



# Part B - Health Facility Briefing and Planning

# **610 REHABILITATION INPATIENT UNIT**

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# **INDEX**

610.0.10	INDEX	1
	INTRODUCTION Preamble Introduction Policy Framework Description of Unit	2 2 2 3 4
	PLANNING Operational Models Planning Models Functional Areas Functional Relationships	9 9 10 11 15
	DESIGN Access Parking Disaster Planning Infection Control	16 16 16 16 16
	ENVIRONMENTAL CONSIDERATIONS Space Standards and Components Safety and Security Building Services Requirements	18 20 21 22
	COMPONENTS OF THE UNIT Standard Components Non-standard Components	25 25 25
	APPENDICES Schedule of Accommodation Functional Relationships Checklists Further Reading References	27 27 30 32 32 33





# INTRODUCTION

#### **Preamble**

#### 610.1.00 PURPOSE OF GUIDELINE

This Health Planning Unit (HPU) has been developed for use by project staff – architects, planners, engineers, project managers and other consultants, and for end users, to facilitate the process of planning and design.

It is intended to assist with the planning and design of units that will be fit for purpose in accordance with designated service delineation / capability and defined catchment population.

610.1.05 It is a new HPU written for Australasian use in 2009. Its development informed by an extensive consultation process.

#### Introduction

#### 610.2.00 GENERAL

This HPU outlines the specific requirements for the planning and design of a Rehabilitation Inpatient Unit.

- 610.2.05 It should be read in conjunction with the Australasian Health Facility Guidelines (AusHFG) generic requirements including Standard Components described in:
  - Part A: Introduction and Instructions for Use;
  - Part B, Section 80: General Requirements;
  - Part B, Section 90: Standard Components, Room Data and Room Layout Sheets;
  - Part C: Design for Access, Mobility, OHS and Security;
  - Part D: Infection Prevention and Control; and
  - Part E: Building Services and Environmental Design.
- This HPU should be read in conjunction with HPU 140 Rehabilitation / Allied Health Unit which describes the preferred therapy facilities to ensure appropriate integration of ward and therapy areas.

It is also recommended that it be read in conjunction with *HPU 340 - Inpatient Unit* as there are many areas of similarity.

#### 610.2.15 REHABILITATION MEDICINE

For the purpose of this HPU, the Australasian Faculty of Rehabilitation Medicine (AFRM) definition has been adopted:

"Rehabilitation Medicine is that part of the science of medicine involved with the prevention and reduction of functional loss, activity limitation and participation restriction arising from impairments, the management of disability in physical, psychosocial and vocational dimensions, and improvement of function...and involves the prevention, assessment, management and medical supervision of a person with disability until that person has attained an adequate and appropriate level of performance" (Australasian Faculty of Rehabilitation Medicine 2005).

The Rehabilitation Inpatient Unit and associated therapy areas provide a multidisciplinary service with a clinical intent, or treatment goal, to improve the functional status of a patient with an impairment, disability or handicap. Services are





time limited and goal oriented in accordance with the World Health Organisation International Classification of Functioning, Disability and Health (ICF) available at <a href="http://www.who.int/classifications/icf/en/">http://www.who.int/classifications/icf/en/</a> (World Health Organization 2001).

# 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; and
- advances in technology have developed techniques which will ultimately become routine aspects of rehabilitation. Such developments include kinematic analysis, electromyography and ergometry.

# **Policy Framework**

#### 610.3.00 GENERAL

Policies for the provision of healthcare services are formulated in accordance with the following principles:

- appropriate service models that ensure a comprehensive service network throughout state and regional health jurisdictions;
- safe and effective care that minimises both staff and patient risks;
- deployment of resources in a fair and cost effective manner to optimise health outcomes:
- development and support for enhanced information systems to monitor, plan and evaluate healthcare services; and
- provision of a safe and efficient environment which minimises risk to all users of the facility.

# 610.3.05 DIVERSITY AND SPECIAL GROUPS

Policy frameworks recognise the diversity of our community and that particular groups within that community often require special consideration, to meet their needs and to enhance the effectiveness of any services provided. These groups include:

- Aboriginal and Torres Strait Islanders;
- in New Zealand: Maori and Pacific Islanders (NSW Health 2007a);
- people with physical disabilities including overweight and obese (bariatric)
   people, who may not necessarily be patients (NSW Health 2005a);
- people with sensory and cognitive disabilities;
- people from culturally and linguistically diverse backgrounds; and
- older people and the frail aged.

Refer to individual jurisdiction policies and service planning guidelines in the *References* section at the end of this HPU.

#### 610.3.10 OVERARCHING POLICIES

With regard to rehabilitation services, refer to Standards 2005: Adult Rehabilitation Medicine Services in Public and Private Hospitals (Australasian Faculty of Rehabilitation Medicine 2005). Refer also to the Commonwealth Disability Discrimination Act 1992 (Commonwealth of Australia 1992).





# **Description of Unit**

#### 610.4.00 DESCRIPTION OF REHABILITATION INPATIENT HEALTH PLANNING UNIT

Whilst a Rehabilitation Inpatient Unit shares some similarities with an acute medical or surgical inpatient unit, there are considerable areas of difference with regards to patients, staffing and unit operation that impact on facility needs:

- unlike general wards, where allied health staff though part of a multidisciplinary team frequently attend in a visiting capacity, many allied health staff working in rehabilitation will be permanent staff members. This will have an impact on space required for write-up, case discussion and handovers, and will increase the numbers of students in the unit;
- family members may (and are encouraged) to be involved in direct care, and trained to continue and supervise treatment after discharge. They may spend many hours in the unit. These carers will need access to overnight accommodation (patient bedroom or elsewhere) and a quiet retreat of their own. Accommodation for carers is of particular importance for patients from, and in, rural areas and also for female companions/carers for patients in particular cultural groups;
- independence and optimal functional recovery are promoted by facilitation of usual activity in a home-like environment. For example when able, patients are encouraged to dress in day clothes and to make use of day facilities for recreation when not undergoing therapy;
- 4. bedrooms and *en suites* may be used for therapy such as bed-to-chair transfers, early mobilisation and hygiene training; and
- 5. corridors may be used for both therapy (walking assessment) and general traffic; much of which could be in wheelchairs and/or patients using mobility aids.

#### **610.4.05** Facilities required may include:

- inpatient accommodation;
- therapy facilities: shared and discipline-specific, that may be used by inpatients and day/outpatients;
- consulting and interview rooms for medical clinics and individual assessments:
- consulting / interview rooms for allied health practitioners (psychologists, dieticians, etc) as indicated by the range of services provided;
- offices and storage for outreach teams;
- staff offices and write-up areas;
- staff amenities; and
- facilities for teaching and research.

Facilities may have enhancements over and above those listed above, subject to jurisdiction-specific service plans / needs.

#### 610.4.10 SPECIALIST UNITS

Specialist tertiary units generally only operate at a regional / state-wide levels and may comprise:

- acquired brain injury (ABI) units;
- burns rehabilitation units; and
- spinal cord injury units.

These units have specific facility needs generally outside the scope of this document, although non-specialist units may provide services to these patients if no specialised





unit is readily accessible. This will need to be determined as part of the service planning process to ensure that any additional facility needs are provided.

Some regions may also provide units specifically designed for geriatric rehabilitation which will impact significantly on facility needs.

Stroke services may be delivered by a dedicated team in a dedicated area within an acute inpatient unit, such as neurology, or by a mobile team, or both. Stroke units may provide early rehabilitation but are not defined as a rehabilitation unit. Patients may be transferred from the stroke unit to the rehabilitation unit once medically stable if further inpatient rehabilitation is required.

