Australasian Health Facility Guidelines

Room Data Sheet Reference Guide

Performance Requirements

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Australasian Health Facility Guidelines

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Contents

Performance Requirements

This document has been prepared to provide guidance on the Performance Requirements section of the AusHFG Room Data Sheets of the Standard Components.

Electrical

Electrical	PROTECTION: body protected ☐
	PROTECTION: cardiac protected ☐

Criteria	Description
PROTECTION: body protected	This room is considered a “patient area”. Australian and New Zealand Standards require all patient areas to be wired as Body Protected Electrical Areas (BPA), including the use of leakage protection devices (LPDs) such as residual current devices (RCDs) to protect all electrical sockets in the patient area as per AS/NZS 3003.
PROTECTION: cardiac protected	This room is a cardiac protected electrical area where there are strict controls for using medical equipment that directly touches the heart. Cardiac protected areas require equipotential bonding in accordance with AS/NZS 3003. This requires all exposed conductive parts or extraneous conductive parts to be connected to a common point – an Equipotential Junction (EPJ) or node. The EPJ may be in the ceiling space, but an EPJ Test Point is required to be mounted within the cardiac protected area in an accessible location in accordance with AS/NZS 3003.

Lighting

Lighting	LIGHTING: general ☐
	LIGHTING: colour corrected ☐
	LIGHTING: dimmable ☐
	LIGHTING: indirect ☐

Criteria	Description
LIGHTING: general	Lighting in room to comply with AS/NZS 1680 to satisfy the functional/clinical requirements of the space.
LIGHTING: colour corrected	Lighting in room to comply with AS/NZS 1680 and incorporate colour temperature and rendering and/or cyanosis properties to satisfy the functional/clinical requirements of the space.
LIGHTING: dimmable	Lighting in room to be dimmable via a lighting control system to satisfy the functional and clinical requirements of the space. Lighting control (manual, automated or intelligent control system) to be determined at project level.
LIGHTING: indirect	Lighting in room to be indirect (light source not visible to patient or staff) to satisfy the functional and clinical requirements of the space.

Nurse Call and Duress

Nurse Call and Duress	NURSE CALL: buttons / handset	☐
	NURSE CALL: annunciator	☐
	DURESS: fixed	☐
	DURESS: wireless coverage	☐

Criteria	Description
NURSE CALL: buttons / handset	A combination of Nurse Call buttons (Emergency call, Staff Assist Call, Patient to Staff Call, and/or a patent handset are provided within the room to support patient care and assistance within the space. Operational policies on alarm workflows and response procedures will inform final Nurse Call system features and configuration.
NURSE CALL: annunciator	Nurse Call annunciator is provided within the room to show colour-coded nurse call alert information and emit audible tones, to allow staff to quickly identify the location, type and priority of a raised call. Operational policies on alarm workflows and response procedures will inform final Nurse Call system features and configuration.
DURESS: fixed	A fixed duress is provided within the room (i.e. as a wall mounted item or concealed under joinery, etc.) to support staff to call for immediate assistance when they feel unsafe or are faced with a personal threat or physical assault. Location of the fixed duress button is to suit the function of the space, including considering areas where staff may become entrapped and where the call may be activated without the worker leaving their normal working position. Fixed duress buttons are typically provided where: • staff work from a static position (e.g. at a reception counter or a pharmacy distribution window) • staff are in rooms alone with patients providing treatment, consultation, procedures, etc. (e.g. consult room, treatment room, interview room). • staff only areas where there is the potential for unauthorised access. Local Work Health and Safety policies, including operational policies on incident response procedures, will inform final duress alarm system features and configuration.
DURESS: wireless coverage	Personal duress alarms are used by staff to call for immediate assistance where the staff member is moving around within a building in the course of their work and where there is a risk of being confronted by aggressive behaviour. Strong, consistent wireless (Wi-Fi) network coverage with real-time location services (RTLS) embedded in the network design (to suit requirements of the personal duress alarm system) must be provided to ensure an alarm can be raised by staff at any time and accurate information on the location of an activated alarm relevant to the physical design of the workplace can be provided to responding staff so the person can be found without delay. Compliance is required with AS 4607 (Australia). Local Work Health and Safety policies, including operational policies on incident response procedures, will inform final duress alarm system features and configuration.

