# Part B — Health Facility Briefing & Design 105 Inpatient Unit — Bariatric



# iHFG

**International Health Facility Guidelines** 

2025

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# **105 Inpatient Unit - Bariatric**

# 1 Executive Summary

This Functional Planning Unit (FPU) covers the requirements of the Inpatient Unit – Bariatric. This Unit is catered to provide health care, diagnoses, treatment and rehabilitation of patients with obesity. Patients may require treatment for chronic disease or pre/ post-surgical care.

The Bariatric Unit requires several additional supports and spatial considerations to adequately provide an environment where safe patient care can be delivered. Structural reinforcement is required in the ceiling for ceiling mounted lifter tracks and the walls for grab rails and handrails to ensure these can sufficiently support the obese patient, and minimise risk of injury to patients and staff. In addition to this, sanitary fixtures also require reinforcement including toilet bowl fixation and vanity anchoring.

Other design considerations include the provision of suitably sized furniture to accommodate the obese patient, and adequate storage space for bariatric equipment.

Environmental factors including acoustic insulation, natural light and privacy requirements need to be addressed to ensure a comfortable and safe environment for patients and visitors.

This FPU describes the minimum requirements for support spaces of a typical Bariatric Unit at Role Delineation Levels 3 to 6. The Schedules of Accommodation are provided using references to Standard Components (typical room templates).

Refer to the further reading materials at the end of this FPU for supporting documentation.

#### 2 Introduction

The Bariatric Inpatient Unit is a specially designed, staffed and equipped service of a healthcare facility which provides support, rehabilitation, monitoring and treatment of the obese patient(s) with or without co-morbidities, in a controlled multi-disciplined inpatient environment. Obesity is the medical term for being overweight with excessive amount of body fat that increases the risk of patients' developing various adverse health issues.

Bariatric procedures should be an option for 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 comorbidities such as endocrinology, pulmonology/ respiratory, 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 bariatric-metabolic surgeries likely to require Inpatient admissions are listed below:

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

#### Facility Requirements

Bariatric-metabolic 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 care to bariatric patients will have the provisions to stabilize and transfer bariatric patients, utilizing the immediate availability of ventilators and haemodynamic monitoring equipment.

#### 3 Functional & Planning Considerations

#### Models of Care

The Bariatric Inpatient Unit can be operated as a stand-alone Unit or as a designated area of an Inpatient unit. A stand-alone Bariatric Inpatient Unit may accommodate pre and post-surgical patients or patients with chronic disease and related co-morbidities.

Some examples of a stand-alone Bariatric Inpatient Unit may include:

- Bariatric-Metabolic Surgery Unit which provides care for obese patients undergoing weight loss surgery such as gastric banding or gastric bypass
- 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.

#### Levels of Care

The levels of care in the Unit will range from acute and specialist 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.

#### **Bed Numbers**

The preferred maximum number of patients in a stand-alone 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, patient dignity, as well as providing patients and their visitors with an individual private space.

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

# **Unit Planning Geometric Options**

There are several common and acceptable planning models for Inpatient Units. Most plans can be categorised and diagrammatically reduced to one of the following geometric forms which are named for convenience. Each model has its own potential and should be studied thoroughly along with the particular local conditions to achieve the best results. The planning options include the following:

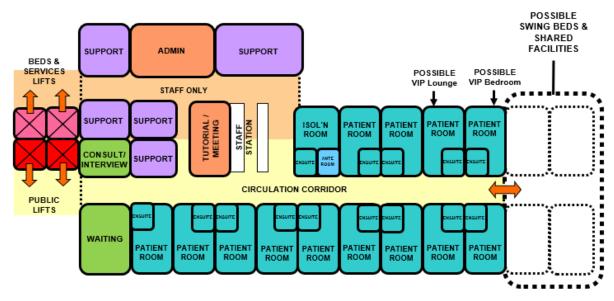
1	Linear	Single corridor configuration. Patient and support rooms are clustered along a single corridor.
2	Racetrack	Double corridor configuration. Patient rooms are located on the external aspects of the unit and support rooms are clustered in the central areas in a racetrack configuration.
3	L shaped	Single corridor configuration. A variation of the linear model where two linear wings are joined at 90 degrees to create the "L" shape.
4	T shaped	Single corridor configuration. A variation of the linear model, where two linear wings intersect to create a "T" shape.

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5	Hybrid T	Combination of the Racetrack model and T model. The entrance wing has a racetrack configuration with support services in the centre. This splits into two wings at 90 degrees to form a "T" shape.
6	+ shaped	Single corridor configuration. A variation of the linear model, where two linear wings intersect approximately in the centre to create a "+" (cruciform) shape.

The functional relationship diagrams of each of the above planning models are provided below.

