FF&E to identify suitable items for transfer. In many cases, substantial quantities of FF&E should be suitable for transfer. Criteria for assessing transfer suitability must include age, condition, and being fit for the purpose and environment in accordance with OHS legislation.

The project time frame needs to be considered as equipment can become obsolete or not be suitable for transfer at the time of commissioning due to the period between planning and actual commissioning.

Transfer items should be identified in the FF&E schedule. These will need to be regularly reviewed throughout the course of the project.

500733 680 .29.00 This process will identify any gaps between the equipment that is to be transferred and any additional equipment required for the new facility. Any deviations from these schedules or the purchase of replacement equipment will require approval by NSW Health.

501477 680 .30.00 DEVELOPMENT OF SCHEDULES

The equipment lists may need revision in the light of detailed examination of Operational Policies, and as the design progresses.

FF&E provided must be appropriate to the room's function and available space.

500735 680 .31.00 INFORMATION CATEGORIES TO BE INCLUDED IN THE SCHEDULES

The FF&E schedule that is agreed upon should have the facility to:

+ Provide each item with a unique number that denotes the Functional Unit and room number - this number can also be used to facilitate the ordering and accurate location of items in the new facility during commissioning eg SA.2.14 could denote the Staff Amenities, Room 2, Item 14;

+ List the item by type - bed, chair, table etc;

+ Include particulars of the supplier, model number, etc;

+ Include the cost per item and any other costs such as freight;

+ Identify whether the item is ‘new’ or a ‘transfer’;

+ Identify if the item is a Group 1, 2 or 3 item in accordance with the above definition;

+ Include columns for asset register number and depreciation rates, etc;

+ Be easy to understand for health service staff.

501478 680 .32.00 GROUP 2 ITEMS - CLIENT SUPPLIED, CONTRACTOR INSTALLED

It is often thought that detailed decisions on make, model and type of furniture and equipment can be deferred until late in the construction phase by classifying equipment as Group 2 or even Group 3 (client supply and install). However, consultants need to know equipment details in the design stage so that they can design for the heat load, weight, dimensions and services connections.

The advantage to the client of opting for Group 2 furniture and equipment is that consultants' fees and the contractor's overheads (based on total building cost) are minimised.

However, generally, it is more advantageous to minimise the use of Group 2 items because:

+ Responsibility for co-ordinating structure and services then clearly rests with the contractor;

+ Clients' problems associated with early purchase and consequent storage and insurance do not arise;

+ The contractor is responsible for early ordering or for structural and services adjustments if the specified model is superseded;

+ Responsibility for testing and commissioning rests with the contractor;

+ Equipment warranty periods commence from handover in conjunction with the defects liability period and not from the date of purchase (which may be well in advance of actual use);

+ As most fixed equipment is technical and/or expensive, the tendering/purchase process is likely to be taxing and time consuming for client staff.

500739 680 .33.00 INITIAL COSTING OF THE F,F & E SCHEDULE

500739 680 .33.00

An initial costing of the FF&E Schedule should be undertaken as soon as it is formulated to ensure that it is within the FF&E budget allocation. Sources of information for such preliminary costings include:

+ Recent purchases by the Area Health Service;

+ Other similar recent Capital Projects;

+ Peak Purchasing Council database.

501479 680 .34.00 Indicative information on the cost of FF&E can be calculated on a cost per square metre rate using the cost rates contained in this Guideline. An escalation rate for the current year will need to be applied.

Individual major items costing more than $250,000 should be identified separately as these can have a significant impact on an FF&E budget.

Reconciliation of expenses should be able to be reported either by department or by item.

501480 680 .35.00 CONTINGENCY SUM

In order to discourage over-provision in the schedules a financial contingency sum should be allowed to purchase equipment that is found to be necessary after the building is brought into use.

501481 680 .36.00 FUNDING SOURCES

Project funded items need to be identified separately from other funding sources.

Selection

503042 680 .37.00 INTRODUCTION

FF&E must be carefully selected to ensure fitness for purpose and that it meets criteria for infection control and OHS. This may require extensive market research.

Where possible, FF&E should be standardised throughout a facility.

501483 680 .38.00 FITNESS FOR PURPOSE

Selected items must be appropriate for the facility. Certain areas require special considerations eg Mental Health, Paediatrics, Aged Care (cognitive impairment). In these areas, standard fittings may be inappropriate and cause injury or offer patients the potential for self harm in Mental Health Units.

Refer also to Part C of these Guidelines.

501486 680 .39.00 COMPATABILITY WITH BUILDING FABRIC

FF&E components need to be selected it to suit building fabric and finishes eg wheel/castor specifications depend on floor coverings; patient hoists must fit properly under beds and baths, and through doorways.

Particular attention is required when equipping existing facilities.

Refer also to Part C of these Guidelines.

501485 680 .40.00 DESIGN

A specialist design consultant, appointed at an early planning stage, should select colour schemes, soft furnishings and the like. This selection should satisfy the criteria of function, durability, ease of cleaning and servicing, good appearance, and economic replacement at a later date.

501482 680 .41.00 OCCUPATIONAL HEALTH AND SAFETY

Refer to Part C of these Guidelines.

The OHS Act 2000 and OHS Regulation 2001 requires designers and manufacturers to eliminate or control risks in designing and manufacturing equipment. The equipment selection process needs to determine that this responsibility has been fulfilled by these key groups before FF&E is purchased.

The employer is also required to identify, assess and control risks associated with equipment relevant to the specific application and work environment in which it will be used.

This means that the FF&E procurement process should involve:

+ Consultation with OHS committee and potential end users;

+ Trial of equipment where possible;

+ Risk assessment of FF&E prior to purchase;

+ Seeking out of the experiences of other facilities with that type of FF&E.

Since legislation overrides the policy of organisations, purchasing from approved suppliers or from government contract can only apply to equipment, etc that has been assessed for occupational risks and selected on the basis of safety for the particular purpose and workplace.

501484 680 .42.00 INFECTION CONTROL

Refer to Part D of these Guidelines.

Infection Control personnel must be consulted with regard to the selection of FF&E.

Requirements for finishes of items may vary depending upon the location used eg fabric upholstery on chairs may not be permitted in clinical areas.

501487 680 .43.00 MAJOR EQUIPMENT ITEMS

The appropriate level of equipment for a facility will be determined by service and activity planning.

NSW Health has a role in the approval to purchase major electromedical items.

501488 680 .44.00 ELECTROMEDICAL EQUIPMENT

A range of specialised electromedical equipment needs careful assessment in relation to radiation issues (may require assessment by a Consulting Radiation Expert), engineering issues (load bearing of floors, airconditioning, uninterruptible or extra power supply etc), size issues (to enable gantry movement, bed movement and so on) and safety issues (for example MRI).

The requirements of the Radiation Control Act 1990 and Radiation Control Regulation 2003 must be complied with, including requirements for disclosure of information.

501468 680 .45.00 EXISTING FF&E ITEMS

Programmed routine maintenance and replacement (RMR) will continue during the project duration. This needs to be coordinated with project requirements.

Purchasing

500740 680 .46.00 IDENTIFYING SUPPLIERS

After the FF&E Schedule has been resolved, suppliers need to be identified. Sources for these include:

+ Contracts held by the Area Health Service;

+ State Contracts identified through the Peak Purchasing Council;

+ Calling for tenders from State Contract approved suppliers;

+ Suppliers not listed with State Contracts.

Calling for Tenders requires the preparation of a Performance Specification for the specific item. A proforma is attached for information. A current listing of typical State Contract suppliers can be obtained on CD-ROM from State Contracts. It is advisable to contact the local AHS Supply Manager who will be able to provide access to this information.

To purchase from suppliers not listed with State Contracts requires approval for an exemption from the NSW Department of Health. Details on the procedure to be followed to gain an exemption can be obtained from the Peak Purchasing Council. Every effort should be made to select items that are included in State Contracts to ensure that advantage is taken of evaluated products at a price that is assessed to be reasonable.

501489 680 .47.00 Notwithstanding the fact that a State Contract exists for a product, the product must be verified as being safe and fit for purpose in accordance with OHS legislation.

501490 680 .48.00 ALTERNATIVE PROCUREMENT OPTIONS

Alternative procurement options such as leasing should also be considered.

500741 680 .49.00 ORDERING THE FF&E

NSW Health policies and procedures for purchase and supply must be adhered to.

