

DOH Health Facility Guidelines 2022

Part B – Health Facility Briefing & Design

197 Inpatient Unit – Rehabilitation



Executive Summary

Rehabilitation services aim to return patients to their homes and normal, independent daily life.

Rehabilitation will assist the patients to regain full or partial functionality that may have been lost due to illness, surgical treatment, accidents, stroke, sports injuries, amputations and the like.

The Rehabilitation Inpatient Unit will accommodate medical, surgical and some aged care patients. In larger health facilities, this Unit may include specialist medical and surgical patients, for example cardiac, neurology / neurosurgery, aged care and orthopaedic patients.

The most common modes of treatment in Inpatient Unit – Rehabilitation are:

- Orthopaedic Rehabilitation
- Neuro Rehabilitation
- Vascular Rehabilitation
- Sports Rehabilitation

The levels of care will range from acute rehabilitation nursing with specialist care, with a progression to intermediate care and self-care prior to discharge.

Rehabilitation facilities need to be flexible and adapt to the condition of the patients, including the level of ability and disability which may vary considerably.

There are two typical stages in rehabilitation after initial acute treatment in a hospital including Surgery:

- Acute Rehabilitation
- Post-acute Rehabilitation

Inpatient Unit – Rehabilitation may have its own on-ward Gym for the convenient treatment of patients.

Inpatient Unit – Rehabilitation encourages the patients to spend the maximum amount of time out of the bed, using a lounge, dining, ADL Kitchen, ADL Bathroom and ADL Laundry.

In addition, the Unit must provide facilities and circumstances to suit the needs of patients and visitors, as well as staff working standards

Table of Contents

Executive Summary	2
Table of Contents.....	3
1. Inpatient Unit - Rehabilitation	4
1.1 Introduction	4
1.2 Description	4
1.3 Functional & Planning Considerations	4
1.3.1 Operational Models	4
1.3.2 Models of Care	4
1.3.3 Planning Models	5
1.3.4 Functional Zones	6
1.4 Functional Relationships	9
1.4.1 External Relationships	9
1.4.2 Internal Relationships	9
1.4.3 Functional Relationships Diagram	9
1.5 Design Considerations	11
1.5.1 Environmental Considerations	11
1.5.2 Space Standards and Components	12
1.5.3 Accessibility	14
1.5.4 Doors	14
1.5.5 Safety and Security	14
1.5.6 Drug Storage	14
1.5.7 Finishes	14
1.5.8 Fixtures, Fittings and Equipment	15
1.5.9 Building Services Requirements	15
1.5.10 Infection Control	17
1.6 Standard Components of the Unit	17
1.6.1 Non-Standard Components	18
1.7 Schedule of Accommodation	19
1.7.1 Inpatient Unit - Rehabilitation	19
1.8 Further Reading	23

1. Inpatient Unit - Rehabilitation

1.1 Introduction

The major goal of most rehabilitation services is to safely return patients to their homes and enable independence in basic daily activities. Rehabilitation will assist the patients to regain full or partial functionality that may have been lost due to illness, surgical treatment, accidents, stroke, amputations, and the like.

In addition, the Unit must provide facilities and circumstances to suit the needs of patients and visitors, as well as staff working standards.

1.2 Description

The Inpatient Unit – Rehabilitation provides appropriate accommodation for the delivery of healthcare services, such as diagnosis, care, and treatment, to inpatients who are recovering from surgery or a medical incident and require additional therapy, treatment, or retraining to achieve complete independence. In addition, the Unit must provide facilities and conditions to suit the needs of patients and visitors, as well as staff working standards.

The Rehabilitation Inpatient Unit will accommodate medical, surgical and some aged care patients. In larger health facilities, this Unit may include specialist medical and surgical patients, for example cardiac, neurology / neurosurgery, aged care and orthopaedic patients.

The most common modes of treatment in Inpatient Unit – Rehabilitation are:

- Orthopaedic Rehabilitation
- Neuro Rehabilitation
- Vascular Rehabilitation
- Sports Rehabilitation

1.3 Functional & Planning Considerations

1.3.1 Operational Models

Operational Models generally applicable to the Inpatient Unit – Rehabilitation include:

- Bedside Case management where consistent case management plans are implemented ensuring uniform treatment of patients with similar conditions.
- Specialty rehabilitation such as neurology, head injuries, orthopaedics, etc.
- Long Stay Rehabilitation Unit where patients are treated over an extended period for conditions such as spinal injuries.

1.3.2 Models of Care

The Inpatient Unit - Rehabilitation Models of Care may vary depending on the patients' specialty needs and acuity levels, as well as the number and skill level of nursing staff available. Its primary focus, however, will be on restorative activities.

Examples of the Models of Care that may be implemented include:

- **Multi-disciplinary case management;** where patient care is managed by a team of medical,

nursing, and allied health professionals. This model is best suited for Rehabilitation Units where patient treatment, including allied health specialties, is a major focus.

- **Patient allocation;** where a group of patients is assigned to nursing and allied health workers for total care and treatment. This model allows employees to gain experience with a variety of patient care acuities, but it necessitates the assignment of patients that are appropriate for the nursing staff's expertise and ability.
- **Task assignment;** where patient care duties are allocated to nursing and allied health personnel for all patients. This technique is effective in providing patient care in situations where staff resources are limited, such as night shifts.
- **Team nursing;** where nursing staff is organized into teams and given a group of patients to care for. Allied Health personnel who are involved in specific rehabilitation patient management tasks provide additional activities. This strategy allows for a diverse skill mix of employees and allows more junior employees to be directly overseen by more senior employees.
- Combinations of the above.

The physical environment should permit of a range of models of care to be implemented, allowing flexibility for future change.

