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GOVERNMENT OF DUBAI

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DUBAI HEALTH AUTHORITY

DHA Health Facility Guidelines 2019

Part B – Health Facility Briefing & Design

190 – Inpatient Unit - General

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Executive Summary

This Functional Planning Unit (FPU) covers the requirements of a general inpatient accommodation unit.

This unit is sometimes referred to as a "Ward", "Nursing Unit" or IPU. Inpatient Unit is for the overnight care of patients. The Inpatient Unit - General is suitable for a wide variety of patient and treatment types including Medical and Surgical. More specialised units for Maternity and Bariatrics have separate FPU's which are also included in these Guidelines. For Paediatrics and Rehabilitation, additional requirements are required as outlined in this FPU.

The basic requirements of the more specialised unit are the same as the Inpatient Unit – General but with additional facilities such as Nursery for Maternity and Gym for Rehabilitation. Therefore a thorough understanding of the Inpatient Unit - General, its models of planning and the Standard Components required will assist in preparation of other specialised unit types, even if they are not explicitly included in these Guidelines.

The typical "efficient" unit is defined as 30 beds with the minimum support spaces and human resources required. Up to another half unit (eg 15 beds) may be added to a full (30 bed) General Inpatient Unit to create a larger unit (eg 45 beds) under the same unit management. For these additional beds a number of additional support rooms should be provided as indicated in these guidelines.

There are a number of fundamental planning geometries which are used for the design of Inpatient Units (of all types). These have been shown as Functional Relationship Diagrams, indicating the planning principles and preferred relationship of the components. The concept of Swing Beds is defined as a flexible management practice and shown in the diagrams for the planning models.

The typical unit Schedule of Accommodation is provided using Standard Components (typical room templates) and quantities for a typical 30 bed unit as well as a typical 15 bed extension to a 30 bed unit.

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.

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190. Inpatient Unit - General

1 Introduction

The main function of the Inpatient Unit is to provide appropriate accommodation for the delivery of health care services, which include the diagnosis, care and treatment of inpatients.

The Unit must also provide facilities and conditions to meet the needs of patients and visitors as well as the workplace requirements of staff.

1.1 Description

The Inpatient Unit is for general medical and surgical patients. An inpatient can be defined as an overnight stay in a licensed medical facility for over 24 hours. In larger health facilities this Unit includes specialist medical and surgical patients, for example, cardiac, neurology/ neurosurgery, integrated palliative care and obstetric patients. Patients awaiting placement elsewhere may also be accommodated in this type of Unit.

2 Functional & Planning Considerations

2.1 Models of Care

Models of Care for an Inpatient Unit may vary dependent upon the patients' acuity and numbers of, and skill level of the nursing staff available.

Examples of the models of care that could be implemented include:

- patient allocation
- task assignment
- team nursing
- case management
- primary care (comprehensive range of generalist services by multidisciplinary teams that

include not only GPs and nurses but also allied health professionals and other health workers)

or

- a combination of the above

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

2.2 Levels of Care

The levels of care will range from highly acute nursing and specialist care (high dependency), with a progression to intermediate care prior to discharge or transfer (self-care).

Patients requiring 24-hour medical intervention or cover will generally not be nursed or managed within a general inpatient unit.

2.3 Bed Numbers and Complement

Each Inpatient Unit may contain up to 30 patient beds and shall have bedroom accommodation complying with the Standard Components.

Additional beds up to 15 as an extension of a standard 30 bed Unit may be permitted with additional support facilities in proportion to the number of beds, for example 1 extra Sub Clean Utility, Sub Dirty Utility and storage.

For additional beds of more than 15, additional support facilities for a full unit (30 beds) will be required, located to serve the additional beds.

The preferred maximum number of beds in an acute Inpatient Unit in Maternity or Paediatric Units is 20-25 beds.

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

2.4 Swing Beds

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

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

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

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

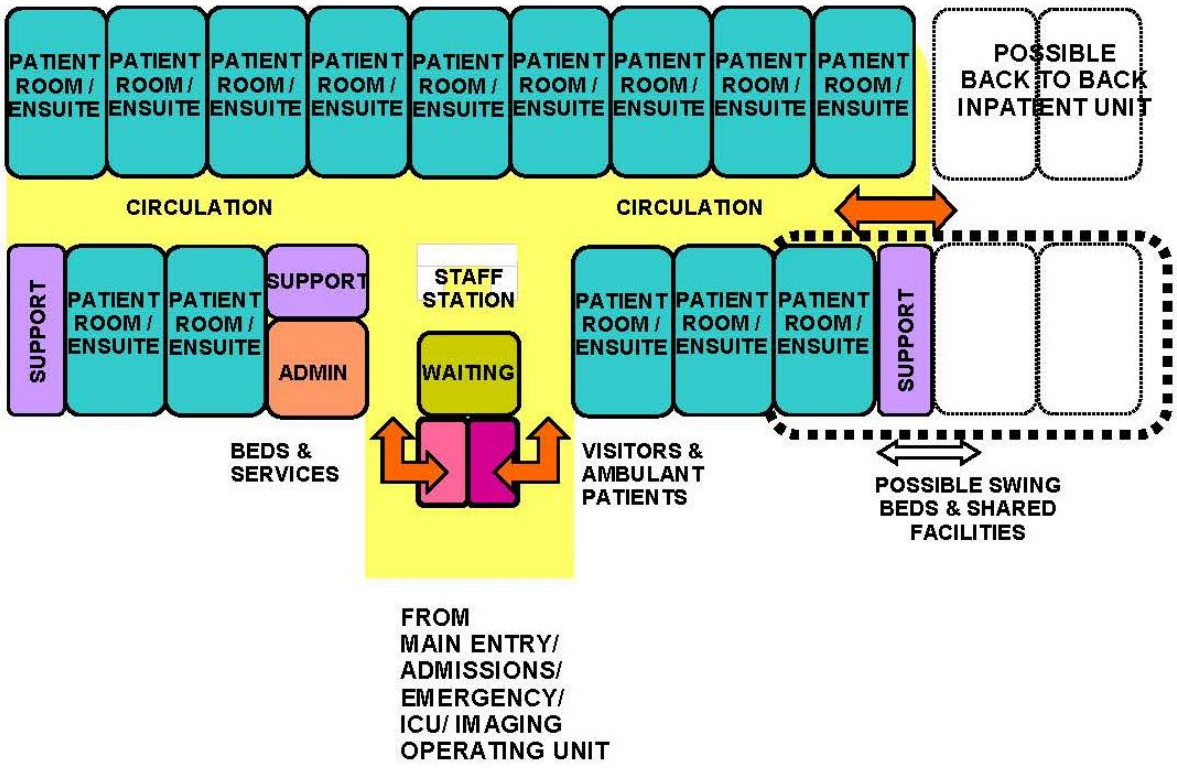
3 Unit Planning Models

There are a number of basic and acceptable planning geometries for Inpatient Units. Most plans can be reduced to one of these geometric models, which can be referred to by their names. Therefore, it is desirable to fully understand the correct configuration and the best potential of each option, in order to adapt to the local conditions. The basic geometries are as follows:

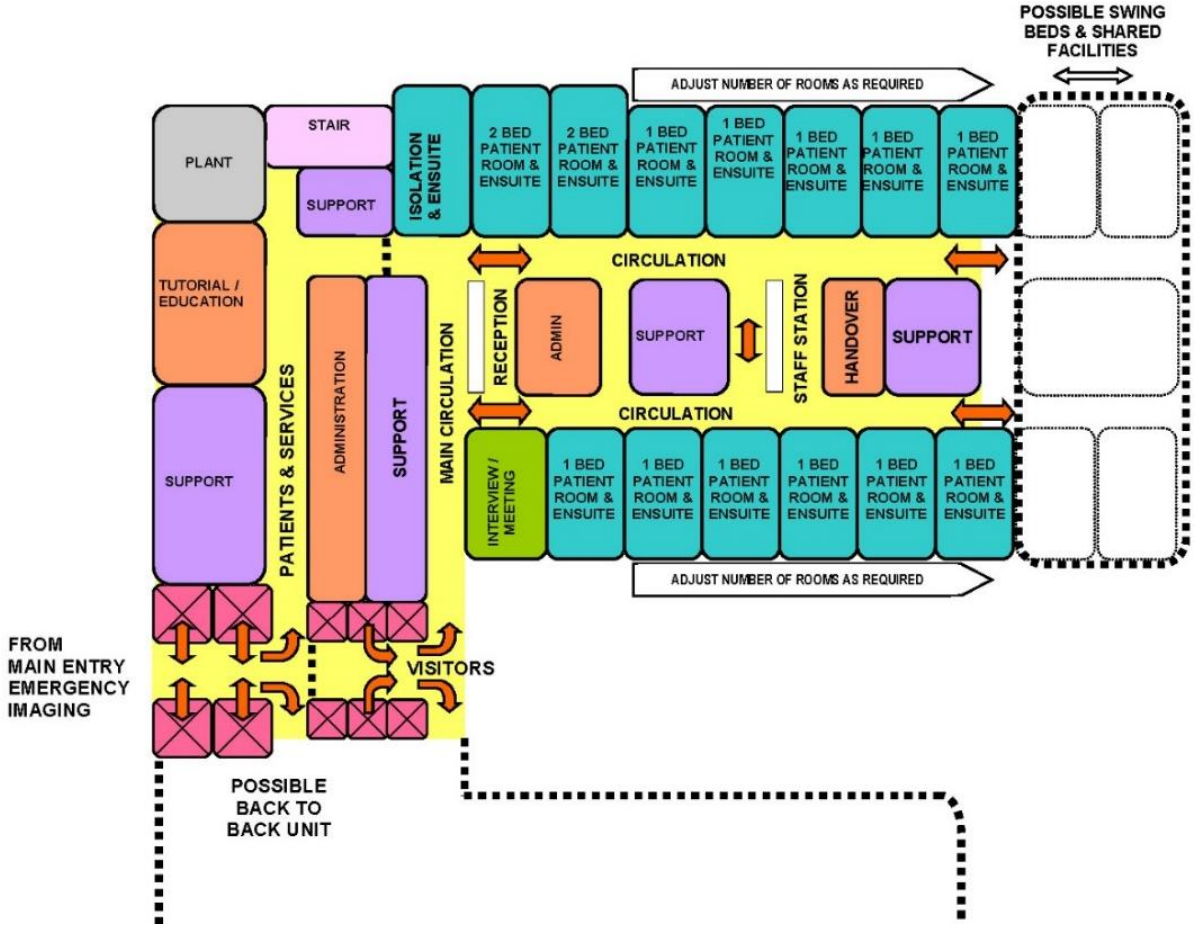
- Linear model- Patient and support rooms are clustered along a single corridor
- Racetrack model- patient rooms are located on the external aspects of the space and support rooms are clustered in the central areas in a racetrack configuration
- “L” shaped model - Similar to Linear model, however the unit is bent roughly in the centre to form an “L” Shape
- “T” shaped model- Similar to “L” model with one linear entrance wing splitting into two side wings forming a “T” shape

- Hybrid "T" model- The entrance wing has a racetrack configuration with support services in the centre of the racetrack. The central racetrack then splits into two linear wings similar to the "T" option
- Cruciform model – This is a + shape similar to the "T" model with one extended central wing added

