

DHA Health Facility Guidelines 2019

Part B – Health Facility Briefing & Design

180 – Inpatient Unit – Bariatric



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Executive Summary

The Functional Planning Unit (FPU) covers the requirements of an Inpatient Unit for Bariatric patients.

The Bariatric Inpatient Unit is a specially designed, staffed and equipped service of a healthcare facility to provide support, rehabilitation, monitoring and treatment of the obese patient(s) in a controlled multi-disciplined inpatient environment. The indications for a bariatric patient who in turn require admission to a bariatric unit are based on BMI and other conditions as explain in this FPU.

The Functional Zones and Functional Relationship Diagrams indicate the ideal external relationships with other key departments and hospital services. For the Bariatric Inpatient Unit, located within a hospital campus, a relationship with the Operating Unit, Pharmacy Unit, Laboratory, Medical Imaging etc. should be considered. All of these are also available as FPU's of these Guidelines.

Design Considerations address a range of important issues including Accessibility, Acoustics, Safety and Security, Building Services Requirements and Infection Control. This FPU provides a Schedule of Accommodation (SOA) indicating requirements for support spaces of a typical 6 beds, 12 beds or 20 beds Bariatric Inpatient Unit at Role Delineation Levels 3 to 6.

The typical Schedule of Accommodation is provided using Standard Components (typical room templates) and quantities for quantities for these numbers.

Further reading material is suggested at the end of this FPU but none are mandatory.

Users who wish to propose minor deviations from these guidelines should use the **Non-Compliance Report (Appendix 4 in Part A)** to briefly describe and record their reasoning based on models of care and unique circumstances.

The details of this FPU follow overleaf.



Table of Contents

- Executive Summary 2**
- Table of Contents 3**
- 180. Inpatient Unit - Bariatric 5**
 - 1 Introduction..... 5**
 - 1.1 Description..... 5
 - 1.2 Facility Requirements..... 6
 - 2 Functional & Planning Considerations..... 7**
 - 2.1 Models of Care..... 7
 - 2.2 Levels of Care..... 7
 - 2.3 Bed Numbers..... 8
 - 3 Unit Planning Models..... 8**
 - 3.1 Functional Zones..... 9
 - 4 Functional Relationships 12**
 - 4.1 External Relationships.....12
 - 4.2 Internal Relationships.....13
 - 4.3 Functional Relationship Diagram.....13
 - 5 Design Considerations..... 15**
 - 5.1 General.....15
 - 5.2 Environmental Considerations.....16
 - 5.3 Space Standards and Components.....16
 - 5.4 Safety and Security.....19
 - 5.5 Finishes.....20



- 5.6 Fixtures, Fittings and Equipment.....20
- 5.7 Structural Requirements.....22
- 5.8 Building Service Requirements.....22
- 5.9 Infection Control.....23
- 6 Standard Components of the Unit..... 24**
- 6.1 Non-Standard Rooms.....25
- 7 Schedule of Accommodation 27**
- 7.1 Inpatient Unit - Bariatric.....28
- 8 Further Reading..... 31**



180. Inpatient Unit - Bariatric

1 Introduction

1.1 Description

The Bariatric Inpatient Unit is a specially designed, staffed and equipped service of a healthcare facility to provide support, rehabilitation, monitoring and treatment of the obese patient(s) in a controlled multi-disciplined inpatient environment.

The indications for a bariatric patient who in turn require admission to a bariatric unit are as follows:

1.1.1 **BMI**

The Body Mass Index (BMI) is a simple index given by the weight-for-height measurements of a person in (kg/m²)

- Have BMI of >40kg/m² with or without comorbidities

or,

- Have BMI of 30-34.9kg/cm² with at least two of the below comorbidities:
 - Life threatening cardiopulmonary problems such as coronary artery disease (CAD), type 2 diabetes mellitus (T2DM), obstructive sleep apnea, obesity hypoventilation syndrome, Pickwickian syndrome, non-alcoholic fatty acid disease, non-alcoholic steatohepatitis, hypertension, dyslipidemia, asthma, severe urinary incontinence, debilitating arthritis or obesity related cardiomyopathy
 - Other obesity induced physical problems that affect daily activity such as musculoskeletal or neurologic problems precluding or severely interfering with employment, ambulation and infertility in females

Bariatric procedures shall be an option for select patients with clinical obesity when less invasive methods of weight loss have failed and the patient is at high risk for obesity associated morbidity or mortality.



Patients shall be assessed to determine suitability for bariatric procedures in conjunction with:

- Multidisciplinary obesity management teams including specialists in obesity evaluation and management, such as bariatric surgeons, psychologists and nutritionists
- Specialists in the fields of common comorbidity's such as endocrinology, pulmonology, gastroenterology, cardiology and orthopaedics should be consulted and involved in the complex care management process of bariatric patients
- An extensive and thorough pre-operative assessment process should be undertaken to ensure patients are informed as to the risks of bariatric procedures but also to ensure that the psychological and emotional needs of patients are appropriately managed

Common evidence based bariatric surgeries/ procedures likely to require inpatient admissions are listed below:

- Adjustable gastric banding
- Biliopancreatic diversion
- Duodenal switch
- Gastric bypass
- Laparoscopic gastric plication
- Roux-en-Y gastric bypass
- Sleeve gastrectomy

1.2 Facility Requirements

Bariatric surgeries shall only be performed in hospital settings where a fully equipped intensive care unit is available and post-operative care requirements can be adequately met.



