

DOH Health Facility Guidelines 2022

Part B – Health Facility Briefing & Design
205 Intensive Care Unit – Neonatal (NICU)



Executive Summary

The Intensive Care Unit – Neonatal, commonly referred to as NICU is a specialised unit for the care of premature, medically unstable or seriously ill newborns who require constant close monitoring and interventions to preserve normal physiological functioning.

NICU is the infant version of the adult ICU and as such has many of the same features. The Stepdown version of NICU is referred to as Special Care Nursery (SCN) or Special Care Baby Unit (SCBU), which is similar to HDU in the adult version.

A minimum of 50% of babies in NICU must be accommodated in fully enclosed single rooms. The balance of the babies may be in shared rooms but within discrete bays. These bays will be regarded as SCN.

NICU will be staffed by specialised doctors and nurses who will coordinate technological and therapeutic resources in order to care for the critically unwell neonates.

Table of Contents

Executive Summary	0
Table of Contents.....	1
1. Intensive Care Unit - Neonatal	2
1.1 Introduction	2
1.2 Functional & Planning Considerations	2
1.2.1 Operational Models.....	2
1.2.2 Unit Planning Models.....	2
1.2.3 Functional Zones	3
1.3 Functional Relationships	5
1.3.1 External Relationships.....	5
1.3.2 Internal Relationships.....	5
1.3.3 Functional Relationship Diagrams.....	6
1.4 Design Considerations	8
1.4.1 Environmental Considerations	9
1.4.2 Space Standards and Components	9
1.4.3 Doors	9
1.4.4 Safety & Security	10
1.4.5 Drug Storage	10
1.4.6 Milk Storage	10
1.4.7 Finishes.....	10
1.4.8 Fittings, Fixtures & Equipment	10
1.4.9 Building Service Requirements	11
1.4.10 Infection Control.....	11
1.5 Standard Components of the Unit.....	12
1.5.1 Non-Standard Rooms	13
1.6 Schedule of Accommodation.....	15
1.6.1 Neonatal Intensive Care Unit	15
1.6.2 Neonatal Special Care Nursery (SCN)	18
1.7 Further Reading.....	20

1. Intensive Care Unit - Neonatal

1.1 Introduction

The Intensive Care Unit – Neonatal, commonly referred to as NICU is a specialised unit for the care of premature, medically unstable or seriously ill newborns who require constant close monitoring and interventions to preserve normal physiological functioning. The Unit will be staffed by specialised doctors and nurses who will coordinate technological and therapeutic resources in order to care for the critically unwell neonates.

1.2 Functional & Planning Considerations

1.2.1 Operational Models

There are different operational models applicable to intensive care - neonatal units and they are described below:

Integrated Neonatal Intensive Care / Special Care Unit (NICU-SCN)

The integrated Neonatal Intensive Care/Special Care Nursery will care for neonates and Special Care Nursery babies in the same unit, which will be built in a Pod configuration with shared support services. The two sections (NICU vs SCN) will be zonally separated within the same unit.

This approach can be used in smaller hospitals if bed flexibility is required. The rooms/bays in an integrated Neonatal & Special Care Unit will be used to manage critically ill and medically unwell neonates in the short and medium term, allowing for flexibility in staffing and patient management, as well as allowing the babies to transition from being very sick to being discharged within the same geographic area. Special Care Nursery (SCN) may also be known as the Special Care Baby Unit or SCBU.

In larger hospitals at higher Role Delineation Levels (RDL) and higher level of specialisation, it advisable to separate NICU from SCN as mentioned below.

Separate Units – Neonatal Intensive Care and Special Care Nursery Units

This model refers to separate the Neonatal Intensive Care (NICU) and Special Care Nursery (SCN) with independent management structures.

Independent bed management control is one of the model's advantages, and it encourages physician and nursing staff to acquire speciality abilities. It also provides for variable unit placement and collocation with other services that have unique functional links with these units.

The Neonatal Intensive Care Unit (NICU) may be on the "Hot Floor" along with other types of ICU, and the Special Care Nursery (SCN) may be in the same general area as the Birthing Unit and Inpatient Maternity Unit. The disadvantages include duplication of management, policies and procedures and physical isolation of units that may make staffing more difficult.

1.2.2 Unit Planning Models

The location of an Intensive Care Unit - Neonatal should eliminate the need for through traffic, and avoid or minimise:

- Disturbing sounds (ambulances, traffic, sirens)
- Disturbing sights (morgue, cemeteries etc.)
- Problems associated with prevailing weather conditions (excessive wind, sun exposure etc.)

All baby cots/incubator bays should be visible from the Staff Station in the ideal arrangement of an Intensive Care Unit. In larger units where this is not possible, decentralized staff / work stations with computer support may be provided to ensure direct observation. Baby-centred or family-centred spaces may be considered and adequate space should be provided for family members to visit on a regular basis or to stay within the unit for the duration of the baby's admission.

A minimum number of fully enclosed NICU rooms will be provided. The balance of the bays may be provided in multi-bedded rooms.

