

Part B – Health Facility Briefing & Design

80 Endoscopy Unit



*i*HFG

International Health Facility Guidelines
2025

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80 Endoscopy Unit

1 Executive Summary

The Endoscopy Unit refers to a Functional Planning Unit (FPU) which covers the requirements of endoscopy procedures; a minimally invasive surgical or medical procedure utilising an instrument called an endoscope which is a long flexible tube that has a lens at one end and a fibre optic camera at the other. The functions of this FPU include receiving the patient, preparation and performance of the procedure, followed by recovery within the unit. After initial recovery within the Unit, inpatients are transferred to an Inpatient Unit or ICU for final recovery. Day Surgery patients will recover within the unit until they are discharged home.

The Endoscopy Unit Guidelines describe the operational, functional and design requirements for a range of endoscopy procedures, such as gastrointestinal endoscopy (such as gastroscopy, colonoscopy), ERCP (Endoscopic Retrograde Cholangiopancreatography), endoscopic ultrasound, bronchoscopy, cystoscopy, ureteroscopy, duodenoscopy, hysteroscopy or other specialties. The Unit may be optimised for a number of operational models such as a dedicated fully self-contained unit within a hospital, a Unit collocated with the Operating Unit with shared facilities, a Unit collocated with a specialist clinical service within a hospital, a stand-alone centre/ Day Surgery centre or Rural and Remote endoscopy services.

The Unit planning model is dependent on the types of endoscopy procedures to be performed and the location of the Unit. It will have one or more procedure rooms and will have the required supporting facilities for assessment and preparation of the patient, staff changing, scrubbing and gowning before the procedure and recovery areas after the procedure. It will have the necessary supporting facilities such as clean-up rooms, cleaning/ decontaminating and reprocessing of endoscopes.

The Functional Zones and Functional Relationship Diagrams indicate the ideal external relationships with other key departments and hospital services. For the Endoscopy Unit located within a hospital campus, a relationship with the Operating Theatre, Day Surgery/ Procedure Unit and Sterile Supply Unit (SSU) should be considered. All of these are also available as separate FPU's within these Guidelines.

Design Considerations address a range of important issues including Accessibility, Acoustics, Safety and Security, Building Services Requirements and Infection Control. This FPU describes the minimum requirements for support spaces of a typical Endoscopy Unit at Role Delineation Levels 4 to 6.

A typical Schedule of Accommodation (SOA) is provided using Standard Components (typical room templates) and quantities for the rooms. The SOA is presented for several different facility sizes and guide the designers to create their project-specific SOA's.

For each of the nominated room types within the SOA the code link to the corresponding Room Data Sheets (RDS) and Room Layout Sheets (RLS) has been provided. Readers may use those codes to access this information on the rooms in the section titled Standard Components on the website.

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

Users who wish to propose minor deviations from these guidelines should use the Non-Compliance Report (in Part A appendices) to briefly describe and record their reasoning based on models of care and unique circumstances. The responsible Health Authority may then consider the circumstances and accept such deviations.

The details of this FPU follow overleaf.

2 Introduction

The Endoscopy Unit is a dedicated unit for Endoscopy procedures, a minimally invasive surgical or medical procedure utilising an instrument called an endoscope which is a long flexible tube that has a lens at one end and a fibre optic camera at the other. This allows for the magnification of an image to be projected onto a video screen for viewing and recording. Endoscopy can be used to examine organs or tissue for diagnostic or therapeutic purposes. Endoscopy procedures may involve the taking of biopsies, dilations, retrieval of foreign objects and removal of stones from the bile duct.

Procedures undertaken in an Endoscopy Unit may include gastrointestinal endoscopy (such as gastroscopy, colonoscopy, ERCP (Endoscopic Retrograde Cholangiopancreatography), endoscopic ultrasound, bronchoscopy, cystoscopy or ureteroscopy, duodenoscopy, hysteroscopy or other specialties. Endoscopy procedures are generally performed in a controlled aseptic procedure room environment or in an Operating room, using sedation or short acting anaesthetic medication. Some procedures, such as ERCP, may also involve diagnostic imaging equipment. Most endoscopy procedures are performed on a same-day basis.

Endoscopy procedures have advantages for both the facility and the patient including:

- reduced demand on operating rooms
- increased patient throughput as procedures are faster
- procedures are less invasive (the endoscope is inserted through a natural opening) resulting in reduced scarring, quick recovery time and rapid discharge.

3 Functional and Planning Considerations

Operational Models

The range of options for an Endoscopy Unit may include:

- a dedicated fully self-contained unit within a hospital
- a Unit collocated with the Operating Unit with shared facilities
- a Unit collocated with a specialist clinical service such as Gastroenterology or Respiratory Medicine, within a hospital
- a stand-alone centre/ Day Surgery centres, fully self-contained
- Rural and Remote endoscopy services

Patients undergoing endoscopy procedures may be admitted and discharged on the same day or transferred from and to a referring unit. The Endoscopy Unit will generally operate on a long day basis, with admissions from early morning, with procedures undertaken on a sessional basis and discharges / transfers into the evening.

Planning Models

The configuration of the Endoscopy Unit will be dependent on:

- The procedures performed and the equipment and expertise available
- The patient population the unit will serve
- The location of the Unit – within a hospital, attached to another Unit or stand-alone and the ability to share support services.

The Endoscopy Unit should be located with easy access to and from the entry area for patients, visitors, staff and supplies; a ground floor location is desirable. The location within the complex shall permit free access for outpatients and for the transport of inpatients by bed, trolley or wheelchair. The planning of the Unit should create an efficient flow of patients, staff and supplies through the Unit while maintaining separation of procedure and contaminated areas. Where the endoscopy unit is not located within the main hospital complex, consideration of the provision for enclosed transfer of patients is advisable.