#### 610.4.15 UNIT DESIGN

Design of the unit should:

- provide a therapeutic environment that supports recovery and optimisation of independence and / or autonomy;
- in accordance with the service plan, provide a mix of single and multi-bed rooms with direct access to en suite showers/toilets, or individual shower and toilet compartments;
- provide at least some rooms sized to accommodate treatment space around the patient bed;
- enable flexibility in bed usage and arrange bedrooms to facilitate staff efficiency, meal relief, back-up staff assistance on routine or emergency basis, and optimise patient supervision particularly at night when staffing levels are lower;
- incorporate standardised unit and room layouts with unit design modified only where necessary on clinical grounds. This assists with rapid orientation of casual and visiting staff;
- be aesthetically pleasing to facilitate recovery and assist staff to perform the required activities in the most efficient and supportive environment;
- minimize the risk of error and accidents;
- maximise the use of natural light and views for patients and staff;
- balance requirements for observation versus privacy, clinical need, capital and recurrent budget considerations and acknowledgment of community expectations in considering the mix and number of one and multi-bed rooms;
- provide informal communication spaces (corridors or alternative locations) to promote collegial communication and support and enable clinical teaching and informal case discussions to be conducted without disturbing traffic flows, causing undue noise, or compromising patient privacy; and
- minimise staff travel distances for obtaining supplies and equipment.
- Where there is a significant proportion of older users, the provision of an age-friendly design which supports dignity and safety is suggested.
- **610.4.20** The design of the Rehabilitation Inpatient Unit should also provide the following:
  - full wheelchair access to all areas. Note that wheelchairs may vary in size to manage bariatric clients, or may be electric wheelchairs which have a different footprint size and need recharging;
  - door widths sized to accommodate mobility aids, trolleys and beds;
  - main corridors designed to allow passage of two patients in wheelchairs;
  - grab rails / hand rails in all areas including both sides of corridors;
  - ten metre corridor length for walking assessments (where achievable);
  - storage for equipment and mobility aids;
  - access to stairs for gait assessment and practising crutches. In single storey





buildings mobile steps may be required; and

- access to write-up areas and storage of resource material for visiting staff access to multi-terrain outdoor area for gait assessment and training.

#### 610.4.25 POPULATION PROFILE

The population of the Rehabilitation Inpatient Unit will comprise:

- patients;
- visitors;
- staff: clinical, non-clinical and support service staff;
- volunteers: and
- students, of varied disciplines.

# Visitors will primarily consist of family, carers and friends who may themselves - if aged – also have mobility impairments. Family and carers may be encouraged to be actively involved in the patient's care and visiting hours may be extensive therefore consideration should be given to areas for families to relax whilst the patient is undergoing therapy.

#### **610.4.35** There are four main groups of staff:

- unit-based staff that provide continuous care to inpatients;
- visiting staff that provide periodic or specialist care including outreach / community staff;
- support services staff, such as housekeeping, etc; and
- volunteers

#### 610.4.40 PATIENT CHARACTERISTICS

The following should be considered in the unit planning and design:

- average patient length of stay may range between seven days to three months,
   the average being 22 days (refer to Australasian Rehabilitation Outcomes Centre AROC for further details: <a href="mailto:chsd.uow.edu.au/aroc/whatisaroc.html">chsd.uow.edu.au/aroc/whatisaroc.html</a>.)
- services for children are excluded from this guideline;
- patient ages may range from sixteen years upwards;
- a large proportion of the unit population may be older or elderly patients with chronic conditions and co-morbidities, and with additional disabilities independent of the reason for admission, such as vision impairment and confused state requiring consideration in the individual unit design.
- it may be appropriate to differentiate between patients of working age and older patients, with regard to treatment goals, such as; return to the workforce or return to optimum independence in their home or a nursing home;
- patients may have a wide range of conditions and treatment needs, such as neurological disorders, amputees, orthopaedics, and may be oxygen-dependent or have tracheotomies requiring regular suction;
- patients may be disfigured (burns, throat surgery, etc) and require a non-threatening, private environment;
- patients may come from diverse ethnic and cultural backgrounds and many patients may require access to interpreter services;
- the indigenous health needs of patients from remote / rural communities should be addressed; and
- patients require access to appropriate staff and facilities to meet their spiritual needs.





#### 610.4.45 BARIATRIC PATIENTS

The increasing trend of obesity in the general population is reflected in an increase in the numbers and size/weight of bariatric patients. Currently most units have at least one to two patients who exceed standard equipment weight limits thus requiring special equipment and more space for treatment and activity. This may be expected to increase in the future

#### 610.4.50 WANDERING PATIENTS

Units do not routinely admit end-stage dementia patients. However, acute confusionstates and early stage dementia are not uncommon in the rehabilitation environment. Therefore, it is likely that the unit will at times admit patients who wander.

To manage the safety risks of unauthorized leave and to alleviate agitation, the unit may be designed to provide a safe walking route by securing the perimeter of a small pod of beds. Boredom can be a problem if the space is too confining or lacks interest. However, at other times a low stimulus environment may be preferred.

Consideration should be given to:

- the ability to lock down/reduce access to rooms including storage rooms, exits, utility rooms, medical gases stores, etc.;
- in general, limiting the number of exits from the building; and
- the use of internal courtyards especially of a large enough size and some outlook/aspect to provide some interest.

#### 610.4.55 AGITATED / AGGRESSIVE PATIENTS

Patients may at times exhibit agitated or aggressive behaviour; particularly patients with brain injury and acute confusion conditions. Features that should be considered in the design of rooms to safely accommodate these patients include:

- fish eye lens to allow remote observation;
- covered service panels (gases, suction, etc); and
- vandal-proof fitting especially glazing.

#### 610.4.60 THERAPY FACILITIES

The service plan should define if the therapy and other allied health facilities are to be built as dedicated treatment areas to support the rehabilitation medicine service only. Alternatively, the facilities may also be used by inpatients from other units and general outpatients. This will impact on the facilities provided, the key functional relationships, and ability to access these other service units. Review of access to all available therapy spaces on the individual site should be considered to maximise utilisation of facilities. The facility size required, if a dedicated therapy area for this unit, would be reflected by the number of beds in the unit, the level of service, and length of stay.

Physiotherapy and occupational therapy are discussed below, but other therapy disciplines that need to be considered include dietetics, speech pathology, social work and clinical and neuropsychologists.

#### 610.4.65 PHYSIOTHERAPY FACILITIES

Access to facilities for physiotherapy will generally comprise:

- access to a gymnasium with equipment appropriate to the conditions to be treated:
- single and double plinths in curtained bays; and
- an outdoor mobility and gait training area.





The service model will determine the provision of a hydrotherapy pool, given the beneficial rehabilitation outcomes for bariatric and older patients. Access to a hydrotherapy pool on campus is highly desirable. However, there are difficulties associated with transport of patients and the need to provide access to integrate with community models of care.

#### 610.4.70 OCCUPATIONAL THERAPY FACILITIES

Facilities for occupational therapy will depend on conditions treated and the extent of services to be provided. Facilities generally comprise:

- therapy rooms: for individuals and groups for static and dynamic activities;
- facilities for activities of daily living (ADL); and
- storage for equipment and materials.

Depending on the service profile, additional areas may include:

- facilities for splint making and hand therapy;
- space for the fitting and manufacture of pressure garments;
- heavy duty workshop;
- computer and vocational retraining;
- wheelchair and seating storage, and modification; and
- garden therapy area.

A considerable proportion of occupational therapy assessment and treatment of inpatients, such as toileting and showering, may be conducted in bedrooms if facilities are available and appropriate.

The above facilities are addressed in detail in *HPU 140 Rehabilitation / Allied Health Unit* which provides details on a campus-wide service.