All healthcare facilities providing surgical healthcare to bariatric patients shall have the provisions to stabilise and transfer bariatric patients through the immediate availability of ventilators and hemodynamic monitoring equipment.

The maximum weight capacity of the provided equipment, such as the ceiling hoist, should determine the maximum weight of bariatric patients a facility can manage/ admit.

2 Functional & Planning Considerations

2.1 Models of Care

The Bariatric Inpatient Unit can be operated as a stand-alone Unit or as a designated area within an inpatient unit. In both instances bariatric surgery must be attached to a hospital due to the high risk nature of bariatric surgery and patients. Bariatric service and space requirements are higher than general IPUs and it is these requirements that form the basis for recommending that the maximum number of bariatric rooms is 12 to a unit, much like that of an ICU.

A stand - alone Bariatric Inpatient Unit may accommodate pre and post-surgical patient(s) or patients with chronic disease and related co-morbidities.

An example of a stand-alone Bariatric Inpatient Unit may include:

- Bariatric Rehabilitation Unit to assist obese individuals who are committed to weight loss through a variety of supported services such as education, exercise planning, counselling and dietician consultation.

2.2 Levels of Care

The levels of care in the Unit will range from high acuity and special care such as high dependency with a progression to rehabilitative care while working towards discharge. Bariatric patients requiring 24-hour medical intervention should be transferred to a critical care unit such as ICU or CCU.



2.3 Bed Numbers

The preferred maximum number of patients in a Bariatric Inpatient Unit is 12 for intermediate and more dependent patients to 20 patient beds for mostly ambulant/ self-caring patients. The smaller number of patients would support a higher staff to patient ratio. More patient bedroom accommodation may be provided as required by the Clinical Service Planning document supported by the operational policies and guidelines for the proposed service.

The number of patient beds in a Bariatric Inpatient Unit if integrated in an Inpatient Unit should be determined by the endorsed clinical service plan, operational policies and guidelines. This Guideline discusses the requirements of an integrated 6 single bedroom Bariatric Inpatient Unit. The clustering of bariatric patient bedrooms is preferred for ease of patient management, their comfort and adjacency to bariatric equipment storage and physical therapy spaces.

Single bedrooms are recommended to allow for gender separation, support patient dignity, as well as provide patients and their visitors with personal individual private space. This Guideline discusses the requirements of a Bariatric Inpatient Unit with single bedroom provisions.

Where shared bedrooms are provided, the room spatial allowance should be sized accordingly. Each shared patient bedroom should be provided with adjacent separate shower and well anchored toilet and adequate space for bariatric equipment as well as manoeuvring space for patient lifters and staff. Supporting a patient's privacy and dignity is a critical consideration when designing a shared bedroom space.

3 Unit Planning Models

There are a number of basic and acceptable planning geometries for Bariatric Inpatient Unit as for general inpatient unit for a full description of suitable planning models, refer to Inpatient Unit – General in these Guidelines.



3.1 Functional Zones

The Bariatric Inpatient Unit will consist of the following Functional Zones:

- Entry/ Reception with:
 - Waiting Areas (may be shared with adjoining Units)
 - Meeting Room
- Inpatient areas:
 - Patient Bedrooms
 - Ensuites
 - Lounge
 - Sitting Alcoves
 - Gymnasium
- Clinical Support areas:
 - Cleaner's Room
 - Clean Utility
 - Dirty Utility
 - Disposal
 - Store rooms
- Staff offices and amenities:
 - Offices and Workstations
 - Meeting Room (optional)
 - Staff Room
 - Toilets and lockers.

3.1.1 **Entry/ Reception Area**

3.1.1.1 **Waiting Area**

Patient and visitor waiting areas should be located close to the Bariatric Inpatient Unit.

The waiting area should be provided with general seating and a minimum of suitable 20% bariatric seating to accommodate up to a seating weight of minimum 270 kg, bariatric furniture width, height and depth are larger and will impact on the space and volume of seating that will fit into a space.



For smaller units, the waiting area may be shared with a co-located FPU. If shared, the obese only sections in the waiting area should be avoided. Discretely incorporated bariatric rated two-seaters or built-Dn double seats which can also be used by the general public may be included in the design of the waiting area.

3.1.1.2 Meeting/Multi-purpose Room

A Meeting Room is used for staff and patient/family conference and case conferences. This room may also be used as a Group Room for specific patient education such as health, lifestyle and nutrition education. This room should be located close to the main entrance of the unit with a second access from the unit. This will allow easy access for family and visitors without entering the unit and ease of access by patients during individual or group meetings.

3.1.2 Patient Areas

3.1.2.1 Patient Bedroom

All bedroom accommodations shall comply with the Standard Components. The bedroom should allow for more than one carer at any one time as well as equipment movement. Patient equipment for lifting and mobility support equipment requires adequate space for safe movement of patients and assisting staff.

Manual handling is a major cause of injury to staff and patients in Bariatric Inpatient Units. Overhead lifters, such as ceiling mounted patient lifters or mobile lifters, are recommended for patient bedrooms. The maximum weight capacity of the bariatric ceiling mounted lifters will be determined by the facility's operational policies and guidelines. It would be recommended that at least one ceiling mounted lifter in a bedroom has the capacity to support a maximum weight of 450kg.

3.1.2.2 Patient Ensuites

The patient ensuite is to be directly accessible from the bedrooms.