Levels of Care

The levels of care will range from acute rehabilitation nursing with specialist care, with a progression to intermediate care and self-care prior to discharge.

Rehabilitation facilities need to be flexible and adapt to the condition of the patients, including the level of ability and disability which may vary considerably.

Rehabilitation may continue even after discharge within the patient's home. This type of rehabilitation is referred to Rehabilitation in the Home or RITH.

Care Settings

There are two typical stages in rehabilitation after initial acute treatment in a hospital including Surgery:

Acute Rehabilitation- this occurs in the days following the treatment or surgery. This type of rehabilitation is generally best provided within the same facility in a dedicated Acute Rehabilitation Unit. It can also be provided in an Inpatient Unit – General, if an on-ward Gym and the required rehabilitation workforce are provided. Acute Rehabilitation may require a few days or a few weeks of stay within the unit.

Post-acute Rehabilitation- this occurs after the initial Acute Rehabilitation by the transfer of patient to a more dedicated Rehabilitation Unit or Rehabilitation Hospital. Post-acute rehabilitation is provided at a lower cost than an acute setting and will suite a longer term treatment which may be from several weeks to several months. Longer term rehabilitation in this type of setting is referred to as Slow-stream Rehabilitation.

For Mental Health Rehabilitation, refer to the Mental Health Unit FPU's in these Guidelines.

1.3.3 Planning Models

Bed Numbers and Complement

The Inpatient Unit - Rehabilitation may contain up to 30 patient beds (± 2) and shall have Bedroom accommodation complying with the Standard Components.

It is recommended that the total number of beds be reduced to 25 per unit in order to incorporate therapy areas such as a Physiotherapy Gym, Lounge and Dining area within the unit for the convenience of patients. Alternatively, the therapy areas may be provided centrally within the facility and used by several Rehabilitation Units. Such central facilities such as Gym may also be shared with Day Rehabilitation Services. One of the problems of providing central therapy services for inpatients is transport to and from the inpatient units to such facilities. For example, neuroscience patients whose attention span may be limited and who need a quiet environment. It also requires either a portering service or use of valuable therapist time in transport functions.

A minimum of 80 % of the total bed complement shall be provided as Single Bedrooms in an Inpatient Unit used for overnight stay; the current trend is to provide a greater proportion of single Bedrooms largely for infection control and privacy reasons.

The balance of the beds may be in 2-Bedrooms. Rooms with 3 or more beds should not be used for new Rehabilitation Units.

Swing Beds

For flexibility and added options for utilisation it may be desirable to include provisions for Swing Beds. This may be a single bed or a group of beds that may be quickly converted from one category of use to another. An example might be long-stay beds which may be converted to acute beds.

At any given time, swing beds are part of an Inpatient Unit in terms of the total number of beds and the components of the unit. For example:

- Unit A + Swing Beds = One Inpatient Unit as per these Guidelines.
- Alternatively: Unit B + the same Swing Beds = One Inpatient Unit as per these Guidelines

Facility design for swing beds will often require additional corridor doors and provision for switching patient/ nurse call operation from one Staff Station to another. Security is also an issue, for example, converting General/Medical beds to Paediatric beds.

1.3.4 Functional Zones

The Rehabilitation Inpatient Accommodation Unit will comprise the following Functional Zones:

- Entry/ Reception area - may also be a shared area or provided at the Main Entry. Optionally, this area may incorporate a waiting area.
- Patient Areas - areas where patients are accommodated, and facilities specifically intended for the patients.
- Therapy areas - Gymnasium or multi-purpose areas where unit-based therapy and activities may be undertaken such as physiotherapy, occupational therapy, speech therapy, etc.
- Support Areas - areas used by staff to support the activities of the unit including utility rooms and stores.
- Staff Areas - areas accessed by staff, including administration and rest areas.
- Shared Areas - public and staff areas that may be shared by two or more Inpatient Units.

The above zones are briefly described here:

Entry/ Reception Area

The Reception is the receiving hub of the unit and may be used to control the security of the Unit. Optionally, gender separated waiting areas for visitors may be provided either immediately outside or immediately inside the unit. Waiting areas may be shared between 2 or even 3 adjacent Inpatient Units. This area needs access to separate male/female toilet facilities and prayer rooms.

Optionally, visitor and staff gowning, and protective equipment may also be located immediately at the entrance for infection control in case ward isolation becomes necessary during a break-out.

Patient Areas

Patient Areas will include:

- **Bedrooms** – These may include 1 or 2 Bedrooms in new facilities. Existing facilities undergoing minor refurbishment may retain 3 or 4 Bedrooms. Five (5) or more beds in a one inpatient room are not permitted.

1 bedroom is referred to as Single or Private room. Two+ bedrooms are referred to as Shared bedrooms.

The preference is for all Single rooms for all new hospitals. If this is not economically feasible, then 2-Bedrooms may also be considered. In new facilities at least 80% of all beds should be in single rooms.

Hospital Management may consider utilising 2-Bedrooms for a single patient use until the Inpatient Unit occupancy reaches a level where each 2-Bedroom has one patient. After that the 2-Bedrooms will take one additional patient each. Considering that typically Inpatient units are planned for 85% occupancy, in this option, the balance of 15% un-occupied beds will comprise the second beds in the 2-Bedrooms. Therefore, such an option can combine economy with maximum patient privacy for most patients most of the time.

A variety of Patient Bedrooms will be required in each Inpatient Unit. These are listed in the schedules provided in the Schedule of Accommodation within this FPU guidelines. These include Standard Rooms, Isolation Rooms, Bariatric Rooms and optionally VIP rooms.

The Inpatient Unit – Rehabilitation should be designed to accommodate a variety of rehabilitation patients of varying mobility and independence. Patients in the Rehabilitation Unit may be lower in acuity but have an increased requirement for ongoing therapy until discharge. All Bedrooms will require access for lifting equipment.