Functional Areas

The Endoscopy Unit will consist of the following Functional Areas:

- Entry/ Reception including Waiting area for patients and relatives and access for admission of

patients

- Assessment/ Preparation area which may include consultation, interview, toilet facilities, patient changing and preparation rooms for pre-procedure treatments
- Procedure area
- Recovery areas including first and second stage recovery
- Discharge lounge with interview space for consultation and access to toilet facilities
- Reprocessing area including Clean-up/ Decontamination, High Level Disinfection and scope storage and bulk storage areas
- Staff and support areas; including equipment bays for equipment such as (C-Arm s or mobile X-rays) and linen bays; in stand-alone Units this will also include supply areas and waste holding

Entry/ Reception Areas

A covered entrance for patient drop-off and collection after surgery shall be provided. The Entry may be a shared facility providing:

- a reception/ information counter or desk
- waiting areas that allow for the separation of paediatric and female patients as appropriate
- convenient access to wheelchair storage, public toilets and amenities

The reception desk should be located to have a view of the entry and must provide for privacy of patient information and records.

Waiting areas should be sized according to the expected numbers of patients and support persons and provide for family waiting and patients in wheelchairs or with limited mobility. If paediatric patients are treated in the Unit play areas should be included.

Assessment/ Preparation Areas

Interview and Consultation rooms are required, located with convenient access to the entry and waiting areas to provide for private discussion with patients, review with medical practitioners and anaesthetic consultation prior to endoscopy procedures as required.

A Patient Holding area is required with access to patient changing and toilet facilities. Patients are generally ambulant and may await procedures on a bed or in chairs. Holding areas must provide for male and female separation and patient privacy; screen curtains to bed and chair spaces is recommended. Storage will be required for patient clothing and valuables. Lockers may be provided, or patient clothing and personal items may travel with the patient through each stage of the procedure, recovery and discharge in sealed containers according to the Unit Operational Policy and procedures.

A Staff Station should be located to provide close supervision of the holding and Preparation areas.

A Preparation room may be required for patients undergoing endoscopy procedures, where patients may change and undergo preparation procedures. If provided, the Preparation room should include:

- a clinical handwash basin
- bench and cupboards for setting up of procedures
- adequate space for procedures equipment trolleys
- examination couch and comfortable chair
- desk and a computer terminal for review of test results
- privacy screening

Patient holding and Preparation room must have close access to patient toilets. At least one accessible toilet must be provided.

Procedure Areas:

In Procedure rooms a clean to dirty workflow must be maintained. The clean area will include sterile supplies and a write-up space with computer and printer to generate endoscopy reports.

The room may be purpose designed to accommodate the following:

- endoscopy 'stack' and video monitor(s) – this equipment contains the light source and video processor required for the endoscopes to produce images
- endoscope cabinet with clean endoscopes and cabinets for accessory equipment such as endoscopy biopsy forceps, snares, injectors etc.
- monitoring equipment to allow continuous monitoring of the patient's condition during procedures
- anaesthetic equipment and medication used to provide procedural sedation or short acting anaesthetics
- electrosurgical and/or argon plasma coagulation equipment
- imaging equipment such as C- arm or X-ray screening unit depending on procedures to be performed; imaging equipment may be portable or installed in the room
- integration system to control multiple devices through a common interface and includes a networked computerised control system through which information, images and videos can be directed

Procedure rooms may be sized to accommodate the equipment required; the minimum room area recommended for basic endoscopy is 36 m². Rooms to accommodate ERCP or video equipment will require a larger space for sterile set-up, general anaesthesia and fluoroscopy equipment; a minimum of 42 m² is recommended.

Operating Rooms for Endoscopy shall be fitted out as a Minor Operating Room. For example, it will be suitable for general anaesthesia with appropriate medical gases, power, lighting, air-conditioning and ventilation. Staff assistance call must be provided. Consideration also needs to be given to the special requirements of imaging and laser equipment if required.

A clinical scrub up basin shall be provided outside the entrance to the Procedure/ Operating Room/s for Endoscopy.

Procedure/ Operating rooms will require direct access to clean-up and decontamination area for rapid processing of endoscopes and their storage.

Recovery Areas

The Stage 1 Recovery should be located with close access from the Procedure rooms. Recovery beds will be under direct observation of staff and will provide for close supervision and observation of patients. Beds will include patient monitoring and medical gases for patient resuscitation in emergencies. The recommended number of Stage 1 Recovery spaces is 2 bed/trolley spaces per Operating/ Procedure room.

A Stage 2 Recovery area will be provided to accommodate patients who have regained consciousness after sedation/ anaesthesia but require further observation.

Patients will remain under staff observation until ready for discharge. Patients in Stage 2 Recovery area may recover in trolleys or recliner chairs; each recovery bay should be able to accommodate either trolley or chair. External windows are to be provided in Stage 2 Recovery. Patients in this area may change into street clothes, and close access to private changing rooms or cubicles is required. Provision should be made in the Stage 2 Recovery area for patient refreshments/ beverage bay and access to toilets. Patients may progress to a lounge area to await discharge as required or be discharged directly from the Stage 2 Recovery.

The recommended number of Stage 2 Recovery spaces is 3 bed/ chair bays to each Operating/ Procedure room.