Ceiling mounted lifter connected to the bedroom lifter track is recommended for all patient ensuites. Where all ensuites cannot be provided with ceiling mounted lifters from the bedroom to the ensuite, 50% of the ensuites are to have ceiling mounted lifters from the bedroom to the ensuite. At least one bedroom to the ensuite is to be provided with a ceiling mounted lifter track with a maximum weight capacity of 450 kilograms.

3.1.2.3 Lounge Room

The lounge room should be provided within the patient area of the unit. Television and other entertainment and reading materials may be provided. Bariatric seating and space for bariatric wheelchairs with power outlets for charging of equipment is essential.

3.1.2.4 Sitting Alcove

Patient sitting alcoves along the corridor may be provided to allow patients to rest while mobilising around the unit. This alcove may also function as a space for informal conversation between patients and staff, support staff or between patients. The alcove is an alternative patient sitting area to the Lounge Room.

The nook may be provided with bariatric chairs or bariatric rated built-Dn seating.

3.1.2.5 Gymnasium

A gymnasium specifically designed for obese patients may be provided within the Unit depending on operational policies or guidelines. The patients will be assessed, and a program developed that is able to support increased planned and supervised activities supported as part of the overall clinical multi-disciplined team management plan for the patient(s).

The gym may be equipped with wider plinth examination couches, stationary bikes, row machines, arm ergometers, elliptical machines, treadmills, and strength training equipment depending on the services provided by the facility. Group education may also be undertaken in this area.



Ceiling mounted lifters may be installed in this area to support the weight of obese patients to assist them with transfer or self-rising from sitting position as well as support the patient during assisted mobilisation. The gymnasium should include additional space for holding mobile lifting equipment, mobility equipment and bariatric wheelchairs.

3.1.3 Clinical Support Areas

3.1.3.1 Storage

Bariatric equipment should be stored as close as possible to patient areas to encourage their utilisation regularly. The locating of patient manual handling equipment close to or in a patients bedroom should assist with staff utilisation to support the patient and provide a safer environment.

Bariatric equipment tends to be larger and subsequently requires more space both in depth and width for each item, larger storage areas or additional smaller storage bays should be considered in a Bariatric Inpatient Unit. Where built-in overhead lifters are not provided in all patient bedrooms, the location and number of storage bays for lifting equipment should be determined early in the design phase of the project.

4 Functional Relationships

The Bariatric Unit is an important functional component of the hospital, connected with many clinical and operational support unit. Correct functional relationships will promote delivery of service that are efficient in terms of management, cost, and human resources.

4.1 External Relationships

For Bariatric Inpatient Units, the principal concept of external planning should be to integrate the planning of the facility to create a safe and dignified entry and exit to the unit.

The Unit should have discreet patient access from Emergency Unit, Operating Unit, Critical Care areas and Imaging Department away from public traffic. Easy access to public lifts and shorter



walking travel distances from the lift to the Unit is important to assist ambulant bariatric patients who have planned admission and discharge to walk to/from the Unit independently. The provision of seating areas for short resting breaks on the walking route should be considered.

4.2 Internal Relationships

The Bariatric Inpatient Unit should be designed so that the patient occupied areas form the core of the unit with direct access and observation of staff. Utility and storage areas should be accessible from both patient and staff work areas. Where a Bariatric Inpatient Unit is a designated as part of another unit, these shared areas should be easily accessible and functional to both units.

4.3 Functional Relationship Diagram

The Functional Relationships of the typical Bariatric Unit in the racetrack model is demonstrated in the model below. Other models will need to have similar relationships but implemented in different ways.

External relationships outlined in the diagram below includes:

- 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

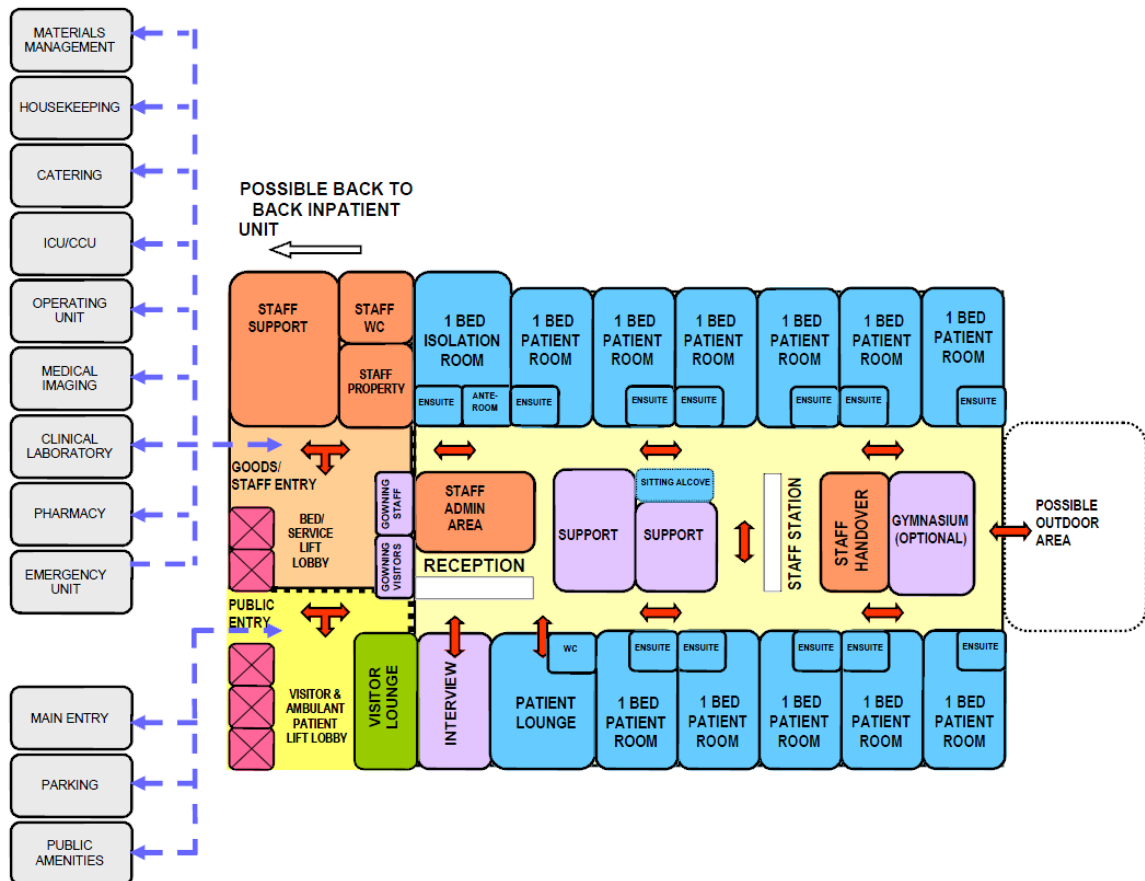
Internal relationships outlined in the diagram include:

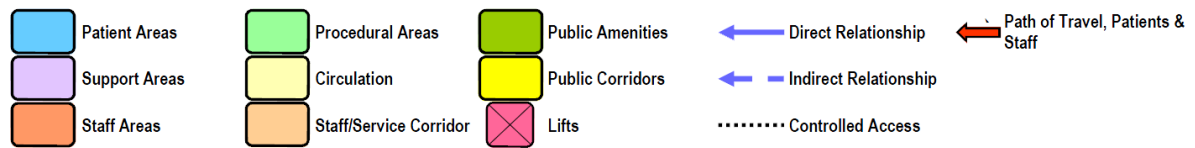
- Bed Room(s) on the perimeter arranged in a racetrack model (although other models are also



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
- The Patient Lounge located close to the Unit entry allowing relatives to visit patients without traversing the entire Unit.
- Gymnasium located at the Unit perimeter
- Sitting alcove located in circulation corridor
- 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.



**LEGEND**

5 Design Considerations

5.1 General

The facility design, layout, access, finishes, furniture, fitting and building services may potentially influence the management of bariatric patient. The design of the Unit should respond to a variety of health care requirements of the obese patient. Some of these requirements include:

- Larger space requirement to accommodate special bariatric equipment
- Establish an accessible path from the health facility entrance to this department by accommodating for a 990mm by 1250mm wide wheelchair with a 1800mm turning circle
- Structural and other architectural design considerations to accommodate ceiling mounted equipment e.g. patient lifters, toilet bowl fixation, vanity anchoring, grab rail support etc.
- Positioning of patient handling and mobilising equipment in patient spaces such as bedrooms bathrooms, ensuites and lounge areas
- Climate control requirements – individual room sensors
- Modified care practices to suit patient needs
- OHS&S of patients and staff
- Evacuation path plans
- Ingress and egress requirements for doorways, corridors and lifts
- Infection prevention and Control

For further guidelines, refer to Part C- corridor widths for bariatric patients.



5.2 Environmental Considerations

5.2.1 Acoustics

The Bariatric 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 location of noisy areas or activity away from quiet areas including patient bedrooms and selection of sound absorbing materials and finishes.

5.2.2 Natural Light

Natural light and views should be available from the Unit for the benefit of staff and patients.

Windows are an important aspect of sensory orientation, and all bedrooms should have windows to reinforce day/ night orientation.

5.2.3 Privacy

The design of the Unit should be able to support the privacy of patients. The functional design should consider the potential physical exposure of patient's bodies when utilising mobility and lifting equipment.

Additionally, design should consider the placement of cubicle tracks in relation to ceiling mounted lift tracks. This is imperative for privacy curtain placement as the lift track commonly runs from bed to bathroom. Each bed shall be provided with curtains to ensure privacy of patients undergoing treatment in both private and shared inpatient rooms.

5.3 Space Standards and Components

5.3.1 Accessibility - External

Ramps and handrails should be available at entrances of the facility to assist bariatric and other less ambulant patients to access the facility. The access path from the car park to the hospital entrance should accommodate the turning radius of bariatric wheelchairs.



Where bariatric beds with built-in weighing scales are not utilised or available bariatric bed weighing scale should be located in close proximity to areas of initial admission if not directly to the Bariatric Inpatient Unit E.g. Emergency Departments.

5.3.2 Accessibility – Internal

At least one facility lift should accommodate a patient on a bariatric bed with attending staff. Lifts should be designed with increased door clearance and weight capacity to accommodate the larger size of the transport equipment and the patient's weight. In new facilities without existing building restrictions, bariatric rated lifts should be located with other patient lifts and not in the service zone where its primary function is for transport of large and heavy medical equipment.

Review of access points to other areas of the facility such as inpatient rooms, treatment rooms, operating suites and other areas where bariatric patients may be treated. Diagnostic equipment purchases should consider the imaging needs of bariatric patients e.g. ray table weight limits, MRI and CT table weight limits and diameter of the CT bore.

5.3.3 Doorways and Corridors

Wider doorway standards shall apply in inpatient rooms, surgical suites and diagnostic and treatment rooms, where bariatric patients are treated. To accommodate bariatric wheelchairs a 1140 mm doorway opening is required. Corridors should be wide enough to accommodate patient beds and turning circles when being used for patient transport.