Bedroom design needs to allow flexibility in placement of furniture such as lockers and chairs, particularly for patients with hemiplegia that require room furniture on a particular side. Bedrooms should allow for a wheelchair to be parked adjacent to the bed.

As patients may have a longer stay than general inpatients, personal storage and lockable rooms may be provided.

- **Ensuites** – each ensuite includes a toilet, shower and wash basin. Provide a minimum of one toilet per 4 inpatient beds in shared rooms (ideal is one per 2 beds) and one toilet per private inpatient rooms. Optionally, in multi-bedded rooms two separate rooms may be provided one with toilet and wash basin and the other with shower and hand wash basin. Ensuites may only serve one room. Ensuites may not be shared between two rooms.
- **Lounge areas** – Patient Lounges are optional where all patient bedrooms are Single. However Patient Lounges are required where the unit includes shared bedrooms.
- **On-ward Gym** – depending on the operational policy of the hospital, on-ward gyms may be provided for immediate post-surgery rehabilitation in preference to transfer to (or in addition to) a central gym. These rooms may also be configured as Multi-purpose rooms and used for a variety of purposes including therapy sessions, ad-hoc meetings or patient education. On-ward Gyms may also incorporate Physiotherapy treatment bays and Occupational Therapy facilities.
- **Patient Lounge** – a patient lounge should be provided to allow the maximum number of patients to leave the bedroom and spend part of the day in a day area, socialise and get used

to the return to normality. The lounge will be equipped with TV, comfortable seating, book case and pleasant interior design resembling a residential or hotel setting. The patient lounge may also be used as a setting for visitors to spend some time with the patient in a setting outside the bedroom.

- **Patient Dining** – this may be separate or immediately adjacent the above Patient Lounge. Most of the patients will be encouraged to have their meals in the common Dining room. This is also part of the process of returning to normality as well as opportunities for socialising. The patient dining room may at times be used for activities such as craft work.
- **ADL Bathroom** – ADL refers to Activities of Daily Living. This is a specially designed bathroom suitable for patients with limited mobility such as those on wheelchairs to learn how to use a specially designed bathroom. The bathroom will be equipped with safe fixtures, grab rails and space for wheelchair movement.
- **ADL Kitchen** – As above, this is a practice kitchen intended to allow rehabilitation patients with limited mobility to practice using a kitchen and common components such as a stove, fridge, sink etc. The ergonomics of an ADL kitchen are intended for patients who may be on wheelchair and therefore use these facilities at a lower height than in a normal kitchen. All components are selected to be safe and capable of operation even with partial disability. Optionally ADL kitchen can be open to the common dining room and be used on a daily basis by the patients.

All Patient areas are to comply with Standard Components included in these Guidelines.

Support Areas

Support Areas include:

- Handwashing, Linen and Equipment bays
- Clean Utility, Dirty Utility and Disposal Rooms
- Beverage Bays and Pantries
- Meeting Room/s and Interview rooms for education sessions, interviews with staff, patients and families and other meetings

Staff Areas

Staff Areas will consist of:

- Offices and workstations
- Staff Room
- Staff Station and handover room
- Toilets, Shower and Lockers

Note 1: The Offices / workstations will be required for administrative as well as clinical functions to facilitate educational / research activities

Note 2: Staff Areas, particularly Staff Rooms, Toilets, Showers and Lockers may be shared with adjacent Units as far as possible.

Shared Areas

In addition to the shared Staff areas above, Shared Areas include:

- Patient Bathroom - Assisted
- Treatment Room

- Public Toilets
- Gender Segregated Visitor Lounge
- Family Visiting Room - area should consider the potential usage and adjust pro-rata if it is to be shared
- Some of the Staff Areas

Note 1: Shared Areas must be shared by the same type of FPU only with all staff having access to at least one Shared Area.

1.4 Functional Relationships

As for other Inpatient Units, the Inpatient Unit – Rehabilitation requires good functional relationships to ensure the efficient delivery of services

1.4.1 External Relationships

Principal relationships with other Units include:

- Ready access to Rehabilitation Unit including Physiotherapy, Occupational Therapy, Hydrotherapy and Allied Health Services.
- Ready access to diagnostic facilities such as Medical Imaging.
- Ready access to Clinical Laboratories and Pharmacy (may be via Pneumatic Tube System).
- Ready access from the Emergency Unit, Critical Care Units (ICU and CCU).
- Ready access to Materials Management, Housekeeping and Catering Units.

Principal relationships with public areas include:

- Easy access from the Main Entrance of a facility.
- Easy access to public amenities.
- Easy access to parking for visitors.

Principal relationships with Staff Areas

- Ready access to staff amenities which may be centrally located.

Note: Rehabilitation Inpatient Units must not be located so that access to one Unit is via another (except the Swing Bed components)