Reprocessing Areas

The ability to efficiently and safely process endoscopes is critical to the functioning of the Endoscopy Unit. Endoscope and instrument processing is a multi-step procedure involving decontaminating dirty scopes/ instruments, high level disinfection of scopes and packaging/ storing of clean scopes. Processing of the endoscopes commences as soon as the procedure is complete – the scope is wiped down and placed in a closed container and transported to the clean-up area; if any delay in processing is expected the scopes are soaked in an enzyme detergent solution.

Decontamination includes leak testing, manual pre-cleaning followed by high level disinfection with a disinfectant solution.

Endoscope reprocessing areas should be separate to Procedure/ Operating rooms and a unidirectional dirty to clean workflow must be maintained. A centralised reprocessing area is recommended for efficient handling of endoscopes and appropriate air pressurisation, and ventilation must be maintained. Cleaning and Disinfection areas must be negatively pressured and ventilated to remove vapours of chemicals used in the process.

The Cleaning and Disinfection of equipment area will include:

- sinks for soaking and rinsing. They should be sufficiently sized to prevent tight coiling of the endoscope which may damage the fibre-optic cables in the instrument
- ultrasonic cleaner for accessory equipment used in procedures
- Automated endoscope cleaning/ disinfecting machines
- compressed air to aid drying of endoscopic equipment after cleaning
- handwashing basin
- safety eyewash facility
- stainless steel benches with space to accommodate the length of the endoscopes
- storage of disinfected scopes on a bench or shelf.

The Sterilising/Disinfection area will include an autoclave to sterilise accessory instruments if a sterile supply service is not available.

Storage provisions will include adequately sized areas for drugs, sterile stock, consumables, linen, resuscitation trolley and mobile equipment which may include mobile imaging equipment. Storage of sterile items and scopes close to the point of use is recommended. Scope storage areas must be positively pressured, and HEPA filtered to prevent contamination of clean endoscopes. Scopes may be stored in properly ventilated and temperature-controlled cabinets, preferably a pass-through type, located between reprocessing/ sterilising/disinfection areas and the Operating/ Procedure room. Endoscope cabinets should allow for endoscopes to hang without coiling preventing damage to either end of the scope.

Staff Amenities

Staff amenities will include change rooms with showers, toilets and lockers and a staff lounge, providing a respite area for staff away from patient and procedural areas. Staff amenities areas may be shared with adjacent units if appropriate.

Functional Relationships

External

The Endoscopy Unit will have a close functional relationship with the following:

- Car parking areas
- Emergency services
- Main Entry
- Outpatients Unit
- Transit Lounge

The stand-alone Unit will also require an area for ambulance access for emergency use and ready access to supply services and waste holding areas.