# **PLANNING**

# **Operational Models**

#### 610.5.00 GENERAL

The development of operational policies is crucial to defining how the unit will operate within a healthcare facility or health service, as well as in relation to adjoining health services from where patients may be referred. They impact on the capital and recurrent costs of a facility and will vary from unit to unit depending on a wide range of factors such as the clinical characteristics of the patients, and the defined role of the unit. The cost implications of proposed policies should be fully evaluated to ensure the most cost-effective and efficient design solutions are developed in providing therapeutic and high quality physical environments.

Operational policies should be developed for every unit as part of the project planning process. Refer to *Part B Section 80* for further information.

The following are particularly relevant to inpatient accommodation. (Some of these are addressed in more detail in the sections following):

- admissions and discharge procedures: unit based or remote, including transfers between units;
- management of infections;
- clinical information management: electronic or hard copy medical records;
- image viewing (PACS) :location and type of viewing monitors;
- medication management including possible establishment of floor-based satellite pharmacies; storage and dispensing including traditional, automated, selfmedicated, bedside storage;
- the manner in which food services, linen and supplies are ordered, delivered and stored, and level of supplies;
- storage for equipment and furniture: central and near point of use; and
- waste management particularly clinical waste and sharps.

# 610.5.05 STAFFING

The staff establishment, permanent and visiting, may include:

- rehabilitation physicians: specialists, registrars and residents;
- nursing staff: unit manager, clinical nurse consultants, clinical nurse educators, registered nurses, enrolled nurses and other auxiliary nursing staff;
- clinical and neuropsychologists;
- occupational therapists;
- physiotherapists;
- speech pathologists;
- allied health assistants;
- recreational / art therapists;
- prosthetists and orthotists;
- social workers;
- dieticians;
- pharmacists;
- clerical and housekeeping support staff; and
- volunteers.





610.5.10 Staffing levels will vary for each unit, depending on the size of the unit and the operational policies. Guidelines and procedures may require staff with different skill mix, levels of supervision required, clinical case mix, and dependency and unit activity levels.

The unit should provide sufficient functional area to support the number of staff in the safe and efficient delivery of care. The environment should be secure and facilitate effective emergency responses to acute situations on each shift. Designing the unit on this basis will support efficient unit operation without imposing additional costs whilst enabling compliance with security and occupational health and safety requirements.

# **Planning Models**

#### 610.7.00 LOCATION

The unit should have level access whether on the ground floor or above. There should be no ramps; access should be available to an outdoor area; there should be a dedicated weather-protected entry, and a drop-off / pick-up parking facility.

The unit should not be located near sources of noise or sights that may disturb its occupants. For example, where possible avoid placing a unit near noisy traffic routes including emergency vehicles, mechanical plants, and views such as mortuaries.

Ready access to retail outlet/s and banking facilities should be considered for both convenience and for assessment and retraining purposes.

Planning should consider the proximity of 24 hour and eight hour operating zones, and locate units so that staff are not working in isolation or need to traverse unoccupied areas at night.

# 610.7.05 UNIT SIZE AND BED CONFIGURATION

The total number of beds in a unit will vary depending on the defined service needs of the individual healthcare facility. The model of care, staffing strategies and operational policies drive decisions with regard to the mix and organisation of beds within a unit.

Issues to be considered include:

- patient case mix;
- maximum flexibility for the accommodation of a range of different types of patients with regard to condition, age and gender; and
- staffing profile, and required staffing levels particularly during night shifts.

This guideline does not recommend a preferred number of beds in a unit, or preferred cluster/pod sizes. As a general guide, a unit should be large enough to ensure that the safety, security and emergency responses of staff on duty are addressed. Sizing of the unit on this basis provides for improved operational cost effectiveness as well as compliance with security and occupational health and safety requirements.

# 610.7.10 BEDROOM MIX

The mix of bedroom types (single versus multi-bed) should be determined in the planning and briefing stages. Consider issues such as patient safety, infection control and patient and staff comfort. The impact on capital and recurrent costs should be identified and evaluated on a cost-benefit basis.

Beds may be a mix of single bedrooms and two-bed rooms. The need for four-bed rooms should be assessed and may not be found to be appropriate in the rehabilitation context. For the advantages and disadvantages of single and multi-bed





rooms, refer to HPU 340 Inpatient Accommodation Unit.

Determination of the ideal mix is outside the scope of this HPU and should be decided by individual jurisdictions on a project by project basis. However it is recommended that at least 30 percent of total beds should be configured as single rooms with individual *en suites*, particularly for management of patients with infectious conditions. This will either reduce the need for transfer to a single bedroom elsewhere in the healthcare facility or delay the patient transfer into the Rehabilitation Inpatient Unit, should a single bedroom be required but not available.

## **Functional Areas**

#### 610.8.00 FUNCTIONAL ZONES

Functional areas of the Rehabilitation Inpatient Unit will comprise:

- entry, reception and waiting areas;
- therapy facilities;
- inpatient bedrooms;
- day / recreation areas;
- outdoor area for relaxation;
- visitor amenities:
- independent assessment suite;
- clinical support areas;
- storage facilities;
- teaching / meeting areas;
- staff offices; and
- staff amenities.

The entry, reception and waiting areas, therapy areas and most offices and staff amenities are addressed in *HPU 140 - Rehabilitation / Allied Health Unit* and are not further addressed here.

#### 610.8.05 PATIENT BEDROOMS

Bedroom sizes: depending on the models of care of each jurisdiction, the sizes of single bedrooms may range between fifteen, eighteen and twenty square metres, to cater for all contingencies including bariatric patients, independent wheelchair users, bedroom-based therapy and to allow a carer to stay overnight; particularly if a patient requires 'specialled' 24 hour guard or supervision. It is also suggested that one bedroom be designed specifically for a couple.

As patients have a longer length of stay, they usually bring more possessions with them than an acute inpatient. Patient storage facilities need to accommodate for more clothing, and need to be at a height that is wheelchair accessible to promote independence.

The bedrooms need to accommodate the parking of a wheelchair when not in use. Preferably, the wheelchair should be parked near the bed to facilitate independent access and use. Positioning of electrical services should assist a patient to independently charge batteries for chairs, mobile phones, etc. Storage of patient equipment, such as wheelchairs, in rooms also prevents the use of corridors as a de facto store room that may contravene fire egress regulations.

Secure storage for personal items such as laptop computers/DVD players should also be considered. Internet connection is also relevant to promote normal activities in a younger population, and for specific therapy purposes.





In addition, it may be appropriate to provide overall bedroom security (i.e. the ability to lock the room) for times when patients need to leave the facility.

In some circumstances, manual handling equipment may also be used near the bed, thus all rooms will need to be accessible for a mobile hoist and all beds mobile hoist accessible. Ceiling hoists can provide useful manual handling and require less space than the mobile hoists and should be considered for at least some bedrooms (Jung 2009).

#### 610.8.10 PATIENT AMENITIES

All bedrooms should have an *en suite* shower/toilet sized for full assist that allows for use of a mobile hoist. A number of *en suites* should be designed to *AS1428* to comply with disability discrimination regulations and for training of patients who either are currently, or will in the future be, wheelchair users (Standards Australia 2003a).

Design of *en suites* for use by bariatric patients will need to ensure relevant weight limits are appropriate, in the design for example of drop-down rails or grab rails, and that appropriate space is provided for the patient, carers and equipment. This is not likely to be met by the provisions required by *AS1428*.

A grab rail located above toilets will provide additional safety and security for male patients to balance.

Extended shower hoses (a suggested minimum of 1.8 metres) should be provided for easy use (and for assessments) by occupational therapists, nursing staff, patients and carers. Consideration should be given to compliance with AS 3500 - Backflow prevention requirements (Standards Australia Aust 2003b) and TS-11 Section 7.11.30 Showers (NSW Health 2007b).