Single occupancy enclosed rooms are required for the purposes of isolation, privacy or end of life management for the neonatal service while multiple bays within the same rooms may be provided in clusters/pods to maximise observation and staff efficiencies.

Multiple-birth cribs should also be considered, as having siblings in the same room or adjacent space is normally preferred.

1.2.3 Functional Zones

The Intensive Care Unit – Neonatal will consist of the following Functional Areas:

- Entry /Reception including:
 - Waiting, separate Male/ Female with play areas for children
 - Meeting/ Interview Room
 - Public toilets that may be shared with other units
- Intensive Care Nursery Areas incorporating:
 - NICU single rooms
 - NICU bays within shared rooms
 - NICU Isolation Room, negative/ positive pressure with Anteroom
 - Bathing/ Examination area
- Support Areas including
 - Procedure Room
 - Formula Room
 - Feeding room
 - Clean and Dirty Utilities
 - Bays for blanket warmer, linen, resuscitation trolley/s, handwashing basins, mobile equipment pathology testing
 - Clean-up Room for equipment and cots
 - Cleaner's Room
 - Disposal room
 - Store rooms for equipment, general supplies and sterile stock
- Parent Support Areas (optional):
 - Parent Lounge/ Dining and Kitchenette
 - Parent Overnight stay Bedroom with Ensuite
 - Parent Property Bay – locker area
 - Toilets
 - Optional Gown-up/ Gown-down facilities for visitors
- Staff Areas including:
 - Staff Room
 - Meeting Room/s
 - Change rooms with Toilets, Shower and lockers
 - Offices and Workstations for administrative activities
 -

The Functional Zones are briefly described below.

Entry/ Reception/ Waiting Areas

A Reception and Waiting Areas shall be provided immediately outside the entrance to the unit, but away from patient and staff traffic areas, depending on the size of the NICU and hospital operating policy. This room should have a drink dispenser, television, and comfortable sitting; a children's play area should be adjacent to or integrated into this area; and access to an Interview/ Meeting Room should be immediately available for parent conversations and distressed families/ relatives.

NICU Areas

Single NICU room, shared NICU room and Isolation room numbers shall be according to the Service Plan.

However, no less than 50% of the total patient numbers shall be in fully enclosed single NICU rooms, one per baby. The balance of the babies may be accommodated in share rooms but within discretely defined bays and regarded as Special Care Nursery (SCN). If SCN is physically separated from the NICU department, then 100% of the NICU babies must be in single fully enclosed rooms.

As a minimum one negative pressure and one positive pressure isolation room with associated ante-rooms should be provided for up to 12 NICU rooms or SCN bays or a combination of NICU rooms and SCN bays.

Staff must be able to see newborns directly at all times in order to monitor their status in both normal and emergency situations. This may be accomplished by a direct line of sight between the Staff Station and the baby incubator. If this is not possible due to the size and geometry of the unit, then a series of de-centralised reporting stations may be located between each two NICU rooms with direct observation of each room.

Sliding glass doors and partitions facilitate this arrangement and maximise access to the single bedrooms when an emergency arise.

Within the NICU rooms it is advisable to provide space for a recliner for mothers to stay with the baby, if necessary overnight.

Procedure/Treatment Room

Operational Policy will determine the provision of a Procedure/Treatment Room in the Unit. If a Procedure/Treatment Room is provided, it should be located within, or immediately adjacent to, the area it is required to serve.

Support Areas

Equipment Clean Up Rooms

Provide a dedicated space for cleaning cots, incubators, dismantling & cleaning respiratory equipment within the Neonatal ICU.

This space/area can be shared if the units are collocated. Its location should be in a location that is equally accessible to all of the bed/cot bays, allowing for easy cleaning and reuse of equipment components. To allow for the mobility of clean and used equipment items, the facility should be sound-proofed and accessible from a non-sterile environment.

Laboratory Facilities

Clinical laboratory services must be accessible 24 hours a day, seven days a week in the Neonatal ICU. A satellite laboratory within or immediately adjacent to the NICU must be able to conduct minimum chemistry and haematology tests, including arterial blood gas analysis, when this service cannot be provided by the central hospital laboratory.

Feeding/ Expressing Room

It is necessary to have a space for expressing milk and breast-feeding for up to three or four women. It should be positioned within the unit; the area should be comfortable and peaceful, and both mothers and staff should be able to access it in a friendly setting to encourage newborns to breastfeed.

It is also advisable to provide space for a recliner within the NICU rooms for mothers to stay with the baby and use for breast feeding.

Storage Areas

Mobile X-ray units and resuscitation trolleys should be stored in areas that are out of the way of traffic yet accessible to employees when the equipment is needed. There may be a need for many mobile storage bays for mobile equipment.

Parent Support Areas

For families, overnight housing with lounge and refreshment preparation facilities may be necessary, depending on the size of the Unit. The overnight accommodation could be located next to the NICU or in a strategic location close by. Parents with severely ill newborns may be allowed to stay in the NICU room overnight, and the unit design should include an overnight room for them. Some mothers may be allowed to stay within the room with the baby overnight. As such, the provision of a recliner with a privacy curtain around it is desirable. The use of such a facility will be up to the unit management and subject to the condition of the baby.