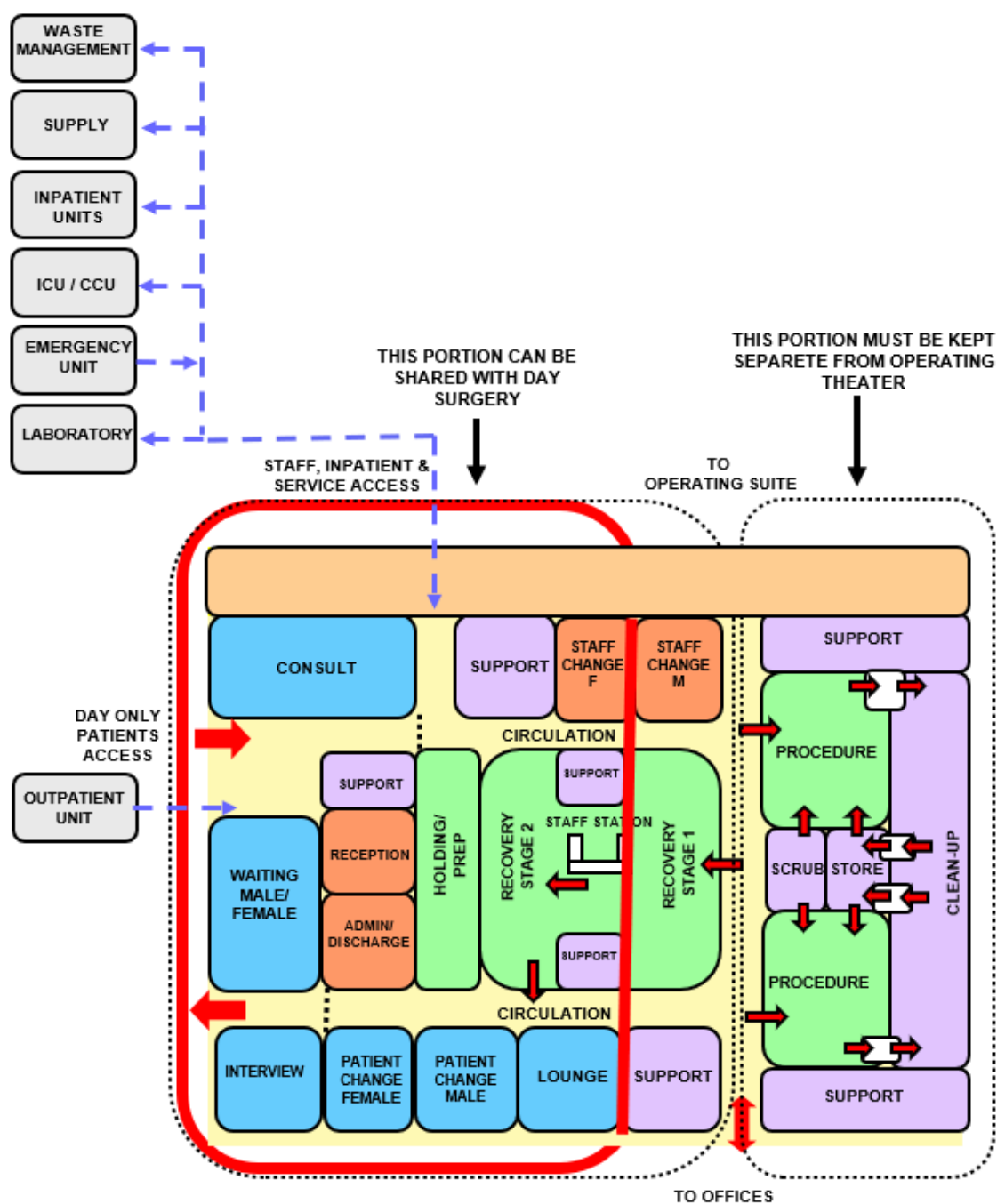
Internal

Within the Unit, key functional relationships will include:

- Unidirectional patient flow from arrival at Reception, through Holding, Procedure Rooms, Recovery rooms, then to the Lounge areas and discharge to home or transfer to other Units
- Separation of clean and dirty traffic flows particularly in Procedures rooms and disinfection/sterilising areas
- Visibility of patient areas by staff for patient supervision and safety

Refer to the Functional Relationship Diagrams below.

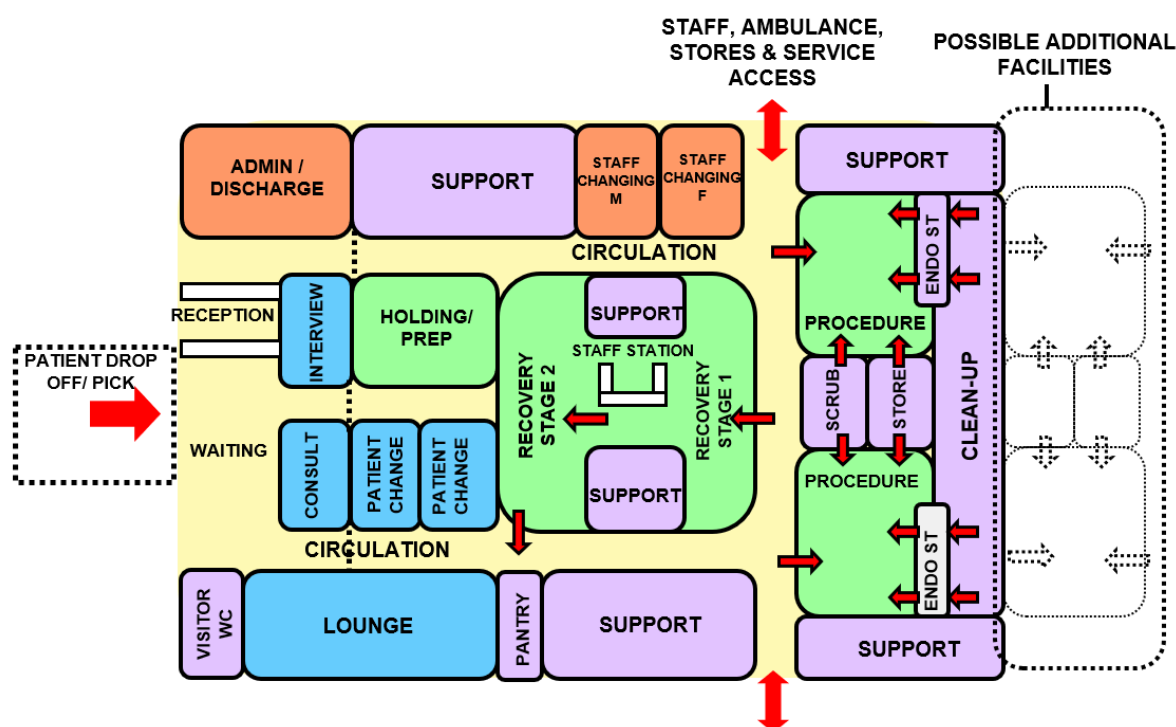
Endoscopy Unit within a hospital



LEGEND

 Patient Areas	 Procedural Areas	 Controlled Access	→ Path of Travel
 Support Areas	 Circulation	→ Direct Relationship	
 Staff Areas	 Travel	→ Indirect Relationship	

Stand-alone Endoscopy Unit



LEGEND



4 Design Considerations

General

The design will need to accommodate all types of patients using the Unit as determined by the endorsed clinical service plan; this may include paediatric patients. Provision should also be made for the management of disabled patients and bariatric patients.

The design should also be able to accommodate changes in equipment technology as well as changing workload and variability to throughputs. Use of modular components and standard rooms sizes are recommended to provide flexibility of design. Future trends in advanced endoscopy include:

- Highly specialised and more invasive procedures that may require facilities similar to an operating suite
- Access to overnight inpatient beds or extended stay wards
- Education and training of medical personnel using simulators that may require space provision or camera and video transmittal from the procedure rooms linked to a remote Meeting/ Tutorial room

Environmental Considerations

Acoustics

The design should reduce the intrusive ambient noise level in the Unit particularly in waiting areas.

Acoustic privacy will be required in the following areas:

- Consultation/ Interview rooms where confidential patient information will be discussed
- Preparation rooms where patient pre-treatments may be undertaken
- Procedure/ Operating rooms

Operating/ Procedure Room Pressurisation

The pressurisation of the Operating/ Procedure Room depends on the type of endoscopy performed and the flexibility required to perform other procedures. Please refer to the table below for the correct pressurisation regime to be used for the Endoscopy rooms within the facility. The most common provision will involve a mix of Negative and Positive Pressure rooms with the majority being Negative Pressure.