The Building Code of Australia (BCA) requires one bath per floor to be provided in Class 9a buildings. It should allow for use of a shower trolley and patient lifter (Australian Building Codes Board 2009).

A domestic bath may also be provided for ADL assessment and may be located within the ward envelope or as part of the occupational therapy area.

# 610.8.15 DAY AREAS

Day areas will comprise:

- lounge;
- dining room;
- activity / recreation space; and
- outdoor area (for gait assessment and recreation).

Internal spaces may be separate areas or combined. A 'quiet' lounge plus a combined dining/activity area may give the maximum flexibility without needing to stack dining tables and chairs. The dining area should be able to accommodate at least two thirds of the patient population, plus the occasional carer.

Consideration will need to be given as to how meals will be provided, for example. self serve, cafe style, standard hospital style, to facilitate variety in the delivery or access of meals to promote independence.

The recreation / activity area may be provided with internet access, television etc.

Ready access should be provided to an accessible toilet from these rooms that is not an *en suite*.

Direct access is required to an outdoor area if provided. This outdoor area should also be accessible to patients attending therapy on an outpatient or day patient basis.





#### 610.8.20 OUTDOOR AREA

Access to an outdoor social area can be beneficial. The area might include a shaded flat landscaped area, with barbeque amenities that are designed to present a safe and accessible path of travel. This is a separate feature to the mobility garden, which has challenging mobility obstacles.

The need for, and access to, appropriate smoking spaces may be determined in line with relevant jurisdictional policies.

#### 610.8.25 VISITOR AMENITIES

Depending on the operational policy, and in units where the majority of patients are elderly and the visitors likely to be older - possibly with their own disabilities, access to amenities could comprise:

- quiet visitors' lounge with beverage facilities and lockable storage, where visitors can relax whilst patients are undergoing treatment;
- overnight bedroom; and
- shower and toilet facilities.

The lounge and a toilet should be readily accessible within the envelope of the Rehabilitation Inpatient Unit.

#### 610.8.30 PATIENT LAUNDRY

As patients are encouraged to wear their own clothing, a laundry should be provided. It may be used by the patients themselves (under supervision) or by their carers, and for activities of daily living purposes by the occupational therapists.

# 610.8.35 INDEPENDENT ASSESSMENT SUITE

The independent assessment suite is designed as a 'bedsitter' with bedroom zone, dining/sitting zone, kitchenette, and *en suite* toilet / shower which may also incorporate laundry facilities if there is no ready access to an activities of daily living laundry in the therapy area. Depending on the models of care, this suite may or may not be counted as part of the bed establishment, and there may be more than one such suite depending on the service profile.

The unit is used for 'trial of self-care' to assess patients for independence after discharge. Therefore it is important that it is located at the end of the unit i.e. separate. The suite may also accommodate a carer.

The number of independent units should be considered in the context of transitional accommodation and supported living opportunities available in the wider community. In addition, these units are important for rehabilitation units supporting clients from remote facilities.

Ideally, there should be ready access to an outdoor area for gait assessment and training.

#### 610.8.40 CLINICAL SUPPORT AREAS

These areas will comprise:

- clinical resource / handover office;
- ward clerk station/reception (separate from the reception in the main entry, where provided);
- staff station may be combined near the ward clerk area or decentralised throughout the unit;
- clean & dirty utility rooms;





- beverage pantry;
- resuscitation trolley bay;
- linen trolley bay;
- mobile equipment bay/s;
- storage for bulk clinical stock and sterile stock; and
- flower bay (optional).

#### 610.8.45 STORAGE EQUIPMENT

It is important to accurately assess equipment storage needs. Rehabilitation units require a large range of equipment for trial and use with patients - which may be located in a separate rehabilitation equipment pool shared by all services.

Manual handling equipment is of prime importance and needs to be stored close to the point of use- such as in equipment bays off corridors.

A storeroom, or rooms, will be required for less frequently used items and many items will be bulky and need floor parking space. Design store rooms to enable easy retrieval and return of equipment through doors sized for such movements. Power for charging of equipment would also be required in this area.

Many services operate a loan equipment store for use by inpatients and outpatients.

#### 610.8.50 STAFF OFFICES

Offices will be provided in accordance with jurisdiction office/staff accommodation policies and the staff establishment.

Office accommodation and workstations should be provided within the unit for senior nursing staff such as the unit manager, clinical nurse educator and clinical nurse consultant. Other offices and workstation spaces, mainly for medical and allied health, may be located outside the envelope of the unit but with access the rehabilitation precinct.

Consideration will need to be given to the allocation of space for outreach teams with access to the rehabilitation precinct.

#### 610.8.55 STAFF AMENITIES

Lockers for unit-based staff should be located in a secure location within the inpatient unit. Consideration may need to be given to the need for additional lockers for visiting staff and students in a central location.

At least two staff toilets should be immediately accessible within the envelope of the unit

Ideally, a small lounge or similar space should be available within the unit for staff to debrief in private amongst their peers.

Additional toilets, gender-specific showers and change rooms, and a staff room with beverage area will be required, and may be shared if the unit is part of a precinct.

# 610.8.60 TEACHING / MEETING AREAS

Access to facilities will be required for:

- case conferences;
- family conferences; and
- quiet interviews.

Case conferences and family meetings frequently involve a large number of people. Meeting rooms will need to accommodate patients in wheelchairs, family members





and a number of staff; a minimum of ten people. Meetings with family members may, in some instances, need to accommodate the patient in a bed.

Video and teleconference facilities are important especially where units support remote sites.

The number of students of all disciplines will need to be assessed in order to ensure that appropriate facilities are available, for example. "hot-desking", tutorial/meeting rooms etc.

# **Functional Relationships**

#### 610.9.00 EXTERNAL

Principal relationships with other units include:

- ready access to the rehabilitation gym, treatment areas, outdoor gait area and hydrotherapy pool, if provided;
- easy access from the main entry and/or precinct entry;
- ready access to/from acute medical and surgical inpatient units;
- ready access to diagnostic facilities, such as medical imaging;
- ready but separate access for delivery of food, linen, supplies and removal of waste; and
- ready access to staff amenities not provided locally.

Units that patients do not access, such as clinical information, pharmacy and pathology, may be provided remotely.

#### 610.9.05 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.

Optimal internal relationships to be achieved include:

- patient occupied areas should form the core of the unit;
- staff station(s) and associated areas need direct access to and observation of patient areas:
- utility and storage areas need to be readily accessible to both patient and staff work areas;
- therapy areas should be readily accessible, and if shared facilities positioned to provide access to external users without impacting on the inpatient unit functionality e.g. access pathway through the ward;
- planning the inpatient unit and its public areas, by placing the public areas on the periphery of the unit; and
- shared areas should be easily accessible by all the units served.





# **DESIGN**

## Access

#### 610.10.00

Design should minimise the number of entrances and ensure that staff and the public can access the unit at entrances adjacent to car parks, to limit the time spent outside the facility at night. Visiting hours may be unrestricted, so consideration will need to be given to visitor access at all times.

Keypad or swipe card entry at access points may be considered as they provide a more secure, cost effective access control particularly for staff.

Covered access is required from the main hospital for food, supplies, linen, etc, and for waste removal.

Unlike an acute care environment, in a rehabilitation unit it is expected that the patient will continue with ongoing self-directed exercises outside the formal therapy sessions. Continuous rehabilitation over the seven day week is considered to improve outcomes and shorten lengths of stay. Therefore, access to some exercise or multifunctional spaces after hours, and external space, is an important factor in planning while considering the availability of staff to provide supervision, as required.