All Area Health Services have established purchasing procedures that have been developed to address the particular needs of the organisation. Wherever possible these tested methods should be used to purchase all the FF&E for the new facility. Using established procedures reduces the risk of incorrect ordering procedures being used and acts as an extra check against inappropriate procedures and processes being introduced that could result in substandard or inappropriate items being ordered and accepted.

Local procedures must fully address OHS legislative obligations.

Government Purchasing Policies and Processes

500745 680 .50.00 PEAK PURCHASING COUNCIL

The Peak Purchasing Council (PPC) is a business unit of NSW Health.

By using the services available through the PPC, Project Teams charged with the scheduling, costing and ordering of FF&E can gain opportunities to streamline the FF&E scheduling process and access potential cost saving opportunities.

The PPC was established to:

+ Facilitate the development and implementation of the most efficient and effective purchasing and materials management policies and practices for the NSW Health system;

+ Maximise the purchasing and materials management opportunities through cooperative efforts to achieve the greatest value for money benefits for their customers.

500746 680 .51.00 PORTFOLIO:

From these Terms of Reference, four portfolios were introduced and each has aims and objectives to move forward to achieve benefits for NSW Health:

+ Formulate the policies and procedures to be followed by NSW Health to ensure purchasing opportunities are maximised to the greatest benefit of the health system;

+ Provide advice to the State Contracts Control Board, particularly in relation to whole of health contracts;

+ Establish and monitor a Performance Agreement with NSW Supply Services;

+ Liaise with suppliers, industry groups and other State/Commonwealth Government Departments to ensure that NSW Health is kept abreast of requirements and developments in the purchasing and supply area.

500747 680 .52.00 INFORMATION AVAILABLE:

The following categories of information can be readily gained by contacting the PPC:

+ Current Health contracts for a full range of medical, food, equipment and supplies;

+ Best practice issues;
+ Information technology;
+ Capital equipment;
+ Contract management;
+ Training and development opportunities;
+ Library facilities;
+ Product evaluation;
+ Information on gaining exemptions;
+ Internet Chatroom with other users;
+ Surplus asset database;
+ Bulk purchasing opportunities.

500748 680 .53.00 CONTACT DETAILS FOR PPC:

Mail Address: PO Box 28
NORTH RYDE NSW 1670

Street Address:
Level 1, Wallace
Wurth (Administration) Bldg
Gladesville Macquarie Hospital,
Wicks Road
NORTH RYDE NSW 2113

Phone: (02) 9887 5490
Fax: (02) 9887 5497
Email: ppc@tpg.com.au
Web Site: http://www.ppc.health.nsw.gov.au

500729 680 .54.00 PRODUCT EVALUATION PANEL

Some Area Health Services have an Area Purchasing Service or Product Evaluation Panel who are charged with selecting FF&E that is efficient, effective, safe and suitable for the particular needs of the clinicians, patients/clients and the type and level of service being delivered. The Panel will also be aware of the State and Period contracts being utilized by the relevant Area Health Service.

The Panel will provide advice to the Project Team and review and sign off completed schedules

501502 680 .55.00 PURCHASING MANUAL

The Purchasing and Supply Manual for Area Health and Related Services provides detailed specifications for the procurement methods and delegations outlined below. The manual is available at http://internal.health.nsw.gov.au/audit/manuals/purch_supply.pdf

Further information including local processes, procedures and delegations should be obtained from the relevant Area Health Service's Supply Services

To assist purchases a register and database of product evaluations is available on the PPC's website at www.ppc.health.nsw.gov.au/

501503 680 .56.00 PURCHASING FF&E FROM STATE CONTRACTS

Purchasing FF&E from State Contracts Control Board (SCCB) period contracts is mandatory where the required products are available on contracts. Exemptions can be sought if the facility has reasonable grounds for doing so, e.g. on the grounds of OHS or cost.

To find out if an item is 'on contract' refer to www.supply.dpws.nsw.gov.au/Home.htm.

501504 680 .57.00 FF&E NOT ON CONTRACT

If FF&E are not available on SCCB contracts then the Area Health Services must obtain the best value for money.

The Area Health Service must use the Health Peak Purchasing Council's (PPC) standard Health Quotation, Tender and Contract Conditions documents.

Procedures required for the purchase of 'Not in Contract' items are:

+ Up to $1,500 - no quotes or tenders required;

+ Over $1,500 to $30,000 - one written proposal as a minimum;

+ Over $30,000 to $150,000 - three written quotations as a minimum;

+ Over $150,000 - full tenders are required.

Note: some Area Health Services have adapted these purchasing thresholds so local procedures should be checked.

501986 680 .58.00 ENVIRONMENT PROTECTION AUTHORITY

The NSW Department of Environment and Conservation incorporating the Environment Protection Authority (EPA) was established in 2003. The EPA is responsible for licensing, registration and accreditation of facilities and equipment which may impact on the surrounding environment. This impacts on all equipment and users in areas including radiology, nuclear medicine, radiotherapy, dental, cardiology and pathology.

501987 680 .59.00 RADIATION CONTROL ACT 1990 (AS AMENDED)

This Act provides for the regulation and control of radioactive substances, radioactive sources and radiation apparatus.

501988 680 .60.00 RADIATION CONTROL REGULATION 2003

This regulation:

+ Deals with the licensing of persons to use certain radioactive substances and

radiation apparatus;

+ Prescribes activities that may only be carried out by accredited radiation experts;

+ Sets fees in relation to licensing, registration, accreditation and approvals;

+ Regulates the disposal and transport of radiation apparatus and radioactive substances, and the discharge of radioactive substances;

+ Allows exemptions from certain provisions of the 'Radiation Control Act 1990' and the Regulation;

+ Prescribes certain radiation apparatus as apparatus that must be registered and sets out certain requirements in relation to such apparatus;

+ Prescribes offences under the Act and Regulation for which on-the-spot fines ('penalty notices') can be issued, and the amounts of those fines.

Receipt

501491 680 .61.00 PROGRAMMING

Liaison will be required with the contractor to identify dates for the delivery of specific items. This is particularly important with regard to items that the contractor is required to install that are being purchased by the client, ie Group 2 items.

Where possible, all items required for the proposed occupation date should be available and on site some 3 to 4 weeks prior. This allows for preparation of items for final placement, ensuring all mandatory checks have been carried out and a smooth coordinated installation.

Contingency plans need to be prepared to cover failure of suppliers to deliver on time or delayed completion of construction.

501492 680 .62.00 When timing the placement of orders make due allowance for possible delays in delivery. A firm procedure for following up all outstanding orders should be worked out and carried through.

501493 680 .63.00 RECEIPT OF FF&E

Arrangements must be made to see that goods are properly checked for both quality and quantity on delivery. 'Technical' equipment can be held in a separate room until inspected and certified correct by authorised personnel. Conditions for discounts for prompt payment should be adhered to.

501494 680 .64.00 CHECKING AND TAGGING

Adequate time frames should be built in to the ordering and receiving process to allow the appropriate checking and tagging of equipment by biomedical and electrical safety staff. Where relatively large volumes of this type of equipment is involved the available resources and time availability of such personnel must be taken into consideration.

501495 680 .65.00 GROUP 2 ITEMS

501495 680 .65.00

Group 2 items must be delivered to the contractor prior to the date required. This ensures that opportunities do not occur where the contractor can claim loss of time due to non-availability of items and further ensure there are no disputes as to actual receipt of goods. All items handed over to the contractor should be acknowledged by a written receipt from the Contractor's representative.

It should also be noted that the Warranty period for client supplied items generally commences at the date of delivery, not the date of occupation.

501499 680 .66.00 Delivery of furniture and equipment prior to the handing over of the main building can significantly reduce the period required to make the building operational. The fitting out stage is reduced. The load on the receiving personnel is spread and an opportunity is provided for all items to be labelled with their room number while in store.

Dangerous goods and other special items must be appropriately stored.

Access to the storage area, if this is in a new building and taken over in advance, and use of corridors and lifts must be planned and agreed with the contractor.

500743 680 .67.00 STORAGE

Strategies that should be considered to simplify the receipt, holding and installation of new equipment prior to occupation may include:

+ Identification of a secure holding area prior to the handover of the new facility. This may include constructing a temporary structure or hiring warehouse space.

+ Advanced handover of a section of the building for storage;

+ Staging the delivery of multiple items such as beds, desks and chairs to reduce the amount of storage space required;

+ Replacing outmoded equipment that will not be transferred with the new items prior to transfer;

+ Organising temporary storage areas to allow for progressive receipt and installation.

501498 680 .68.00 The warranty arrangements should be checked to ensure that such early possession doesn't limit or invalidate any contractual obligations.