5.3.4 Ergonomics

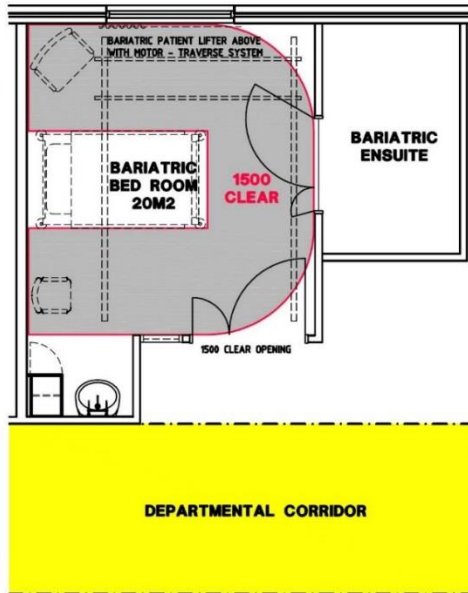
Occupational Health and Safety (OH&S) requirements must be adhered to in the design process to ensure the health and safety of the end users. Refer to **Part C – Access, Mobility, OH&S** for further information.

5.3.5 Patient Bedrooms

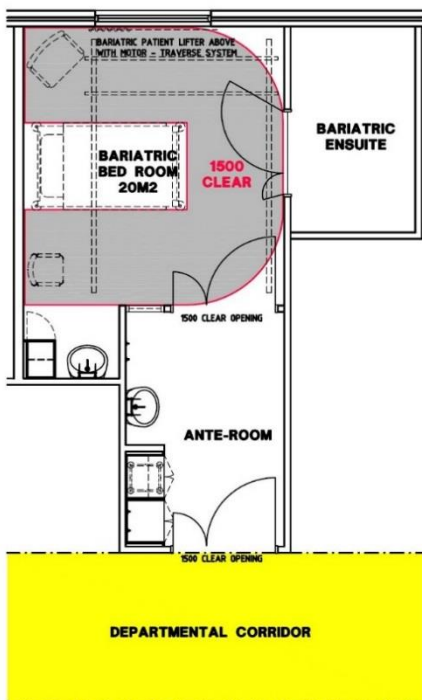


A minimum clear dimension of 1500mm is required between the sides and the foot of the bed from any wall or any fixed obstructions. Two configurations for Bariatric Bedrooms are shown below:

5.3.5.1 1 Bedroom – Bariatric



5.3.5.2 1 Bedroom – Bariatric (Isolation)



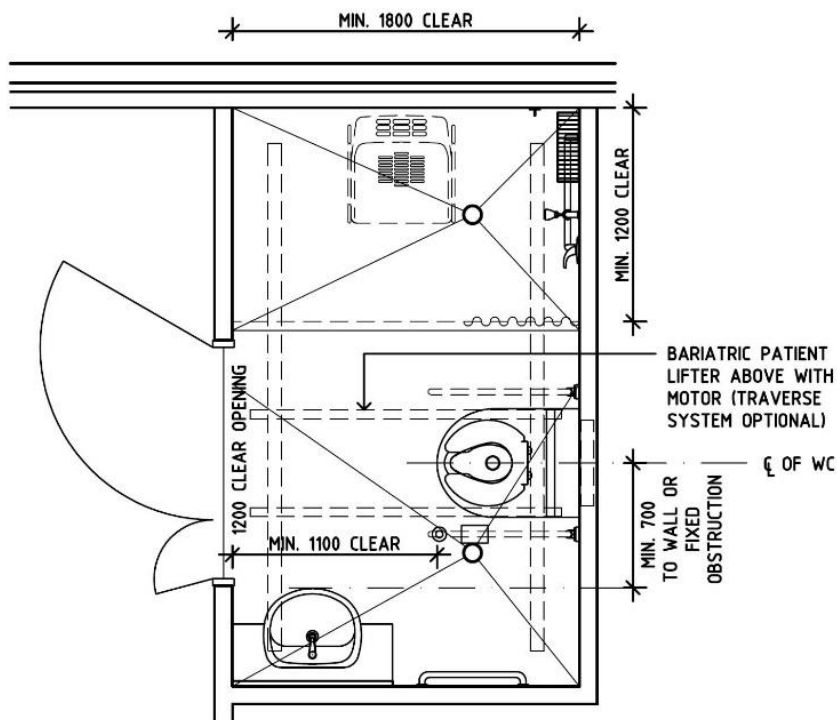
Note: The above images do not depict full room layout, rather required bedside clearances and possible configurations only



5.3.5.3 Ensuite

Ensuites should be sized to allow for staff assistance on two sides of the patient at the toilet and shower areas. The toilet pan should be floor fixed with bolts to the floor to support weights of up to a minimum of 450kg and to be mounted a minimum of 700mm from the finished wall or any fixed obstruction to the centreline of the toilet. A clear space of 1100mm should be provided on the opposite side of the toilet for wheelchair and commode access. Handrails, support rails and vanity basins should be fixed robustly to support the weight of the patients.

The dimension of the shower should be a minimum of 1200mm by 1800mm to allow for staff assistance. A Bariatric Ensuite configuration is shown below:



5.4 Safety and Security

Design of the facility and selection of furniture, fittings and equipment should ensure that users are not exposed to avoidable risks of injury.