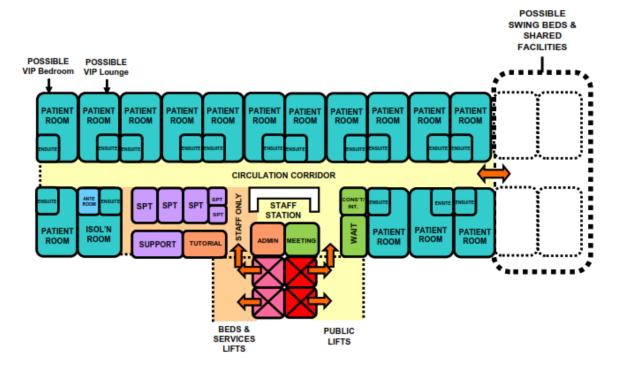
Linear (single corridor) Model 1a



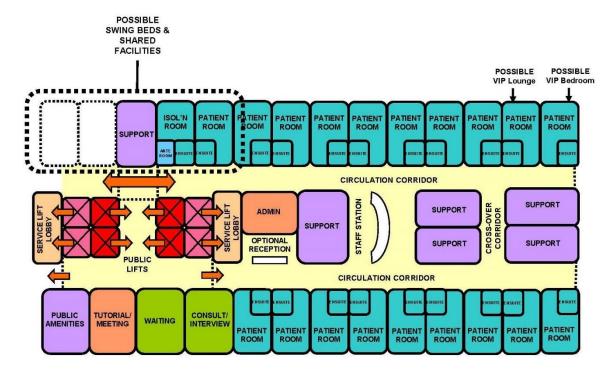
# **LEGEND**



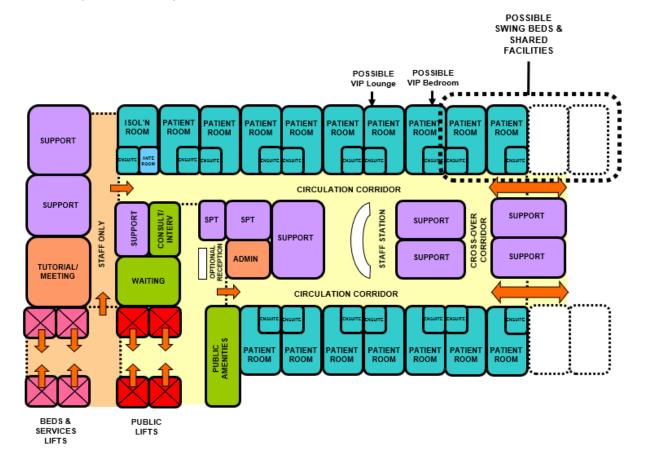
Linear (single corridor) Model 1b



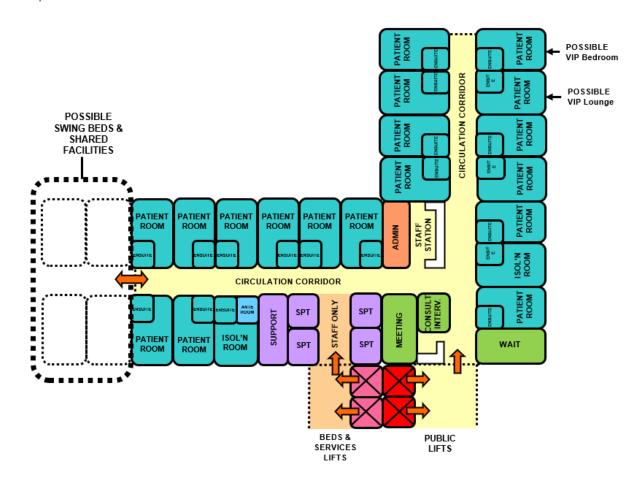
Racetrack (double corridor) Model 2a



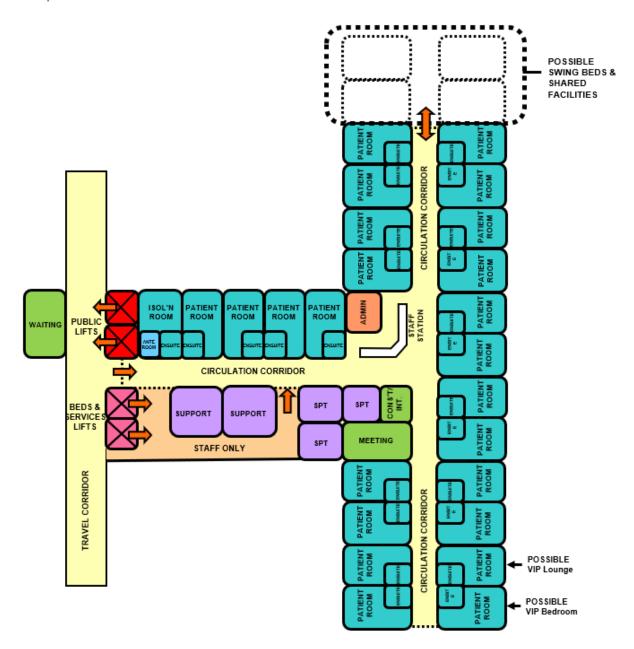
Racetrack (double corridor) Model 2b



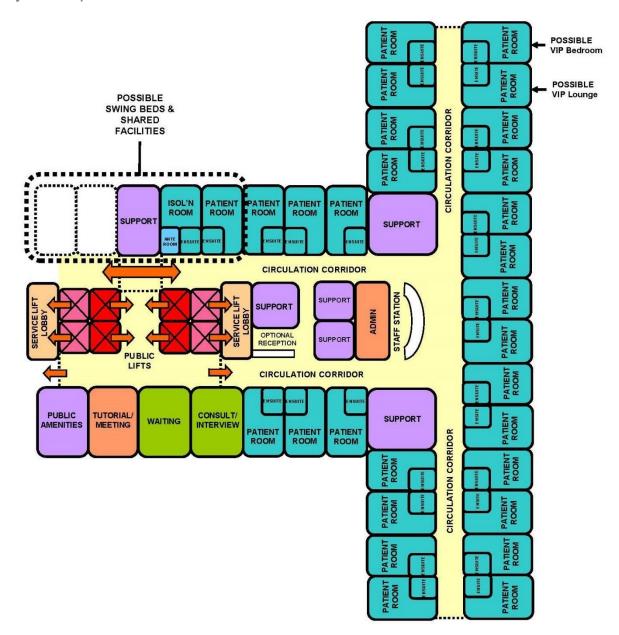
## L shaped Corridor Model 3



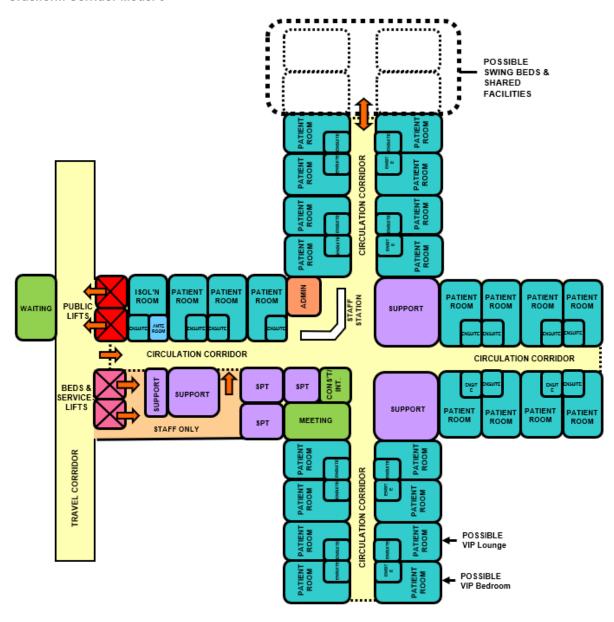
# T shaped Corridor Model 4



# **Hybrid T shaped Corridor Model 5**



#### **Cruciform Corridor Model 6**



# **LEGEND**



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## **Bed Configurations**

In the above diagrams, the number and type of patient bedrooms are symbolic.

In actual design the recommended efficient bed number per unit is 30 (±2).

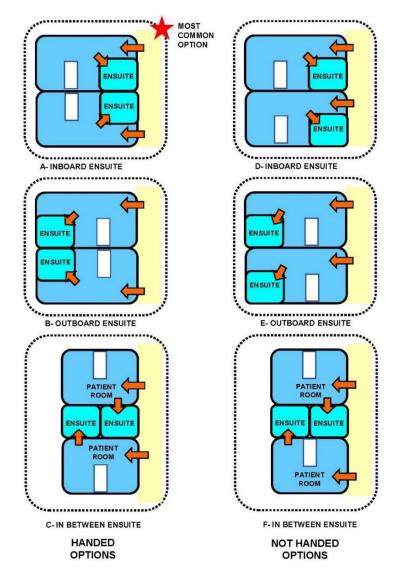
The bedroom types may be:

- Single bedrooms
- 2 bed rooms

- 4 bed rooms
- 6 bed rooms

However, it is recommended that only single and 2 bed rooms are designed for new facilities, when this is possible and affordable.

The Ensuite (means attached) Bathrooms are also optional. These can be arranged according to one of the following permutations:



Back-to-Back rooms may be handed or mirrored.

Mirrored configuration is most common due to the sharing of services risers.

If standardisation of the patient bed heads is preferred by the operators, this can be achieved even as the room itself is mirrored. This however, is not mandatory.

#### **Functional Areas**

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

- Entry/ Reception with:
  - Waiting Areas (may be shared with adjoining Units)
  - Meeting Room
- Inpatient areas:
  - Patient Bedrooms
  - Ensuites



# Part B: Health Facility Briefing & Design Inpatient Unit - Bariatric

- Lounge
- Sitting Alcoves
- Gymnasium
- Clinical Support areas:
  - Cleaners' Room
  - Clean Utility
  - Dirty Utility
  - Disposal
  - Store rooms
- Staff offices and amenities:
  - Offices and Workstations
  - Meeting Room (optional)
  - Staff Room
  - Toilets and lockers

#### **Entry/ Reception Area**

Patient and visitor waiting areas should be located close to the Bariatric Inpatient Unit. Obese patients may also have obese family members and this should be taken into consideration when designing waiting areas to support a 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 weight of 350 kg. For Bariatric furniture, the width, height and depth are larger and will impact on the space and volume of seating that will fit into a space. Wheelchair spaces should be allocated to accommodate the width and depth of bariatric wheelchairs and provided with power outlets for charging of mobility equipment.