Security

Security	
	ACCESS CONTROL: to door ☐
	ACCESS CONTROL: to FF&E / joinery ☐
	INTERCOM: service communications ☐
	INTERCOM: security and access control ☐
	CCTV: camera coverage within room ☐
	INTRUSION DETECTION: door monitoring ☐
	INTRUSION DETECTION: spatial monitoring ☐

Criteria	Description
ACCESS CONTROL: to door	Access control, (e.g. in the form of proximity swipe card reader, keypad, biometric recognition terminal, remote door release, etc.) are provided to one or more doors in this room. Access control may be included to suit local policies and functional requirements (e.g. work health and safety policies, medication access and monitoring policies). Provision of access control devices should be assessed in line with overall department and facility security plans and security risk assessments.
ACCESS CONTROL: to FF&E / joinery	Access control (e.g. in the form of proximity swipe card reader, keypad, biometric recognition terminal, etc.) are provided to one or more FF&E items (e.g. safes) or joinery cupboards within this room to restrict access to the contents of that item. Access control may be included to suit local policies and functional requirements (e.g. medication access and monitoring policies). Provision of access control devices should be assessed in line with overall department and facility security plans and security risk assessments.
INTERCOM: service communications	An audio or audiovisual intercom is provided within this room to support staff communication across a department or facility. Provision will depend on operational processes and ICT policies, including consideration for intercom capability to telephone handsets in rooms where they are also provided. Intercoms may be provided for communication between staff and patients (e.g. from the corridor/anteroom to patient in an isolation bedroom) and interaction between the intercom and a patient handset on the Nurse Call system may need to be considered.
INTERCOM: security and access control	An audio or audiovisual intercom is provided within this room to support staff to control access to a department or the facility. This may be indicating the intercom at the point of access (e.g. the door to a department), or the point of access control (e.g. the main staff station in a department). Provision of security and access control intercoms should be assessed in line with overall department and facility security plans and security risk assessments.
CCTV: camera coverage within room	A camera connected to a closed-circuit television (CCTV) system is provided within this room with feed provided to a screen within the department and/or to the facility's security team. CCTV cameras may be included to suit local policies and functional requirements (e.g. work health and safety policies, medication access and monitoring policies). Provision of CCTV cameras should be assessed in line with overall department and facility security plans and security risk assessments.

Criteria	Description
INTRUSION DETECTION: door monitoring	Intrusion detection devices (e.g. in the form of a magnetic switch, etc) are provided to one or more door within this room and are connected to an alarm system that will notify designated persons upon activation of the alarm. Provision of intrusion detection devices should be assessed in line with overall department and facility security plans and security risk assessments.
INTRUSION DETECTION: spatial monitoring	Intrusion detection devices (e.g. in the form of motion detectors, heat sensors, etc.) are provided within this room and are connected to an alarm system that will notify designated persons upon activation of the alarm. Intrusion detection may be included to suit local policies and functional requirements (e.g. medication access and monitoring policies). Provision of intrusion detection devices should be assessed in line with overall department and facility security plans and security risk assessments.

ICT and Audio Visual

ICT and Audio Visual	
	AUDIO VISUAL: patient entertainment system ☐
	AUDIO VISUAL: visitor experience system ☐
	AUDIO VISUAL: virtual collaboration system ☐
	AUDIO VISUAL: clinical support system ☐
	AUDIO VISUAL: digital operating room system ☐

