

23.0 Inpatient Unit – Bariatric

23.1 Introduction

23.1.1 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.

23.2 Planning

23.2.1 Operational Models

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 the obese pre and post-surgical patient/s or patients with chronic disease and related co-morbidities.

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

- Bariatric 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 service e.g. education, exercise planning and support, counselling, dietician consultation.

Levels of Care

The levels of care in the Unit will range from high acute and special care such as High Dependency with a progression to intermediate 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.

23.2.2 Planning Models

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 six 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 maneuvering space for patient lifters and staff. Supporting a patient's privacy and dignity is a critical consideration when designing a shared bedroom space.

23.2.3 Functional Areas

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

- Entry/Reception:
- Waiting Areas (may be shared)
- 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
- Staff Room
- Toilets and lockers.

Entry/Reception

Waiting Area

Patient and visitor waiting areas should be located close to the Bariatric Inpatient Unit. Obese and morbidly 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 seating weight of 270kg, bariatric furniture 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. Discretely incorporated bariatric rated two-seaters or built-in double seats which can also be used by the general public may be included in the design of the waiting area.

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.

Inpatient Areas

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 is 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 for other bedrooms and patients. 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

Patient Ensuite

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.

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.

Sitting Alcove

Patient sitting alcoves along the corridor may be provided to allow patients to rest while mobilizing 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-in seating.

Gymnasium

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 between 250 to 500kg. 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 mobilization. The gymnasium should include additional space for holding mobile lifting equipment, mobility equipment and bariatric wheelchairs.

Clinical Support Areas

Storage

Bariatric equipment should be stored as close as possible to patient areas to encourage their utilization regularly. The locating of patient manual handling equipment close to or in a patients bedroom should assist with staff utilization 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.

23.2.4 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 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.

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 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.

23.3 Design

23.3.1 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 requirements to accommodate special bariatric equipment
- Structural and other architectural design consideration to accommodate ceiling -mounted equipment e.g. patient lifters, toilet bowl fixation, vanity anchoring, grab rail support etc.
- Positioning of patient handling and mobilizing 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
- OSH of patients and staff
- Evacuation path plans
- Ingress and egress requirements for doorways, corridors and lifts
- Infection prevention and Control.

23.3.2 *Environmental Considerations*

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.

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 patients bodies when utilizing mobility and lifting equipment.

Acoustics

The Bariatric Inpatient Unit should be designed to minimize 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.

23.3.3 *Space Standards and Components*

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 utilized 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.

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.

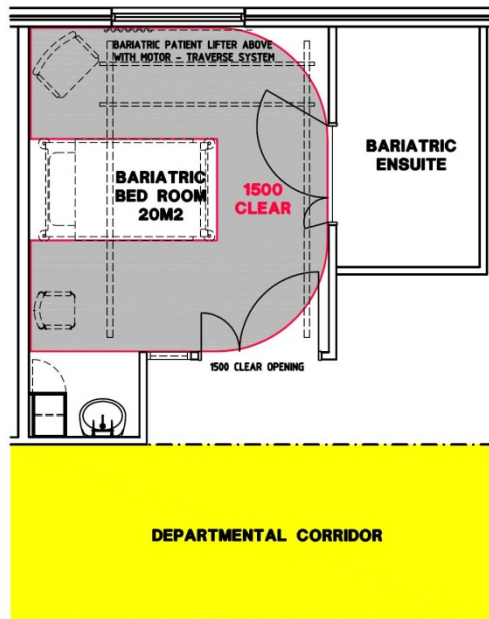
Ergonomics

Occupational Safety and Health (OSH) requirements must be adhered to in the design process to ensure the health and safety of the end users.