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. Discreetly incorporated bariatric rated two-seaters or built-in double seats which can also be used by all patients/ visitors may be included in the design of the waiting area.

A Meeting Room is used for staff, patient/ family conference and case conferences. This room may also be used for specific patient education such as health, lifestyle, and nutritional 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 for patients during individual or group meetings.

#### **Inpatient Areas**

All bedroom accommodation shall comply with the Standard Components. The bedroom should allow for more than one carer at any 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 are recommended for all patient bedrooms. Where all bedrooms cannot be provided with ceiling mounted lifters, 50% of the bedrooms are to have ceiling mounted lifters and mobile lifters are to be used in the other 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 350 kilograms.

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

A 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 350 kilograms.

The lounge room should be provided within the patient area of the unit. A 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.

**Sitting Alcove** 



# Part B: Health Facility Briefing & Design Inpatient Unit - Bariatric

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 conversations between patients and staff, support staff or between patients. The alcove is an alternative patient sitting area to the Lounge Room.

The sitting alcoves may be provided with bariatric chairs or bariatric rated built-in seating.

A gymnasium specifically designed for obese patients may be provided within the Unit depending on operational policies or guidelines. The gymnasium will be equipped with gym equipment which can support weights of up to 350kg. Here, patients will be assessed and a program developed to support increased planned and supervised activities as part of the overall clinical multi-disciplinary team management plan for the patient.

The gym may be equipped with wider plinth examination couches, stationary bikes, rowing 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 a sitting position as well as supporting the patient during assisted mobilisation. The gymnasium should include additional space for storing mobile lifting equipment, mobility equipment and bariatric wheelchairs.

#### **Clinical Support Areas**

Bariatric equipment should be stored as close as possible to patient areas to encourage their regular utilisation. The locating of patient manual handling equipment close to, or in a patient's 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.

## Functional Relationships

#### **External**

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.

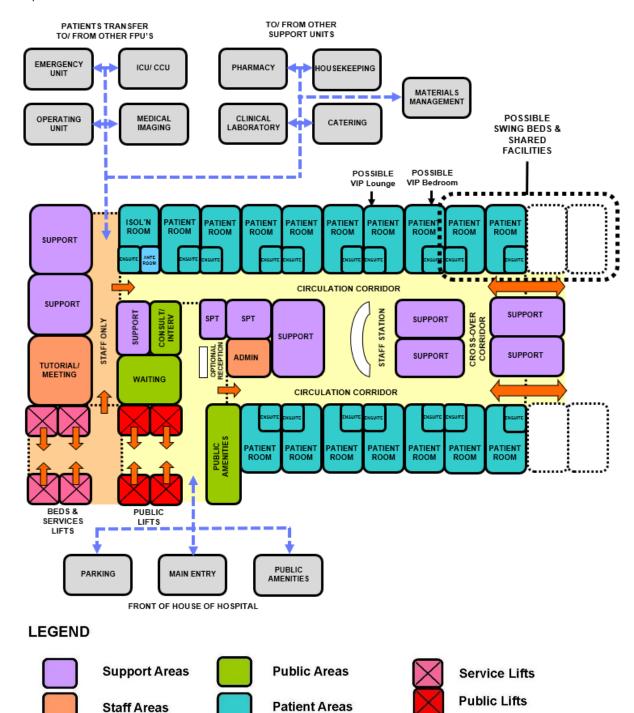
The Unit should have discreet patient access from the Emergency Unit, Operating Unit, Critical Care areas and Imaging Department, which is located away from public traffic. Easy access to public lifts and shorter walking travel distances from the lift to the Unit are important to assist ambulant bariatric patients who have planned admission and discharge, to walk to/ from the Unit independently. The provision of seating areas for short rest breaks along the walking route should be considered.

#### Internal

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

#### **Functional Relationship Diagram**

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



External relationships outlined in the diagram include:

Clear Goods/ Services/ Staff Entrance

Circulation

 Access to/ from key clinical units associated with patient arrivals/ transfers via service corridor

Staff/Service

Corridor

**Direct Relationship** 

**Indirect Relationship** 

- Access to/ from key diagnostic facilities via service corridor
- Access to/ from Entry/ exit for staff
- Access to/ from shared staff break and property areas via service corridor
- Access to/ from Materials Management, Catering and Housekeeping Units via service corridor
- Clear Public Entrance