Staff Facilities

According to the approved positions, offices and workstations will be required for senior workers in full-time administrative duties. To ease unit coordination, educational and research activities, medical staff and some nursing staff may have offices and workstations within the units or adjacent in an administrative area.

A Staff Lounge shall be provided within the unit for staff to relax, prepare meals and beverages.

Staff will need close access to toilets and shower, lockers and meeting rooms.

1.3 Functional Relationships

1.3.1 External Relationships

If the Intensive Care Unit – Neonatal and Special Care Nursery Unit are managed as independent services, then the following functional relationships will apply:

It is desirable that the Intensive Care Unit – Neonatal and Special Care Nursery have ready access to:

- Emergency Unit
- Birthing Unit
- Operating Unit
- Medical Imaging
- Pathology Services
- Biomedical Engineering
- Support services including Housekeeping, Supply, Catering and Clinical Information

1.3.2 Internal Relationships

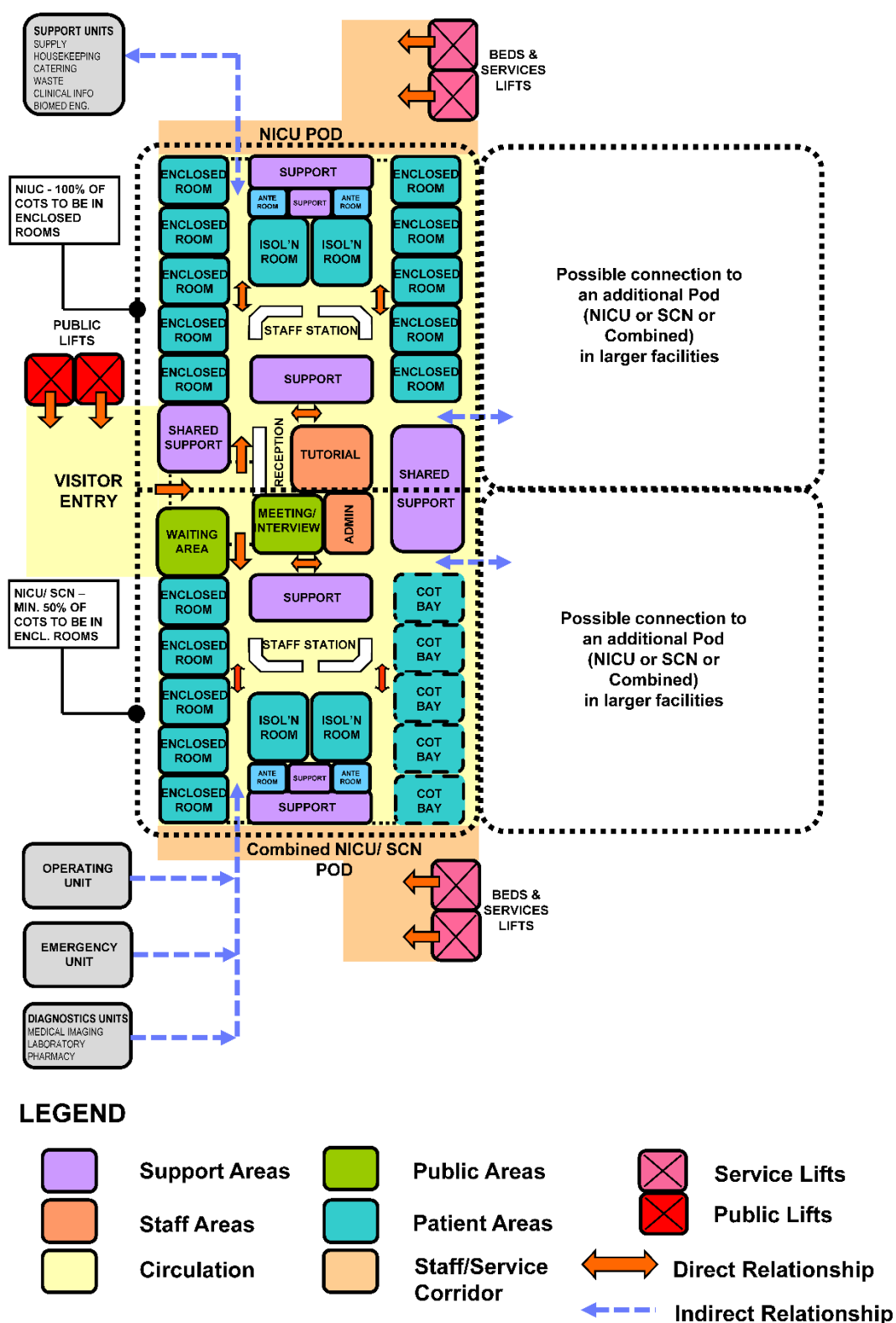
Optimal internal relationships to be achieved include:

- Staff station(s) which require direct access and observation of cots
- Utility and storage areas readily accessible by staff
- Public areas located on the perimeter of the unit
- Shared areas easily accessible from the units served
- Support services accessed via a staff/ service corridor