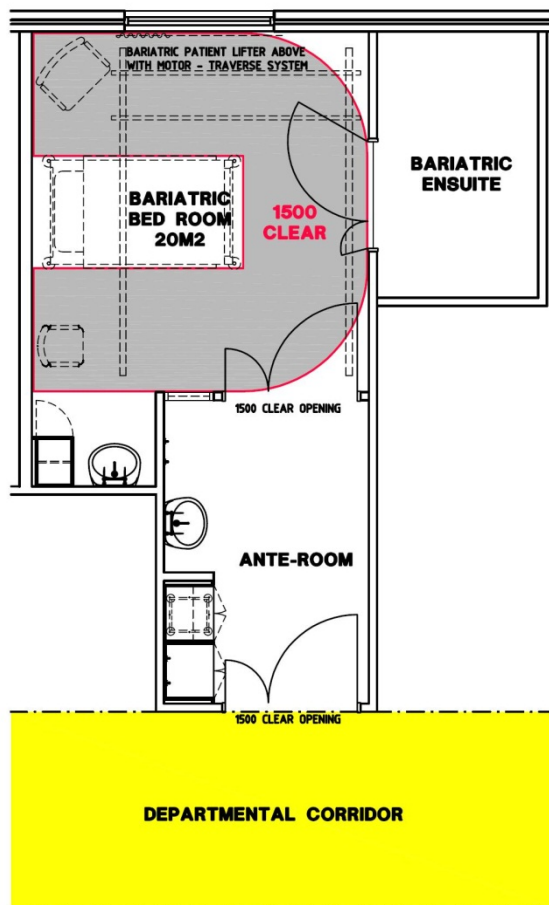
Patient Bedrooms

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



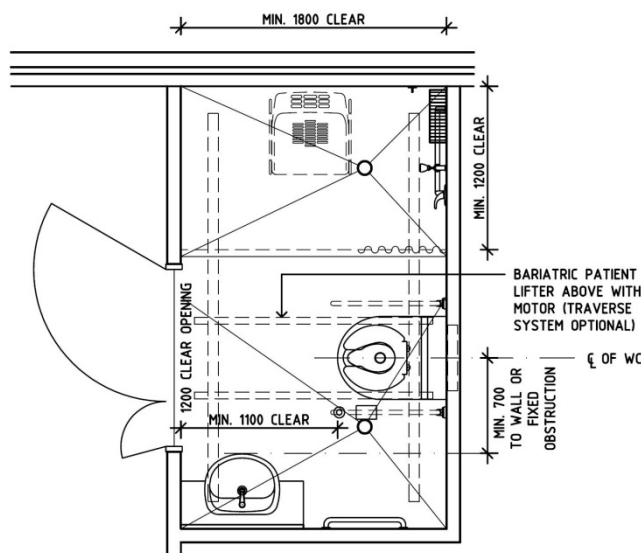
1 Bedroom – Bariatric (Isolation)



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 450kg and to be -mounted a minimum of 700mm from the finished wall or any fixed obstruction to the centerline 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:



23.3.4 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.

23.3.5 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.

23.3.6 Furniture and Equipment

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

Bariatric Beds

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.

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.

Patient Lifters

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 appropriate lifting system is critical to the safe movement and supported mobility of patients and ensure 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 maybe adequate for independent patients but passive patient lifters may be required for less ambulant bariatric patients. Passive patient lifters are also utilized to lift a patient from floor if a patient has a fall and required 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 mobilizing 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 utilized with reinforced wall support to maintain the robustness and integrity of the rails.

Handheld showerheads 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.

23.3.7 *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.

23.3.8 *Building Service Requirements*

Air-Conditioning

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.

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.

Nurse/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 will alert to a central module situated at or adjacent to the Staff Station.

23.3.9 *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 of these Guidelines.

23.4 Components of the Unit

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.

23.5 Schedule of Accommodation

Typical Inpatient Bariatric Unit at Levels 3 to 6

The number of Bedrooms provided will be determined by the endorsed Service Plan. For RDL 3|4 the 6 bed Bariatric Unit may be attached to another Inpatient Unit and share support and staff facilities. The 18 bed RDL 5|6 Bariatric Unit functions as a self-contained stand-alone unit.