501497 680 .69.00 DELAY IN RECEIPT

If it is intended to receive furniture and equipment directly into the new building, it may be necessary to ask suppliers to hold items, after they are ready for delivery and until the building has been handed over. The ability to do this is subject to agreement from suppliers.

Installation

503043 680 .70.00 INSTALLATION GENERALLY

Correct placement and installation of FF&E items is critical to proper functioning

of the facility. Any changes to the intended location must be carefully considered.

501500 680 .71.00 GROUPS 1 & 2

The contract should require the contractor to be responsible for checking quantity and quality and for safe storage and for correct installation.

501501 680 .72.00 SPECIALISED EQUIPMENT

Construction contracts should require attendance by the contractor for the installation of specialised equipment such as diagnostic imaging and radiotherapy equipment. If possible, an early handover of the departments concerned should be arranged. If this is done, the contract must make provision for terminal boxes to be ready for connection and for mechanical services to be available at the appropriate time.

Post Installation

503044 680 .73.00 TESTING

Certain equipment items may require testing and calibration following installation. Sufficient time needs to be programmed for this to occur prior to occupation.

500295 680 .74.00 COMMISSIONING EQUIPNEBT AND TRAINING OF STAFF

Following installation a thorough commissioning and training program should be followed to suit the type of equipment. Refer Performance Specification Proforma at the end of this section.

503045 680 .75.00 MAINTENANCE

Equipment must be properly maintained to ensure correct functioning and safety, and to maximise its life. Implement maintenance procedures as appropriate.

500744 680 .76.00 DISPOSAL OF SURPLUS ITEMS

If surplus items have been identified, a strategy should be developed for disposal.

The Peak Purchasing Council will advertise surplus items on the Internet.

Special agreements and processes may be in place for disposal of major equipment items, eg electromedical.

COSTING

Objectives

501507 680 .77.00 The indicative cost rates for FF&E included in these Guidelines are intended to:

1. Provide a Guideline for Furniture, Fittings and Equipment budgeting (FF&E) for NSW public health facility building projects.

501508 680 .78.00 2. Establish rates at a minimum, rather than maximum, value.

501509 680 .79.00 3. Provide a schedule of HPU rates following analysis of a selection of projects both within NSW and other states with the following basis:

+ Level 1-6 service FF&E provision to be identified;

+ 'Greenfield' site in the Sydney Metropolitan area;

+ All FF&E items are new, not transferred from existing facilities.

501510 680 .80.00 4. Provide a basis for presenting cost data for future analysis.

501511 680 .81.00 5. Complement the Standards for Health Planning Unit Cost Rates document (DS-13) as published by NSW Health.

501512 680 .82.00 Note:

It is emphasised that the guideline rates are intended to provide furniture, fittings and equipment budgets only at the initial planning stages of a project. More accurate estimates based on detailed furniture, fittings and equipment lists should be developed at the design development stage, in parallel with the normal capital cost planning process.

Cost Planning Stages

501513 680 .83.00 For description of Standard Cost Planning stages refer to Part B General Requirements in these Guidelines.

FF&E Rates

501514 680 .84.00 The following table of guideline rates/m2 for each HPU or department sets out rates for Cost Plan A and/or B stage - for which an all inclusive rate is provided.

A schedule of all major items of equipment proposed for a particular project is required to be included as part of the budget submission at this stage of the Planning Process.

501515 680 .85.00 The guideline rates cover Health Care Facilities providing services from Level 1 to Level 6.

Rates prepared for the Victoria Department of Human Services have been used as the basis of this Guideline.

501517 680 .86.00 At Cost Plan C stage the equipment budget should be confirmed by means of a detailed furniture, fittings and equipment list derived from the Room Data Sheets (and co-ordinated with the Architect's design).

501518 680 .87.00 The FF&E Rates published here are based on a June 2002 base date for all prices.

503046 680 .88.00 LOOSE FURNITURE EQUIPMENT & IT

Rates for costing of loose furniture, furnishings & IT equipment in the calculation of cost for projects are provided for each Functional Unit.

The rates include allowances for telephones, pagers, cleaning equipment, EDP workstations and some relevant specialist EDP software.

The rates exclude super-specialities (eg cardiothoracic surgery) or unusual specialities (eg apheresis, hyperbaric and reproductive biology).

Constraints in respect of specific Functional Units include:

+ Library rates assume a manual card index system. Add costs are applicable for computerised indexing and book security systems;

+ Information Technology rates are based on general furniture and equipment. Central IT and communications hardware and software are project specific items;

+ Medical Records rates are based on traditional manual paper storage. Optical disk based technology increases the m2 rate considerably but may eliminate archiving and most storage floor areas;

+ Medical Imaging rates are based on traditional film and do not include digital imaging (PACS) except where associated with specific modalities;

+ Security rates do not include CCTV;

+ Stores and Supply rates assume minimal mechanical materials handling equipment.

FF&E costs may vary from standard rates due to fluctuations in exchange rates and purchasing arrangements.

501519 680 .89.00 ADJUSTMENT OF RATES

It is recommended that adjustment of guideline rates should be by way of:

a) Use of CPI rather than BPI.

b) Ongoing analysis of future projects so as to take account of changes in policy, technology and the costs associated with these.

Project Specifics

501520 680 .90.00 The furniture, fittings and equipment budget guideline rates have been calculated for greenfield projects assuming normal operating policies.

503047 680 .91.00 Where specific major or unusual equipment is proposed for a project:

+ The major item(s) should be identified and costed as project specific item(s);

+ The relevant Functional Unit furniture and equipment rate(s) should be reduced to an appropriate administrative or clinical rate (to allow for general items).

501522 680 .92.00 It is recommended that the following be regarded as project specific items:

+ Window furnishings;

+ Artwork;

+ Information technology;

+ Communications (PABX, paging etc);

+ Furniture and equipment commissioning - tendering, receiving, storing, distributing cleaning, testing and pre-occupancy security.

501523 680 .93.00 In all cases project specific items of equipment should be listed separately on the budget submission.

Transfer Items

501524 680 .94.00 The furniture, fittings and equipment budget guideline rates have been calculated for greenfield projects where equipment is not transferred from existing facilities.

501525 680 .95.00 The impact of transferred items is very project specific. The value of transferred items varies across projects and across departments from 80% of the 'greenfield value' where most required furniture, fittings and equipment is to be transferred, to less than 10% where most required furniture, fittings and equipment is to be purchased.

501527 680 .96.00 At PDP stage the Health Service, in conjunction with Area staff, should evaluate whether existing equipment for each department is appropriate for transfer. The budget should then be adjusted accordingly after allowing for refurbishment and transfer costs.

501528 680 .97.00 All transferred items should be included in the detailed furniture, fittings and equipment lists prepared for Cost Plan C Stage

General Items

501529 680 .98.00 At Cost Plans A and B stages, a square metre rate should be included for window furnishings, artwork and the like.

501530 680 .99.00 At Cost Plan C and D stages, an allowance should be included for window furnishings, artwork and the like based on a measured or quoted estimate of the requirements.

501531 680 .100.00 MAINTENANCE

The cost of maintenance is generally excluded from the quoted rates and should be allowed for as an operating budget item.

Contingency Sum

501532 680 .101.00 At Cost Plan A and Cost Plan B stage, an allowance should be included for contingencies based on 5% of the tabulated equipment budget.

501533 680 .102.00 At Cost Plan C and Cost Plan D stage, an allowance should be included for contingencies based on 2% of the tabulated equipment budget.

FF&E / Building Budget Delineation

501534 680 .103.00 It is necessary to clearly define which fittings and equipment are included in the Building Cost and which are FF&E Costs, in order to clarify the responsibilities of the consultants and the users and to prevent duplication and oversights.

For budgeting purposes, at least through to Schematic Design, (Cost Plan C Stage), furniture, fittings and equipment should be classified as either Group 1 (ie Contractor to Supply and Install) or Group 3 (ie Client Supply and Install).

501535 680 .104.00 Adjustments as to who actually supplies and installs furniture and equipment can be made in the Design Development Stage (Cost Control Plan D). This may require consequential adjustments to Building Cost and furniture and equipment budgets.

501536 680 .105.00 FF&E items may be included as part of the Building Cost where they:

+ Require services connections or are required to be built in and fixed;

+ Are mobile or loose, but are associated with items to be connected or built in to ensure compatibility eg bain-maries;

+ Are interchangeable between groups, especially where building design may be affected eg storage, shelving or compactus.