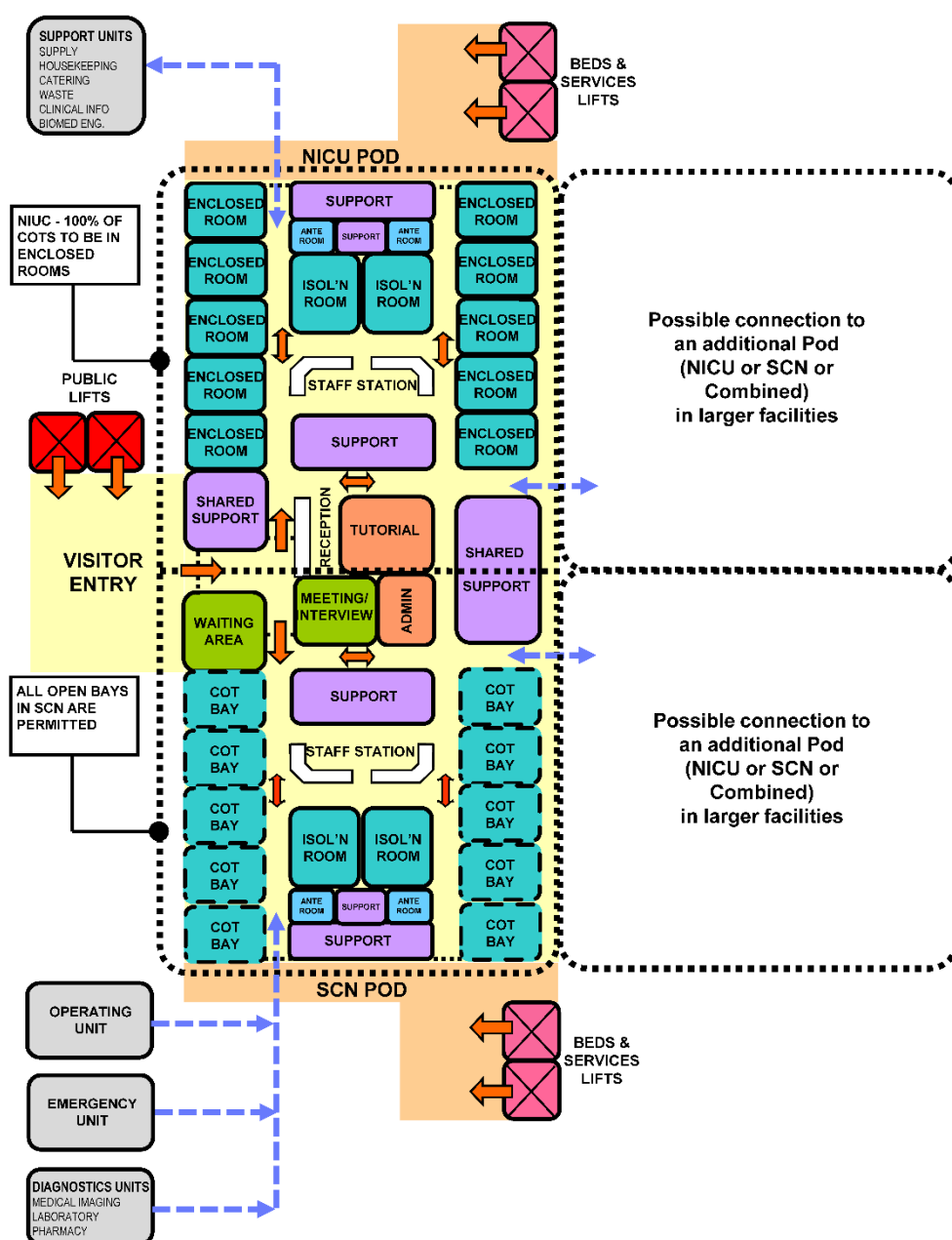
These functional relationships are best described in the diagrams below.

1.3.3 Functional Relationship Diagrams

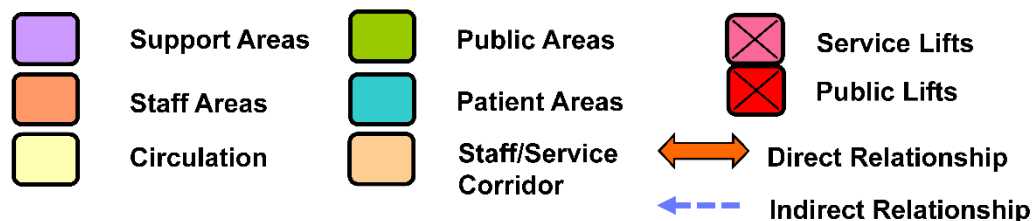
NICU Pod collocated with a combined NICU/ SCN Pod



Separate Pods for NICU and SCN



LEGEND



1.4 Design Considerations

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

1.4.1 Environmental Considerations

Acoustics

Patients in critical care and special care may experience sensory overload as a result of sound signals from patient call systems, equipment alarms, and telephones. These signals should be adjusted to warn staff members while also being less obtrusive to patients.