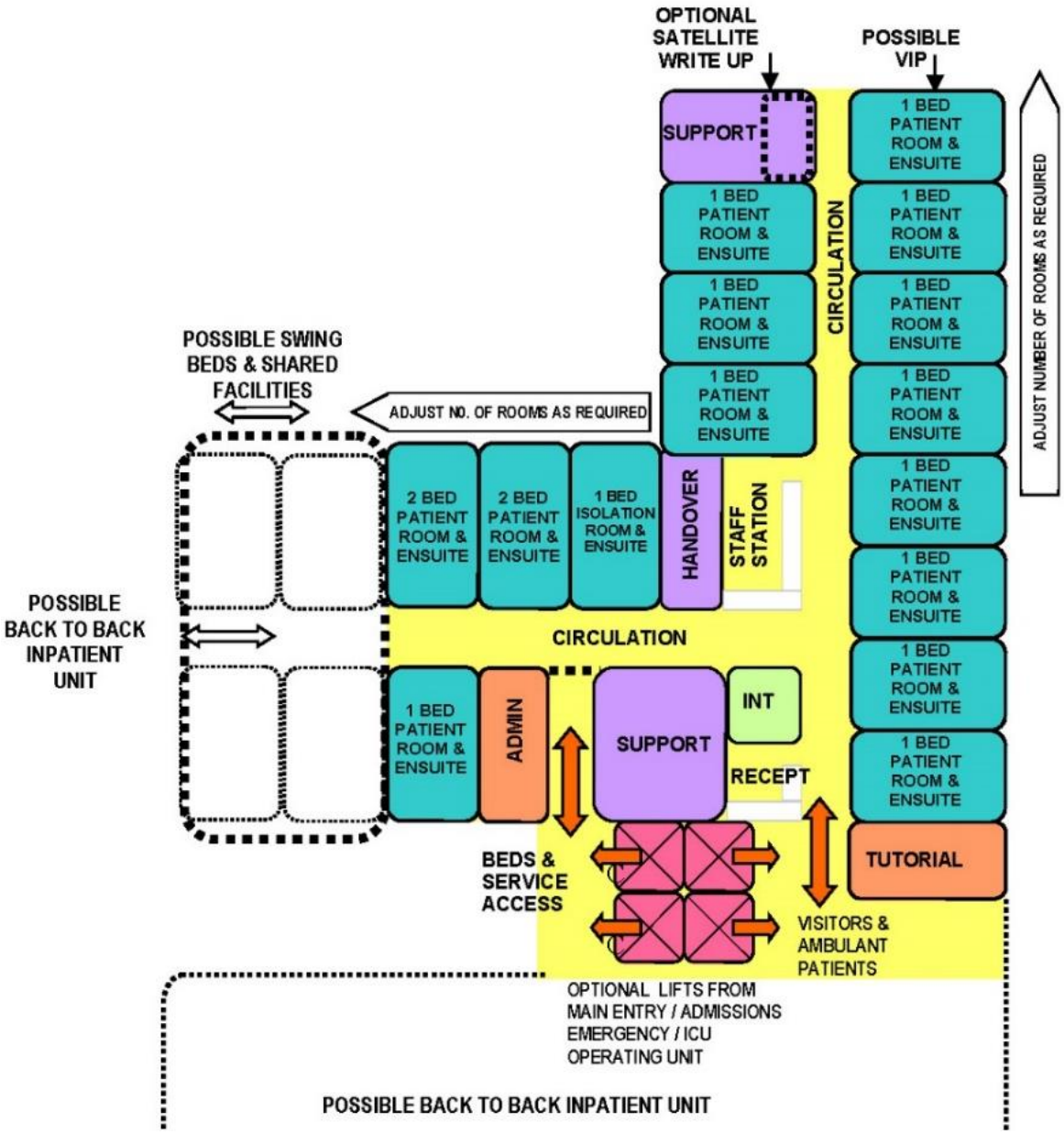
3.1.1 Linear Model



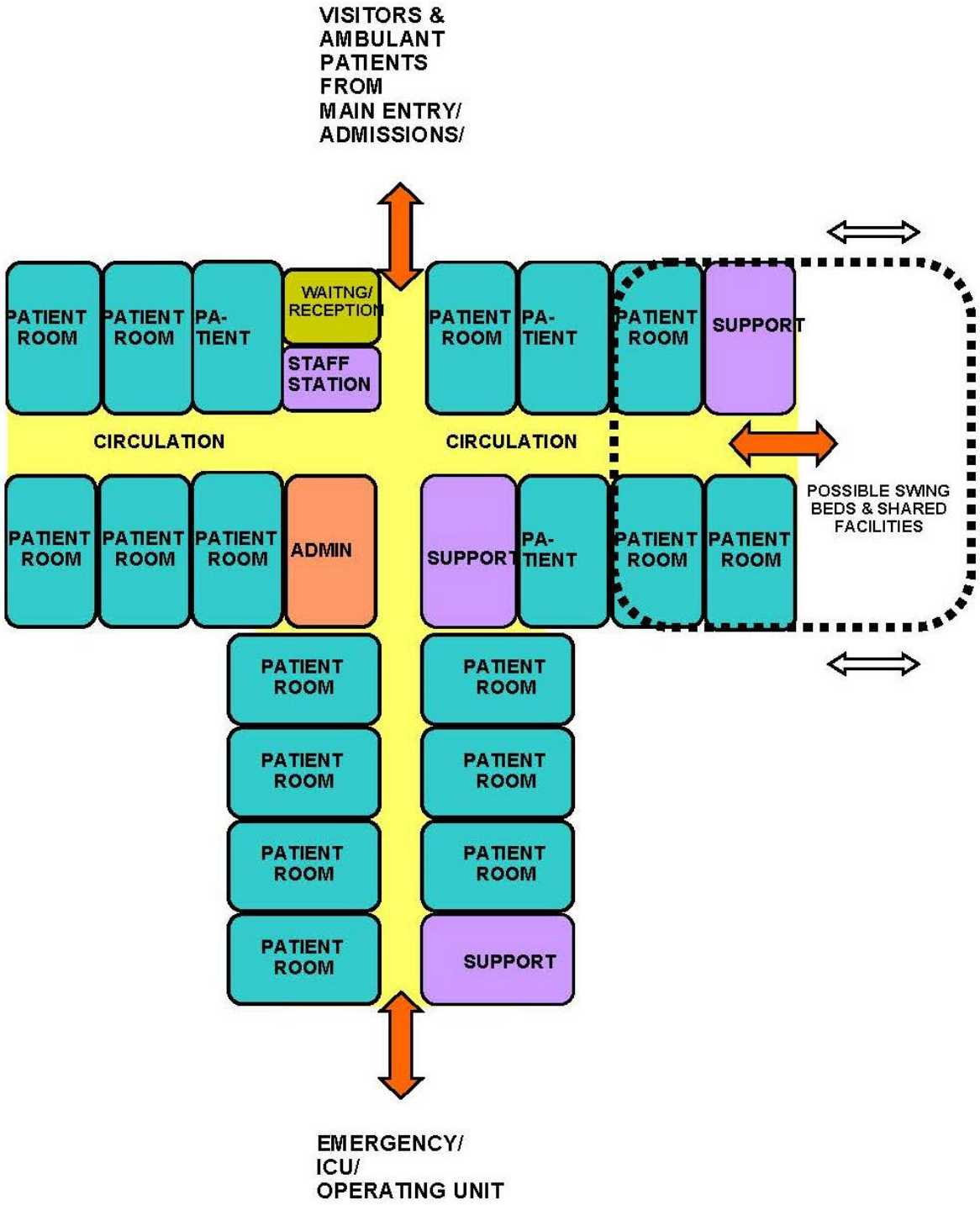
3.1.2 Racetrack Model



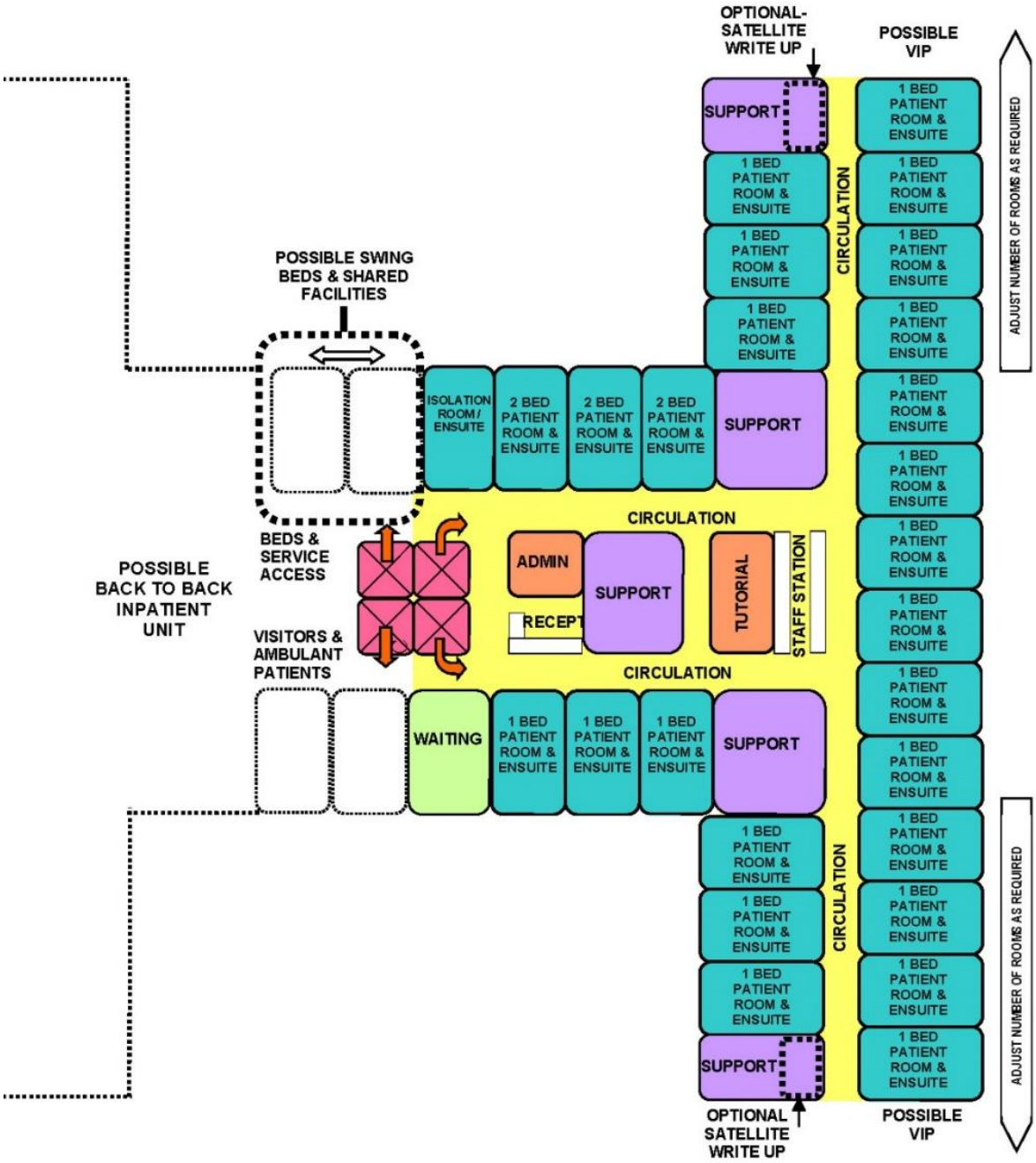
3.1.3 "L" Shaped Model



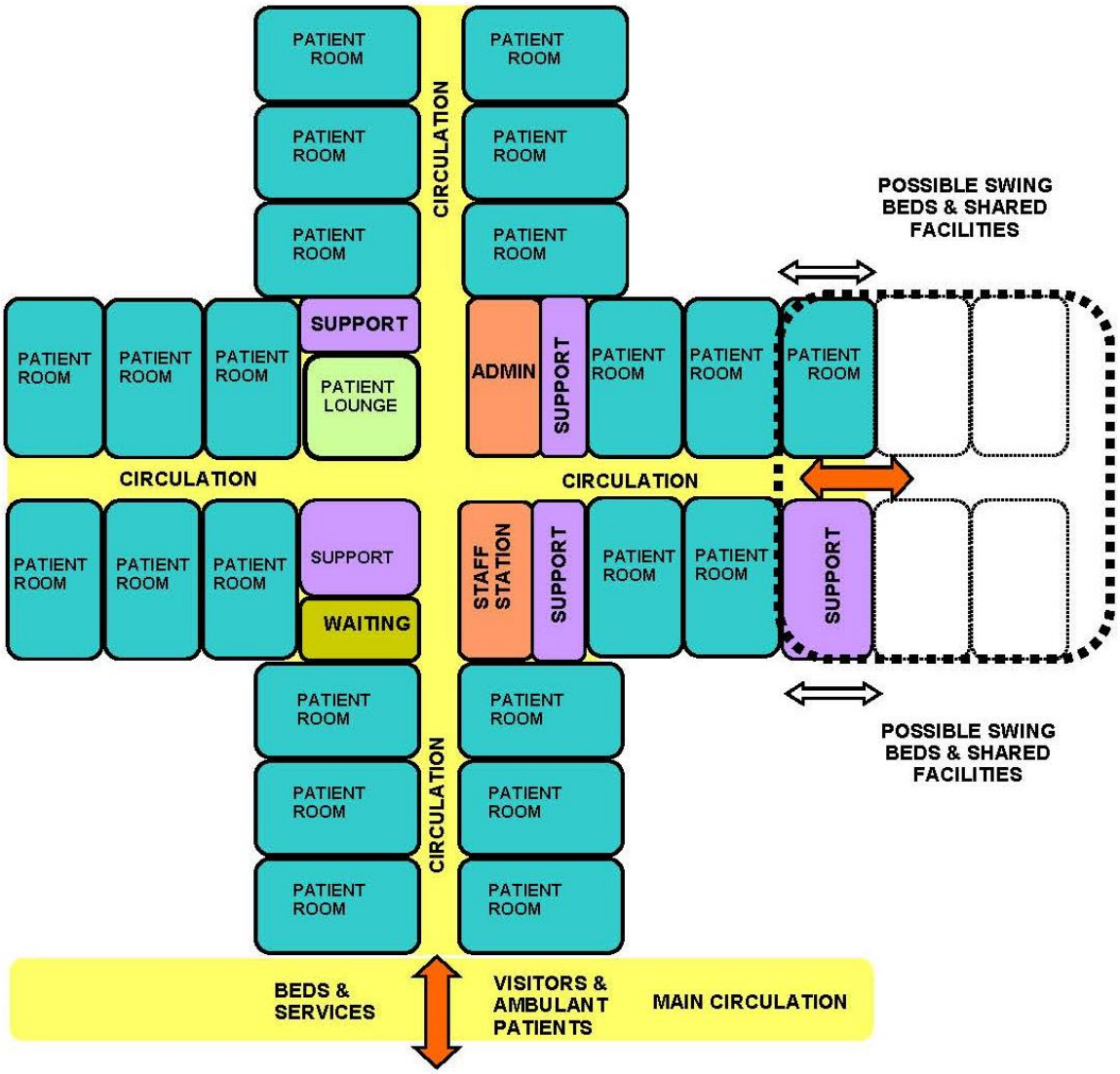
3.1.4 "T" Shaped Model



3.1.5 Hybrid "T" Model



3.1.6 Cruciform Model



3.2 Functional Zones

The Inpatient Accommodation Unit will comprise the following Functional Zones:

- Entry/ Reception area (may also be a shared area or provided at the Main Entry). Optionally, this area may incorporate a waiting area
- Patient Areas - areas where patients are accommodated, and facilities specifically intended for the patients
- Support Areas - areas used by staff to support the activities of the unit including utility rooms

and stores

- Staff Areas - areas accessed by staff, including administration and rest areas
- Shared Areas - public and staff areas that may be shared by two or more Inpatient Units

The above zones are briefly described here:

3.2.1 Entry/ Reception Area

The Reception is the receiving hub of the unit and may be used to control the security of the Unit. Optionally, gender separated waiting areas for visitors may be provided either immediately outside or immediately inside the unit. Waiting areas may be shared between 2 or even 3 adjacent Inpatient Units. This area needs access to separate male/female toilet facilities and prayer rooms. Optionally, visitor and staff gowning, and protective equipment may also be located immediately at the entrance for infection control in case ward isolation becomes necessary during a break-out.