Use of the Endoscopy Room	Pressurisation Required	Recommendation
Endoscopy (Colonoscopy, Gastroscopy)	Positive or Negative	Negative Pressure
Bronchoscopy	Negative	Negative Pressure
Bronchoscopy and Endoscopy	Negative	Negative Pressure
Bronchoscopy and Day Surgery	N/A	Not allowed to mix
ERCP (Endoscopic Retrograde Cholangio Pancreatography)	Positive	Positive
Endoscopy and Day Surgery	Positive	Not allowed to mix

Natural Light

The design of the unit should incorporate external views and natural light as far as possible, particularly to Waiting Areas, pre-operative Holding and Recovery areas.

It is recommended that external views and natural light are provided in staff areas such as Staff Rooms, Offices and areas where staff are confined to one location e.g. Reception and Clean-up Rooms.

When external views and natural light are provided in patient areas, care must be taken to minimise glare and ensure privacy is not compromised. Sun penetration should be controlled to exclude glare and heat gain or loss.

In Procedure Rooms, provision of controlled level of lighting during procedures should be considered.

Privacy

Staff observation of patients and patient privacy must be well-balanced within the Unit.

The following features shall be integrated to the design of the Unit:

- Doors and windows to be located appropriately to ensure patient privacy and not compromise staff security
- Discreet spaces to enable confidentiality of discussions related to a patient and storage of patients' medical records
- Privacy screening to bed and chair bays
- Consultation, Interview and Preparation rooms should not be visible from public or waiting areas; examination couches should not face the door
- Location of patient change areas to provide direct access to waiting areas to prevent patients in gowns travelling through public areas when changed before and after procedures
- Separation of male, female and paediatric changing rooms and waiting areas.

Space Standards and Components

Accessibility

External

The Unit will require a weatherproof vehicle drop-off area with easy access for less-mobile and wheelchair bound patients. Drop off areas may be shared in Units located within a hospital. Access to other units in the facility should be convenient, covered and not through public thoroughfares.

Internal

All patient areas should be wheelchair accessible and designed to comply with relevant accessibility standards. Reception desks and Staff Stations should provide wheelchair accessible counters.

Ergonomics/ OH&S

The Endoscopy Unit should be designed with consideration to ergonomics to ensure an optimal working environment. Design and dimensions of Staff Stations and work areas must ensure privacy and security for patients, visitors and staff.

Refer also to Part C of these Guidelines.

Size of Unit

The number of endoscopy rooms required in the Unit can be calculated using the workload per annum (number of procedures per year according to local population data) divided by the workload per Endoscopy room (the average number of cases per working day). Generally, larger endoscopy units should contain one procedure room per 1,000 to 1,500 procedures performed annually.

Safety and Security

Internal spaces and zones should offer a high standard of security through grouping functions, controlling access and egress from the Unit and providing optimum observation for staff. Patient holding, procedural and recovery areas will require restricted access to prevent unauthorised entry by visitors or others.

Protective clothing and safety equipment including an emergency eye wash station must be available for staff undertaking cleaning/ disinfection due to the use of chemicals in the disinfection process.

Finishes

The aesthetics of the Unit should be warm 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.

The floor finishes in all patient care and treatment areas should have a non-slip surface and be impermeable to water and body fluids.

Refer also to Part C and Part D of these Guidelines.

Fixtures, Fittings and Equipment

The Unit should have sufficient endoscopes and accessory equipment to allow for proper cleaning, disinfection and sterilising to be performed. The quantities of equipment and instruments should also allow for some equipment to be unavailable when awaiting repair or replacement. It is recommended that only fully immersible endoscopes are used.

Automated endoscopic cleaning/ disinfection equipment will require consideration regarding optimum location and services requirements such as water, power and drainage. Equipment will be installed according to manufacturers' specifications.

Refer also to Standard Components Room Data Sheets and Room Layout Sheets for Furniture, Fittings Fixtures and Equipment requirements.

Building Services Requirements

Water Treatment

Water filtration is required for cleaning of endoscopes and to supply automated endoscope cleaning/ disinfection machines. Water with a high mineral content is unsuitable for rinsing flexible endoscopes and accessory equipment due to mineral deposits that may permanently damage the equipment. Provide water filtration to sinks and automated endoscope cleaning machines according to equipment manufacturers' specifications.

Air Filtration

Ventilation and exhaust is required to extract toxic vapours in Clean-up/ disinfection areas. Hazardous chemicals such as glutaraldehyde, OPA or peracetic acid should be used in a closed system with air extraction such as a fume cabinet.

Compressed air and exhaust may also be required for the endoscope drying cabinet. Requirements should be provided according to equipment manufacturers' specifications.

Radiation Safety and Shielding

If the Unit is undertaking procedures involving imaging, plans and specifications will require assessment for radiation protection by a certified physicist or other qualified expert as required by the relevant Radiation and Nuclear Safety Agency. The radiation protection assessment will specify the type, location and amount of radiation protection required according to the final equipment selections and layout. Radiation protection requirements must be incorporated into the final specifications and building plans.

Information Technology (IT) and Communications

It is vital to provide reliable and effective IT/ Communications service for efficient operation of the Unit. The following items relating to IT/ Communication should be addressed in the design:

- Appointment systems
- Patient Administration System (PAS) including clinical records, pathology results, PACS
- Scheduling systems to manage Procedure or operating room sessions
- Endoscopy procedure recording and printing of reports within the Procedure room
- Materials management including bar coding for supplies, x-rays and records
- Management and statistical information required for administration and quality assurance.
- Education and training utilisation of video and camera equipment

Nurse/ Emergency Call

Nurse Call and Emergency Call facilities must be provided in all patient areas (e.g. bed/chair spaces, toilets, showers) 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. Calls must be audible in Utilities, Staff Room and Meeting Rooms within the Unit. The alert to staff members should be done in a discreet manner at all times.