STANDARD FF&E ITEMS

Standard FF&E Items and Requirements

503050 680 .106.00 Refer to Part C of these Guidelines for general requirements concerning fixtures and fittings that are fixed to, and part of, the building. These include considerations of ergonomics, human engineering, safety, security and infection control.

Requirements for particular FF&E items including workbenches, Staff Stations and Reception Counters are detailed.

501990 680 .108.00 A table has been appended to this Guideline that lists standard fittings and fixtures, and their generally applied group (classification 1, 2 or 3). These groups may vary for each facility, depending upon the procurement process and purchasing policies. Transfer items should be designated group 2 if they are to be installed in a new facility by the building contractor.

The database ID number corresponds to the ID number indicated on the Room Data Sheet.

Use of standard descriptions in all project documentation avoids confusion and enables coordination between facility planning teams, the project design and construction team and the commissioning team.

Performance Specification Pro Forma

500749 680 .109.00 INTRODUCTION

In order to take advantage of a competitive tendering process in the ordering of FF&E, an Outcome Performance Specification can be developed which includes all the requirements of an item. This specification is then issued to approved suppliers for consideration and the submission of a quotation.

500750 680 .110.00 Developments of Outcome Performance Specifications are a responsibility usually addressed by the Product Evaluation Panel.

500751 680 .111.00 It is important to ensure that all attributes are included so that suppliers only provide quotations on suitable models and types.

500752 680 .112.00 OUTCOME PERFORMANCE SPECIFICATION PRO FORMA

Some or all or the following specifications may be required depending on the item:

A. SIZE

+ Dimensions;

+ High position/Low position;

+ Operating weight.

500753 680 .113.00 B. SPECIAL REQUIREMENTS

This should include all the features that are required to ensure the item can perform at the required standard, with minimal risk to users eg safety, ergonomics, adjustability, mobility, stability, colour, swing of doors.

500754 680 .114.00 C. FINISHES

The type of material used in the product and the finishes can be most important for maintenance and infection control reasons. Ensure that finishes required to be impervious, waterproof, washable etc to meet special needs are identified.

500755 680 .115.00 D. WATER SUPPLY

This is particularly important for items such as sanitisers, sterilisers etc.

500756 680 .116.00 E. POWER

Request information on any power supply conditions required for the equipment.

500757 680 .117.00 F. WASTE

Strict requirements of the EPA make it very important for Health Service

Management to consider waste implications.

500758 680 .118.00 G. CONTROL SYSTEMS

The configuration and accessibility of any control systems required to ensure a work area is functional should be considered for all relevant equipment items.

500760 680 .119.00 H. COMMISSIONING AND CLIENT TRAINING

A thorough commissioning and training program should be specified to suit the type of equipment.

OHS legislation requires designers, manufacturers/suppliers to provide information on the safe use of equipment and any risks associated with that equipment.

Client training should:

+ Include safe operating procedures and work practices;

+ Be conducted over several sessions so that employees who work on night shift and weekends can attend;

+ Include all staff who will have some role with the equipment, eg nurses, cleaners, maintenance personnel, porters, volunteers.

Client training and education should be provided over at least two (2) sessions with the option to call trainers back to the site if required for further consultation. Preferably two persons should be designated as in house trainers to ensure continuity and consistency of training new staff.

A complete service manual should be provided that includes all operational, maintenance, safety and technical information as well as a contact list for service and operational issues. The manual should be easily accessible to staff on all shifts.

500761 680 .120.00 J. MAINTENANCE SERVICE CONTRACT

Tenderers should include the option of a fully quantified and explanatory Maintenance Service contract to suit the complexity and the value of the equipment. Advice should be sought on this matter from Asset Management within the Area Health Service. For major items of equipment eg X-ray machines, pathology processors, etc it may be appropriate to negotiate a 5 year maintenance agreement at the time of tendering for the main equipment. It may be substantially more costly to do so at a later date.

500762 680 .121.00 K. ASSOCIATED EQUIPMENT AND SUPPORT SYSTEMS

Tenderers should be requested to include a complete list of all supporting engineering or other systems, and consumable items that are required to commission and maintain any equipment. This may include compressors, water filtration systems, filters, back-up systems, chemicals, etc.

950 OPERATIONAL COMMISSIONING

INDEX

Description

500321 950 .0.10 INTRODUCTION

Preamble
Definitions
Objectives

PLANNING

Commissioning and the Process of Planning
Key Considerations
Commissioning Team
Commissioning Tasks
Commissioning Plan
Commissioning Program
Operational Policies and Procedures
Documentation During Commissioning
Staffing Strategies
Furniture, Fittings and Equipment
Bringing the New Building into Use
Public Relations
Risk Analysis and Management
Post Occupancy Evaluation

APPENDICES

Glossary of Terms
References and Further Reading
Checklists
Sequence of Activities

INTRODUCTION

Preamble

501121 950 .1.00 This Guideline is based on the Guideline for the Commissioning of Health Facilities for the Queensland Health Department prepared by GHAAP at the University of NSW. The Queensland document has been substantially altered to suit NSW Health Department requirements.

501122 950 .2.00 This Commissioning Guideline has been prepared to assist the health facility capital planning and development of projects undertaken by NSW Health. It has been developed in line with other NSW Health Guidelines and will need to be read in conjunction with them. Refer to other sections of these Guidelines for further information regarding FF&E, Service Planning and Operational Policies.

It is expected that the principles described here will be useful for large and small projects, though the degree of structure and personnel involved will vary considerably.

Definitions

501132 950 .3.00 COMMISSIONING

There are two types of Commissioning:

+ Building Commissioning - completion for occupation by the contractor from a physical facility point of view such as successful running of all plant and equipment. This is managed by the Project Team.

+ Operational Commissioning - the preparation of a facility and its staff for commencement of operation such as equipping and familiarising of staff with facility operation. This is managed by the Commissioning Team.

This Guideline deals primarily with Operational Commissioning.

501657 950 .4.00 OCCUPATION

Occupation involves:

+ Preparation for the move at all management levels;

+ The physical move into the new facility;

+ Contingency plans for key items and emergency plans;

+ Defects and issues notification processes.

880026 950 .5.00 DECOMMISSIONING

Decommissioning is the process undertaken to secure vacated premises.

The process involves:

+ Isolating and capping all mechanical, electrical and plumbing services unless required for future use on the protection of the building;

+ Ensuring that all systems are protected by draining down and making secure;

+ Taking suitable measures to prevent the entry of birds, vermin, insects and vegetation;

+ Organising disposal of unwanted items in accordance with NSW Health policies;

+ Ensuring that all access points to the area are secured, and where necessary boarded-up, barring unauthorised entry.

Objectives

880004 950 .6.00 This document should enable planning teams to:

+ Understand the context within which the commissioning process takes place;

+ Describe the operations that will take place in every department or Unit and identify the staffing required, consistent with the recurrent budget and the business plan developed for the budget unit;

+ Describe the scope of the commissioning task and the time and activities to complete the commissioning process;

+ Describe the standards, procedures, systems and technologies to be used to achieve the commencement of operations;

+ Establish and identify ownership of the process with clear indications of roles and responsibilities of team members;

+ Describe the time and activities to complete the commissioning process;

+ Identify the management control procedures for commissioning;

+ Identify and clarify the handover and post-project evaluation procedures;

+ Undertake risk assessment and the identification of potential hazards and the required strategies to eliminate or protect against these hazards during commissioning.

Commissioning and the Process of Planning

501145 950 .7.00 The main phases in the evolution of a new facility are: service planning, brief, design, construct, commission and operate.

Refer to Part B for further information regarding the NSW Process of Facility Planning (POFP).

501147 950 .8.00 There is considerable interaction between these phases which includes planning the way the building will operate. This involves extensive consultation between users and designers, and coordination between the Project Team and the Commissioning Team. Refer to the attached Bar Chart.

501124 950 .9.00 The first step in the planning process is preparation of the Service Plan. The Service Plan identifies the service requirements. This may result in the need to consider capital solutions to a particular service need. If so the Department will approve proceeding to the Procurement Feasibility Plan (PFP) and Project Definition Plan (PDP) phases. These describe the service-related operations and physical characteristics of the Health Care Facility, ie the project brief.

This planning is undertaken prior to commencement of commissioning and knowledge of this is essential for the Commissioning Officer. The planning documents are usually referenced in the Commissioning Plan.

The Project Team is responsible for the design and construction of the facility in accordance with the project brief, to suit the operational policies determined at the PDP stage.

The Commissioning Team should be established during the design stage of a project and should liaise with the Project Team to prepare for occupation and operation.