# **Parking**

#### 610.11.00

Drop-off and disabled access parking should be available near the unit entry. In addition, access to a parking space that can be used by patients and staff for transfer practice, into their own/family member's vehicle, would be of value. Ideally, this would be provided with some overhead weather cover.

For parking, refer to Australian Standards/ New Zealand Standards 2890.6 2009: Parking facilities - Off-street parking for people with disabilities.

# **Disaster Planning**

#### 610.12.00

Each unit will have operational plans, procedures and guidelines detailing the response to a range of emergency situations both internal and external. Consideration should be given to issues such as the placement of emergency alarms; the need for uninterrupted power supply (UPS) to essential clinical equipment and electronic sensor taps; to services such as emergency lighting; telephones; duress alarm systems and computers, and the emergency evacuation of patients, many of whom will require assistance

A number of items (such as duress alarms, central computer, nurse call) require connection to an UPS and a generator, to provide continuous power between the time of power failure and the time it takes the generator to kick in; otherwise systems have to be re-set and/or do not function during a power failure. The importance of a UPS may not be fully appreciated during procurement/construction.

Refer to Part B Section 80 and Part C for further information.

# **Infection Control**

#### 610.13.00 GENERAL

The following aspects of planning, design, construction and fit-out contribute to





effective infection prevention and control, and are:

- hand hygiene facilities;
- provision for the isolation of infectious patients;
- linen handling;
- separation of 'clean' and 'dirty' work flows;
- storage;
- waste management;
- surface finishes; and
- positioning of a hand basin at the entry to a ward for visiting staff and patient visitors.

Refer to *Part D* and to individual jurisdiction infection control guidelines for further details.

#### 610.13.05 ISOLATION ROOMS

It is noted that a Rehabilitation Inpatient Unit may have a higher proportion of patients with known infections than in a general inpatient unit. Service planning should inform the number of isolation rooms required.

Allowing for appropriate space between patients in shared rooms e.g. dining rooms, is recommended to assist and maintain appropriate infection control.





# **ENVIRONMENTAL CONSIDERATIONS**

#### 610.14.00 ENVIRONMENTALLY SUSTAINABLE DESIGN

Sustainability applies to many areas, such as:

- air handling and ventilation;
- thermal integrity (insulation, etc);
- water management;
- choice of sustainable products e.g. low volatile organic compound (VOC) floor finishes; and
- support of operational recycling policies.

Many of these issues will be addressed at an overall facility level, but may have greater or lesser implications for this HPU.

#### 610.14.05 ACOUSTICS

Noise is a constant source of complaint from patients and may compromise patient comfort and recovery. In particular, noise at night may have a negative impact on the ability of patients to sleep. It is also an important factor in maintaining confidentiality of patient information.

Noise sources may arise both within and from outside the unit, and include:

- sanitary facilities;
- equipment;
- other patients;
- staff activities e.g. conversations, ward rounds, meetings, cleaning;
- areas of public movement, lift lobbies, etc.; and
- traffic through the unit including visitors, food, linen and other trolleys, or movement of patients into and out of the unit.

Solutions to be considered include:

- location of the unit;
- use of sound absorbing materials and finishes;
- sound isolating construction;
- separation of quiet areas from noisy areas; and
- changed operational management.

Refer to Part C Section 790 – Noise Reduction, for more information

#### **610.14.10 NATURAL LIGHT**

Natural light contributes to a sense of wellbeing for all building occupants including patients, staff and other users. Research studies suggest a link between greater levels of natural light and improved clinical outcomes.

Higher levels of natural light may help people better orient themselves in the building, thus enhancing way-finding. However, glare should be minimised.

The greater use of natural light may also reduce energy usage in terms of reducing the need for artificial lighting. For these reasons, the use of natural light should be maximised throughout the unit. Natural light is required to all bedrooms in accordance with the *Building Code of Australia* (ABCB 1990).





#### 610.14.15 PRIVACY

A major conflict in the design of inpatient accommodation often arises regarding the need to ensure that patients and staff can see each other, while also ensuring patient privacy.

Bedrooms and other areas occupied by patients should be designed and configured to give staff the greatest ability to observe patients, particularly unstable or vulnerable patients. 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:

- vulnerable elderly patients, especially in single rooms, may feel more secure if they can observe staff or can be observed by staff or other patients;
- clinically unstable or high dependency patients who need almost constant observation;
- clinically stable but vulnerable patients who will require fairly frequent observation; and
- supported / self-care patients who require passing observation only.

#### **610.14.25** Factors for consideration include:

- use of windows in corridor walls and/or doors;
- location of beds to maximise sight lines;
- proportion of single bed rooms;
- location of bed screens to ensure privacy of patients undergoing treatment;
- location of sanitary facilities to provide privacy for patients while not limiting observation by staff; and
- dual control of privacy devices, such as blinds or curtains, by patient, staff or both.

# 610.14.30 INTERIOR DECOR

Interior decor 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 should always be considered.

Some colours, particularly the bold primaries and green should be avoided in areas where clinical observation occurs such as bedrooms and treatment areas. Such colours may prevent the accurate assessment of skin tones e.g. yellow/jaundice, blue/cyanosis, red/flushing.

#### 610.14.35 SIGNAGE AND WAYFINDING

The orientation of people to and within healthcare facilities, and even safety and security issues, are greatly assisted or hampered by the quality and location of signage which may be directional, used as a means of identification and/or statutory.

In terms of wayfinding both signage and design features need to reflect the service role and profile of the healthcare facility, and should be logical and supportive of the needs of the patients, visitors and staff of the facility.

All signage and wayfinding should be easily understood by staff and the general public, whether patients or visitors. Where necessary and appropriate, languages other than English and /or consistent use of pictograms/symbols should also be used.





- 610.14.45 Consideration needs to be given to the system used in the numbering of patient rooms. These rooms should be given non-permanent functional names for future flexibility. Signage should comply with guidelines to promote access for people with disabilities.
- Any signposting, or other initiatives put in place, should be considered from the perspective of out-of-hours use. Certain access points may be locked out of office hours or after visiting hours. Directions indicated through signposting should, therefore, be evaluated in this context.
- 610.14.55 Refer to Part C Section 750 Signage and TS- 2 Wayfinding for Health Facilities (NSW Health 2009).

# **Space Standards and Components**

#### 610.15.00 HUMAN ENGINEERING

Human engineering covers those aspects of 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, furniture, fittings and equipment and work environment to the physical and cognitive capabilities of all persons using the building.

In the rehabilitation context, the use of sensor taps may be appropriate in some areas where patients have limited hand function e.g. spinal injury/stroke. Height and accessibility need to be considered for patient hand-hygiene facilities, particularly for wheelchair users.

As the requirements of occupational health and safety and antidiscrimination legislation will apply; this section needs to be read in conjunction with *Part C* in addition to other occupational health and safety related legislation.

#### 610.15.05 ERGONOMICS

The unit should be designed and built to prevent the exposure of patients, staff, visitors and maintenance personnel to avoidable risks of injury.

Badly designed recurring elements such as height, depth and design of workstations and counters, shelving and the layout of critical rooms have a great impact on the occupational health and safety of staff as well as the welfare of patients.

Refer to Part C Section 730 - Access and Mobility for more details.

#### 610.15.10 ACCESS AND MOBILITY

To promote patient safety and independence, it should be ensured that corridors remain a clear path of travel. Provision of appropriate storage for manual handling aids (mobile hoists) and patient mobility equipment (wheelchairs of all types including bariatric and electric walkers) is critical to maintaining clear corridors. The space provided should enable items kept in this area to be stored and removed easily, and not of a depth that would require equipment to be "stacked".