Infection Control

Consideration of Infection Control is important in the design of this Unit. Separation of clean and dirty workflows in treatment and clean-up areas and separation of patient care areas and contaminated spaces and equipment is critical to the function of the Unit and to prevent cross infection. Procedure/ Operating rooms will be used for a variety of clients whose infection status may be unknown. Standard precautions must be taken for all clients regardless of their diagnosis or presumed infectious status. Staff hand washing facilities, including disposable paper towels, must be readily available.

Refer to Part D of these Guidelines for further information.

5 Components of the Unit

Standard Components

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

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

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

- Fixtures and Equipment; includes all the serviced equipment commonly located in the room along with the services required such as power, data, water supply and drainage; Fixtures and Equipment are also identified with a group number as above indicating who is responsible for provision.
- Building Services - indicates the requirement for communications, power, HVAC (Heating, Ventilation and Air Conditioning), medical gases, nurse/ emergency call and lighting along with quantities and types where appropriate.
- Provision of all services items listed is mandatory.

The Room Layout Sheets (RLS's) are indicative plan layouts and elevations illustrating an example of a 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 by 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.

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

Non-Standard Components

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

6 Schedule of Equipment (SOE)

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

Room Name		
Endoscopy Procedure Room, Room Code (endp-i)		
Air flowmeter	Infusion pump: single channel	Pill cam: endoscopy
Cabinet: endoscopes, drying	Infusion pump: syringe	Stool: adjustable, OR
Control panel: surgical	Integration system: endoscopy	Stretcher: procedure/ recovery
Electrosurgical unit: argon enhanced coagulation	Light: surgical, ceiling, with monitor arms & camera	Suction adapter
Endoscopy tower: upper & lower GI	Monitor: physiologic, critical care	Supply unit: ceiling
Infusion pump: rapid, blood/ solution warming	Oxygen flowmeter	
Endoscope Reprocessing, Room Code (NS)		
Counter: clean-up	Endoscope preprocessor	

7 Schedule of Accommodation (SOA)

The Schedule of Accommodation (SOA) provided in this FPU represents generic requirements for this Unit. It identifies the rooms required along with the room quantities and the recommended room areas. The sum of the room areas is shown as the Sub Total as the Net Area. The total area comprises of the sub-total areas of these rooms plus an additional percentage of the sub-total applied as the circulation (corridors within the Unit). Circulation is represented as a percentage is the minimum recommended target area. Any external areas and optional rooms/ spaces are not included in the total areas in the SOA.

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

The Schedule of Accommodation are developed for particular levels of services known as Role Delineation Level (RDL) and numbered from 1 to 6. Applicable RDL's are noted in each SOA provided in this FPU and not necessarily all six RDL's are applicable. Refer to Part A for a full description of the RDL's.

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

- Areas noted in Schedules of Accommodation take precedence over all other areas noted in this FPU.
- Rooms indicated in the schedule reflect the typical arrangement according to the Role Delineation and/ or capacity required for the clinical service.
- Exact requirements for room quantities and sizes reflect Key Planning Units (KPU) identified in the Service Plan and the Operational Policies of the Unit
- All areas shown in the SOA follow the No-Gap system described elsewhere in these Guidelines. Refer to Part B Preliminaries
- Room sizes indicated should be viewed as a minimum requirement; variations are acceptable to reflect the needs of individual Unit.
- Staff and support rooms may be shared between Functional Planning Units dependent on location and accessibility to each unit and may provide scope to reduce duplication of facilities.
- Offices to be provided according to the number of approved full-time positions within the Unit.

Endoscopy Unit within a hospital complex with 2, 4 & 6 Rooms

Room / Space	Standard Component Room Codes	RDL 4 Qty x m2			RDL 5 Qty x m2			RDL 6 Qty x m2			Remarks
Entry/ Reception			2 Rooms			4 Rooms			6 Rooms		
Airlock - Entry	airle-10-i	1	x	10	1	x	10	1	x	10	with covered drop -off area
Reception/ Clerical	recl-10-i recl-15-i recl-20-i	1	x	10	1	x	15	1	x	20	
Waiting	wait-20-i wait-30-i similar	1	x	20	1	x	30	1	x	40	
Play Area	plap-10-i similar	1	x	8	1	x	10	1	x	10	Optional; if Paediatric patients included
Bay - Wheelchair Park	bwc-i	1	x	4	1	x	4	1	x	4	
Office - Single Person	off-s9-i	1	x	9	1	x	9	1	x	9	Manager; Note 1
Interview Room - Family	intf-i	1	x	12	1	x	12	1	x	12	May be co-located with Assessment area
Parenting Room	par-i	1	x	6	1	x	6	1	x	6	
Store - Files	stfs-8-i stfs-10-i	1	x	8	1	x	10	1	x	10	For stationery/ clinical records, fax, photocopier
Toilet - Accessible	wcac-i	1	x	6	1	x	6	1	x	6	
Toilet - Public	wcpu-3-i	2	x	3	2	x	3	2	x	3	
Assessment/ Preparation Areas											
Consult Room	cons-i	1	x	14	2	x	14	3	x	14	Combined Consult/ Examination Room
Meeting Room - Small	meet-9-i	1	x	9	1	x	9	2	x	9	Optional Interviews, private discussions
Treatment/ Preparation Room	trmt-14-i similar cons-i similar	1	x	14	2	x	14	2	x	14	Optional; locate near Patient Ensuite
Change - Patient (Male/ Female)	chpt-12-i	2	x	12	2	x	12	2	x	15	
Patient Bay - Holding	pbtr-h-10-i	2	x	10	2	x	10	4	x	10	
Waiting - Changed Patients (M/F)	wait-sub-i wait-10-i wait-15-i	2	x	5	2	x	10	2	x	15	comfortable seating
Bay - Handwashing/PPE	bhws-ppe-i	1	x	1.5	1	x	1.5	1	x	1.5	