Following handover from the contractor, the Commissioning Team will manage the occupation and initial operation activities.

The Commissioning Team will also be involved in the formal evaluation of the facility after a period of occupation ie the Post Occupancy Evaluation.

Key Considerations

501123 950 .10.00 Key considerations in commissioning include the following issues:

+ The process of commissioning a facility relates not only to the management of time, costs, supplies, equipment and the quality of buildings, but also to the management of people, systems and organisations to ensure that the facility is utilised effectively, and patient, staff and visitor safety is maintained.

+ Commissioning must be planned, considered and resourced as far in advance

as possible, as a separate but integrated entity within the overall project;

+ Key personnel should be involved throughout the whole project if possible;

+ Appropriate resources in staff, time and support must be allocated;

+ The Commissioning Plan will be based on operational policies and the design solution;

+ Operational Policy reviews and project outcomes may require implementation of a change management strategy;

+ Commissioning requirements must be incorporated in the tender documents, for example decanting strategies and staged building works;

+ Development of an open/agreed Communication Plan and document control system is required. This plan will encompass the various reviews required through the planning and building phases that should be conducted to ensure that project is developed in accordance with the Project Definition Plan.

+ The success of a project results from the co-operation of the users and their investment in the different processes. The OHS Act 2000 requires consultation with personnel at all levels. Operational Commissioning should not be attempted without consultation and user involvement.

Commissioning Team

501148 950 .11.00 The Commissioning Team is a multidisciplinary team that will vary depending on the stage and size of the project. For small projects, commissioning is usually managed by one or two people, with specialist input as required. On complex projects, roles will be undertaken by separate personnel.

There are four key roles in the commissioning process:

+ Commissioning Coordinator;

+ FF&E Coordinator;

+ Commissioning Engineer;

+ Departmental Commissioning Facilitator.

The Commissioning Coordinator will develop a list of team members required, based on their experience and the input needed to commission the Health Care Facility. This team will come together very early and determine their individual roles, requirements and time frame.

The Commissioning Team must represent the interests of all users of a facility. They must be accessible and willing to listen.

Input is required with regard to:

+ Nursing needs and patient care;

+ Senior medical staff activities and interests;

+ Accepting the engineering services and implementing a planned preventative maintenance program;

+ Supply of furniture and equipment as well as consumable supplies;

+ Design and project management to ensure close contact with the contractors

and advise on progress of the building work;

+ Health Department policies, procedures and procedures;

+ Administrative and secretarial assistance.

The core team members must have a good understanding of the project details and desired outcomes. It is essential that tasks are allocated to appropriate personnel and that they are adequately briefed.

The reporting structure for the Commissioning Team will follow those established for the project.

501150 950 .12.00 COMMISSIONING ROLES

COMMISSIONING COORDINATOR:

The major role in Operational Commissioning is that of the Commissioning Coordinator which covers two main areas of responsibility:

1. Management of the Overall Commissioning Process;

2. Management of the Operational Commissioning Activities.

On most projects, one person will be responsible for both these areas. On large projects, the areas of responsibility may be split between two or more people.

These responsibilities require attention to the following main tasks:

501151 950 .13.00 1. Management of the Overall Commissioning Process. The Commissioning Team will be required to:

+ Prepare and implement the Commissioning Plan for all services in conjunction with the Health Care Facility management and NSW Health;

+ Manage the commissioning process including convening and minuting meetings;

+ Coordinate and provide support for the departmental commissioning processes;

+ Provide advice in regard to, representation of, and communication with the facility's management regarding commissioning activities;

+ Program staffing needs required at the time of commissioning;

+ Determine and manage the commissioning budget.

2. Manage the Operational Commissioning Activities:

+ Establish the FF&E program;

+ Identify OHS hazard, risk assessment and risk elimination or control as required by legislation;

+ Determine Staff and manage relocation;

+ Assist with activity management;

+ Manage the Occupation Program - including confirmation that lead times are appropriate;

+ Define the defects liability period activities;

+ Establish staff training programs;

+ Determine Acceptance Criteria;

+ Ensure operational functioning of the facility;

+ Establish a feedback loop activity for QA;

+ Manage the preparation and sign off of the commissioning procedures.

503038 950 .14.00 Ideally this person should be involved in the project from its conception and have a clinical background. The Commissioning Coordinator will report directly, and have access to the facility's executive team. The Commissioning Coordinator is also the link between the Project Team and the Commissioning Team.

501152 950 .15.00 FF&E CO-ORDINATOR:

The FF&E Coordinator is usually a separate person to the Commissioning Coordinator, and should have purchasing experience.

The FF&E Co-ordinator will be required to:

+ Ensure that equipment specifications for the whole project are consistent with user group requirements;

+ Coordinate OHS assessments of new equipment in consultation with end users;

+ Establish lead times for delivery of major items, tendering requirements, responsibilities and contract arrangements;

+ Order FF&E and organising delivery, storage and installation;

+ Establish evaluation criteria for its acceptance;

+ Ensure consistency between what was planned for all spaces and what is ordered;

+ Ensure that any alternatives offered by the builder are reviewed against user evaluation criteria;

+ Ensure patient interface samples submitted by the builder are signed off;

+ Manage the provision of manuals and scheduling training for staff using the equipment.

The FF&E Coordinator reports to and is managed by the Commissioning Coordinator. Refer also to FF&E Guideline.

501153 950 .16.00 COMMISSIONING ENGINEER:

The role of the Commissioning Engineer is to become familiar with all the building services provided in the new facility.

The Engineer will then be required to:

+ Carry out regular surveillance inspections in order to deal with issues or

problems being experienced by other staff in critical or other areas;

+ Support the Commissioning Team in the occupation process;

+ Develop emergency policies and procedures for services for implementation upon occupation;

+ Plan for training and handover of plans and manuals etc;

+ Coordinate asset management documentation and processes for servicing, etc.

This role is usually undertaken by the Hospital Engineer.

501154 950 .17.00 DEPARTMENTAL COMMISSIONING FACILITATOR:

The role of the Departmental Commissioning Facilitator is usually undertaken at the departmental level. The Facilitator will be required to:

+ Develop a programme that will identify the duration of moves, establish interdependencies, identify dates of occupation and determine the duration of de-commissioning;

+ Establish departmental schedules for FF&E;

+ Prepare records for patient transfers;

+ Organise and arrange staff site inspections and plan staff training;

+ Prepare and monitor departmental activity check lists.

Commissioning Tasks

501140 950 .18.00 GENERAL TASKS

The main tasks in commissioning may be undertaken by one or more officers assigned with the delegated authority. Some of these tasks may be replicated from existing systems. They include to:

+ Establish the Commissioning Team - membership, roles, responsibilities and authorities, reporting;

+ Review the planning documents including the PDP, policies and procedures for the whole of service/facility as well as for the individual departments to determine, document and agree to the changes since sign-off and the processes for implementing the changes;

+ Develop a plan for the commissioning and occupation of the new building or areas;

+ Program the commissioning process for each main department or unit;

+ Manage equipment selection, trials, OHS assessment, procurement, delivery, storage, installation, testing, training and establish inventories - order times must be coordinated with the building programme to ensure that storage time is as short as possible, and that storage space is available;

+ Develop operational policies and procedures for the facility and groups of departments or functions, as a continuation of briefing and coordinated with services plans, so that all Commissioning personnel understand how the new facility is intended to function;

+ Determine job specifications and descriptions, and arrive at a detailed staff establishment;

+ Take over the building from the contractor, commence the maintenance program, effect insurances and establish security arrangements;

+ Ensure that the building contract has been carried out properly in accordance with the agreed design;

+ Participate in the process of defects identification and rectification;

+ Manage acceptance and operational testing of installations;

+ Work out documentation procedures, design and order stationery and processing equipment;

+ Obtain necessary licenses, certification and other statutory approvals and documentation;

+ Work out final details of supply systems and arrange supply and disposal contracts;

+ Develop emergency procedures for fire, explosion, disasters etc;

+ Prepare staff for occupation including orientation, recruitment and training;

+ Manage the process of occupation including relocation and decommissioning;

+ Organise and hold opening ceremony;

+ Start work, ie accept patients and initiate supporting services;

+ Monitor initial operation.