In addition to considerations for infection control, maintenance, and equipment mobility demands, acoustic floor coverings, walls, and ceilings should be considered for these reasons. To decrease sound transmission, doorways should be offset rather than located in symmetrically opposed positions. Counters, barriers, and glass doors that do not obstruct view can also help to reduce unwelcomed noise.

Natural Light/ Lighting

Controlled natural lighting in NICU rooms/bays is preferred but not required. Natural light can come in directly through windows or be borrowed from adjacent hallways, spaces, or atriums.

1.4.2 Space Standards and Components

Cot/ incubator spaces should be placed such that there is appropriate clearance from the side and bottom of the cot or incubator to the nearest fixed obstruction (including bed screens) or wall where an open plan arrangement is available. The arrangement of cots/ incubators in NICU rooms must be such that a nurse or doctor can walk right around without any interference with electrical or medical gas lines. As such, this will require the use of ceiling mounted service pendants with swivel arms in a similar manner to adult ICU. In SCN, however, the services may come from a service panel at the head of the cot/ incubator. External

Staff, goods, and supplies should all have their own separate and discrete entry or entries, with authorised personnel having swipe card or similar electronic access. Separate entry for patients on beds, cots, or trolleys may be proposed, and this should include the following:

- Ready access from Birthing and Maternity Unit, Emergency Unit and Operating Unit that may involve transfers via lifts
- Ready access to and from Diagnostic Imaging areas

Internal

There should be one only point of public entry overseen by a ward clerk/ receptionist during extended daytime hours to:

- Monitor and/ or prevent access by visitors depending on the patients' condition
- Advise visitors if patients have been moved or are out of the unit for any reason
- Monitor visiting staff and direct them to the appropriate staff member or patient
- Monitor patient movements in and out of the unit

1.4.3 Doors

Doors requiring cot/trolley access should have no less than 1200mm clear opening. Also refer to Part C - Access, Mobility and OH&S of these Guidelines.

1.4.4 Safety & Security

To prevent unauthorized access, entrance doors must be locked. From the entrance and exit doors to the main staff reception, a video intercom with speech should be supplied, along with a door release button for staff access management. CCTV cameras and monitors may be used to monitor the Unit's security.

1.4.5 Drug Storage

Drugs prescribed at the hospital should not be stored in the patient bedroom. All drugs should be managed by the responsible nurses via a Medication Room. Optionally Medication Room may be combined with a Clean Utility room as long as the requirements of both functions are accommodated.

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

Medication Room must have space for parking a medication trolley.

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

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

1.4.6 Milk Storage

Breast milk storage freezers and refrigerators must be secured or kept within a lockable formula room with access restricted to staff only or mothers under staff observation to guarantee the correct milk is delivered to the right infant.

1.4.7 Finishes

The aesthetics of the Unit should be warm, relaxing and non-clinical 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, floor finishes should be resistant to marring and shearing by wheeled equipment

Colours that do not influence the observer's impression of skin colour should be used in all places where patient observation is crucial.

Where bed or trolley mobility occurs, such as corridors, patients' bedrooms, equipment and linen storage, and treatment areas, wall protection should be provided.

1.4.8 Fittings, Fixtures & Equipment

The placement of bedside monitoring equipment should allow for easy access and observation, and should not obstruct the patient's visibility or access. Each patient's monitored status must be visible to the bedside nurse and/or monitor technician at a glance.

The weight-bearing surfaces that support the monitoring equipment should be strong enough to resist repeated strain. It is reasonable to expect that the volume of monitoring equipment will grow over time. As a result, space and electrical infrastructure should be planned accordingly.

Provide storage and writing area at each patient bed/cot space for staff use.

1.4.9 Building Service Requirements

Information and Communication Technology

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

- Electronic Health Records (EHR) 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 for staff and parents

Staff Call

Hospitals must install an electronic call system adjacent to each cot area so that staff can be notified discreetly at all times. Staff and emergency calls must be recorded at the Staff Stations and heard across the Unit's service regions, including Clean and Dirty Utilities. When calls go unanswered, the call system should raise the alarm level. To alert staff of a call, the Nurse Call system may use mobile paging systems or SMS.

Heating, Ventilation and Air-conditioning

All cot areas, Procedure rooms, and Interview/ Meeting Rooms in the NICU should be air-conditioned with adjustable temperature and humidity for staff comfort.

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

Hydraulics

In all patient areas within the Unit, only warm water can be supplied. This requirement applies to all staff handbasins and sinks located within parent accessible areas. Hot and cold water services can be provided to sinks in Staff Areas.

For further information and details refer to Part E – Engineering Services in these Guidelines.

1.4.10 Infection Control

Handbasins

Clinical Hand-washing facilities shall be provided convenient to the Staff Station and patient cot areas. The ratio of provision shall be one clinical hand-washing facility for every two patient cots in open-plan areas within the NICU & SCN and one in each single enclosed or isolation room.

Handwashing facilities when provided in the corridors, must not reduce the minimum clear widths. At least one Handwashing Bay is to be conveniently accessible to the Staff Station. Handbasins are to comply with Standard Components - Bay - Handwashing and Part D - Infection Control in these Guidelines.