3.2.2 Patient Areas

Patient Areas will include:

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

  1 bed room is referred to as single or private room, while two+ bed rooms are referred to as Shared bedrooms.

  The preference is for all single rooms for all new hospitals. If this is not economically feasible, then 2-bed rooms may also be considered. In new facilities at least 50% of all beds should be in single rooms.

  Hospital Management may consider utilising 2-bed rooms for a single patient use until the Inpatient Unit occupancy reaches a level where each 2-bed room has one patient. After that

the 2-bed rooms will take one additional patient each. Considering that typically Inpatient units are planned for 85% occupancy, in this option, the balance of 15% un-occupied beds will comprise the second beds in the 2-bed rooms. Therefore, such an option can combine economy with maximum patient privacy for most patients most of the time.

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

Gender segregation of rooms is subject to Operational Model.

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

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

3.2.3 Support Areas

Support Areas include:

- Handwashing, Linen and Equipment bays

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

3.2.4 Staff Areas

Staff Areas will consist of:

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

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

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

3.2.5 Shared Areas

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

- Patient Bathroom – Assisted
- Treatment Room
- Public Toilets
- Gender Segregated Visitor Lounge
- Family Visiting Room – Area should consider the potential usage and adjust pro-rata if it is to be shared

- Some of the Staff Areas

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

4 Functional Relationships

The Inpatient Unit is a key functional component of the hospital, connected with many clinical and operational support units. Correct functional relationships will promote delivery of services that are efficient in terms of management, cost and human resources.

4.1 External Relationships

Principal relationships with other Units include:

- Ready access to diagnostic facilities such as Medical Imaging
- Ready access from the Emergency Unit
- Ready access to Critical Care Units (ICU and CCU)
- Ready access to Clinical Laboratories and Pharmacy (may be via Pneumatic Tube System)
- Ready access to Materials Management, Housekeeping and Catering Units
- Inpatient Surgical Units require ready access to Operating/ Day Procedures Units

Principal relationships with public areas include:

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

Principal relationships with Staff Areas:

- Ready access to staff amenities which may be centrally located

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

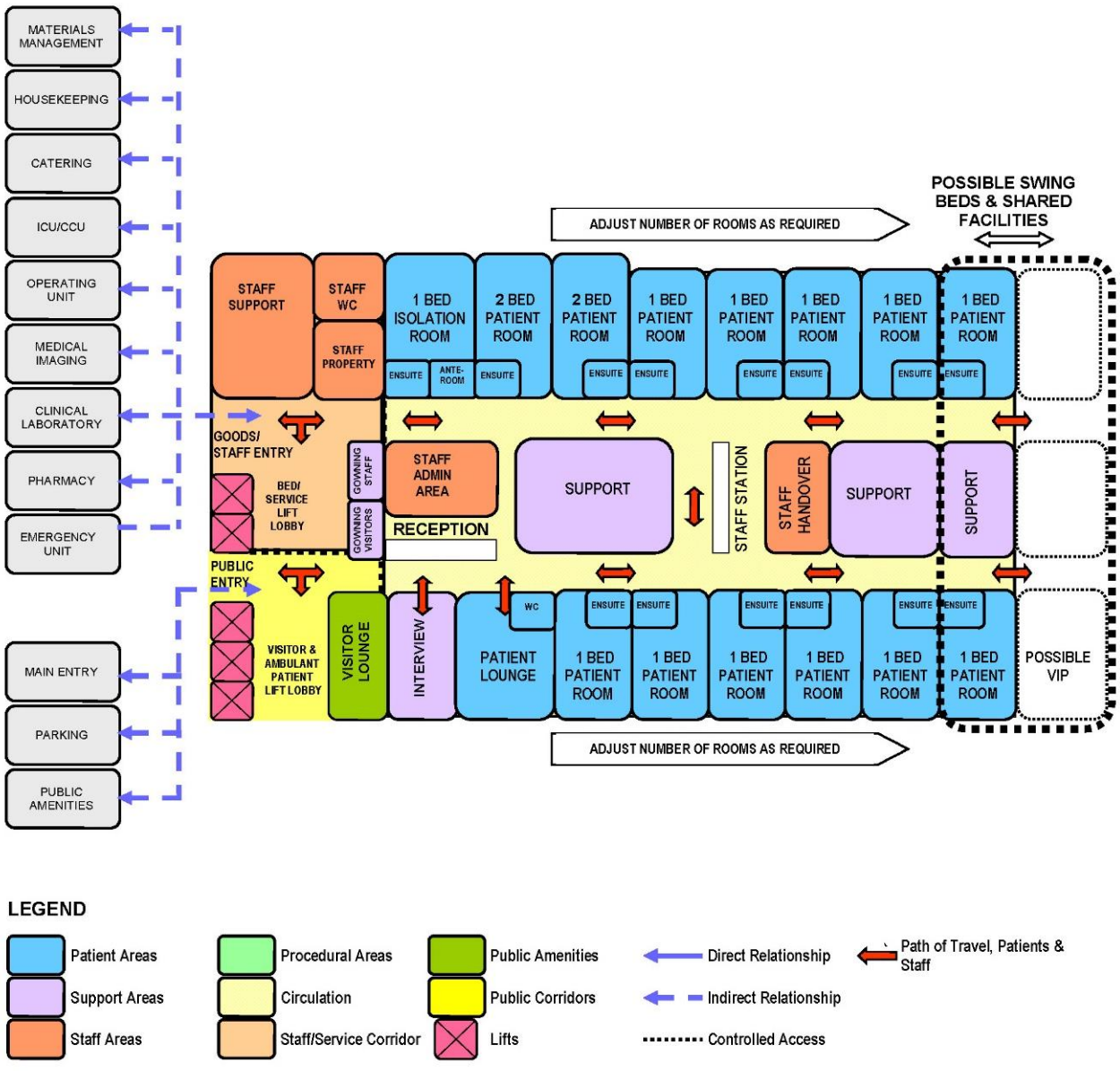
4.2 Internal Relationships

Optimum internal relationships include:

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

4.3 Functional Relationships Diagram

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



Important and desirable external relationships outlined in the diagram include:

- Clear Goods/Service/Staff Entrance

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

Important and desirable internal relationships outlined in the diagram include:

- 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
- 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

5 Design Considerations

5.1 Environmental Considerations

5.1.1 Acoustics

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

Acoustic treatment will be required to the following:

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

5.1.2 Natural Light

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

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

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

5.1.3 Privacy

The design of the Inpatient Unit needs to consider the contradictory requirement for staff visibility of patients while maintaining patient privacy. Unit design and location of staff stations will offer

varying degrees of visibility and privacy. The patient acuity including high dependency, elderly or intermediate care will be a major influence.