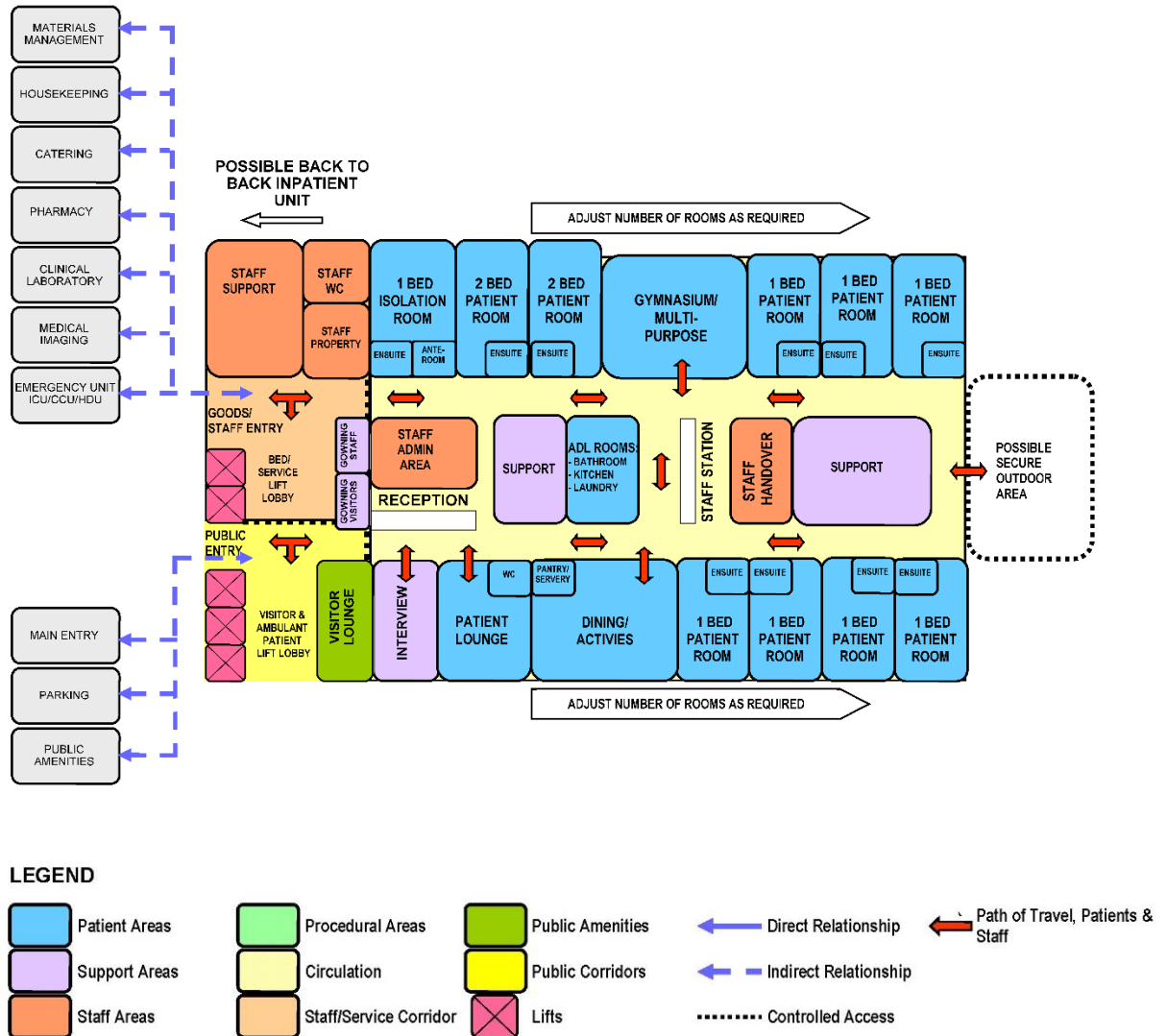
1.4.2 Internal Relationships

Optimum internal relationships include:

- Patient occupied areas as the core of the unit.
- The Staff Station and associated areas need direct access and observation of Patient Area corridors.
- Utility and storage areas need ready access to both patient and staff work areas.
- Public Areas should be on the outer edge of the Unit.
- Shared Areas should be easily accessible from the Units served without going through one unit to reach the other.

1.4.3 Functional Relationships Diagram

The functional relationships of a typical Rehabilitation Inpatient Unit in the Racetrack Model are demonstrated in the diagram below. Other Models will need to have similar relationships but implemented in different ways. Refer to the typical models above.



Important and desirable external relationships outlined in the diagram include:

- Clear Goods/Service/Staff Entrance
 - Access to/ from key clinical units associated with patient arrivals/ transfers via service corridor
 - Access to/ from key diagnostic facilities via service corridor
 - Entry for staff via the public or service corridor
 - Access to shared staff break and property areas via service corridor
 - Access to/ from Materials, Catering and Housekeeping Units via service corridor.
- Clear Public Entrance
 - Entry for ambulant patients and visitors directly from dedicated lift and public corridor
 - Access to / from key public areas, such as the main entrance, parking and cafeteria from the public corridor and lift

Important and desirable internal relationships outlined in the diagram include:

- Bedroom(s) on the perimeter arranged in a racetrack model (although other models are also suitable).

- Staff Station is centralised for maximum patient visibility and access.
- Clinical support areas located close to Staff Station(s) and centralised for ease of staff access.
- Administrative areas located at the Unit entry and adjacent to Staff Station.
- Reception located at Unit entry for control over entry corridor.
- Personal Protective Equipment Bays located at entry for both Staff and Visitors for infection control during ward isolation.

1.5 Design Considerations

Refer to Part C for ergonomic issues, Part D for Infection Control, and Part E for Engineering Requirements.

1.5.1 Environmental Considerations

Acoustics

The Rehabilitation Inpatient Unit should be designed to minimise the ambient noise level within the unit and transmission of sound between patient areas, staff areas and public areas. Consideration should be given to the location of noisy areas or activity, preferably placing them away from quiet areas including patient bedrooms.

Acoustic treatment will be required to the following:

- patient bedrooms,
- interview and meeting rooms
- therapy and treatment rooms
- staff rooms
- toilets and showers

Refer to Part G – Acoustics of these Guidelines for more information.

Natural Light

The use of natural light should be maximised throughout the Unit. Windows are an important aspect of sensory orientation and psychological well-being of patients. A window in patient rooms is required. Natural light must be available in all bedrooms and is desirable in other patient areas such as lounge rooms. An open and pleasant outlook, preferably to a landscaped area is highly desirable.