Corridor width and circulation space will need to address the use of larger mobility aides for bariatric patients. Corridors used by patients should be wide enough for two wheelchairs to pass i.e. 1800mm clear space between handrails (on both sides of corridor).

Some examples of the average circulation space sizes required for ambulant persons using the following mobility aids are:





- One person using a walking stick 750 mm width;
- One person using elbow crutches 900 mm width;
- One person using two walking sticks 800 mm width;
- One person using crutches 950 mm width; and
- One person using walking frame 900 mm width.

#### Refer to:

- Disability (Access to Premises Buildings) Standard 2010;
- Building Code of Australia 2012;
- Australian Standard/New Zealand \Standards 1428 suite of standards, and
- Part C Section 730 for further details.

#### 610.15.15 BUILDING ELEMENTS

Building elements include walls, floors, ceilings, doors, windows and corridors. These are addressed in detail in *Part C Section 710 - Space Standards and Dimensions*.

Window sill heights should be low enough to permit a view to the outside by a patient lying in bed. This is usually 600 mm above the finished floor level.

Ensure doorways are sufficiently wide and high enough to permit the manoeuvring of beds, wheelchairs, trolleys and equipment without risk of damage or manual handling risks, and particularly in rooms designed for bariatric patients. Delay closing-mechanisms on doors used by patients (e.g. *en suites*) should be provided. Door handles should be able to be operated single-handed.

# Safety and Security

# 610.16.00 SAFETY

Facility planners and designers should enhance safety through choices about the design, the methods of construction and the materials, including the choice of fittings, fixtures and equipment used.

The patient population of this unit in particular requires special consideration in terms of safety. Although perhaps disabled or incapacitated, they are also encouraged to be mobile and self-sufficient. Unless otherwise approved, a rehabilitation unit should provide rails and hand holds in all corridors, ramps, stairs, bathrooms and toilets to ensure safe accessible movement of people.

Assess every aspect of unit design with regard to finishes, surfaces and fittings to determine the potential for accidents or hazards to both patients and staff.

Fittings with visual luminance contrast to equipment and building elements, such as doorways and floor surfaces, will enhance safety for people with sensory and cognitive deficits. This can include grab rails, toilets and cisterns that have a colour contrast and are clearly distinguishable from the wall and floor, rather than 'white upon white' or designed to blend in.

Accidents or mishaps most often occur in rooms where sanitary facilities are located. This is true for both patients and staff. In particular consider:

- slippery or wet floors;
- protrusions or sharp edges;
- stability and height of equipment or fittings; and
- choice of floor covering.

Handrails and wheelchair accessibility are required.





#### 610.16.05 SECURITY

Facility planners and designers should enhance security by incorporating the principles of territorial reinforcement, surveillance, space management and access control into design decisions (NSW Health 2005b).

The following specific security issues should be considered:

- the need for fixed and/or personal duress alarms;
- access control particularly at night;
- control and monitoring of visitors; and
- monitoring of patient movements into and out of the unit especially with regard to elderly patients, admitted for other reasons but who may also be living with dementia or other forms of cognitive impairment.

#### 610.16.10 RISK MANAGEMENT

Occupational health & safety legislation requires designers to identify, assess and control risks in order to provide an optimal ergonomic design, and to do this in consultation with stakeholders.

Considerations of safety and security risks should begin during the planning and design phase, and should continue during the construction, commissioning and post occupancy stages.

Safety considerations need to address the health and safety of end users, including staff, maintenance personnel, patients and visitors.

By adopting a risk management approach, many safety and security related hazards can be eliminated or minimised at the planning stage before work even begins, reducing the likelihood of adverse incidents occurring

#### **610.16.15** For further information refer to:

- AS/NZS 4360:2004 Risk Management (Standards Australia 2004)
- Part C Section 790 Safety and Security Precautions
- Individual jurisdiction policies and OHS legislation
- NSW Health TS-11 Engineering Services & Sustainable Development Guidelines, New South Wales Department of Health, Sydney (NSW Health 2007b)
- NSW Health *TS-7 Floor Coverings in Healthcare Buildings, V1.1*, NSW Health Department, North Sydney (NSW Health & CHAA UNSW 2009)

# **Building Services Requirements**

#### 610.19.00 GENERAL

In addition to topics addressed below, also refer to:

- Part E Building Services and Environmental Design; and
- NSW TS-11 (NSW Health 2007b).

#### 610.19.05 AIR HANDLING SYSTEMS

The management of airflows and the creation of a stable environment are essential to the control of the spread of infection, thus air-conditioning should generally be provided. Provision of natural ventilation to patient care areas should be approached with caution.

Refer Part D Control and HB260 (Standards Australia 2003c).





#### 610.19.10 ELECTRICAL SERVICES

It is essential that services such as minimum lighting, telephones, duress alarm systems (including the central computer), and electronic locks are connected to the emergency power supply.

#### 610.19.15 INFORMATION TECHNOLOGY & COMMUNICATIONS

It is recommended that the following information technology and communications issues, and the associated infrastructure requirements, should be addressed to ensure long term flexibility:

- wireless technology;
- duress alarm systems: fixed and personal as required;
- nurse / emergency call systems;
- voice / data (telephone and computers);
- videoconferencing capacity/telemedicine;
- electronic medical records;
- picture archiving communication system (PACS);
- patient administration system (PAS);
- paging and personal telephones, replacing some aspects of call systems:
- patient multimedia devices, including bedside monitors that function as televisions, computer screens for internet access, etc;
- bar-coding for supplies and records;
- server and communications rooms;
- e-learning & simulation; and
- e-medication management and e-storage systems e.g. automated dispensing systems.

# 610.19.20 HYDRAULIC SERVICES

Warm water is required at all hand basins via a warm water system or thermostatic mixing valves in accordance with *AS/NZS 3500.4 - Heated water services* (Standards Australia 2003b).

# 610.19.25 LIGHTING

Lighting is an important element in promoting a comfortable environment and enhancing patient safety. Key features to consider include the following:

- ensure lighting is adequate during the day and at night
- it should facilitate access to toilets at night: consider night lights, bedside lamps, motion-sensor lights, dimmer switches;
- avoid abrupt changes in illumination levels;
- control glare by managing window treatments, floor and furniture surfaces e.g. non-reflective surfaces at ends of corridors;
- provide indirect lighting wherever possible; and
- provide light switches at a height and style easy and practical for patient use.

# 610.19.30 MEDICAL GASES

Provision of fixed medical gases and suction is not generally as critical in a rehabilitation inpatient unit as in general acute units; this decision should be made on a project-by-project basis. The patient profile may include oxygen dependent patients and patients with tracheotomies requiring regular suction. In addition there may be





the need to provide for emergency situations.

The use of cylinders, rather than fixed services, may result in handling, storage and safety issues which need to be considered. However, installation of fixed medical gases and suction may provide flexibility for a future change in function, as retrofitting can be very costly.

Should it be decided that full provision of fixed services are not required, or outside the project budget, the provision of at least one oxygen and one suction outlet in each single bedroom is necessary. These may be shared between two beds in two and four-bed rooms. Fixed service gases are not required in the independent living unit.

Specific gases, such as Entonox which may be used for pain management, may be provided in cylinders

#### 610.19.35 CEILING STRUCTURE

These are to provide the structural capacity for equipment support tracks in the ceiling, including the capacity to upgrade these in the future. It is recommended that ceiling hoists are installed in at least two patient bedrooms. This may include the independent living unit if provided in the unit.





# COMPONENTS OF THE UNIT

# **Standard Components**

# **610.20.00** Room

Rooms/spaces are defined as "Standard" and "Non-standard" Components (SC) refer to rooms/spaces for which room data sheets, room layout sheets (drawings) and textual descriptions have been developed and are available on the AusHFG website. The availability in these guidelines is indicated by "Y" in the SC column of the Schedule of Accommodation.