Criteria	Description
AUDIO VISUAL: patient entertainment system	This room contains items and network connections for patient entertainment systems which may include display screens, touch screens, interface with Nurse Call systems and control handsets, etc. Wall/ceiling brackets and associated structural supports are to be considered.
AUDIO VISUAL: visitor experience system	this room contains items and network connections for visitor experience systems which may include display screens, touch screens, visitor wayfinding and queue management kiosks/screens. Wall/ceiling brackets and associated structural support as well as floor box services are to be considered.
AUDIO VISUAL: virtual collaboration system	this room contains items and network connections for video conferencing and virtual collaboration which may include display screens, microphones, speakers, cameras and control panels. Wall/ceiling brackets and associated structural support as well as floor box services are to be considered.
AUDIO VISUAL: clinical support system	this room contains items and network connections relating to clinical support systems which may include display screens for patient journey and/or bed management and other clinical support systems such as ambulance arrival, pharmacy inventory management, etc. Wall/ceiling brackets and associated structural supports are to be considered.
AUDIO VISUAL: digital operating room system	this room contains items and network connections relating to digital operating room systems which may include display screens, touch screens, microphones, speakers, cameras and control panels for image, audio and video capture. Wall/ceiling/medical services pendant brackets and associated structural supports are to be considered.

Accessibility

Accessibility		
	AUDIO: hearing augmentation	☐
	VISUAL: luminance contrast	☐
	SIGNAGE: accessible, statutory	☐

Criteria	Description
AUDIO: hearing augmentation	A hearing augmentation system is required in this room as per the Australian and/or New Zealand building codes and applicable Accessibility Standards (AS 1428 and NZS 4121). Assistive listening systems (ALSs), hearing loop systems, FM systems and infrared (IR) systems are all examples of hearing augmentation. Hearing augmentation can come in many shapes and forms and deciding on which system to use will depend on a range of factors, including the preference of likely users, confidentiality implications, the size and use of the space, external interferences and the building materials used.
VISUAL: luminance contrast	Specific building elements within this room require 30% luminance contrast. Luminance Contrast is the amount of light reflected from one surface as compared to the amount of light reflected from another surface and assists people with vision impairments to detect different building elements. Accessibility Standards in Australia and New Zealand require luminance contrast to signage, doorways, and accessible toilet seats. Functional/clinical tasks may also require luminance contrast to be applied to fittings, fixtures, furniture, and equipment in relation to adjacent surfaces in certain rooms.
SIGNAGE: accessible, statutory	Statutory requirements in Australia and/or New Zealand apply for accessible signage to be provided in this room. This will apply to sanitary facilities, spaces with hearing augmentation, exits, Push/swipe to open/exit activation panels/buttons and directional signage from non-accessible entrances to accessible entrances. Signage should be designed to be easily readable by people with low vision, including the use of braille and high contrast tactile print.

Heating, Ventilation, and Air Conditioning (HVAC)

HVAC		
	AIRCONDITIONING: general	☐
	AIRCONDITIONING: HEPA filtered	☐
	AIRCONDITIONING: positive pressure	☐
	AIRCONDITIONING: negative pressure	☐
	VENTILATION: exhaust	☐
	VENTILATION: supply	☐
	VENTILATION: natural	☐

Criteria	Description
AIRCONDITIONING: general	Air conditioning to be provided to meet the required room temperature, humidity and air movement for comfort and to meet the outside air requirements for occupation as set out in AS1668.2.
AIRCONDITIONING: HEPA filtered	Air conditioning to be provided via high efficiency particulate air (HEPA) filtration at the point of air delivery into the room. Air conditioning to be operated at positive pressure (higher pressure compared to adjacent rooms/spaces) while also achieving the required room temperature, humidity and air movement for comfort and to meet the outside air requirements for occupation as set out in AS1668.2.
AIRCONDITIONING: positive pressure	Air conditioning to be operated at positive pressure (higher pressure compared to adjacent rooms/spaces) while also achieving the required room temperature, humidity and air movement for comfort and to meet the outside air requirements for occupation as set out in AS1668.2.
AIRCONDITIONING: negative pressure	Air conditioning to be operated at negative pressure (lower pressure compared to adjacent rooms/spaces) while also achieving the required room temperature, humidity and air movement for comfort and to meet the outside air requirements for occupation as set out in AS1668.2.
VENTILATION: exhaust	A mechanical system of exhaust is provided, extracting air from a space via an exhaust fan to outside, minimum exhaust rate and exhaust discharge point to meet the requirements of AS1668.2.
VENTILATION: supply	Outside air is provided to a space via an outside air fan with air filtration included as required, air flow rate and outside air intake location to meet the requirements of AS1668.2.
VENTILATION: natural	An outside air opening into a space is provided, often in the form of a weatherproof louvre to induce a flow of outside air into the space to meet the requirements of AS1668.2.