Rooms may be organised to face internal courtyards (open to the sky). However, care should be taken to prevent privacy issues (also see below).

Rooms may be organised to face an internal multi-storey atrium as long as the atrium itself receives natural light. Care should be taken to prevent any privacy issues if rooms face an internal atrium.

Privacy

The design of the Rehabilitation Inpatient Unit needs to consider the contradictory requirement for staff visibility of patients while maintaining patient privacy. Unit design and location of staff stations will offer varying degrees of visibility and privacy. The patient acuity including high dependency, elderly or intermediate care will be a major influence.

Each bed shall be provided with bed screens to ensure privacy of patients undergoing treatment in both private and shared inpatient rooms. Refer to the Standard Components for examples.

Other factors for consideration include:

- use of windows in internal walls and/or doors, provision of privacy blinds.
- location of sanitary facilities to provide privacy for patients while not preventing observation by staff.
- Location of external, courtyard or atrium facing bedroom windows to prevent others from looking into the bedrooms.

1.5.2 Space Standards and Components

Room Capacity and Dimensions

In new facilities, maximum room capacity shall be two patients per room.

Minimum dimensions, excluding such items as ensuites, built-in robes, alcoves, lockers, entrance lobbies and floor mounted mechanical equipment shall be as follows:

Room Type	Minimum Width	Minimum Length	Minimum Area
SINGLE BEDROOM	3800 mm	3960 mm	18m ²
TWO BEDROOM	3800mm	6300mm	28m ²

These spaces should accommodate comfortable furniture for one or two family members or carers without blocking staff member access to patients.

Minimum room dimensions are based on overall bed dimensions (buffer to buffer) of 2250 mm long x 1050 mm wide. Minor encroachments including columns and hand basins that do not interfere with functions may be ignored when determining space requirements.

While single and 2 bed patient rooms are recommended and should be preferenced, existing 4 Bedrooms are allowed. Any new rooms should only exist as single or double rooms, and applications for 4 Bedrooms in the future will require approval on a case by case basis from the Department of Health.

Bed Spacing / Clearances

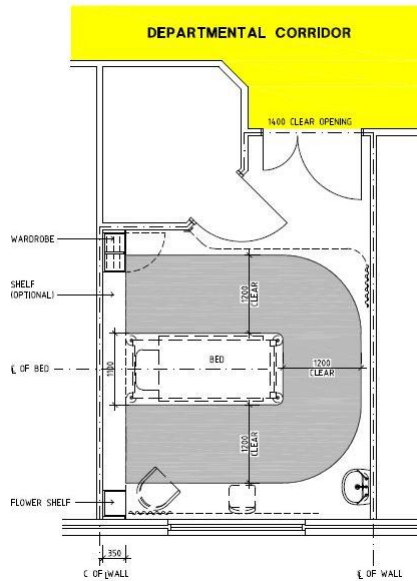
Bed dimensions become a critical consideration in ascertaining final room sizes. The dimensions noted in these Guidelines are intended as minimums and do not prohibit the use of larger rooms where required.

All patient beds must comply with standard components for fittings, furniture, mechanical and electrical services and nurse call systems including the clearances that they imply.

In bedrooms there shall be a clearance of 1200 mm available at the foot of each bed to allow for easy movement of equipment and beds.

Note: the following diagrams are only intended to show the clearance around beds, and are not indicative of the room design.

Single Bedrooms

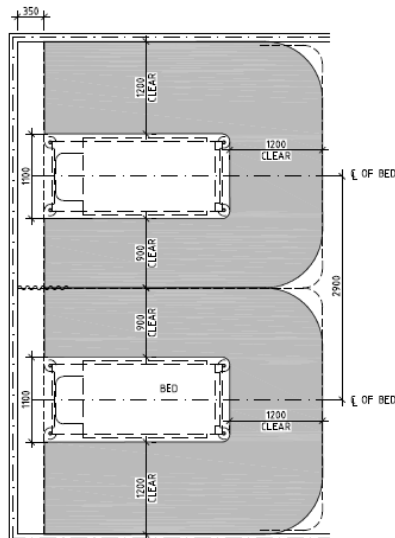


NO FIXED OBJECTS IN
CLEAR CIRCULATION ZONE

Multiple Bedrooms

In multiple-Bedrooms such as 2 Bedrooms, the minimum distance between bed centre lines shall be 2900 mm.

The clearance required around beds in multiple-Bedrooms and chair spaces is represented diagrammatically below. Please note that in new facilities, there should be no more than 2 beds per room. However, in existing facilities, undergoing minor refurbishment 3 or 4 Bedrooms are also permitted and these guidelines apply.



NO FIXED OBJECTS IN
CLEAR CIRCULATION ZONE

1.5.3 Accessibility

Bedrooms and ensuite should comply with accessibility requirements in accordance with local standards, including NFPA. Accessible bedrooms and ensuite should enable normal activity for wheelchair dependant patients, as opposed to patients who are in a wheelchair as a result of their hospitalisation.

1.5.4 Doors

Door openings to inpatient bedrooms shall have a minimum of 1200mm clear opening to allow for easy movement of beds and equipment.

1.5.5 Safety and Security

The Rehabilitation Inpatient Unit shall provide a safe and secure environment for patients, staff and visitors, while remaining a non-threatening and supportive atmosphere conducive to recovery. Longer term patients may require access to lockable storage for personal items and a lockable room.

The facility, furniture, fittings and equipment must be designed and constructed in such a way that all users of the facility are not exposed to avoidable risks of injury.

Security issues are important due to the increasing prevalence of violence and theft in health care facilities.