Antiseptic Hand Sanitiser

Antiseptic hand sanitiser 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 hand sanitiser should be consistent and reliable throughout facilities. Hand Sanitisers are to comply with Part D in these guidelines.

Hand Sanitisers although very useful and welcome, cannot fully replace Hand Wash Bays. Both must be provided.

Refer also to Part D of these Guidelines.

Isolation Rooms

Positive and Negative pressure Isolation Rooms shall be provided in the NICU dependent on hospital operational policy and the clinical service plan. Entry should be through an anteroom. Clinical hand-washing, gown and mask storage, and waste disposal should be provided within the anteroom.

1.5 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 ICU - Neonatal consists of Standard Components to comply with details described in these Guidelines. Refer also to Standard Components Room Data Sheets (RDS) and Room Layout Sheets (RLS) separately provided.

1.5.1 Non-Standard Rooms

Non-standard rooms are rooms are those which have not yet been standardised within these Guidelines. As such there are very few Non-standard Rooms. These are identified in the Schedules of Accommodation as NS.

Bathing/ Examination

The Bathing / Examination area will be used for baby bathing, baby examinations, weighing and baby bathing demonstrations for parents. The area may be located within or adjacent to the neonatal general care or special care nursery. The Bathing/ Examination area will include a bench with a baby examination area and baby weighing scales and a sink for baby bathing. Storage will be required for clean baby linen, towels and dirty baby linen. A staff handwashing basin should be located within easily access.

Special considerations include:

- Provision of heating over the examination/ bathing area.
- Provision of temperature controlled warm water.
- Provision of good lighting levels; lighting should permit the accurate assessment of skin colour.
- The baby bathing sink should be manufactured from a material that will not retain heat or cold, (stainless steel is not recommended).
- Staff will require access to an emergency call button for use in emergencies.

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.

Neonatal Isolation Room - Negative/ Positive Pressure

The Neonatal Isolation Room will be similar to an enclosed Neonatal Bay - Intensive Care, with appropriate air-conditioning - filtered, negative pressure or positive/ standard pressure to comply with standards and guidelines applicable to Isolation rooms. The room will require additional 1m² for door access. Doors and walls facing the staff station should be fully glazed for maximum visibility, with privacy screening.

The Isolation room/s will require:

- Anteroom, for Negative and Positive Pressure Isolation rooms.
- Handwashing basin, Type A, within the room.

- PPE located at the room entry - may be combined with the Handwashing bay.
- Room fabric and doors to comply with standards and guidelines for Isolation rooms.

The quantity of Negative Pressure or Positive Pressure Isolation rooms will be dependent on the service plan for the unit but no less than 1 of each per every 12 cots.

1.6 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 simple sum of the room areas is shown as the Sub Total. The Total area is the Sub Total plus the circulation percentage. The circulation percentage represents the minimum recommended target area for internal corridors 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 such as the total number of beds and Treatment areas. Therefore, the SOA provided represents a limited sample based on an assumed unit size. 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 table below demonstrates the SOA's for a Neonatal Intensive Care Unit with 6 and 12 cots. Quantities and sizes of some spaces will need to be determined in response to the service needs of each unit on a case by case basis. Arranging the bed areas in clusters of up to 12 bays is recommended within observation from Staff Station. The number of clusters will be determined by the service plan.

Any proposed deviations from the mandatory requirements, justified by innovative and alternative operational models may be proposed within the departure forms included in Part A of these guidelines for consideration by the health authority for approval.

1.6.1 Neonatal Intensive Care Unit

ROOM/ SPACE	Standard Component Room Codes				RDL 4 Qty x m ²	RDL 5-6 Qty x m ²	RDL 5-6 Qty x m ²	Remarks
Unit Size					4 Cots	6 Cots	12 Cots	
Entry/ Reception								Optional - may be shared
Reception/ Clerical	recl-10-d similar				1 x 8	1 x 8	1 x 10	May be shared with an adjacent unit
Waiting (Male/ Female)	wait-10-d wait-15-d wait-20-d				2 x 10	2 x 15	2 x 20	Separate M & F; 1.2 m2 per person; 1.5 m2 per wheelchair
Play Area - Paediatric	plap-10-d similar				1 x 8	1 x 8	1 x 10	Adjacent to Waiting-Family
Meeting/ Interview Room	meet-9-d similar				1 x 9	1 x 9	1 x 12	Family interviews
Toilet - Public	wcpu-3-d				2 x 3	2 x 3	2 x 3	May share facilities with adjacent unit
Toilet - Accessible	wcac-d				1 x 6	1 x 6	1 x 6	May share public amenities if located close
Nursery - Intensive Care								
Neonatal Bay - Intensive Care	nbicu-d				2 x 14	3 x 14	6 x 14	Qty will depend on No. of Birthing Rooms, beds and service plan. Minimum of 12m ² for open bay NICU.
Neonatal Bay – Intensive Care, Enclosed	nbicu-e-d					1 x 17	4 x 17	Min. 50% of cots spaces must be in single enclosed rooms (including isolation rooms).