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

Other factors for consideration include:

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

5.2 Space Standards and Components

5.2.1 Room Capacity and Dimensions

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

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

Room Type	Minimum Width	Minimum Length	Minimum Area
SINGLE BED ROOM	3800 mm	3960 mm	18m2
TWO BED ROOM	3800mm	6300mm	28m2

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

Minimum room dimensions are based on overall bed dimensions (buffer to buffer) of 2200mm long x 1050mm wide. Minor encroachments including columns and hand basins that do not interfere with functions may be ignored when determining space requirements.

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

5.2.2 Bed Spacing / Clearances

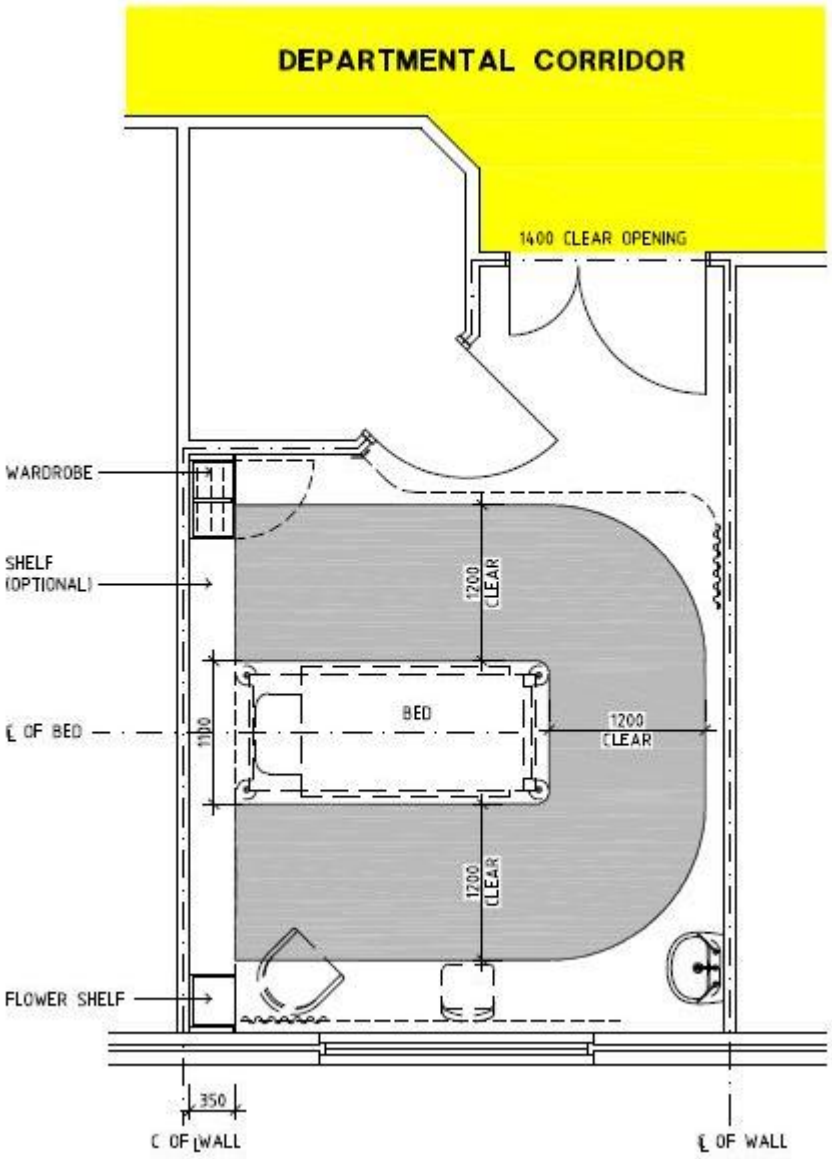
Bed dimensions become a critical consideration in ascertaining final room sizes. The dimensions noted in these Guidelines are intended as minimums and do not prohibit the use of larger rooms where required.

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

In bedrooms there shall be a clearance of 1200 mm available at the foot of each bed to allow for easy movement of equipment and beds. For other clearances please refer to the diagrams provided below:

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

5.2.2.1 Single Bed Rooms

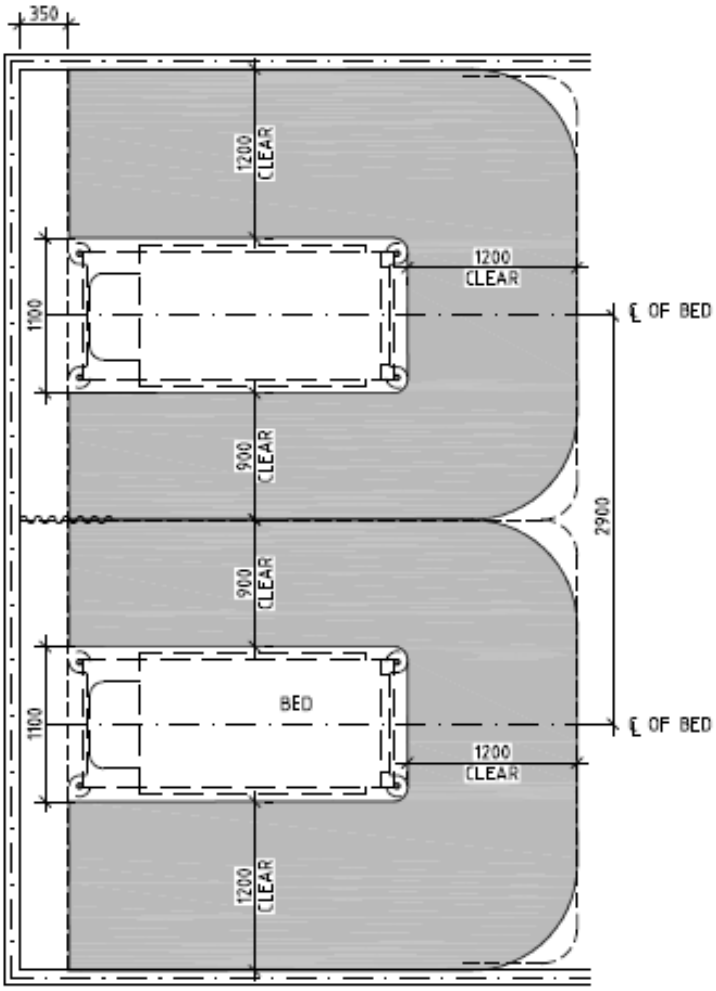


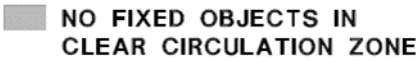
5.2.2.2 Multiple Bed Rooms

In multiple-bed rooms such as 2 bed rooms, the minimum distance between bed centre lines shall be 2400mm.

Paediatric bedrooms that contain cots may have reduced bed centres, but consideration must be given to the spatial needs of visiting relatives. To allow for more flexible use of the room the 2400mm centre line is still recommended. Consider allowing additional floor area within the room for the children to play.