Patient and visitor movements into and out of the Unit should be monitored to ensure safety of all users. Emergency call, staff assist call buttons and duress alarms should be installed in appropriate locations to alert other staff in the event of emergency.

Emergency evacuation path in the event of a bomb threat or fire should be established during the planning of the Bariatric Inpatient Unit. Evacuation routes should be established and the Bariatric Inpatient Unit should be designed as close as possible to appropriate exits.

5.5 Finishes

Floor surfaces that reduce or absorb impact if a patient falls may not be function or sufficiently robust with moving wheeled bariatric equipment as this may result in indentations, marring and shearing of material and should be considered when specifying floor finish. Carpeted or padded vinyl floors may also contribute to excessive shear forces of push and pull on staff as a result of pulling/pushing bariatric patients on wheeled equipment. Floor transitions must be designed to prevent tripping hazards, bumps and strain on staff pushing/pulling wheeled equipment.

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

5.6 Fixtures, Fittings and Equipment

All furniture and equipment for patient use must be bariatric rated to avoid incidences of breakage and injury to patient and staff.

5.6.1 Bariatric Bed

Some bariatric beds now come with built-in scales to accurately weigh bed bound patients without transferring the patient to a weighing scale. Pressure relieving mattresses can prevent pressure points which may arise in the obese patients who have with difficulty in repositioning when either sitting in a chair or lying in bed.



5.6.2 Seating

Bariatric rated reinforced chairs should be used in Bariatric Inpatient Units to avoid injury from broken furniture. Some patient chairs should have armrests and built-in seats should be provided with wall mounted reinforced handrails to assist in self-rising.

Bariatric Inpatient Units aim to maintain, support, educate and improve mobility, independence and the strength of patients while in the Unit. To assist patients and staff, patient handling equipment should be incorporated as a critical design component of the facility.

The provision of an appropriate lifting system is critical to the safe movement and supported mobility of patients and ensures safety of staff and support staff environment. Ceiling mounted lifters are recommended for all patient bedrooms. Where ceiling mounted lifters are provided, the traverse lifter is preferred as they generally have higher weight capacity and allows for wider area coverage of the room.

A combination of different types and weight requirements of patient lifters and transferring equipment should be considered in this unit. Standing aids may be adequate for independent patients but passive patient lifters may be required for less ambulant bariatric patients. Passive patient lifters are also utilised to lift a patient from floor if a patient has a fall and required assistance to stand or be transferred to a bed.

5.6.3 Fixtures and Fittings

All fixtures must be bariatric compliant. Handrails along corridors should be reinforced to support mobilising patients.

It is recommended that toilet seats be floor mounted unless contraindicated by requirements of Accessibility Standards. Toilet and toilet seats should be able to withstand weight of up to 450kg.



Hand washing basin in ensuites should withstand downward static force of 450kg at the edge of the sink.

Wall reinforcements and additional wall fixings may be required for all sanitary grab rails as well as towel rails to efficiently support obese patient in self-rising. Where drop down grab rail is used, heavy duty rails are to be utilised with reinforced wall support to maintain the robustness and integrity of the rails.

Handheld shower heads are essential in the shower area with sufficient shower hose length to adequately reach areas for washing and be hung on a wall hook after use.

5.7 Structural Requirements

Structural engineers must be consulted to calculate the static and dynamic load limit of equipment and persons in order to ensure appropriate floor and ceiling reinforcement.

Ceiling reinforcements will be required in areas with ceiling mounted lifters such as in patient bedrooms, ensuites and gymnasium.

5.8 Building Service 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.

5.8.1 Nurse Call/ Emergency Call

Nurse Call and Emergency Call facilities must be provided in all patient areas (e.g. bedrooms, toilets, showers, lounge room) and procedure areas in order for patients and staff to request urgent assistance. The individual call buttons shall be provided next to each inpatient bed and will alert to a central module situated at or adjacent to the Staff Station.



5.8.2 Heating Ventilation and Air-conditioning (HVAC)

Air-conditioning with temperature control is important in the nursing care of obese patients.

Adjustable temperature control may be required to prevent patient overheating and reduce excessive perspiration.

All HVAC units and systems are to comply with services identified in Standard Components and

Part E – Engineering Services.

5.8.3 Exhaust System

Storage areas for floor-based patient lifters may require air-conditioning or exhaust system depending on the type of batteries to be charged to prevent noxious fumes accumulation in the room.

5.8.4 Pneumatic Tube Systems

The Inpatient Unit and Nursery areas 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.

5.9 Infection Control

Standard precautions must be taken for all clients regardless of their diagnosis or presumed infectious status. Patient lifter slings and transferring devices can be a source of infection from general use. Selected equipment should be easy to clean and comply with infection control requirements

Hand washing facilities for staff within the Unit should be readily available. Where a hand wash basin is provided, there shall also be liquid soap and disposable paper towel dispenser, garbage bin and PPE equipment provided.



For further details relating to the Infection control refer to **Part D - Infection Control** of these Guidelines.

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 Bariatric Inpatient Unit will contain Standard Components to comply with details described in these Guidelines. Refer also to Standard Components Room Data Sheets and Room Layout Sheets.

6.1 Non-Standard Rooms

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

6.1.1 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.



6.1.2 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



7 Schedule of Accommodation

The Schedule of Accommodation (SOA) provided below represents generic requirements for this Unit. It identifies the rooms required along with the room quantities and the recommended room areas. The sum of the room areas is shown as the Sub Total as the Net Area. The Total area is the Sub Total plus the circulation percentage. The circulation percentage represents the minimum recommended target area for corridors within the Unit in an efficient and appropriate design.