The arrangement of spaces and zones shall offer a high standard of security through the grouping of like functions, control over access and egress from the Unit and the provision of optimum observation for staff. The level of observation and visibility has security implications. Units should be assessed and must meet security provision checklists as seen in **Part C - Access, Mobility, OH&S** of these Guidelines.

1.5.6 Drug Storage

Drugs prescribed at the hospital should not be stored in the patient bedroom. All drugs should be managed by the responsible nurses via a Medication Room.

Optionally Medication Room may be combined with a Clean Utility room as long as the requirements of both functions are accommodated.

Medication may be manually stored and managed, or alternatively automated Medication Management systems may be utilised. Controlled or dangerous drugs must be kept in a secure cabinet within the Medication Room with alarm. A refrigerator with integrated alarm and temperature monitor, lockable, to store restricted substances as required.

Medication Room must have space for parking a medication trolley.

The room requires controlled staff only access and may include CCTV surveillance.

Note: Storage for dangerous drugs must be in accordance with the relevant Authority legislation and regulations.

1.5.7 Finishes

Finishes including building fabric, floor, wall and ceiling finishes, should be relaxing and non-institutional as far as possible. The following additional factors should be considered in the selection of finishes:

- acoustic properties
- durability

- ease of cleaning
- infection control
- fire safety
- movement of equipment

In areas where clinical observation is critical such as bedrooms and treatment areas, colour selected must not impede the accurate assessment of skin tones. Walls shall be painted with lead free paint.

Refer to Part C - Access, Mobility and OH&S of these Guidelines for more information on wall protection, floor finishes and ceiling finishes.

1.5.8 Fixtures, Fittings and Equipment

Curtains/ Blinds

Each room shall have partial blackout facilities (blinds or lined curtains) to allow patients to rest during the daytime.

Window curtains and privacy bed screens must be washable, fireproof and cleanly maintained at all times. Disposable bed screens may also be considered.

If blinds are to be used instead of curtains, the following will apply:

- Vertical blinds and Holland blinds are preferred over horizontal blinds as they do not provide numerous surfaces for collecting dust.
- Horizontal blinds may be used within a double-glazed window assembly with a knob control on the bedroom side.

1.5.9 Building Services Requirements

This section identifies unit specific services briefing requirements only and must be read in conjunction with **Part E - Engineering Services** for the detailed parameters and standards applicable.

Information and Communication Technology

Unit design should address the following Information Technology/ Communications issues:

- Electronic patient records and patient information systems
- Electronic forms and requests for investigations, pharmacy, catering, supplies
- Telephones including cordless and mobile phones
- Picture archiving communications systems (PACS)
- Computers, laptops, hand-held tablets and other smart devices
- Patient call, nurse assist call, emergency call systems
- Paging for staff and emergencies
- Duress systems, personal mobile duress systems may be considered
- Supply and records management systems including bar coding for supplies
- Data and communication outlets, servers and communication room requirements
- Wireless network requirements for staff, patients and visitors
- Videoconferencing requirements.

Nurse Call

Patient call, staff assist, and emergency call facilities shall be provided in all patient areas including Bedrooms, Lounges, Toilets, Ensuities and Bathrooms for patients and staff to request urgent assistance.

The individual call buttons shall alert to an annunciator system. Annunciator panels should be located in strategic points within the circulation area, particularly in Staff Stations, Staff Rooms, and Clean Utility/ Medication Rooms, and should be of the “non-scrolling” type, allowing all calls to be displayed at the same time. The audible signal of these call systems should be controllable to ensure minimal disturbance to patients and babies. The alert to staff members shall be done in a discreet manner at all times.

Heating Ventilation and Air-conditioning (HVAC)

The air temperature in inpatient areas should be capable of being maintained along with relative humidity, both should be adjustable.

All HVAC units and systems are to comply with services identified in Standard Components and **Part E – Engineering Services**.

Medical Gases

Medical gas is intended for administration to a patient in anaesthesia, therapy, or diagnosis. Medical gases shall be installed and readily available in each patient bay.

Oxygen and suction must be provided to all inpatient beds, while medical air is optional dependent of the service being provided. Medical gases will be provided for each bed according to the quantities noted in the **Standard Components Room Data Sheets**.

Medical Gases must be dedicated to each patient. Gas outlets must not be shared between two patients.

Patient Entertainment Systems

Patients may be provided with the following entertainment/ communications systems according to the Operational Policy of the facility:

- Television
- Telephone
- Radio
- Internet (through Wi-Fi)

Dialysis Stations

The Rehabilitation Inpatient Unit should provide one or more Bedrooms with a dialysis drain for use with mobile dialysis equipment, as needed by the Unit Operational Policy.

Pneumatic Tube Systems

The Rehabilitation Inpatient Unit may include a pneumatic tube station, as determined by the facility Operational Policy. If provided the station should be located in close proximity to the Staff Station or under direct staff supervision.

Hydraulics

Warm water supplied to all areas accessed by patients within the Inpatient Unit should be ideally at 38 degrees Celsius and must not exceeds 43 degrees Celsius. This requirement included all staff handwash basins and sinks located within patient accessible areas.

1.5.10 Infection Control

Hand Basins

Hand washing facilities will be required in the corridors, patient bedrooms and other rooms as specified for the Standard Components. Hand washing facilities shall not impact on minimum clear corridor widths.

At least one hand washing bay is to be conveniently accessible to the Staff Station. Hand basins are to comply with **Standard Components – “Bay - Hand-washing”** and **Part D - Infection Prevention and Control**.

Hand Basins in patient bedrooms should be used solely for infection control purposes and utilised only by staff. Patients should use hand basins provided in bathrooms for personal purposes. Staff may not use the patient ensembles hand wash basin.

Antiseptic Hand Rubs

Antiseptic hand rubs should be located so they are readily available for use at points of care, at the end of patient beds and in high traffic areas.