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





5.3 Accessibility

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

5.4 Doors

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

5.5 Safety and Security

An Inpatient Unit shall provide a safe and secure environment for patients, staff and visitors, while remaining a non-threatening and supportive atmosphere conducive to recovery. The facility, furniture, fittings and equipment must be designed and constructed in such a way that all users of the facility are not exposed to avoidable risks of injury.

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

5.6 Drug Storage

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

combined with a Clean Utility room as long as the requirements of both functions are accommodated.

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

Medication Room must have space for parking a medication trolley.

5.7 Finishes

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

- acoustic properties
- durability
- ease of cleaning
- infection control
- fire safety
- movement of equipment

In areas where clinical observation is critical such as bedrooms and treatment areas, colour selected must not impede the accurate assessment of skin tones.

Walls shall be painted with lead free paint.

5.8 Curtains / Blinds

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

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

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

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

5.9 Building Services Requirements

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

5.9.1 Information and Communication Technology

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

- Electronic Health Records (HER) which may form part of the Health Information System (HIS)
- Hand-held tablets and other smart devices
- Picture Archiving Communication System (PACS)
- Paging and personal telephones replacing some aspects of call systems
- Data entry including scripts and investigation requests
- Bar coding for supplies and X-rays / Records
- Data and communication outlets, servers and communication room requirements
- Optional availability of Wi-Fi to the staff and patients

5.9.2 Nurse Call

Hospitals must provide an electronic call system next to each inpatient bed to allow for patients to alert staff in a discreet manner at all times.

Patient calls are to be registered at the Staff Stations and must be audible within the service areas of the Unit including Clean Utilities and Dirty Utilities. If calls are not answered the call system should escalate the alert accordingly. The Nurse Call system may also use mobile paging systems or SMS to notify staff of a call.

5.9.3 Heating Ventilation and Air-conditioning (HVAC)

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

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

5.9.4 Medical Gases

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

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

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

5.9.5 Patient Entertainment Systems

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

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

5.9.6 Dialysis Stations

The Inpatient Unit should provide one Bedroom with a dialysis drain for use with mobile dialysis equipment, as required by the unit operational policy.

5.9.7 Pneumatic Tube Systems

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

5.9.8 Hydraulics

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

5.10 Infection Control

5.10.1 Hand Basins

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

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

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

5.10.2 Antiseptic Hand Rubs

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

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

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

5.10.3 Isolation Rooms

Standard Single (1 bed) patient rooms are regarded as Class S isolation. At least two 'Class N - Negative Pressure' Isolation Room shall be provided for each 60 beds in facilities of Role Delineation Level (RDL) 4 and above. These isolation rooms beds may be used for normal acute care when not required for isolation.

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

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 General Unit Inpatient accommodation will consist of Standard Components to comply with details described in these Guidelines. Refer to Standard Components Room Data Sheets and Room Layout Sheets nominated in the Schedules of Accommodation.

Non-standard rooms are identified in the Schedules of Accommodation as NS and are described below.

6.1 Non-Standard Rooms

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

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 theroom 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 Framwork** (**Part A - Appendix 6**) in these gduielines for a full description of RDL's.

The table below shows a typical 30 Bed Unit at RDL 3 to 6 with a possible extension of a 15 Bed Unit.

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 - General

ROOM/ SPACE	Standard Component Room Codes						RDL 3-6 Qty x m²			RDL 3-6 (Additional) Qty x m²			Remarks
							30 Beds			15 Beds			
Entrance/ Reception													
Reception	recl-10-d						1	x	10				
Lounge - Visitor	wait-20-d wait-30-d						1	x	30	1	x	20	Divided into male/female areas. Area may be enlarged to increase seating capacity
Meeting Room - Small	meet-9-d meet-15-d						1	x	15	1	x	9	Interviews with family
Toilet – Public	wcpu-3-d						2	x	3				Separated for male and female. Minimum 1 pair per floor ; may be shared
Toilet – Accessible	wcac-d						1	x	6				Minimum 1 per floor
Patient Areas													
1 Bed Room	1br-st-18-d						21	x	18	8	x	18	Mix and number depend on service demand
1 Bed Room - Isolation	1br-isp-18-d 1br-isn-18-d						1	x	18	1	x	18	Class N rooms are mandatory according to the ratios nominated in this FPU. Minimum size is 18m2. Any isolation room may be combined with the mandatory Bariatric room to form and Isolation Bariatric room at 28m2 (1br-isp-28-d or 1br-isn-28-d). Class P isolation rooms according to the clinical services plan.
1 Bed Room - Large	1br-lg-28-d						1	x	28	1	x	28	Minimum 1 per facility; may be used for bariatric / special needs patients. May also be combined with Isolation Room. Refer to SC for Bariatric Isolation Room. Include Dialysis outlet in all Bariatric bedrooms. Follow minimum Bariatric Standards.
1 Bed Room - VIP	1br-vip-36-d						1	x	36	1	x	36	Provide according to demand
2 Bed Room	2br-st-28-d						3	x	28	2	x	28	Mix and number depend on service demand
Anteroom	anrm-d						1	x	6	1	x	6	For 1 Bed Room - Isolation
Ensuite - Standard	ens-st-d						25	x	5	11	x	5	1 to be directly accessible from each 1 and 2 Bed Rooms, including isolation room

ROOM/ SPACE	Standard Component Room Codes						RDL 3-6 Qty x m^2			RDL 3-6 (Additional) Qty x m^2			Remarks
							30 Beds			15 Beds			
Ensuite - Super	ens-sp-d						1	x	6	1	x	6	For 1 Bed Room - Large. Special fittings required for bariatrics
Ensuite - VIP	ens-vip-d						1	x	8	1	x	8	For 1 Bed Room - VIP
Lounge - Patient	lnpt-15-d or lnpt-s-kd						1	x	15				Optional, May be shared between 2 units. Note: refer to notes below
Laundry - Patient	laun-pt-d						1	x	6	1	x	6	For specialist units e.g. rehabilitation; as required by service demand
Toilet - Patient	wcpt-d						1	x	4				Optional; dependent on provision of communal areas
Bathroom	bath-d						1	x	16				1 per 60 beds or may be shared between 2 units
Treatment Room	trmt-14-d						1	x	14				Optional; provide according to service demand
Support Areas													
Bay - Beverage, Enclosed	bbev-enc-d bbev-op-d						1	x	5	1	x	5	
Bay - Handwashing, Type B	bhws-b-d						4	x	1	2	x	1	In addition to basins in patient rooms. Refer to Part D
Bay – PPE	bppe-d						4	x	1.5	1	x	1.5	In addition to bays for isolation rooms. Refer to Part D
Bay - Linen	blin-d						2	x	2	1	x	2	Quantity and location to be determined for each facility
Bay - Meal Trolley	bmeq-4-d similar						1	x	4				Optional; dependent on catering and operational policies
Bay - Mobile Equipment	bmeq-4-d or bmeqe-d						1	x	4	1	x	4	Quantity, size dependent on equipment to be stored; can be opened or enclosed
Bay - Resuscitation Trolley	bres-d						1	x	1.5	1	x	1.5	
Bay - Pneumatic Tube	NS						1	x	1	1	x	1	Optional, Locate at Staff Station or under staff supervision
Clean Utility	clur-12-d						1	x	12	1	x	12	May be Interconnected with Medication Room
Medication Room	medr-d						1	x	10	1	x	10	May be Interconnected with Clean Utility
Clean Utility / Medication	clum-14-d						1	x	14	1	x	14	Optional; if combining Clean Utility and Medication Room is preferred
Dirty Utility	dtur-12-d dtur-14-d						1	x	14	1	x	12	2 may be required to minimise travel distances
Disposal Room	disp-8-d						1	x	8	1	x	8	