Standard components are provided to assist with the development of a project. Their use is not mandatory, and if used they can be edited to be project specific.

Also refer to *Part B, Section 90* for the text and to the separate Room Data and Room Layout Sheets.

# **Non-standard Components**

610.21.00 Non-standard components are generally unit-specific and are described below:

- dining / recreation room;
- independent assessment room; and
- sitting alcoves.

#### 610.21.05 DINING / RECREATION ROOM

#### Description and Function

The Dining/Recreation Room provides an area for patients to have meals, socialise and undertake recreational activities. The size has been based on two metres squared per occupant to accommodate for the turning circle and footprint required for electric wheelchairs and chairs with longer wheelbases. The overall size will depend on the number of persons to be accommodated, but should assume 60 percent of the patient population, plus occasional carers and staff.

#### Location and Relationships

The Dining / Recreation Room may be located adjacent to the lounge area and should have ready access to inpatient areas, and an accessible toilet.

# Considerations

Fittings and furniture for this area should include:

- individual tables with seating for up to four people, with space for wheelchairs of all types;
- tables that have the capacity to be joined to seat up to ten people;
- domestic style furnishings that may include sideboards and audio equipment;
- large screen television, video game console and computer activities;
- wall and door protection for chairs and wheelchairs; and
- a hand basin allowing wheelchair access.

Depending on the activities to be undertaken, a recessed sink and cupboards may be appropriate for craft activities.





#### 610.21.10 INDEPENDENT ASSESSMENT SUITE

#### Description and Function

This is a small unit for the assessment of a patient's ability to manage after discharge. Carers may be involved in this process. The length of stay will vary from patient to patient. Medical gases and services are not required.

The unit should provide a domestic environment including ordinary domestic furniture, carpet, etc. The unit should be self-contained with regard to:

- bedroom area;
- sitting / dining area including space for a carer to stay overnight;
- small kitchenette / meal preparation area;
- separate en suite accessible from within the unit; and
- optional small domestic laundry, if a laundry is not available to the main unit.

#### Location and Relationships

The suite may be located at the periphery of the unit but should be readily accessible to staff. Access to an outdoor area is highly desirable.

#### Considerations

Fittings and furniture for this area may include:

- domestic single, double or king single / bariatric bed;
- sofa bed or similar for a carer;
- coffee table:
- bedside table/s and lamp/s;
- television / DVD / CD player;
- dining table and chairs (to seat four people);
- kitchen cabinetry;
- stove top and oven;
- kitchen sink; and
- refrigerator.

Consideration should be given to the design of bench tops and cooking equipment with regard to height, access and safety. Remote cut off should be provided to the cooker and hot plates. Advice should be sought from an Occupational Therapist

#### 610.21.15 SITTING ALCOVE

Description and Function

This is a small recess for patients to rest quietly, and for staff to conduct informal discussions.

Location and Relationships

It is best located along main unit corridors.

Considerations

Seating may be fixed or loose. An outlook is desirable.





# **APPENDICES**

# **Schedule of Accommodation**

**610.22.00** The total number and mix of beds and single bedroom sizes will be determined on a jurisdiction by jurisdiction basis, and as agreed in service plans.

SC refers to Standard Component

"Y" refers to whether available in these guidelines.

Refer to HPU 140 - Rehabilitation/Allied Health Unit for details re:

- entry / reception areas
- waiting areas;
- access to therapy areas; and
- staff offices and central amenities.

# **610.22.05 PATIENT AREAS**

Room/Space	Standard Component	Qty x m <sup>2</sup>	Remarks
1 Bed Room - Single	У	15	All rooms may be used as Isolation Rooms Class S / Type 4. Need for negative pressure rooms and associated ante rooms to be determined on a project-specific basis
1 Bed Room - Single		16.5	Optional
1 Bed Room - Special	у	18	For bariatric patients and to allow roombased therapy
1 Bed Room - Special	y modified	20	20m2 bedrooms are noted in this guideline specifically to cater for specialist rehabilitation services that provide care for spinal, neurological or degenerative diseases patients who may require assisted ventilation. The additional sizing of this space has been identified due to the size and nature of the equipment and additional circulation space that may be required under these specific circumstances.  To be agreed by jurisdiction on a project-specific basis.
2 Bed Room	у	28	Optional.
En suite - Standard	у	5	One per 1 bed room – standard and 2 bed room/s.
En suite Special	у	6	One per 1 bed room – special e.g. Bariatric
Bay - Hand washing /PPE	у	1.5	One per two single rooms (for designated isolation rooms).
4 Bed Room	у	55	
Toilet - Patient	у	5	For 4 Bed Room
Shower - Patient	у	5	For 4 Bed Room





Bathroom	у	15	Optional
Dining / Recreation Room		1 x 48	Based on 2m <sup>2</sup> per occupant. Area based on 24 occupants. Modify to suit bed numbers
Lounge - Patient	y modified	1 x 24	2m <sup>2</sup> per person based on 12 occupants. Modify size to suit bed number
Toilet - Accessible	у	1 x 5	Accessible from lounge / recreation areas
Laundry - Patient		1 x 8	Optional
Sitting Alcove		1	Along corridors - optional
Lounge - families/ carers	y modified	1 x 12	With beverage bay- optional
Independent Assessment Room		1 x 42	Optional - depending on service delivery and proposed length of stay
Independent Assessment En suite	у	1 x 5	Optional - depending on service delivery and proposed length of stay

# 610.22.10 CLINICAL SUPPORT AREAS

Room/Space	Standard Component	Qty x m <sup>2</sup>	Remarks
Bay- Hand washing Type B		1 x 1	At unit entry
Staff Station	У	1 x 14	Assumed to include workstation for Ward Clerk
Office - Clinical Handover	у	1 x 15	
Office - Single 9m <sup>2</sup>	у	1 x 9	Unit Manager
Office - Shared 12 m <sup>2</sup>	у	1 x 12	CNC and CNE
Store - Photocopier / Stationery	у	1 x 8	If not readily available elsewhere
Property Bay - Staff	у	1 x 2	May be included in as part of staff toilet area
Meeting Room - Small 12m <sup>2</sup>	у	1 x 12	For interviews etc. Wheelchair access essential Located near staff station and reception in ward unit
Meeting Room - Large	у	1 x 20	Access to a meeting room from the inpatient unit would be of benefit - optional
Clean Utility Room	у	1 x 12 - 14	Includes medication; 14 m <sup>2</sup> allows two door access
Treatment Room	у	1 x 14	Optional – dependent on service delivery
Dirty Utility Room	у	12	May need more than one room depending on bed numbers and cluster arrangements
Disposal Room	У	1 x 8	This space would benefit from being near the entry to the ward for removal of waste by housekeeping/environmental services
Bay - Beverage	у	1 x 4	5m <sup>2</sup> if door required





Bay - Meal Trolley	у	1 x 4	Optional depending on food service arrangements
Bay - Linen	у	1 x 2	1 bay per cluster - minimum 1 per 15 beds
Bay - Mobile Equipment	у	1 x 4	Lifters, wheelchairs etc. Numbers will depend on assessed need and bed configuration.  The inclusion of GPOs for charging of equipment e.g. batteries for lifters and electric chairs need to be considered
Bay - Resuscitation Equipment	у	1 x 2	
Bay - Flowers	у	1 x 2	Optional.
Store - Equipment	у	1 x 30	Adjust size to suit needs and service provided
Store - General	у	1 x 9	
Store - Patient Property	у	1 x 6	If required for longer term rehabilitation units
Cleaners Room	у	1 x 5	
Toilet - Staff	у	2 x 3	
Shower - Staff	у	1 x 2	Unless central amenities shared by all precinct staff are readily accessible.
Staff Room		1 x 12	
Meeting Room - Small	у	1 x 12	Access to Small staff meetings, tutorials, family group sessions etc, this may not be required on the unit itself.
Discounted Circulation		40	