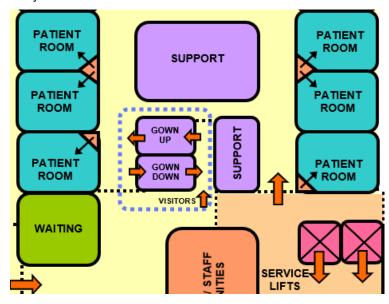
- Entry for patients and visitors directly from dedicated lift and public corridor
- Access to/ from key public areas, such as the main entrance, amenities, parking and cafeteria from the public corridor and lift

Internal relationships outlined in the diagram include:

- Bedrooms 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
- 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 and security of the Unit
- Personal Protective Equipment Bays located at the entrance for both Staff and Visitors for infection control requirements during ward isolation

#### **Optional PPE Entrance Module**

In cases where the Unit is to be isolated due to an infectious disease outbreak such as a pandemic, there may be a requirement to include Gown-Up and Gown-Down rooms for visitors to access upon entry to and exit from the Unit.



#### 4 Design Considerations

#### General

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

- Larger spaces to accommodate special bariatric equipment
- Establishing an accessible path from the healthcare 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



# Part B: Health Facility Briefing & Design Inpatient Unit - Bariatric

- Climate control requirements, individual room sensors
- Modified care practices to suit patient needs
- WH&S of patients and staff
- Clear evacuation path plans
- Ingress and egress requirements for doorways, corridors, and lifts
- Infection prevention and control
- Provision of Dialysis outlets at the rate of 1 for up to 12 rooms, and 2 for up to 20 rooms.
   Thereafter, provide adequate per number of rooms, to be rounded up.

For further guidelines, refer to Part C – Access, Mobility, Safety and Security, for corridor widths for bariatric patients.

## **Environmental Considerations**

#### **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 the location of noisy areas or activities away from quiet areas including patient bedrooms and selecting sound absorbing materials and finishes.

#### **Natural Light**

The use of natural light should be maximised throughout the Unit. Windows are an important aspect of sensory orientation and the psychological wellbeing of patients. All bedrooms require a window providing natural light. Natural light is also desirable in other patient areas such as lounge rooms. Windows should provide an open and pleasant outlook, preferably to a landscape or view of the natural environment.

#### **Privacy**

The design of the Unit should be able to support the privacy of patients. The functional design should consider the potential exposure of patients 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 the bed to the bathroom. Each bed shall be provided with curtains to ensure the privacy of patients undergoing treatment in both private and shared inpatient rooms.

#### Space Standards and Components

#### **Accessibility - External**

Ramps and handrails should be available at entrances 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, a bariatric bed weighing scale should be in close proximity to areas of initial admission, if not located close to the Bariatric Inpatient Unit. E.g. Emergency Departments.

# Accessibility - Internal

At least one facility lift should accommodate adequate space for 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.

Provide clear access paths to relevant areas within 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. X-ray table, MRO and CT table weight limits and the CT bore diameter.

# Part B: Health Facility Briefing & Design Inpatient Unit - Bariatric

Outpatient departments should allow for a reasonable number of bariatric compliant consultation rooms and toilets. As a minimum one should be provided per facility.

#### Doors

Wide doorway standards shall apply in inpatient rooms, surgical suites, and diagnostic and treatment rooms where bariatric patients are treated. To accommodate bariatric wheelchairs a 1600mm doorway opening is required. Corridors should be wide enough to accommodate patient beds and turning circles when being used for patient transport.

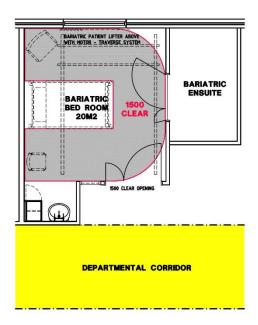
#### **Ergonomics/OH&S**

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, Safety and Security, for further information.

#### **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:

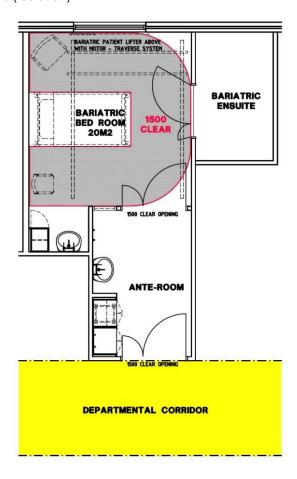
#### 1 Bedroom - Bariatric



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## 1 Bedroom - Bariatric (Isolation)

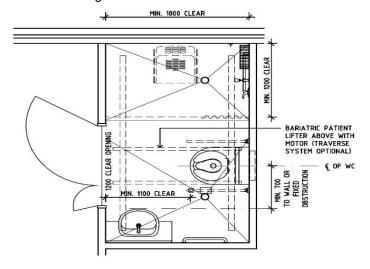


Note: The above images do not depict the full room layout, rather required bedside clearances and possible configurations only

#### **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 350kg 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 1200 mm by 1800 mm to allow for staff assistance. A Bariatric Ensuite configuration is shown below:



#### 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 the safety of all users. Emergency call buttons, staff assist call buttons and duress alarms should be installed in appropriate locations to alert other staff in the event of an emergency.

An 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.