Medical Gas

Medical Gas	
	MEDICAL GAS: general anaesthesia ☐
	MEDICAL GAS: special care ☐
	MEDICAL GAS: special care, neonatal ventilation ☐
	MEDICAL GAS: birthing ☐

Criteria	Description
MEDICAL GAS: general anaesthesia	General anaesthesia is likely to be administered in this room. AS 2896 outlines that "A zone isolation valve shall be provided for each gas pipeline serving each anaesthetizing location and special care location" with Note 1 for this clause clarifying that "for the purposes of this Clause, the operating room and associated anaesthetic induction room are considered as one anaesthetizing location." Confirmation of clinical tasks to be undertaken is required at project level to finalise anaesthetizing locations.
MEDICAL GAS: special care	This room is considered a special care location. AS 2896 outlines that "A zone isolation valve shall be provided for each gas pipeline serving each anaesthetizing location and special care location" and AS 2896 also requires backup critical oxygen to special care locations. Confirmation of clinical tasks to be undertaken is required at project level to finalise special care locations.
MEDICAL GAS: special care, neonatal ventilation	This room is considered a special care location where neonatal patients are routinely ventilated. AS 2896 outlines that "A zone isolation valve shall be provided for each gas pipeline serving each anaesthetizing location and special care location" and AS 2896 also requires backup critical medical air to special care locations where neonatal patients are routinely ventilated. Confirmation of clinical tasks to be undertaken is required at project level to finalise special care, neonatal ventilation locations.
MEDICAL GAS: birthing	This room is considered a birthing area. AS 2896 outlines that "A zone isolation valve shall be provided for each gas pipeline serving each anaesthetizing location and special care location. A birthing area shall be controlled by at least one zone isolation valve box" with Note 3 for this clause clarifying that "separate isolation valves may be used for each delivery room." Confirmation of clinical tasks to be undertaken is required at project level to finalise birthing area locations.

Hydraulic

Hydraulic	WATER: drinking ☐
	WATER: specialty ☐
	DRAINAGE: sanitary ☐
	DRAINAGE: specialty ☐

Criteria	Description
WATER: drinking	A drinking water supply is provided within the room to a fixture or piece of equipment. Drinking water is the term coined for the water services that are supplied to fixtures within the building i.e. taps, sinks, toilets, showers, etc.
WATER: specialty	A water supply is provided within the room to a fixture or piece of equipment that requires special water services (treated to a greater degree than drinking water), such as de-ionised water or reverse osmosis water.
DRAINAGE: sanitary	There is drainage provided within this room for fixtures generating sanitary wastewater i.e. basins, sinks, toilets, equipment, etc. that are not subject to any trade waste discharge approval or monitoring i.e. high temperature, radioactive, grease waste, chemical waste, etc.
DRAINAGE: specialty	There is drainage provided within this room for fixtures generating specialty wastewater i.e. basins, sinks, toilets, equipment, etc. that are subject to trade waste discharge approval and monitoring i.e. high temperature, radioactive substances, grease waste, chemical waste, etc. These are substances that could affect the environment or the health of the community or be damaging to standard wastewater and sewerage infrastructure.