501144 950 .19.00 TASKS UNTERTAKEN JOINTLY WITH PROJECT TEAM

In coordination with the Design and Construction Team the Project Team is also required to:

+ Provide signage such as directional and information signs. Refer to Part C of these Guidelines;

+ Determine a system for Room Identification - this may be different from the one used during construction and may be altered to suit operational policies or asset management systems; this should be resolved early to assist with placing equipment and defects management;

+ Establish security systems including keying electronic access control systems (including lifts), CCTV systems, duress alarms, patient wandering systems and alarm management and responses;

+ Selection of interior design elements including artwork, fabrics, window treatment, privacy screens, paint colours, floor coverings, furniture types.

Commissioning Plan

501126 950 .20.00 INTRODUCTION

The Commissioning Plan provides a framework within which the process and activities of commissioning are determined.

These activities must be properly planned.

880011 950 .21.00 CONTENT

The Commissioning Plan should address the following:

+ Physical Activities Programme - the identification, sequence and duration of all activities required to bring a Health Care Facility into operation. It should include post-occupancy activities. It is closely linked to the building programme and must be regularly reviewed and updated;

+ The time line, milestones and critical path from this programme are the key information required throughout the operational commissioning process. In many cases contingencies are required if milestones are not met. Communication is essential;

+ Organisational & management structure - outlining the activities required to make the Health Care Facility operational, and responsibilities for planning and commissioning activities. Responsibilities and coordination processes are established;

+ Operational Policies - detailed policies and procedures for the facility as a whole and for each department as it is expected to operate at the date of occupation. Policies outlined in the PDP shall be reviewed;

+ Human Resources strategies - including staffing estimates; appointments; transfers; recruitment; deployment and training. It includes staff orientation, OHS and industrial relations issues;

+ Communication Plan - this should follow the project planning / commissioning team structure and include frequency, content and form of communications, contact lists and processes, external agencies and community liaison / profiling etc. There may be a number of sub-plans dependent on the target audience;

+ Furniture, Fittings and Equipment activities - includes trials, OHS assessments, user investigation, source of funding, capital budget allocations, scheduling, purchasing, commissioning, training & documentation;

+ Occupation activities - includes cleaning, testing, fitout, occupation by staff and patients, relocation activities, stocking and commencement of operations;

+ Decommissioning of previous facilities;

+ Budget allocations - addressing both capital and recurrent budgets. This will identify what will be purchased from which budget; an agreed allocation of funds from the capital budget for FF&E; the breakdown per various departments; organisational-wide budget allocations eg signage, window treatments, artworks, landscaping, contingency and cash flows;

+ Risk Management - identifying major potential risks, establish contingencies, identify what will be done to minimise the risk of disruption occurring and nominate possible actions for correction.

The extent of documentation will vary with the complexity of the project.

Commissioning Program

501155 950 .22.00 Programming is fundamental to successful commissioning. This role shall be assigned to a member of the Commissioning Team. A specialist programmer may be appointed for complex projects.

501156 950 .23.00 PROGRAMMING CONSIDERATIONS

The team's first task is to determine what has to be done and in what time frame.

The commissioning program must be coordinated with the construction program. An accurate and detailed timetable is required showing the sequence of activities and the critical path.

The communication strategy for the Commissioning Team should be developed and implemented so that all members of the project and commissioning teams are informed of project requirements and work to the same timetable.

Program dates should be achievable and have sufficient contingencies to allow the facility to open on the planned date. Changes to the program must be identified and appropriate action taken.

Operational Policies and Procedures

501170 950 .24.00 DEFINITION

Refer to Part B of these Guidelines for a discussion of the Relationship of Operational Policies to the Facility Design Process.

Operational policies must be established for the whole facility.

Operational policies can be defined as a statement of the objectives and the principal functions for each department. They outline the eventual operational system for the department.

Operational policies will determine what equipment should be obtained, how each staff member will be deployed, and what standard of service will be provided to patients. Significantly, they will also affect the running costs of the facility, and will clarify managerial responsibility.

501161 950 .25.00 OPERATIONAL CHANGE

New developments provide the opportunity to introduce operational changes. This may vary from changes to development of new operational procedures in one department or unit to implementation of significant new management approaches.

There may be considerable resistance to this change from some existing personnel. Therefore change must be carefully planned, documented and its implementation managed.

501165 950 .26.00 REVIEW OF OPERATIONAL POLICIES

The Health Care Facility will have been designed and constructed to suit expected operational policies determined at the briefing stage.

The original assumptions about how a service was to be managed and function may have changed during subsequent stages. The commissioning team must document and review all of the operating expectations.

Where possible, those personnel involved in the development of these policies should be involved as part of the commissioning team.

The implications of changes may require adjustment to construction, staffing or budgets.

Once a facility opens, there must be an embargo on physical changes to design for a period of 12 months, except where obvious errors or unacceptable risks are evident. After this period, a review of the effectiveness of operational systems can be undertaken.

880114 950 .27.00 WHOLE HOSPITAL POLICIES

Whole hospital policies are system wide policies that describe the operation of a facility as a whole. These are usually part of an overall Area approach, are multi-departmental concerns and usually require decisions from a management team having a wide representation.

These policies form the framework of the facility's organisation within which the working of each department can be defined. These include:

+ Facilities Management;

+ Supply services;

+ Catering;

+ Domestic service;

+ Laundry, linen and uniforms;

+ Public relations;

+ IT and communication systems;

+ Transport - both internal and external;

+ Personnel and human resources.

501179 950 .28.00 DEPARTMENTAL POLICIES

Departmental Policies include:

+ Philosophy of the service - eg the model of care, the functions and the relationship to standards;

+ Utilisation - services provided;

+ Design considerations;

+ Internal departmental flows - goods and people;

+ Applicability of whole hospital policies.

501180 950 .30.00 OCCUPATIONAL HEALTH AND SAFETY

Refer to Part C of these Guidelines.

The OHS Act has implications for the consultation processes undertaken during operational commissioning (including policy and procedure development).

Any OHS risks associated with commissioning or decommissioning, eg security, noise, dust control, asbestos removal, manual handling, must be identified,

assessed, eliminated or controlled.

Documentation During Commissioning.

880123 950 .31.00 DOCUMENTING POLICY AND PROCEDURES MANUALS

The Operational Procedure and Policy Manuals will reflect best practice and should be consistent with the other facility documentation to become part of the Quality Assurance documentation. This will also ensure a commitment to using and maintaining the documents as changes in policy occur.

Good documentation enables procedures and policies to be consistently implemented over time and with changing personnel.

880124 950 .32.00 Procedures and policies should take into account that the physical arrangement of Health Care Facilities may not correspond to management structures. This may also impact on commissioning processes.

502234 950 .33.00 USING THE WORKING GROUPS

Policies and procedures should be developed in conjunction with working parties representing each department or Functional Unit. These policies and procedures may require endorsement by the Commissioning Team and senior management may need to determine matters of policy.

502235 950 .34.00 PROCEDURES MANUAL OUTLINE

A Procedures Manual should include:

+ A brief summary of the original (or revised) Operational Policy;

+ An outline of the main functions of the department, including where appropriate:

- Services to be provided, including any specialised work;

- Normal hours of work;

- On-call and emergency arrangements;

- Predicted workload and target standards;

- Specialised items of equipment, where these have a large impact on the main functions of the department;

- Services which will be provided by other facilities.

+ Organisational structure, including lines of accountability within the hospital as a whole as well as within the department;

+ Costed staffing structure;

- Proposed grading and numbers of staff (managerial, supervisory and operational);

- Proposed deployment of staff over each shift;

- Other staff requirements.

Note: for large departments, it may be preferable to show the staffing structure as an appendix to the manual.

+ Budgetary arrangements; showing an outline of the main components of the department's budget;

+ Relationships with other departments;

+ Departmental information systems for collecting information about patients, staff or finance and the software systems to be used - generally whole of facility policies and include consideration of:

- Use of Picture Archiving Communication System (PACS);
- 'Paperless' approach;
- Telecommunications;
- Methods of staff and patient education;
- Security of information;
- Roles and responsibilities for staff using these information systems;
- Training needs;
- Management systems.

502226 950 .35.00 ISSUE OF MANUALS

Manuals should be published as the policies are developed. Additions and alterations will be inevitable as operational systems are never static.

880147 950 .36.00 USING THE MANUALS

A large number of manuals will be produced, representing a substantial investment in time and resources. These should cover all management and departmental systems.

These manuals will form the basis for training staff to operate the hospital as it has been planned.

They will include instructions for operating equipment, and health and safety procedures.

The Commissioning Team must program and manage production of the manuals. The implementation of these will impact on the efficiency of the hospital and the satisfaction of its staff and its first patients.

Staffing Strategies

501181 950 .37.00 ASSESSMENT OF REQUIREMENTS

The planning of new facilities and assessment of recurrent costs including staffing, is made at PFP and PDP stages. This is a considerable length of time ahead of actual occupation.