# **Functional Relationships**

# 610.23.00 DIAGRAMS OF KEY FUNCTIONAL RELATIONSHIPS

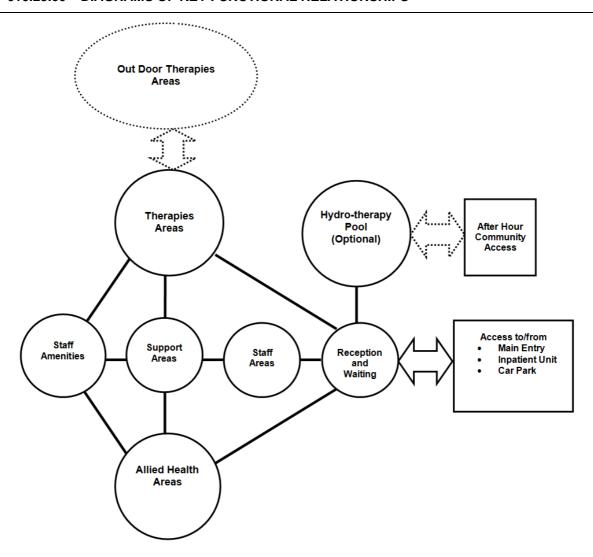


Figure 1: Key Functional Relationships





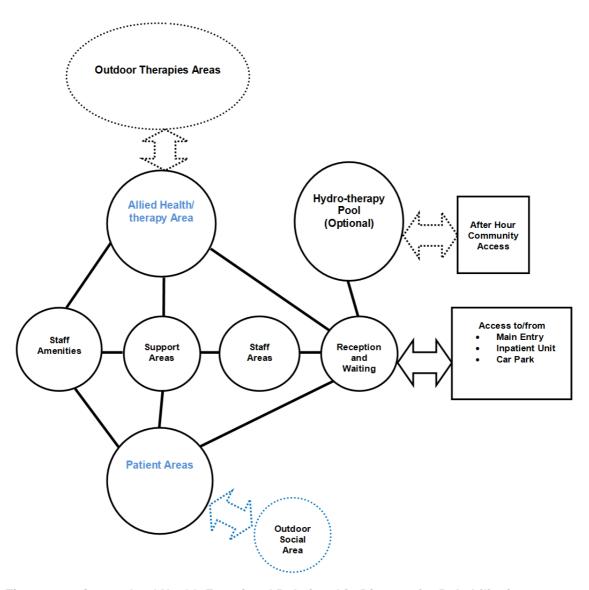


Figure 2: Queensland Health Functional Relationship Diagram for Rehabilitation Inpatient Unit





# **Checklists**

**610.24.00** For planning checklists, refer to Parts A, B, C and D of the Guidelines.

# **Further Reading**

#### 610.25.00 SERVICE PLANNING

- DHS Victoria 2004, Design Guidelines for Hospital and Day Procedure Centres: 610 Rehabilitation Unit, DHS Victoria;.
- NSW Health 2002, Guide to the role delineation of health services, 3<sup>rd</sup> edition, Statewide Services Development Branch;
- NSW Health 2005, Policy Directive 2005\_602: Area Healthcare Service Plans -NSW Health Guide for Development, NSW Health;
- Queensland health 2010, Guide to Health Service Planning, Queensland Health;
- State Government of Queensland 2000, Changing Models of Care Framework; and.
- Queensland Health 201, Clinical Services Capability for Public and Private Licensed Health Facilities Version 3.0, Queensland Health.

#### 610.25.05 DESIGN AND TECHNICAL GUIDELINES

- NSW Health 2007b, Technical Series TS-11: Engineering Services & Sustainable Development Guidelines, NSW Department of Health;
- NSW Health & CHAA, UNSW, 2009, TS-2: Wayfinding for Health Facilities, NSW Health Department;
- NSW Health & CHAA UNSW 2009, TS-7: Floor Coverings in Healthcare Buildings, NSW Health Department;
- Queensland Health 2008a, Queensland Health Water Efficiency and Conservation Policy., Asset Management Unit, Capital Works and Asset Management Branch, Queensland Government;
- Queensland Health 2008b, Strategic Asset Management Policy Ecologically Sustainable Development, 1.2 edition, Capital Works and Asset Management Branch, Queensland Health;
- Queensland Health 2009, Queensland Health Smoking Management Policy, Queensland Government;
- Government of South Australia 2007, Hospital Model of Care Planning Principles
   Working Document, Department of Health, Statewide Service Strategy, Clinical Service Reform. Accessible from:
   <a href="https://www.publications.health.sa.gov.au/cgi/viewcontent.cgi?article=1001&context=hos:">www.publications.health.sa.gov.au/cgi/viewcontent.cgi?article=1001&context=hos:</a>
   and
- WA Health n.d., Health Reform Implementation Taskforce: Infrastructure Development - Procedures, Government of Western Australia, www.health.wa.gov.au/hrit/infrastructure/home/index.cfm

#### 610.25.10 OFFICE POLICIES

- Department of Treasury and Finance, Victoria 2007, Office Accommodation Guidelines, State of Victoria;
- NSW Health 2005, PD2005\_576 Office Accommodation Policy Public Health Organisations and Ambulance Service, NSW Department of Health;
- Queensland Health 2008, Work Place and Office Accommodation Policy and Guidelines, Queensland Health; and
- State Government of South Australia 2008, Office Accommodation Guidelines,





Government of South Australia.

# 610.25.20 STANDARDS, CODES AND LEGISLATION

- Australasian Faculty of Rehabilitation Medicine 2005, Standards 2005: Adult Rehabilitation Medicine Services in Public and Private Hospitals, Royal Australasian College of Physicians;
- Australian Building Codes Board 2012, The Building Code of Australia, Australian Government, State and Territory Governments of Australia, www.abcb.gov.au;
- Commonwealth of Australia 1992, Disability Discrimination Act 1992, Office of Legislative Drafting and Publishing, Canberra;
- Commonwealth of Australia 2010, Disability (Access to Premises Buildings)
   Standard 2010, <a href="http://www.comlaw.gov.au/Details/F2010L00668">http://www.comlaw.gov.au/Details/F2010L00668</a>;
- Australian Standards/ New Zealand Standards, 1428.1-4: Design for Access and Mobility - Set, SAI Global 2003a;
- Standards Australia 2003b, AS 3500.4: Plumbing and drainage Heated water services. See backflow prevention requirements;
- Standards Australia 2003c, Handbook 260: Hospital acquired infections -Engineering down the risk., SAI Global;
- Australian Standards/ New Zealand Standards 2890.6: Parking facilities Off-street parking for people with disabilities, 2009, SAI Global;
- Australian Standards/ New Zealand Standards 1680.2.1:2008, Interior and workplace lighting - Specific applications - Circulation spaces and other general areas, SAI Global; and
- Standards Australia 2004, AS 4360: Risk Management, SAI Global.

#### 610.25.5 WORKPLACE HEALTH AND SAFETY

- NSW Health 2005, Policy Directive 2005\_339: Protecting People & Property: NSW Health Policy/Guidelines for Security Risk Management in Health Facilities, NSW Department of Health:
- NSW Health 2005, Policy Directive 2005\_409: Workplace Health and Safety: Policy and Better Practice Guide, NSW Department of Health;
- Australian Standards/ New Zealand Standards 1680.2.1:2008, Interior and workplace lighting - Specific applications - Circulation spaces and other general areas, SAI Global: and
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