Fire

Fire	DETECTION: smoke	☐
	DETECTION: heat	☐

Criteria	Description
DETECTION: smoke	It is expected that smoke detection will be provided to the room in accordance with the requirements of Australian and/or New Zealand building codes and applicable Fire Standards (AS 1670 and NZS 4512). Smoke detection will be a requirement for the majority of rooms in hospital buildings. Where there is a spurious alarm risk an alternate detection method may be used.
DETECTION: heat	It is expected that heat detection will be provided to the room in lieu of smoke detection due to a spurious alarm risk unless another suitable concession is utilised. Note: rooms that contain localised spurious alarm risks may contain both heat and smoke detectors.

Additional considerations:

- In rooms that are considered “clean rooms” in regard to requirements for high level infection prevention and control (IP&C) strategies (e.g. operating rooms, sterile stock storerooms, etc.) flush mounted (concealed type) sprinklers should be provided to mitigate dust collection. IP&C requirements will need to be confirmed at a project level, however, rooms with high level IP&C requirements will typically also provide HEPA filtered air conditioning so review of the HVAC section of the performance requirements can inform early considerations of these rooms.
- For negative pressure rooms sprinkler selection must ensure sufficient air movement can be achieved for sprinklers to be activated so review of the HVAC section of the performance requirements can inform early considerations of these rooms.

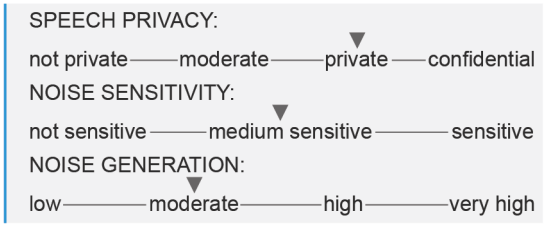
Shielding

Shielding	SHIELDING: ionising radiation	☐
	SHIELDING: magentic and radio frequency	☐

Criteria	Description
SHIELDING: ionising radiation	Within this room/an adjacent room ionising radiation is produced by equipment and/or radioactive substances and appropriate shielding is therefore required to operate in this room within safe dose limits. Shielding requirements must be confirmed at a project level to suit radiation sources. A shielding assessment must be carried out by a consulting radiation expert (CRE) and a report produced for the facility, detailing the extent and details of the shielding required.
SHIELDING: magnetic and radio frequency	Magnetic and radio frequency shielding is required to this room. • Radiofrequency (RF) shielding is the provision of a conductive enclosure for creating electromagnetic (EM) isolation within a room to minimise occurrence of interference/distortion in imaging • Magnetic shielding refers to the attempt to isolate or block a magnetic field (e.g. to prevent unwanted interference from an MRI magnet on nearby electronic devices). Shielding requirements must be confirmed at a project level to suit magnetic field and radio frequency sources.

Acoustics

Acoustics



Criteria		Description
SPEECH PRIVACY	**SPEECH PRIVACY: not private**	From outside this room normal speech would be clearly audible and intelligible.
	SPEECH PRIVACY: moderate	From outside this room normal speech would be audible and intelligible but not intrusive.
	SPEECH PRIVACY: private	From outside this room normal speech would be audible but not intelligible.
	SPEECH PRIVACY: confidential	From outside this room raised speech would be audible but not intelligible. Normal speech would be inaudible.
NOISE SENSITIVITY	**NOISE SENSITIVITY: not sensitive**	Noise from other rooms does not affect the use of this room.
	NOISE SENSITIVITY: medium sensitive	This room generally needs to be free from noise of other rooms.
	NOISE SENSITIVITY: sensitive	This room cannot accommodate any noticeable noise from outside this room.
NOISE GENERATION*	**NOISE GENERATION: low**	Noise generation during use of this space is very low, e.g. sparsely occupied spaces or very quiet study areas
	NOISE GENERATION: moderate	Noise generation during use of this space is moderate, e.g. normal speech levels.
	NOISE GENERATION: high	Noise generation during use of space is high e.g. raised speech levels, laundry machines, or other noisy equipment
	NOISE GENERATION: very high	Noise generation during use of space is very high e.g. shouting speech levels, or other noisy equipment

* In addition, rooms that will generate noise with significant low frequency content (e.g. plant rooms) may require higher performance.