The placement of antiseptic hand rubs should be consistent and reliable throughout facilities. Antiseptic hand rubs are to comply with **Part D - Infection Control**, in these guidelines.

Antiseptic Hand Rubs, although very useful and welcome, cannot fully replace Hand Wash Bays.

Isolation Rooms

Standard Single (1 bed) patient rooms are regarded as Class S isolation. At least two 'Class N - Negative Pressure' Isolation Room shall be provided for each 64 beds in facilities of Role Delineation Level (RDL) 4 and above. These isolation rooms beds may be used for normal acute care when not required for isolation.

Additional Isolation Class P may be provided according to the Hospital's Clinical Service Plan or the recommendation of the Infection Control officers.

1.6 Standard Components of the Unit

Standard Components are typical rooms within a health facility, each represented by a Room Data Sheet (RDS) and a Room Layout Sheet (RLS).

The Room Data Sheets are written descriptions representing the minimum briefing requirements of each room type, described under various categories:

- Room Primary Information; includes Briefed Area, Occupancy, Room Description and relationships, and special room requirements).
- Building Fabric and Finishes; identifies the fabric and finish required for the room ceiling, floor, walls, doors, and glazing requirements.
- Furniture and Fittings; lists all the fittings and furniture typically located in the room; Furniture and Fittings are identified with a group number indicating who is responsible for providing the item according to a widely accepted description as follows:

Group	Description
1	Provided and installed by the builder
2	Provided by the Client and installed by the builder
3	Provided and installed by the Client

- Fixtures and Equipment; includes all the serviced equipment typically located in the room along with the services required such as power, data and hydraulics; Fixtures and Equipment are also identified with a group number as above indicating who is responsible for provision.
- Building Services; indicates the requirement for communications, power, Heating, Ventilation and Air conditioning (HVAC), medical gases, nurse/ emergency call and lighting along with quantities and types where appropriate. Provision of all services items listed is mandatory.

The Room Layout Sheets (RLS's) are indicative plan layouts and elevations illustrating an example of good design. The RLS indicated are deemed to satisfy these Guidelines. Alternative layouts and innovative planning shall be deemed to comply with these Guidelines provided that the following criteria are met:

- Compliance with the text of these Guidelines.
- Minimum floor areas as shown in the schedule of accommodation.
- Clearances and accessibility around various objects shown or implied.
- Inclusion of all mandatory items identified in the RDS.

The Inpatient Unit - Rehabilitation will consist of Standard Components to comply with details described in these Guidelines. Refer also to Standard Components Room Data Sheets (RDS) and Room Layout Sheets (RLS) separately provided.

1.6.1 Non-Standard Components

Non-standard rooms are identified in the schedules of accommodation as NS and are identified below.

Bay - Pneumatic Tube

The Bay - Pneumatic Tube should be located at the Staff Station/s under the direct supervision of staff for urgent arrivals. The location should not be accessible by external staff or visitors.

Requirements include:

- The bay should not impede access within staff station areas
- Racks should be provided for pneumatic tube canisters
- Wall protection should be installed to prevent wall damage from canisters

Sitting Alcove

The sitting alcove is a small recess along the corridor for the patient to rest quietly and for staff to conduct informal discussions. The Sitting Alcove should consider and include the following:

- Seating suitable with bariatric capacity
- Readily accessible Nurse Call system
- Suitably reinforced heavy-duty grab rail
- Appropriate depth to ensure Sitting Alcove does not encroach on corridor space

1.7 Schedule of Accommodation

The Schedule of Accommodation for a 25 bed Rehabilitation Inpatient Unit at all RDL levels follows. Quantities and sizes of some spaces will need to be determined in response to the service needs on a case by case basis.

1.7.1 Inpatient Unit - Rehabilitation

ROOM/ SPACE	Standard Component Room Codes						All RDLs Qty x m ²	Remarks
Unit Size							25 Beds	
Entrance/ Reception							Qty x m ²	
Reception	recl-10-d						1 x 10	
Lounge - Visitor	wait-30-d						1 x 30	Divided into male/female areas. Area may be enlarged to increase seating capacity
Meeting Room - Small	meet-9-d similar						1 x 12	Interviews with family
Toilet - Public	wcpu-3-d						2 x 3	Separate Male and Female. Minimum 1 pair per floor
Toilet - Accessible	wcac-d						1 x 6	Minimum 1 per floor
Patient Areas								
1 Bedroom - Standard	1br-st-18-d						17 x 18	Mix and number depend on service demand
1 Bedroom – Isolation, Negative Pressure	1br-isp-18-d						1 x 18	Class N rooms are mandatory according to the ratios nominated in this FPU. Minimum size is 18m ² . Any isolation room may be combined with the mandatory Bariatric room to form and Isolation Bariatric room at 28m ² .
1 Bedroom – Isolation, Positive Pressure	1br-isn-18-d						1 x 18	Class P isolation rooms according to the clinical services plan. Any isolation room may be combined with the mandatory Bariatric room to form and Isolation Bariatric room at 28m ² .
1 Bedroom - Large	1br-lg-28-d						1 x 28	Minimum 1 per unit of 30 beds required. Include Dialysis outlet in all Bariatric rooms and follow minimum Bariatric Standards. This room may also be combined with any Isolation room to form an Isolation Bariatric room at 28m ² .
1 Bedroom - VIP	1br-vip-36-d						1 x 36	Provide according to service demand
2 Bedroom	2br-st-28-d						2 x 28	Mix and number depend on service demand
Anteroom	anrm-d						2 x 6	For 1 Bedroom - Isolation