Within the SOA, room sizes are indicated for typical units and are organised into the functional zones. Not all rooms identified are mandatory therefore, optional rooms are indicated in the Remarks. These guidelines do not dictate the size of the facilities, therefore, the SOA provided represents a limited sample based on assumed unit sizes. The actual size of the facilities is determined by Service Planning or Feasibility Studies. Quantities of rooms need to be proportionally adjusted to suit the desired unit size and service needs.

The Schedule of Accommodation are developed for particular levels of services known as Role Delineation Level (RDL) and numbered from 1 to 6. Refer to the full **Role Delineation Framework (Part A - Appendix 6)** in these guidelines for a full description of RDL's

The table below shows a typical Bariatric Unit at RDL 3 & 4 where the Unit may be attached to another Inpatient Unit and at RDL 5 & 6 where the Bariatric Unit functions as a self-contained, stand-alone unit. The 6 Bed Bariatric Unit may share entrance/reception, support and staff facilities with a collocated FPU.



Any proposed deviations from the mandatory requirements, justified by innovative and alternative operational models may be proposed and record in the **Non-Compliance Report** (refer to **Part A - Appendix 4**) with any departure from the Guidelines for consideration by the DHA for approval.

7.1 Inpatient Unit - Bariatric

| ROOM/ SPACE | Standard Component Room Codes | | | | RDL 3-4 Qty x m ² | RDL 5-6 Qty x m ² | RDL 5-6 Qty x m ² | Remarks |
|-----------------------------------|-----------------------------------|--|--|--|---------------------------------|---------------------------------|---------------------------------|--|
| Entrance/ Reception Area | | | | | 6 Beds | 12 Beds | 20 Beds | |
| Entry Lobby/Airlock | airle-10-d | | | | | | | Required for stand-alone Unit only |
| Reception | recl-10-d | | | | | 1 x 10 | 1 x 20 | |
| Waiting | wait-10-d similar | | | | | 1 x 10 | 1 x 15 | Divided into male/female areas |
| Waiting - Family | wait-20-d wait-30-d | | | | | 1 x 20 | 1 x 30 | |
| Toilet - Public | wcpu-3-d | | | | | 2 x 3 | 2 x 3 | |
| Toilet - Accessible | wcac-d | | | | | 1 x 6 | 1 x 6 | |
| Consult Room - Special | cons-d similar | | | | | 1 x 16 | 1 x 16 | Optional, Consideration to be taken for access and larger furniture and medical equipment |
| Meeting/ Multi-purpose Room | meet-l-15-d similar | | | | | 1 x 15 | 1 x 18 | May be used as a Group Room, Required for a stand-alone Unit |
| Patient Areas | | | | | | | | |
| 1 Bedroom - Bariatric | 1br-ba-20-d | | | | 5 x 20 | 10 x 20 | 18 x 20 | Provide at least one bedroom with 450 kg weight limit ceiling mounted patient lifter |
| 1 Bedroom - Bariatric (Isolation) | 1br-isn-28-d 1br-isp-28-d similar | | | | 1 x 20 | 2 x 20 | 2 x 20 | Provide ceiling mounted patient lifter with 450 kg weight limit ceiling mounted patient lifter |
| Anteroom | anrm-d | | | | 1 x 6 | 2 x 6 | 2 x 6 | For Bedroom-Bariatric (Isolation) |
| Ensuite - Bariatric | ens-ba-7-d | | | | 6 x 7 | 12 x 7 | 20 x 7 | Allowance to extend the patient lifter track from the Patient Bed Room to the Ensuite |
| Lounge - Patient | lnpt-15-d similar | | | | 1 x 15 | 1 x 20 | 1 x 30 | |
| Sitting Alcove | NS | | | | | 1 x 4 | 2 x 4 | Optional, Locate along corridors. |
| Gymnasium | gyah-45-d | | | | | 1 x 45 | 1 x 45 | Optional. Dependent on operational policy. |