ROOM/ SPACE	Standard Component Room Codes						RDL 3-6 Qty x m^2			RDL 3-6 (Additional) Qty x m^2			Remarks
							30 Beds			15 Beds			
Pantry	ptry-d						1	x	8				Optional; if Beverage Bay is required
Store - Equipment	steq-10-d steq-16-d similar						1	x	20	1	x	10	Size dependent on equipment to be stored; staff access. Note: combining all stores into one room is optional; however if they are combined, they must be separated into zones
Store - General	stgn-8-d similar						1	x	10	1	x	6	Size as per service demand and operational policies
Cleaner's Room	clrm-6-d						1	x	6				Separate storage for dry goods, small units may share
Staff Areas													
Staff Station	sscu-d sstn-14-d						1	x	14	1	x	9	May include ward clerk. Size and location dependent on operational policies
Office - Clinical / Handover	off-cln-d						1	x	15	1	x	15	
Office - Single Person	off-s12-d						1	x	12	2	x	12	NUM office and clinical personnel as needed
Meeting Room – Medium / Large	meet-l-15-d						1	x	20				Tutorial; shared between 2 units. Could be used for counselling sessions
On-Call Room	ovbr-10-d						1	x	10				Required at the rate of 1 per 2 Units maximum but does not necessarily need to be located within the Units however, must have convenient access.
On-Call Room - Ensuite	oves-4-d						1	x	4				Ensuite attached to On-Call Room above.
Staff Room	srm-15-d similar						1	x	18	1	x	15	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	Separated for male and female
Sub Total									**1025.5**			**623**	
Circulation %									**35**			**35**	
Total Areas									**1384.4**			**841**	

* The 15 beds SOA above is provided as an extension to a 30 beds Unit where support areas from the 30 beds Unit will be shared with the extended 15 beds and not as an independent unit. For any independent Inpatient Unit with less than 30 beds, the same support areas for a 30 beds unit as shown in the SOA above must be provided.

7.2 Rehabilitation Inpatient Unit (Optional)

Additional areas that may be provided to a Rehabilitation Inpatient Unit are identified below. The total bed numbers may be reduced to 20 - 25 in order to provide ward based therapy areas in the same overall total departmental area as a General Inpatient Unit

ROOM/ SPACE	Standard Component Room Codes	RDL 2 Qty x m2	RDL 3 Qty x m2	RDL 4 Qty x m2	RDL 5/6 Qty x m2	Remarks
Rehabilitation						
Consult/ Exam Room	cons-d				2 x 13	
Gymnasium/ Multi-purpose room	gyah-45-d similar				2 x 40	Size to suit the service; with a Control room as required
Dining/ Activities	dinr-d similar				2 x 50	Based on 2m2 per patient, 25 patients
Pantry/ Servery/ ADL Kitchen	adlk-enc-d				2 x 12	
ADL Bathroom	adlb-d				1 x 12	
ADL Bedroom	adlbr-d				1 x 18	
Toilet - Patient, (Male/ Female)	wcpt-d				2 x 4	
Sub Total					**268**	
Circulation %					**35**	
Total Areas					**361.8**	

7.3 Super VIP Suite (Optional)

ROOM/ SPACE	Standard Component Room Codes	RDL 2 Qty x m^2	RDL 3 Qty x m^2	RDL 4 Qty x m^2	RDL 5/6 Qty x m^2	Remarks
					1 Bed	
1 Bed Room – Super VIP	1 br-svip-50-d				1 x 50	Provide according to service demand
Ensuite – Super VIP	ens-svip-d				1 x 20	Provide according to service demand
Store – Equipment	steq-10-d				1 x 10	Provide according to service demand

ROOM/ SPACE	Standard Component Room Codes	RDL 2 Qty x m^2	RDL 3 Qty x m^2	RDL 4 Qty x m^2	RDL 5/6 Qty x m^2	Remarks
Pantry – Super VIP	ptry-svip-d				1 x 12	Provide according to service demand
Lounge / Dining – Super VIP	ld-svip-d				1 x 37	Provide according to service demand
Family / Carer Room	f-cr-svip-d				1 x 33	Provide according to service demand
Ensuite – Visitor	ens-vis-d				1 x 5	Provide according to service demand
Sub Total					**167**	
Circulation %					**35**	
Total Areas					**225.4**	

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 bed numbers
- Exact requirements for room quantities and sizes will reflect Key Planning Units (KPU) identified in the Clinical Service Plan and the Operational Policies of the Unit
- All the areas shown in the SOA follow the No-Gap system described elsewhere in these Guidelines
- Lounge areas are only required when facility includes shared bedrooms and serve to provide family members a waiting area if patients are not ready to receive them. If the facility has only single be rooms, then lounge areas inside units are not required at all; and an outside waiting area is optional
- Class N Isolation rooms are not subject to Clinical Services Plan or demand. They are mandatory and must be provided in accordance with this FPU.

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:

- AHIA, Australasian Health Facility Guidelines, Part B Health Facility Briefing and Planning, HPU 0340 - Inpatient Accommodation Unit, Rev 5, 2016; refer to: https://healthfacilityguidelines.com.au/health-planning-units
- DH (Department of Health) (UK), Health Building Note 04-01: Adult Inpatient Facilities, 2009, refer to website: www.estatesknowledge.dh.gov.uk
- DHA (Ministry of Health – UAE), Unified Healthcare Professional Qualification Requirements, 2017, refer to website: https://www.haad.ae/HAAD/LinkClick.aspx?fileticket=2K19llpB6jc%3d&tabid=927
- Guidelines for Design and Construction of Health Care Facilities; The Facility Guidelines Institute, 2010 Edition; refer to website: www.fgiguidelines.org
- International Health Facility Guideline (iHFG) www.healthdesign.com.au/ihfg
- NFPA, National Fire Protected Association, refer to website https://www.nfpa.org/
- Nurse/Midwife: Patient Ratios, ANMF, Australian Nursing and Midwifery Federation, 2016; refer to website: http://www.anmfvic.asn.au/~/media/f06f12244fbb4522af619e1d5304d71d.ashx