#### **Finishes**

Floor surfaces that reduce or absorb impact if a patient has a fall, may not be sufficiently robust with moving wheeled bariatric equipment as this may result in indentations and shearing of material and should be considered when specifying floor finishes. Carpeted or padded vinyl floors should be avoided as these may require staff to use excessive force when pulling/ pushing bariatric patients on wheeled equipment, contributing to an increased risk of manual handling injury. Floor transitions must be designed to prevent trip hazards, bumps and strain on staff when pushing/ pulling wheeled equipment.

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

# Furniture, Fittings and Equipment

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

#### **Bariatric Bed**

Some bariatric beds have built-in scales to accurately weigh bed bound patients without transferring the patient to a weighing scale. Pressure relieving mattresses can prevent pressure areas from developing which may occur in obese patients who have difficulties repositioning when either sitting in a chair or lying in bed.

#### 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 patients to stand up from the seat independently.

Bariatric Inpatient Units aim to support and educate patients to improve their mobility, independence and the strength while in the Unit. To minimise the risk of harm to 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 essential to the safe movement and supported mobility of patients. Ceiling mounted lifters are recommended for all patient bedrooms. Where ceiling mounted lifters are provided, the traverse lifter is preferred as these generally have a higher weight capacity and allow for a wider 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 required to lift a patient from the floor if they have sustained a fall and require assistance to stand or be transferred to a bed.

# **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 the requirements of Accessibility Standards. Toilets and toilet seats should be able to withstand a weight of up to 350kg. Hand washing basins in ensuites should withstand a downward static force of 350kg 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 patients who will independently move around the room. Where a drop-down grab rail is used, heavy duty rails are to be installed 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.

## 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 the gymnasium.

# **Building Service Requirements**

Mechanical Services (HVAC).

Air-conditioning with temperature control is important in the delivery of nursing care to obese patients. Adjustable temperature control may be required to prevent patients from overheating and to reduce excessive perspiration.

The air temperature in inpatient areas should be maintained at 24 degrees or less. Relative humidity should be maintained between 30% to 60% and should be adjustable.

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

**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 when required. The individual call buttons should be provided next to each inpatient bed and will alert to a central module situated at or adjacent to the Staff Station.

#### **Pneumatic Tube Systems**

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

#### **Exhaust System**

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

#### Infection Control

Standard precautions must be taken for all patients regardless of their diagnoses or 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.

#### **Handbasins**

Handwashing facilities are to be provided in the corridors, patient bedrooms and other rooms as specified in the Standard Components. They shall not impact on minimum clear widths. At least one handwashing bay is to be conveniently accessible to the Staff Station. Hand basins are to comply with Standard Components – Bay – Handwashing, and Part D of these Guidelines.

Hand Basins Inpatient bedrooms are provided exclusively to be used by staff for infection control considerations. Hand basins are available in the ensuites for patients and their visitors which shall not be used by Staff.

#### **Antiseptic Hand Rubs**

Antiseptic hand rubs should be provided in areas where they can be used frequently, such as at points of care, near patient beds and in high-traffic areas. The placement of antiseptic hand rubs should be consistent and reliable throughout facilities.

Antiseptic hand rubs are necessary and essential for safe patient care delivery, however they should be provided in addition to Handwash Bays and not as a substitute.

Antiseptic hand rubs are to comply with Part D in these Guidelines.

#### **Isolation Rooms**

Isolation Rooms can only accommodate one patient bed per room. At least two 'Class N' (Negative Pressure) Isolation Rooms shall be provided for each 30 (plus/minus 2) beds. The beds in isolation rooms may be used for acute care when not required for isolation.

Entry to each Isolation room shall be through an airlock (or anteroom). Handwashing facilities, gown and mask storage, and waste disposal shall be provided within the airlock.

The pressurisation of the isolation room and the airlock must be monitored and displayed on a device on the corridor side. The monitor must have an audible and visible alarm.

The pressure regime for the negative pressure isolation room and airlock should be based on the following:

Corridor (N) Neutral
Airlock (-) Negative
Inpatient room (--) Negative
Ensuite (---) Negative

An Ensuite - Special, directly accessible from the Isolation Room, shall be provided for every isolation room, negative or positive.

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

# 5 Components of the Unit

# Standard Components

Standard Components are typical rooms in a healthcare facility, each represented by a Room Data Sheet (RDS) and Room Layout Sheet (RLS). Sometimes, there is more than one configuration possible therefore, more than one room layout sheet can be found in the Standard Components for a room with the same function. They may differ in room size and/or the requirement of FF&FE items.