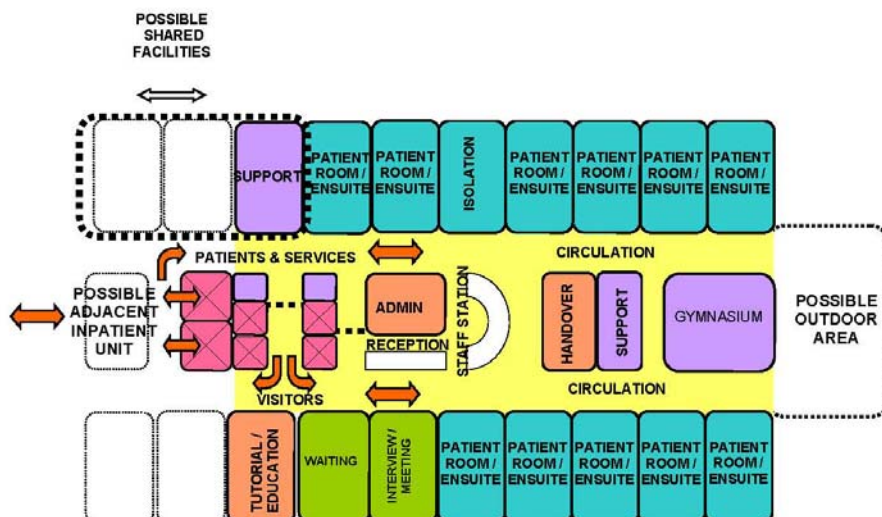
ROOM/SPACE	Standard Components				Level 3 4 Qty x m ²	Level 5 6 Qty x m ²	Remarks
Entry/Reception							
Waiting	WAIT-10-SJ				shared	1 x 15	Maybe combined with waiting area of another unit
Waiting – Family	WAIT-20-SJ WAIT-30-SJ				shared	1 x 30	
Toilet – Public	WCPU-3-SJ				shared	2 x 3	Optional if not available nearby
Toilet – Accessible	WCAC-SJ				shared	1 x 6	Optional if not available nearby
Consult Room – Special					shared	1 x 16	Suitable for bariatric use
Meeting/Multi-Purpose Room	MEET-L-15-SJ				shared	1 x 18	Maybe used as a Group Room
Patient Areas					6 Beds	18 Beds	
1 Bed Room – Bariatric	1 BR-BA-SJ				5 x 20	17 x 20	Provide min one bedroom with 450kg weight limit ceiling-mounted patient lifter
1 Bed Room – Bariatric (Negative Pressure)	1 BR-BA-SJ Similar				1 x 20	1 x 28	Provide ceiling-mounted patient lifter
Anteroom	ANRM-SJ				1 x 6	1 x 6	
Ensuite – Bariatric	ENS-BA-SJ				6 x 7	18 x 7	Provide at least one Ensuite with built-in patient lifter track
Lounge – Patient	LNPT-15-SJ				1 x 15	1 x 30	
Sitting Alcove						2 x 2	Locate along corridors
Gymnasium	GYAH-45-SJ					1 x 45	Optional. Dependent on operational policy.
Support Areas							
Bay – Beverage	BBEV-OP-SJ				1 x 4	1 x 4	
Bay – Blanket Warmer	BBW-SJ				1 x 1	1 x 1	As required
Bay – Handwashing, Type B	BHWS-B-SJ				2 x 1	4 x 1	In addition to handbasins within patient rooms; Near staff station/entry areas
Bay – Linen	BLIN-SJ				1 x 2	2 x 2	
Bay – Mobile Equipment	BMEQ-4-SJ				1 x 4	2 x 4	Locate in low traffic areas. For mobile equipment and patient lifters
Bay – Resuscitation Trolley	BRES-SJ				1 x 1.5	1 x 1.5	
Cleaner's Room	CLRM-5-SJ				shared	1 x 5	
Clean Utility	CLUR-12-SJ Similar				1 x 12	1 x 14	Medication room may be separate
Dirty Utility	DTUR-12-SJ Similar				1 x 10	1 x 12	
Disposal Room	DISP-8-SJ				shared	1 x 8	
Multi-purpose Room	MEET-L-15-SJ				shared	1 x 15	For meetings, staff education, case discussion, teleconferencing, etc.
Office – Clinical Handover	OFF-CLN-SJ				1 x 12	1 x 15	Close to Staff Station.
Staff Station	SSTN-14-SJ Similar				1 x 12	1 x 20	Decentralised staff stations may be provided
Store – Equipment	STEQ-16-SJ Similar				1 x 10	1 x 20	
Store – General	STGN-20-SJ Similar				1 x 8	1 x 20	
Staff Areas							
Office – Manager	OFF-S9-SJ				1 x 9.0	1 x 9.0	Nurse Manager

ROOM/SPACE	Standard Components				Level 3 4 Qty x m ²	Level 5 6 Qty x m ²	Remarks
Office – 3-Person Shared	OFF-3P-SJ					1 x 15.0	Allied Health, Nursing, Medical staff.
Office – Workstation	OFF-WS-SJ				1 x 5.5	2 x 5.5	Nursing educators, shared
Meeting Room	MEET-L-15-SJ				shared	1 x 15	For meetings, staff education, case discussion, teleconferencing etc.
Property Bay – Staff	PROP-3-SJ S				shared	2 x 3.0	Separate male/female locker areas
Staff Room	SRM-15-SJ				shared	1 x 15.0	
Toilet – Staff	WCST-SJ				shared	2 x 3.0	
Net Department Total					276.0	898.5	
Circulation %					35	35	
Grand Total					372.6	1213.0	

Notes:

- 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 staffing establishment; Executives and Managers may be responsible for more than one area but should have only one office assigned within the campus
- 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.

23.6 Functional Relationship Diagram



23.7 Further Reading

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