Part B: Health Facility Briefing & Design
Endoscopy Unit

Room / Space	Standard Component Room Codes	RDL 4 Qty x m2			RDL 5 Qty x m2			RDL 6 Qty x m2			Remarks
Bay - Linen	blin-i	1	x	2	1	x	2	1	x	2	
Dirty Utility	dtur-s-i	1	x	8	1	x	8	1	x	8	
Ensuite - Toilet/ Shower	ens-st-i	1	x	5	1	x	5	1	x	5	Locate adjacent to Treatment/ Preparation
Staff Station/ Clean Utility	sscu-i	1	x	9	1	x	9	1	x	9	to oversight holding and changed waiting areas
Store - General	stgn-5-i similar	1	x	6	1	x	6	1	x	6	
Toilet - Accessible, Patient (M/F)	wcac-i	2	x	6	2	x	6	2	x	6	
Toilet - Patient (M/F)	wcpt-i	2	x	4	2	x	4	2	x	4	May share with Recovery if close
Procedure Areas			2 Rooms			4 Rooms			6 Rooms		
Endoscopy Procedure Room - Negative Pressure	endp-i	2	x	36	3	x	36	5	x	36	General Endoscopy
Endoscopy Procedure Room - Positive Pressure	endp-i				1	x	36	1	x	36	specialised Endoscopy (Positive Pressure) Optional
Clean-up, Shared	clup-15-i	1	x	15	2	x	15	3	x	15	Shared between rooms, for immediate post procedure
Scrub-up	scrb-6-i	2	x	6	4	x	6	6	x	6	May be shared between Operating/ Procedure rooms
Bay - Linen	blin-i	1	x	2	1	x	2	1	x	2	
Bay - Mobile Equipment	bmeq-2.5-i	2	x	2.5	4	x	2.5	6	x	2.5	also for imaging equipment
Store - Sterile Stock	stss-12-i	1	x	12	2	x	12	3	x	12	
Store - Equipment	steq-6-i steq-10-i	1	x	6	1	x	10	2	x	10	Additional specialist equipment
Recovery Areas											
Patient Bay - Recovery Stage 1	pbtr-rs1-12-i	4	x	12	8	x	12	10	x	12	2 Beds per Procedure/ OR; Separate M/ F as required
Patient Bay Enclosed – Recovery Stage 1, Isolation	pbhe-is-n-i							2	x	14	Provide according to service demand
Anteroom	anrm-i							2	x	6	

Part B: Health Facility Briefing & Design
Endoscopy Unit

Room / Space	Standard Component Room Codes	RDL 4 Qty x m2			RDL 5 Qty x m2			RDL 6 Qty x m2			Remarks
Patient Bay - Recovery Stage 2	pbtr-rs2-12-i	6	x	12	12	x	12	18	x	12	3 Beds/Chairs per Procedure/OR; Separate M/ F as required
Recovery Lounge	lnpt-rs2-i	4	x	6	6	x	6	8	x	6	Optional; according to service plan; screened bays
Bay - Beverage	bbev-op-i	1	x	5	1	x	5	1	x	5	
Bay Handwashing/PPE	bhws-ppe-i	3	x	1.5	7	x	1.5	10	x	1.5	
Bay - Linen	blin-i	1	x	2	2	x	2	2	x	2	
Bay - Resuscitation Trolley	bres-i	1	x	1.5	1	x	1.5	1	x	1.5	
Clean Utility	clur-8-i clur-12-i				1	x	8	1	x	12	
Dirty Utility	dtur-s-i dtur-10-i	1	x	8	1	x	8	1	x	10	
Medication Room	medr-10-i	1	x	10	1	X	10	1	x	10	
Property Bay - Patient	prop-2-i	1	x	2	2	x	2	2	x	2	separate M/F areas
Staff Station	sstn-10-i sstn-20-i				1	x	10	1	x	20	
Staff Station/ Clean Utility	sscu-i	1	x	9							Suitable for small procedures areas
Store - General	stgn-5-i similar stgn-8-i	1	x	6	1	x	8	1	x	8	
Store - Equipment	steq-10-i steq-15-i	1	x	10	1	x	10	1	x	15	with power for equipment recharging
Toilet - Accessible	wcac-i	2	x	6	2	x	6	2	x	6	
Toilet - Patient (M/F)	wcpt-i	2	x	4	2	x	4	2	x	4	
Reprocessing Areas											
Bay - Handwashing	bhws-b-i	1	x	1	1	x	1	1	x	1	
Clean-up/ Decontamination	clup-15-i similar	1	x	15	1	x	30	1	x	30	Endoscopes and instruments
Endoscope Reprocessing	NS	1	x	6	1	x	10	1	x	20	
Endoscope Store	steq-6-i similar steq-10-i similar	1	x	4	1	x	8	2	x	12	Typically one endoscope store can be shared between up to 3 procedure rooms
Staff and Support Areas											