Part B: Health Facility Briefing & Design

Inpatient Unit - Bariatric

| ROOM/ SPACE | Standard Component Room Codes | | | | RDL 3-4 Qty x m ² | RDL 5-6 Qty x m ² | RDL 5-6 Qty x m ² | Remarks |
|-----------------------------|---|--|--|--|---------------------------------|---------------------------------|---------------------------------|--|
| Procedure Room | proc-20-d | | | | | 1 x 20 | 1 x 20 | Optional. Dependent on operational policy and number of single rooms, Consideration to be taken for access and larger furniture and medical equipment. |
| Support Areas | | | | | | | | |
| Bay - Beverage | bbev-op-d bbev-enc-d | | | | 1 x 5 | 1 x 5 | 1 x 5 | |
| Bay - Handwashing, Type B | bhws-b-d | | | | 1 x 1 | 1 x 1 | 3 x 1 | To Unit entry |
| Bay - PPE | bppe-d | | | | 2 x 1.5 | 3 x 1.5 | 5 x 1.5 | Refer Part D - Infection Prevention and Control |
| Bay - Linen | blin-d | | | | 1 x 2 | 1 x 2 | 2 x 2 | |
| Bay - Meal Trolley | bmeq-4-d similar | | | | 1 x 4 | 1 x 4 | 1 x 4 | |
| Bay - Mobile Equipment | bmeq-4-d bmeqe-4-d | | | | 1 x 4 | 2 x 4 | 2 x 4 | Sized to accommodate mobile patient lifter |
| Bay - Resuscitation Trolley | bres-d | | | | 1 x 1.5 | 1 x 1.5 | 1 x 1.5 | |
| Bay - Pneumatic Tube | NS | | | | 1 x 1 | 1 x 1 | 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 14 | 1 x 14 | 1 x 12* | * Optional if Clean Utility and Medication Room provided. |
| Dirty Utility | dtur-12-d similar dtur-14-d | | | | 1 x 10 | 1 x 12 | 1 x 14 | |
| Disposal Room | disp-8-d similar | | | | | 1 x 8 | 1 x 10 | |
| Pantry | ptry-d | | | | 1 x 8 | 1 x 8 | 1 x 8 | Optional if Beverage Bay provided. |
| Store - General | stgn-8-d stgn-14-d similar stgn-20-d similar | | | | 1 x 8 | 1 x 12 | 1 x 16 | |
| Store - Equipment | steq-10-d steq-14-d similar steq-20-d similar | | | | 1 x 10 | 1 x 20 | 1 x 30 | Sized to accommodate bariatric equipment |
| Cleaner's Room | clrm-6-d | | | | 1 x 6 | 1 x 6 | 1 x 6 | |
| Staff Areas | | | | | | | | |
| Staff Station (Main) | sstn-14-d similar sstn-20-d | | | | 1 x 12 | 1 x 18 | 1 x 20 | |
| Staff Station | sstn-5-d | | | | | 1 x 5 | 2 x 5 | Optional. If decentralised Staff Station are required. |



Part B: Health Facility Briefing & Design

Inpatient Unit - Bariatric

| ROOM/ SPACE | Standard Component Room Codes | | | | RDL 3-4 | | | RDL 5-6 | | | RDL 5-6 | | | Remarks |
|-------------------------------|----------------------------------|--|--|--|----------------------|---|-----------|----------------------|---|-----------|----------------------|---|-----------|--|
| | | | | | Qty x m ² | | | Qty x m ² | | | Qty x m ² | | | |
| Office - Clinical/ Handover | off-cln-d | | | | 1 | x | 15 | 1 | x | 15 | 1 | x | 15 | Locate near Staff Station |
| Office - Single Person | off-s9-d | | | | | | | 1 | x | 9 | 1 | x | 9 | NUM |
| Office - 3 Person Shared | off-3p-d | | | | | | | 1 | x | 16 | 1 | x | 16 | Allied Health or Medical staff. |
| Office - Workstation | off-ws-d | | | | 1 | x | 5.5 | 2 | x | 5.5 | 2 | x | 5.5 | CNC, CNE. Shared office may also be provided. |
| Store - Photocopy/ Stationery | stps-8-d similar | | | | | | | 1 | x | 6 | 1 | x | 8 | |
| Store - Files | stfs-10-d similar | | | | | | | 1 | x | 8 | 1 | x | 10 | Optional |
| Meeting Room | meet-l-15-d similar | | | | | | | 1 | x | 15 | 1 | x | 20 | For meetings, staff education, case discussion, teleconferencing etc. |
| Staff Room | srm-15-d similar | | | | | | | 1 | x | 15 | 1 | x | 18 | Include Beverage Bay |
| Property Bay - Staff | prop-3-d | | | | | | | 2 | x | 3 | 2 | x | 3 | Separated for male and female. Number of lockers depends on staff complement per shift |
| Toilet - Staff | wcst-d | | | | | | | 2 | x | 3 | 2 | x | 3 | |
| Sub Total | | | | | 293 | | | 745 | | | 1067 | | | |
| Circulation % | | | | | | | 35 | | | 35 | | | 35 | 35 minimum, 40 recommended |
| Total Areas | | | | | 395.5 | | | 1005.7 | | | 1440.4 | | | |

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 Role Delineation
- Exact requirements for room quantities and sizes will reflect Key Planning Units identified in the Service Plan and the Operational Policies of the Unit
- Room sizes indicated should be viewed as a minimum requirement; variations are acceptable to reflect the needs of individual Unit
- Office areas are to be provided according to the Unit role delineation and number of endorsed full time positions in the unit
- Staff and support rooms may be shared between Functional Planning Units dependent on location and accessibility to each unit and may provide scope to reduce duplication of facilities



8 Further Reading

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

- ARJO. Guidebook for Architects and Planners, 2nd ed. ARJO Hospital Equipment A B (2005)
- Cohen, M.H., Nelson, G.G., Green D.A., Leib, R., Matz, M.W., Thomas, P.A., et al and Borden, CA (ed) (2010) Patient Handling and Movement Assessments: A White Paper, The Facility Guidelines Institute
- DHA (Health Regulation Sector), DHA Standards for Bariatric Surgery Services; refer to website <https://www.dha.gov.ae>
- Guidelines for Design and Construction of Health Care Facilities, The Facility Guidelines Institute, 2014 Edition, refer to website www.fgiguideines.org
- International Health Facility Guidelines (Part B) – 105, refer to website: www.healthdesign.com.au/ihfg
- NSW Health (2005) Guidelines for the Management of Occupational Health and Safety (OHS) Issues Associated with the Management of Bariatric (Severely Obese) Patients, NSW Australia
- Wignall, D. (2008), 'Design as a Critical Tool in Bariatric Care', Journal of Diabetes Science and Technology, vol 2, issue 2, March, pp. 263-267
- World Health Index (2017) <http://www.who.int>