ROOM/ SPACE	Standard Component Room Codes					All RDLs Qty x m ²	Remarks
Unit Size						25 Beds	
Ensuite - Standard	ens-st-d or ens-st-c-d					21 x 5	Directly accessible from each 1 Bed, 2 Bed, Isolation
Ensuite - Super	ens-sp-d					1 x 6	For 1 Bedroom - Large. Special fittings required for bariatrics
Ensuite - VIP	ens-vip-d					1 x 8	For 1 Bedroom - VIP
Lounge - Patient	lnpt-15-d similar					1 x 35	Patient communal space modify size to suit service
Dining / Activities Room	dinr-d similar					1 x 50	Based on 2m ² per patient
Gymnasium/ Multi-purpose Room	gyah-45-d					1 x 45	Optional, size to suit service
Pantry/ Servery	ptry-d similar					1 x 8	Adjacent Dining/ Activities Room
ADL Bathroom	adlb-d					1 x 12	May be open to the patient dining
ADL Kitchen	adlk-enc-d					1 x 12	
ADL Laundry	adll-8-d					1 x 8	Optional
Sitting Alcove	NS					2 x 2	Optional, locate along Corridors
Toilet – Patient (M/F)	wcpt-d					2 x 4	Optional; locate adjacent to communal areas
Bathroom - Assisted	bath-d					1 x 16	1 per 60 beds or may be shared between 2 units
Treatment Room	trmt-14-d					1 x 14	Optional; provide according to service demand
Support Areas							
Bay - Beverage, Enclosed	bbev-enc-d					1 x 5	Optional; this is in addition to Pantry/ Servery
Bay - Handwashing, Type B	bhws-b-d					4 x 1	In addition to basins in patient rooms; 1 at entry, 1 near staff station; Refer to Part D
Bay - PPE	bppe-d					1 x 1.5	In addition to those required for isolation rooms. Refer to Part D - Infection Control
Bay - Linen	blin-d					2 x 2	Quantity and location to suit each facility
Bay - Meal Trolley	bmeq-4-d similar					1 x 4	Optional; depends on catering/ operational policies
Bay - Mobile Equipment	bmeq-4-d or bmeqe-4-d					1 x 4	Quantity, size dependent on equipment to be stored; opened or enclosed
Bay - Resuscitation Trolley	bres-d					1 x 1.5	

ROOM/ SPACE	Standard Component Room Codes				All RDLs Qty x m ²	Remarks
Unit Size					25 Beds	
Bay - Pneumatic Tube	NS				1 x 1	Optional, Locate at Staff Station or under staff supervision
Clean Utility	clur-12-d				1 x 12	May be Interconnected with Medication Room
Medication Room	medr-10-d				1 x 10	May be Interconnected with Clean Utility
Clean Utility / Medication	clum-14-d				1 x *	*Optional, if preference is to combine Clean Utility and Medication Room into a single Room, Minimum 14 m ²
Dirty Utility	dtur-14-d				1 x 14	2 may be required to minimise travel distances
Disposal Room	disp-8-d				1 x 8	
Store - Equipment	steq-20-d				1 x 20	Size dependent on equipment to be stored
Store - General	stgn-8-d similar				1 x 10	Size as per service demand and operational policies
Cleaner's Room	clrm-6-d				1 x 6	Includes storage for dry goods
Staff Areas						
Staff Station	sstn-14-d				1 x 14	May include ward clerk; size dependant on qty of staff
Office - Clinical / Handover	off-cln-d				1 x 15	May be collocated with Staff Station
Office - Single Person	off-s12-d similar				2 x 12	NUM office and clinical personnel as needed
Meeting Room - Medium / Large	meet-l-15-d similar				1 x 20	Meetings, Tutorials; shared between 2 units
On-call - Bedroom	ovbr-10-d				1 x 10	Required at the rate of 1 per 2 Units maximum but does not necessarily need to be located within the Units however, must have convenient access.
On-call Bedroom - Ensuite	oves-4-d				1 x 4	Ensuite attached to On-Call Room above.
Staff Lounge	srm-15-d similar				1 x 20	Includes food preparation area
Property Bay - Staff	prop-3-d similar				2 x 2	Separated for male and female. Number of lockers depends on staff complement per shift
Toilet – Staff (M/F)	wcst-d				2 x 3	Separate Male and Female
Sub Total					911.0	
Circulation %					35	
Total Areas					1229.9	

Please note the following:

- Areas noted in Schedules of Accommodation take precedence over all other areas noted in the FPU
- Rooms indicated in the schedule reflect the typical arrangement according to the bed numbers
- Exact requirements for room quantities and sizes will reflect Key Planning Units (KPU) identified in the Clinical Service Plan and the Operational Policies
- All the areas shown in the SOA follow the No-Gap system described elsewhere in these Guidelines
- Class N Isolation rooms are not subject to Clinical Services Plan or demand. They are mandatory and must be provided in accordance with this FPU.

1.8 Further Reading

In addition to Sections referenced in this FPU, i.e. **Part C- Access, Mobility, OH&S, Part D - Infection Prevention and Control, and Part E - Engineering Services, Part G-Acoustics** readers may find the following helpful:

- International Health Facility Guideline (iHFG) www.healthdesign.com.au/ihfg
- Guidelines for Design and Construction of Health Care Facilities; The Facility Guidelines Institute, 2010 Edition; refer to website: <http://www.fgiguilines.org>
- Nurse/Midwife: Patient Ratios, ANMF, Australian Nursing and Midwifery Federation, 2016; refer to website <http://www.anmfvic.asn.au/~media/f06f12244fbb4522af619e1d5304d71d.ashx>
- Australasian Health Facility Guidelines, Part B Health Facility Briefing and Planning, 0610 rehabilitation Inpatient Unit, 2016; refer to website www.healthfacilitydesign.com.au