A review of this and assessment of staffing requirements at the occupation date needs to be undertaken as part of the Commissioning Plan.

In assessing the staffing establishment for a facility, it is important to consider the operational management structure as a whole and then look at staff deployment.

Calculations of staffing requirements should be as accurate as possible for the Commissioning review. This involves relating workload and patient dependencies to the actual numbers and categories of staff required compared with the funding available.

Different strategies will be required depending on the outcome of the staffing review. These may include issues of staff retention, recruitment, orientation and training.

501186 950 .38.00 CONSIDERATIONS

New staff recruitment and training, existing staff reorientation and in-service education should be undertaken well in advance of the intended occupation date.

Close liaison with counselling services and support for key staff in their working groups, will be essential to manage change.

A new development can lead to staff insecurity. The personnel policy must be determined as early as possible.

Staff must be kept informed on all aspects of a project and the effect of the project on them personally. This can be undertaken through discussions and news bulletins.

Adequate support for staff during operational change must be provided.

Issues of industrial relations, OHS and matters of redeployment and retraining must be addressed and resolved.

The recruitment of staff needs to consider:

+ Recruitment procedures required;

+ The availability of potential staff;

+ Time taken to fill positions.

Furniture, Fittings and Equipment

501190 950 .39.00 The equipping process is outlined in the separate Furniture, Fittings and Equipment Guideline.

Bringing the New Building into Use

501191 950 .40.00 PLANNING

Detailed commissioning plans must be developed for each department or area within a facility. The plans are developed in consultation with the end user managers and providers of support services. The plans will be based on the day-to-day activities, tasks and roles of all personnel involved in the department and required to bring it into operation.

The Commissioning Team and other relevant personnel should review the Commissioning Plan prior to occupation on a weekly or even daily basis. The

occupation program must be committed to and signed off.

501192 950 .41.00 OCCUPATION

At occupation, all key supervisory staff should be appointed, initiated and instructed in the working methods to be adopted, then briefed on their implementation.

The progression from occupation to operation requires a considerable amount of planning and work. The time required will vary according to the size and nature of the facility. Sufficient time must be allowed for trial runs and overcoming inevitable challenges.

Operational managers should be aware of and involved in attending to items outstanding at handover.

Staffing strategies must be in place.

Furniture, fittings and equipment should be on site ready for placement.

Arrangements should be made for supply of consumables.

The facility must be cleaned to a standard fit for operation. This is usually a higher standard than the Builder's clean at handover.

Required testing of services and for contamination must be undertaken.

Public Relations

501197 950 .42.00 COMMUNICATIONS PLAN

Development of a new facility will generate a degree of interest in the community and among staff. Closure of existing facilities may create negative reactions. Provision of an effective Communications Plan and public relations strategy is an important part of the commissioning process. This may be managed by the Commissioning Co-ordinator or by specialist Public Relations personnel.

Communications with the staff is equally important. Staff are significant players in what is presented to the public. They should be routinely given correct information about the project, which is consistent with that being provided to the public. Site visits may be arranged.

501199 950 .43.00 STRATEGIES

The aim should be to build up local interest in the new project to a peak to coincide with opening day. Publicity may include suitable articles and photos published in the local and national press, talks to local societies and organisations, exhibitions of plans and models of the new buildings.

Public awareness can be stimulated by open days, held once equipment and furniture are in place. A descriptive leaflet or brochure can be produced describing the services to be offered to the community and how they should be accessed.

Publicity activities should be programmed to coincide with key milestones in a project such as:

+ The announcement of approval to proceed;

+ Turning of the first sod;

+ Topping out of the building;

+ The handover of the building;

+ The official opening.

Close contact should be made and maintained with interested professional bodies, local authority services, and local medical organisations. This may also help with staff recruitment. General practitioners should be encouraged to participate in activities of the facility. The help of voluntary services may also be enlisted. There will be a range of individuals, community service organisations and special interest groups that have direct involvement with the facility and they need to be kept informed of progress and changes of service. It is important to list these to ensure that a structured information flow is maintained.

Information being prepared and released must be correct and consistent. Policies for image, graphics, and the written style should be established. Contradictory or other negative information must be avoided. If there is doubt about some issue, or a choice is yet to be made, this should be made clear.

Where previously published information changes or is updated, this should also be publicised as widely as possible.

502326 950 .44.00 OPENING CEREMONY

The timing of the opening ceremony needs to be considered. Holding it prior to occupation of the facility allows the media, staff and visiting dignitaries to see the area without disrupting the operation of the Unit or privacy of the patients.

Timing the ceremony for after commencement of operations allows the guests and dignitaries to see the facility in operation and to meet patients. The date should be fixed well in advance, particularly if it is intended to invite a VIP to perform the ceremony.

An appropriate budget should be established, any special arrangements made and approvals obtained eg traffic changes such as road closures.

Risk Analysis and Management

501204 950 .45.00 GENERAL

Risk Management strategies should be included in both the Commissioning Plan and timetable. They should be developed in consultation with the project team, contractor, end users of the facility and other support personnel.

501205 950 .46.00 TYPES OF RISKS

Many health care organisations are concerned with the potential financial impact from risks associated with the development of a new facility. Documentation of a Risk Strategy should reflect the risk assessment developed at the preliminary planning stages.

Consideration should have been given to the financial risks resulting from a 'poor investment' regarding the project as a whole, through the procedures involved in evaluation of the PFP. There is also an evaluation of the risks associated with poor contractor performance and claims related to such things as errors and omissions, delays etc, during the design and construction phases. These are

covered using normal construction and project management procedures.

Commissioning risks include:

+ Cost over-runs for the commissioning itself;

+ Excessive budget allowances for recurrent costs after opening;

+ Legislative changes that impact on staffing or operations, public liabilities etc;

+ Failure in design, which might affect Occupational Health and Safety matters, patient safety etc;

+ Poorly developed Operational Procedures that lead to problems with infection control, patient safety etc.

502327 950 .47.00 MANAGING RISKS

The aim of the Risk Management Strategy is to identify the areas of potential risk and to prepare a plan of action for addressing these. Often the very act of doing this can prevent a risk being realised. The Strategy will be revised as new risks become evident and earlier risks eliminated. The Commissioning Team members should be aware of how to report potential risks and should be encouraged to report potential risks even if they are not likely to occur immediately.

Legal implications, which could arise from the proposed work practices for a facility, can be reduced by using the opportunity of a new development to review all policies and procedures and to use the Operational Procedures documentation to provide a basis for assessing risk. A 'legal audit' can provide a comprehensive assessment of risk.

OHS Regulation requires OHS hazard identification, risk assessment and risk elimination or control. Local actions such as conducting ergonomic evaluations of specific work spaces and simple corrections can reduce claims by staff for injury.

Post Occupancy Evaluation (POE)

501210 950 .48.00 GENERAL

Refer to separate Post Occupancy Evaluation Guideline.

Evaluation of the operation of the facility in relation to the original brief, the planning policies and the design helps identify both successes and deficiencies in the building and its operational systems and provides valuable feedback for future projects. A POE is not an exercise in fault finding. It is a recognition that many decisions have been made along the way to the completed facility with varying success.

501212 950 .49.00 OUTCOMES

A POE study should reveal:

+ Deficiencies in the design that can be remedied fairly easily;

+ Where previously accepted design principles are giving trouble in practice;

+ Design features that have proved to be expensive in terms of running costs;

+ Where accepted design principles are working well.

502238 950 .50.00 USE OF RESULTS

The results of a POE will be used to:

+ Reassess the design principles and space provision proposed in the Health Facility Guidelines;

+ Identify issues that require further research or expert input;

+ Promote clearly successful solutions in future projects;

+ Avoid expensive errors or mistakes that compromise functionality or efficiency in capital works projects.

PLANNING

Operational Policies and Procedures

880115 950 .29.00 DEPARTMENTAL PROCEDURES

Departmental procedures describe the way an individual department will operate. The activities of one department may impact on other departments. This must be addressed in the procedures.

Successful implementation of procedures requires acceptance and commitment from all affected personnel. This can be achieved through consultation and involvement in their preparation.

APPENDICES

Sequence of Activities

503039 950 .

Glossary of Terms

880068 950 .51.00 The following section provides definitions for some key terms used in this Guideline.

ACTIVITIES PROGRAMME

Displays the complete time frame of the project and the relocations of the departments in a staged strategy.