The Room Data Sheets are presented in a written format, describing the minimum briefing requirements of each room type divided into the following categories:

- Room Primary Information; includes briefed areas, occupancy, room description, relationships and special room requirements
- Building Fabric and Finishes; describes fabric and finishes for the room's ceiling, floor, walls, doors and glazing
- 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/ Contractor
2	Provided by the Client and installed by the Builder/Contractor
3	Provided and installed by the Client

- Fixtures and Equipment; includes all the serviced equipment commonly located in the room along with the services required such as power, data, water supply and drainage. Fixtures and Equipment are also identified with a group number as above indicating who is responsible for the provision of these items
- Building Services indicates the requirement for communications, power, HVAC (Heating, Ventilation and Air Conditioning), 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 (RLSs) are indicative plan layouts and elevations illustrating an example of good design. The RLS indicated are designed to satisfy these Guidelines. Alternative layouts and

innovative planning shall be deemed to comply with these Guidelines provided the following criteria are met:

- Compliance with 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.

Standard Components have considered the required design parameters described in these Guidelines. Each FPU should be designed in compliance with Standard Components - Room Data Sheets and Room Layout Sheets, nominated in the Schedules of Accommodation in this FPU.

# 6 Schedule of Equipment (SOE)

This Schedule of Equipment (SOE) below lists the major equipment required for the key rooms in this FPU.

Room Name												
1 Bed Room - Bariatric, Room Code (1br-ba-20-i), 1 Bed Room - Bariatric, Isolation, Room Code (1br-ba-20-i)												
Air flowmeter Oxygen flowmeter Table: overbed												
Bed: inpatient, bariatric, electric	Patient lift: bariatric, with sling											
Locker: bedside												
Procedure Room, Room Code (proc-25-i)												
Air flowmeter	Air flowmeter Monitor: physiologic, acute care Stretcher: bariatric											
Infusion pump: single channel Oxygen flowmeter Suction adapter												
Light: procedure	Refrigerator: drugs (optional)											

#### 7 Schedule of Accommodation

The Schedule of Accommodation (SOA) provided in the Appendices of this FPU 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 comprises of the sub-total areas of these rooms plus an additional percentage of the sub-total applied as the circulation (corridors within the Unit). Circulation which is represented as a percentage, is the minimum recommended target area. Any external areas and optional rooms/ spaces are not included in the total areas in the SOA.

Within the SOA, room sizes are indicated for typical units and are organised into functional zones. Not all rooms identified are mandatory, therefore, some rooms are found as optional in the corresponding remarks. These Guidelines do not dictate the size of the facilities and the SOA provided represents a limited sample based on assumed unit sizes. The actual size of the facilities is determined by the 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 is developed for particular levels of services known as Role Delineation Levels (RDL) numbered from 1 to 6. Applicable RDLs are noted in each SOA provided in the appendices. Not all six RDLs are necessarily applicable. Refer to Part A for a full description of the RDLs.

# Inpatient Unit - Bariatric

Room/ Space	Standard Component					DL 5/0			RDL 5		Remarks	
	Room Codes	Qty x m <sup>2</sup>	Qty x m <sup>2</sup> 6 Beds			Q	ty x m	) <del>*</del>	'	Qty x	m²	
Entrance/ Reception Area						12 Beds			20 Beds			Required for stand-alone Unit only
Waiting	wait-10-i wait-15-i		1	Х	10	1	Х	10	1	Х	15	
Naiting - Family	wait-20-i wait-30-i					1	Х	20	1	Х	30	
Toilet - Public	wcpu-3-i		1	Х	3	2	Х	3	2	Х	3	
Toilet - Accessible	wcac-i		1	Х	6	1	Х	6	1	Х	6	
Consult Room - Special	cons-i similar					1	Х	16	1	Х	16	
Meeting/ Multi-purpose Room	meet-l-15-i meet-l-18-i similar					1	х	15	1	Х	18	May be used as a Group Room
Patient Areas												
1 Bed room - Bariatric	1br-ba-20-i		5	х	20	10	х	18	18	х	20	Provide at least one bedroom with 350kg weight limit ceiling mounted patient lifter
1 Bed room - Bariatric (Isolation)	1br-ba-20-i		1	Х	20	2	х	20	2	Х	20	Provide ceiling mounted patient lifter
Anteroom	anrm-i		1	Х	6	2	Х	6	2	Х	6	
Ensuite - Bariatric	ens-ba-i		6	Х	7	12	х	7	20	х	7	Provide at least one Ensuite with built-in patient lifter track
Bay - Handwashing, Type B	bhws-b-i		1	Х	1	1	Х	1	3	х	1	To Unit entry
Bay - Handwashing, PPE	bhws-ppe-i		2	Х	1.5	3	х	1.5	5	х	1.5	Refer Part D - Infection Prevention and Control.
Lounge - Patient	Inpt-15-i Inpt-20-i Inpt-30-i		1	х	15	1	х	20	1	х	30	
Sitting Alcove	NS					1	Х	2	2	х	2	Locate along corridors.
Gymnasium	qyah-45-i					1	Х	45	1	х	45	Optional. Dependent on operational policy.
Bay - Resuscitation Trolley	bres-i		1	х	1.5	1	х	1.5	1	х	1.5	
Bay - Linen	blin-i		1	Х	2	1	х	2	2	х	2	
Procedure Room	proc-20-i					1	Х	20	1	X	20	Optional. Dependent on operational policy and number of single rooms
Bay - Beverage	bbev-op-i		1	х	5	1	х	5	1	Х	5	Open bay. 5 m² if enclosed.
Support Areas	133.00			1								
Staff Station (Main)	sstn-12-i sstn-14-i sstn-18-i		1	Х	12	1	х	18	1	Х	20	
Staff Station	sstn-5-i					1	Х	5	2	Х	5	Optional. If de-centralised Staff Stations are required.
Clean Utility	clur-12-i clur-14-i		1	Х	12	1	Х	12	1	х	14	
Bay - Meal Trolley	bmt-4-i		1	Х	4	1	х	4	1	х	4	
Dirty Utility	dtur-10-i dtur-12-i dtur-14-i		1	Х	10	1	Х	12	1	х	14	
Disposal	disp-8-i disp-10-i					1	Х	8	1	х	10	
Bay - Mobile Equipment	bmeq-4-i		1	Х	2	2	Х	2	2	х	2	Sized to accommodate mobile patient lifter
Store - General	stgn-8-i stgn-12-i stgn-16-i		1	Х	8	1	Х	12	1	Х	16	<u> </u>
Store - Equipment	steq-10-i steq-20-i steq-30-i		1	Х	10	1	Х	20	1	Х	30	Sized to accommodate bariatric equipment
Cleaners' Room	clrm-6-i		1	Х	6	1	Х	6	1	Х	6	
Gown Up (Donning)	gw-up-i similar		1	Х	36	1	Х	36	1	Х	36	Optional
Gown Down (Doffing)	gw-dn-i similar		1	Х	36	1	Х	36	1	Х	36	Optional
Staff Areas	-											
Office - Clinical Handover	off-cln-i		1	х	15	1	Х	15	1	Х	15	Locate near Staff Station
Store - Photocopy/ Stationery	stps-8-i similar					1	Х	6	1	Х	8	
Store - Files	stfs-8-i					1	Х	8	1	Х	8	Optional
Office - Single Person, 9 m <sup>2</sup>	off-s9-i					1	Х	9	1	Х	9	NUM
Office - 3 Person Shared	off-2p-i					1	х	12	1	х	12	Allied Health or Medical staff.