ROOM/ SPACE	Standard Component Room Codes				RDL 4 Qty x m ²	RDL 5-6 Qty x m ²	RDL 5-6 Qty x m ²	Remarks
Unit Size					4 Cots	6 Cots	12 Cots	
Neonatal Bay - Resuscitation	nbicu-e-d similar				1 x 17	1 x 17	1 x 17	For resuscitation and transfer prep; in addition to neonatal bays
Neonatal ICU - Isolation Room, Negative Pressure	nb-is-p-d				1 x 18	1 x 18	1 x 18	Provide according to Service Plan but no less than 1 for up to 12 NICU rooms.
Neonatal ICU - Isolation Room, Positive Pressure	nb-is-n-d				1 x 18	1 x 18	1 x 18	Provide according to Service Plan but no less than 1 for up to 12 NICU rooms.
Anteroom	anrm-d				2 x 6	2 x 6	2 x 6	Mandatory for Isolation Room, Negative & Positive Pressure
Bathing/ Examination	baex-d				1 x 10	1 x 10	1 x 10	
Support Areas								
Bay - Blanket/ Fluid Warmer	bbw-1-d				1 x 1	1 x 1	1 x 1	
Bay - Handwashing, Type A	bhws-a-d				2 x 1	3 x 1	4 x 1	At Unit entry and Staff Stations; refer to Part D
Bay - Linen	blin-d				1 x 2	1 x 2	2 x 2	
Bay - Mobile Equipment	bmeq-4-d				1 x 4	1 x 4	1 x 4	
Bay - Pathology	bpath-1-d similar				1 x 3	1 x 3	1 x 3	Point of Care testing
Bay - Pneumatic Tube	bpts-d					1 x 1	1 x 1	Optional, may be located with Pathology Bay or Staff Station
Bay - PPE	bppe-d				1 x 1.5	2 x 1.5	3 x 1.5	As required, may be combined with Bay-Handwashing
Bay - Resuscitation Trolley	bres-d				1 x 1.5	1 x 1.5	1 x 1.5	Neonatal resuscitation trolley
Cleaner's Room	clrm-6-d						1 x 6	Smaller units may share
Clean Utility	clur-8-d clur-12-d				1 x 8	1 x 8	1 x 12	May be interconnected with Medication room.
Medication Room	medr-10-d similar				1 x 8	1 x 8	1 x 12	May be interconnected with Clean Utility room.
Clean Utility/ Medication Room	clum-14-d				1 x *	1 x *	1 x *	*Optional, if preference is to combine Clean Utility and Medication Room into a single Room, Minimum 14 m ²
Dirty Utility	dtur-s-d dtur-12-d				1 x 8	1 x 8	1 x 12	
Disposal Room	disp-8-d						1 x 8	May be shared
Equipment Clean-up	ecl-10-d similar				1 x 8	1 x 8	1 x 12	For dismantling & cleaning cots, incubators & equipment
Feeding Room	feed-d similar				1 x 4	2 x 4	4 x 4	Located adjacent to Formula Room; when more than one room is required, it is possible to provide two cubicles in a single room with min. area of 7 m ² .
Formula Room	form-d				1 x 10	1 x 10	1 x 10	Includes mild storage
Office - Write-up Bay	off-wi-1-d				4 x 1	6 x 1	12 x 1	1 per cot; may be combined two write-up bays for every two cot bay/ rooms
Office – Write-up Shared	off-wis-d similar					1 x 8	1 x 12	May be combined with Staff Station
Procedure Room	proc-20-d						1 x 20	

ROOM/ SPACE	Standard Component Room Codes				RDL 4 Qty x m ²	RDL 5-6 Qty x m ²	RDL 5-6 Qty x m ²	Remarks
Unit Size					4 Cots	6 Cots	12 Cots	
Staff Station	sstn-14-d similar sstn-20-d				1 x 8	1 x 12	1 x 20	2, 3, 6 staff seated
Store - Equipment	steq-14-d similar steq-20-d similar				1 x 8	1 x 12	1 x 24	Based on a minimum of 2 m ² per cot
Store - General	stgn-8-d stgn-14-d similar				1 x 6	1 x 6	1 x 12	Consumable stock and sterile packs
Store - Sterile Stock	stss-12-d similar				1 x 6	1 x 6	1 x 10	
Treatment Room	trmt-14-d					1 x 14	1 x 14	Optional
Parent Support Areas								Optional
Parent Lounge/ Dining/ Kitchenette	Inpa-20-d similar				1 x 15	1 x 20	1 x 35	Optional, communal space, 8, 12 persons
Parent Overnight Stay Bedroom	ovbr-10-d				1 x 10	1 x 10	1 x 10	Optional
Parent Overnight Stay Ensuite	oves-4-d				1 x 4	1 x 4	1 x 4	Optional
Parent Property Bay	prop-3-d similar				1 x 2	1 x 2	1 x 4	Optional, Lockers for parents visiting
Gown Up/ Gown Down facility (Male/ Female)	ch-gw-d				2 x 6	2 x 6	2 x 6	Optional, for parents and visitors; separate for male and female
Staff Areas								
Office - Single Person	off-s9-d				1 x 9	1 x 9	1 x 9	NICU Manager
Office - 2 Person Shared	off-2p-d						1 x 12	Medical, Nursing, Allied Health as required
Office - Workstations	off-ws-d				1 x 5.5	2 x 5.5	4 x 5.5	Clerical support, Nursing, Medical as required
Meeting Room	meet-l-15-d similar						1 x 20	Meetings, Education
Staff Lounge	srn-15-d similar srm-25-d				1 x 5	1 x 20	1 x 25	May be shared
Change - Staff (M/F)	chst-12-d similar				2 x 10	2 x 10	2 x 14	Toilet, Shower and Lockers
Sub Total					335.5	441.5	716.0	
Circulation %					40	40	40	
Total Area					469.7	618.1	1002.4	