This may also be displayed in the form of a Gantt Chart and identifies, in sequential order, the relocation of departments and the 'lead time' allocated.

COMMISSIONING

The term used to describe the preparation of a building, plant, equipment and personnel to a state of readiness for occupation and operational use.

COMMISSIONING STRATEGY

Describes all the activities that must be planned for the complete process of commissioning.

DATE OF TRANSFER

The actual date that a department will move into the new building.

DECOMMISSIONING

The process undertaken to secure vacated premises.

COMMISSIONING LEAD TIME

The period of time required, between the handover of the building to the hospital by the Contractor, and the date of occupation.

OPERATIONAL STRATEGY

The term Operational Strategy has two components.

+ The Services Plan - describes the services to be provided on a State or area wide basis;

+ The Development Plan - describes the service related operations and capital characteristics of the facility.

DEFECTS LIABILITY PERIOD

Period of time from occupancy during which time faults / defects in the building or fixtures are identified, reported and repaired by the contractor.

PRACTICAL COMPLETION AND HANDOVER

The date of handover of the building or part of the building to the hospital by the contractor and from which point the defects liability period starts.

References and Further Reading

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880064 950 .52.00 Capital Works Guideline (1997) Capital Works & Assets Management Branch, Asset Management Unit, Queensland Health Department, Brisbane.

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Checklists

880208 950 .53.00 A List of Activities for Inclusion in a Commissioning Plan is included as an attachment to this document.

Sequence of Activities

880153 950 .54.00 A Matrix outlining a sequence of activities for commissioning is attached to this document. It is a simplified version of a British approach to commissioning and sets out the timing and sequence of activities. It assumes a large project, with a high degree of complexity and a 2-3 year period of building construction. A phased handover of some facilities such as mechanical plant is incorporated.

The work involved is divided into seven 'streams':

1. Planning and building;
2. Management;
3. Equipping;
4. Staffing and training;
5. Operational methods;
6. Phasing;
7. Public relations.

OPERATIONAL COMMISSIONING – SEQUENCE OF ACTIVITIES

Stream Time	1. PLANNING AND BUILDING	2. MANAGEMENT	3. EQUIPPING	4. STAFFING AND TRAINING	5. OPERATIONAL METHODS	6. PHASING	7. PUBLIC RELATIONS	Time
3yrs	**Briefing and Design Period** Requirements Site Selection Development Plan Drawings & Specs Tenders & Contract Building starts	Business Case Operational policies Recurrent cost estimate Staffing establishment Equipment policies	Preliminary equipment lists and costs Room data sheets	Appoint hospital engineer as site engineer	Development operational principles and policies in conjunction with building and equipment design	Commission engineering services progressively during construction	Project described in press	3yrs
2yrs	Building in hand	Equipping initiated Commissioning team appointed Administrator appointed DON appointed	Detailed equipment lists and costs Equipment selection or design Obtain quotation	Establish nurse training program			Community consultation meetings and news bulletins on activities	2yrs
1yr	Hand over engineering plant	Project team briefs commissioning team Approve staff numbers Approve equipment costs	Initiate orders and receive equipment for early phases	Prepare induction and training courses Appoint CSSD supervisor, assistant administrator and assistant director of nursing	Initiate detailed operational policies as basis for operational manuals and induction courses	Boiler plant working	Progress reports in local press Exhibition of plans and models	1yr
½ yr	Hand over some office accommodation for temporary offices Hand over temporary storage area Snag lists	Initiate medical staff appointments Review program for hand-over (transfer) date	Continue orders for later phases Store equipment as necessary Complete equipment ordering	Prepare staff appointment program Prepare advertisements Appoint department heads Initiate training programs	Review stationery and form design 1st editions of operational manuals	Temporary feeding arrangements Temporary equipment store in use	Progress reports in local press Plan publicity Initiate descriptive brochure	½yr
¼yr	CONTRACT COMPLETION HAND-OVER MAIN BUILDINGS	Plan initial cleaning program	Equipment deliveries completed Equipment labeling and placing	All department heads in post Appoint portaging staff	Initial cleaning programs initiated	Occupancy of departments start	Initiate recruitment publicity campaign Initiate planning for official opening	¼yr
1mnth	Start of defects period		Equipment tests and demonstrations Equipping complete Start issuing stores	Appoint nurses and nursing auxiliaries	Initial cleaning completed Complete and publish operational manual addenda	All departments occupied	Appoint publicity officer Plan arrangements for visits	1mnth
TRANSFER day		Inform outside authorities Trial runs Dedication		Appoint medical officers Complete appointment of ancillary staff Review establishment		All supporting departs in operation. 1st Ward opens.	Open day or days Local and national press viewing	TRANSFER day

6mnth	Defects schedule Final completion	Evaluate commissioning programs	Equipment evaluation	Continuation courses	Evaluate operational policies	Wards opened progressively	Official opening (at least 8 weeks after 'T' day)	6mnth

ACTIVITIES FOR INCLUSION IN A COMMISSIONING PLAN

A. MANAGEMENT AND PROGRAMMING

1. Prepare commissioning program.
2. Integrate with construction program.
3. Consider need for early availability of sections of the new building eg residential accommodation, supply centre, space for storage of equipment etc., in time to include instructions in the building contract.
4. Coordinate provision of off-site services.
5. Coordinate various commissioning 'streams':
   - 5.1 Operational procedures;
   - 5.2 Staffing;
   - 5.3 Equipping;
   - 5.4 Public relations;
   - 5.5 Engineering services;
   - 5.6 Opening ceremony;
   - 5.7 Cost control.
6. Prepare detailed timetable for movement of equipment, staff and patients into the new building and coordinate with associated activities.
7. Inaugurate supporting and primary services:
   - 7.1 Engineering;
   - 7.2 Cleaning;
   - 7.3 Supply and disposal;
   - 7.4 Catering;
   - 7.5 Clinical.
8. Trial runs.
9. Receive patients.

B. OPERATIONAL PROCEDURES

1. Discuss operational policies with project team:
   - 1.1 Clinical services;
   - 1.2 Hotel services;
   - 1.3 Engineering services.
2. Develop operational policies and prepare detailed operational procedures and methods of working.
3. Prepare procedure manuals for staff training, planned preventative maintenance etc.
4. Advise on selection of equipment.
5. Coordinate procedures with general practitioners and other local authority services as appropriate. Build up integrated hospital and domicilliary services.
6. Prepare initial cleaning program.
7. Induction of supervisory staff.
8. Inaugurate planned operational procedures.

C. STAFFING

1. Review provisional estimates with regard to revenue costs.
2. Prepare recruitment program.
3. Submit proposals to health authority.
4. Finalise appointment program.
5. Prepare training, reorientation and 'back to nursing' courses, in liaison with local authorities and organisations.
6. Consult with labour/industry and productivity departments and trade unions as necessary.
2. Appoint supervisory staff and arrange induction course.
3. Appoint and train other staff according to program.

D. EQUIPPING

1. Check preliminary equipment list and estimate cost.

3. Assess existing equipment available for transfer.
4. Revise list and specify new equipment to meet detailed operational procedures.
5. Conduct OHS Assessments of new equipment in consultation with potential end users representatives.
6. Consider means of variety reduction of equipment types and models.
7. Obtain comparative quotations for equipment types.
8. Select equipment types.
9. Submit proposals to health authority for approval.
10. Place equipment orders.
11. Receive, check, label and store equipment.
12. Arrange equipment maintenance contracts.
13. Arrange supplies contracts - types, quantities, delivery.
14. Distribute equipment to places of use.
15. Test equipment in position where necessary.
16. Prepare inventories of final equipment placements.

E. PUBLIC RELATIONS

1. Press reports, infrequent at first building up to maximum publicity for recruitment.
2. Arrange talks to local societies, schools etc.
3. Prepare descriptive brochure.
4. Staff recruitment drive.
5. Exhibition of plans and model.
6. Open days for public viewing.
7. Organise arrangements for group visits.
8. National and local press days.
9. Official opening (post-transfer of patients).

F. PROGRAMMED TRANSFER FROM OLD INTO NEW BUILDING

1. Finalise plans for phased handover, if any.
2. Programmed build-up of off-sited services.
3. Assess and program run-down of 'old' inpatients prior to move.
4. Program phased transfer, security requirements, and removal arrangements.
5. Assess need for additional (temporary) staff during phased transfer.
6. Review and program future use of vacated buildings.
7. Organise temporary communications to maintain services (if needed).
8. Assess need for suspension of outpatients clinics (1 day).
9. Transfer inpatients.
10. Resume normal service from new hospital.