# Part B: Health Facility Briefing & Design Inpatient Unit - Bariatric

Room/ Space	Standard Component Room Codes	RDL 1 & 2 Qty x m <sup>2</sup>		RDL 3 & 4 Qty x m <sup>2</sup>			RDL 5/6 Qty x m <sup>2</sup>				RDL Qty x		Remarks	
Office - Workstation	off-ws-i				1	Х	5.5	2	Х	5.5	2	Х	5.5	CNC, CNE. Shared office may also be provided.
Meeting Room	meet-l-15-i meet-l-20-i							1	Х	15	1	х	20	For meetings, staff education, case discussion, teleconferencing etc.
Staff Room	srm-15-i srm-20-i similar							1	Х	15	1	Х	18	
Toilet - Staff	wcst-i							2	Х	3	2	Х	3	
Property Bay - Staff	prop-2-i							2	Х	2	2	Х	2	Separate male/female locker areas
Sub Total							278			612			917	
Circulation %							30			30			30	
Area Total							361			796			1192	

The following should be considered in conjunction with the SOA provided in this FPU:

- Areas noted in Schedules of Accommodation take precedence over all other areas noted in this FPU
- Rooms indicated in the schedule reflect the typical arrangement according to the Role Delineation and/ or capacity for the Clinical Service
- Exact requirements for room quantities and sizes will reflect Key Planning Units identified in the Clinical 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
- All areas shown in the SOA follow the '4 Floor Area Measurement Methodology, Definitions and Diagrams' as described in these Guidelines. Refer to Part B, Complete Part
- Office areas are to be provided according to the Unit role delineation and number of endorsed full-time positions within 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).
- Australasian Health Facility Guidelines. (AusHFG Version 4.0), 2012; refer to website www.healthfacilitydesign.com.au
- Safework Australia (2008) Australian Safety and Compensation Council (2009) Manual Handling Risks Associated with the Care, Treatment and Transportation of Bariatric (Severely Obese) Patients in Australia
- Cohen, M.H., Nelson, G.G., Green D.A., Leib, R., Matz, M.W., Thomas, P.A., et al and Borden, CA (2<sup>nd</sup> ed) (2010) Patient Handling and Movement Assessments: A White Paper, The Facility Guidelines Institute.
- Guidelines for Design and Construction of Health Care Facilities, The Facility Guidelines Institute, 2010 Edition, refer to website www.fgiguidelines.org
- NSW Health (2024) Management of Patients with Bariatric Needs, NSW Australia.
   GL2024\_001 <a href="https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2024\_001.pdf">https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2024\_001.pdf</a>
- 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.
- Victorian WorkCover Authority.3rd Edition (September 2007) Worksafe Victoria: A Guide to Designing Workplaces for Safer Handling of People
- World Health Index (2017) <a href="http://www.who.int">http://www.who.int</a>