1.6.2 Neonatal Special Care Nursery (SCN)

The Neonatal Special Care Nursery (SCN) may be collocated with Neonatal Intensive Care Unit or General Care Nursery.

ROOM/ SPACE	Standard Component Room Codes									RDL ALL Qty x m ²	Remarks
Unit Size										12 Cots	
Nursery – Special Care											
Neonatal Bay – Special Care	nbsc-d									10 x 12	Qty will depend on No. of Birthing Rooms, beds and service plan. Minimum of 12m ² for open bay SCN
Neonatal Bay - Resuscitation	nbicu-e-d similar									1 x 17	For resuscitation and transfer prep; in addition to neonatal bays
Neonatal SCN - Isolation Room, Negative Pressure	nbsc-d similar									1 x 14	Provide according to Service Plan but no less than 1 for up to 12 NICU rooms.
Neonatal SCN - Isolation Room, Positive Pressure	nbsc-d similar									1 x 14	Provide according to Service Plan but no less than 1 for up to 12 NICU rooms.
Anteroom	anrm-d									2 x 6	For Isolation Room, Negative & Positive Pressure
Bathing/ Examination	baex-d									1 x 10	
Support Areas											
Bay - Handwashing, Type A	bhws-a-d									4 x 1	At Unit entry and Staff Station; refer to Part D
Bay - Linen	blin-d									1 x 2	
Bay - Mobile Equipment	bmeq-4-d									1 x 4	
Bay - Pathology	bpath-1-d similar									1 x 1	Point of Care testing
Bay - Resuscitation Trolley	bres-d									1 x 1.5	Neonatal resuscitation trolley
Clean Utility	clur-12-d									1 x 12	May be interconnected with Medication room.
Medication Room	medr-10-d similar									1 x 8	May be interconnected with Clean Utility room.
Clean Utility/ Medication Room	clum-14-d									1 x *	*Optional, if preference is to combine Clean Utility and Medication Room into a single Room, Minimum 14 m2
Dirty Utility	dtur-12-d									1 x 10	May be shared with adjacent unit
Disposal Room	disp-8-d									1 x 8	May be shared with adjacent unit
Feeding Room	feed-d similar									3 x 4	Located adjacent to Formula Room; Room with 2 bays at min. 7m2 can be used in lieu of single rooms.
Formula Room	form-d									1 x 10	Milk storage
Store - Equipment	steq-20-d similar									1 x 24	Based on a minimum of 2 m ² per cot; mobile equipment, general supplies
Store - General	stgn-14-d similar									1 x 12	Consumable stock and sterile packs

ROOM/ SPACE	Standard Component Room Codes					RDL ALL Qty x m ²	Remarks
Unit Size						12 Cots	
Cleaner's Room	clrm-6-d					1 x 6	Smaller units may share
Staff Areas							
Staff Station	sstn-20-d					1 x 20	4 staff seated
Meeting Room	meet-l-9-d similar					1 x 12	Interviews, Meetings, Tutorials & Education; may be shared with adjoining unit
Office - Single Person	off-s9-d					1 x 9	SCN Manager
Toilet – Staff (M/ F)	wcst-d					2 x 3	Maybe shared with adjacent staff amenities
Sub Total						348.5	
Circulation %						40	
Total Area						487.9	

Please note the following:

- Areas noted in Schedules of Accommodation take precedence over all other areas noted in the Standard Components.
- Rooms indicated in the schedule reflect the typical arrangement.
- All the areas shown in the SOA follow the No-Gap system described elsewhere in these Guidelines.
- Exact requirements for room quantities and sizes shall reflect Key Planning Units (KPU) 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.
- Offices are to be provided according to the number of approved full-time positions within the Unit.

1.7 Further Reading

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

- International Health Facility Guidelines, (IHFG), refer to website www.healthdesign.com.au/ihfg
- DH (Department of Health) (UK) Health Building Note 09-03: Neonatal Units, 2013, refer to website: https://www.england.nhs.uk/wp-content/uploads/2021/05/HBN_09-03_Final.pdf
- Guidelines for Design and Construction of Hospitals, The Facility Guidelines Institute, 2018 Edition; refer to website www.fgiguideelines.org