Part B: Health Facility Briefing & Design
Endoscopy Unit

Room / Space	Standard Component Room Codes	RDL 4 Qty x m2			RDL 5 Qty x m2			RDL 6 Qty x m2			Remarks
Change - Staff (M/F)	chst-10-i chst-14-i chst-20-i	2	x	10	2	x	14	2	x	20	Toilets, Shower and Lockers
Communications Room	comm-ict-i	1	x	0	1	x	0	1	x	0	Size dependant on IT equipment; area part of Plant
Cleaner's Room	clrm-6-i	1	x	6	1	x	6	1	x	6	
Disposal Room	disp-5-i disp-8-i	1	x	5	1	x	8	1	x	8	includes dirty Linen Holding
Meeting Room	meet-12-i meet-l-15-i	1	x	12	1	x	12	1	x	15	Optional; may be shared
Office - Single Person, 9m2	off-s9-i	1	x	9	1	x	9	2	x	9	Note 1; Nursing/ Medical
Office - 2 Person, Shared	off-2p-i		x		1	x	12	1	x	12	Note 1; Clerical support
Property Bay - Staff	prop-2-i	1	x	2	2	x	2	2	x	2	
Staff Room	srm-15-i srm-20-i srm-25-i	1	x	15	1	x	25	1	x	30	
Store - Medical Records	stfs-8-i stfs-10-i	1	x	8	1	x	8	1	x	10	
Parking for AGV	NS	1	x	*	1	x	*	1	x	*	According to equipment recommendations
Sub Total				623.5			947.5			1571	
Circulation %				35			35			35	
Area Total				842			1279			2121	

Note 1: Offices and workstation to be provided according to the number of approved full time positions within the Unit requiring access to this space

Stand-alone Endoscopy Unit with 2, 4 & 6 rooms

Room / Space	Standard Component Room Codes	RDL 4 Qty x m2			RDL 5 Qty x m2			RDL 6 Qty x m2			Remarks
Entry/ Reception		2 Rooms			4 Rooms			6 Rooms			
Reception/ Clerical	recl-10-i recl-15-i recl-20-i	1	x	10	1	x	15	1	x	20	
Waiting	wait-20-i wait-30-i similar	1	x	20	1	x	30	1	x	40	May be divided for separate Female areas as applicable
Play Area	plap-10-i similar	1	x	8	1	x	10	1	x	10	Optional; if Paediatric patients included
Bay - Wheelchair Park	bwc-i	1	x	4	1	x	4	1	x	4	May share with Main facility if located close
Office - Single Person	off-s9-i	1	x	9	1	x	9	1	x	9	Manager; Note 1
Interview Room - Family	intf-i	1	x	12	1	x	12	1	x	12	May be co-located with Assessment area
Parenting Room	par-i	1	x	6	1	x	6	1	x	6	May share with Main facility if located close
Store - Files	stfs-8-i stfs-10-i	1	x	8	1	x	10	1	x	10	For stationery/ clinical records, fax, photocopier
Toilet - Accessible	wcac-i	2	x	6	2	x	6	2	x	6	May share with Main facility if located close
Toilet - Public	wcpu-3-i	2	x	3	2	x	3	2	x	3	May share with Main facility if located close
Assessment/ Preparation Areas											
Consult Room	cons-i	1	x	14	2	x	14	3	x	14	Combined Consult/ Examination Room
Meeting Room - Small	meet-9-i	1	x	9	1	x	9	2	x	9	Optional; Interviews, private discussions
Treatment/ Preparation Room	trmt-14-i similar cons-i similar	1	x	14	2	x	14	2	x	14	Optional; locate near Patient Ensuite
Change - Patient (Male/ Female)	chpt-12-i similar	2	x	12	2	x	12	2	x	15	
Patient Bay - Holding	pbtr-h-10-i	2	x	10	2	x	10	4	x	10	

Part B: Health Facility Briefing & Design
Endoscopy Unit

Room / Space	Standard Component Room Codes	RDL 4 Qty x m2			RDL 5 Qty x m2			RDL 6 Qty x m2			Remarks
Waiting - Changed Patients (M/F)	wait-sub-i wait-10-i wait-15-i	2	x	5	2	x	10	2	x	15	comfortable seating
Bay - Handwashing/PPE	bhws-ppe-i	1	x	1.5	1	x	1.5	1	x	1.5	
Bay - Linen	blin-i	1	x	2	1	x	2	1	x	2	
Dirty Utility	dtur-s-i	1	x	8	1	x	8	1	x	8	
Ensuite - Toilet/ Shower	ens-st-i	1	x	5	1	x	5	1	x	5	Locate adjacent to Treatment/ Preparation
Staff Station/ Clean Utility	sscu-i	1	x	9	1	x	9	1	x	9	to oversee holding and changed waiting areas; review size if Clean Utility is shared
Store - General	stgn-5-i similar	1	x	6	1	x	6	1	x	6	
Toilet - Accessible, Patient (M/F)	wcac-i	1	x	6	1	x	6	1	x	6	
Toilet - Patient (M/F)	wcpt-i	1	x	4	1	x	4	1	x	4	May share with Recovery if close
Procedure Areas			2 Rooms			4 Rooms			6 Rooms		
Endoscopy Procedure Room - Negative Pressure	endp-i	2	x	36	2	x	36	2	x	36	General Endoscopy
Endoscopy Procedure Room - Positive Pressure	endp-i				2	x	36	4	x	36	specialised Endoscopy (Positive Pressure) Optional
Clean-up, Shared	clup-15-i	1	x	15	2	x	15	3	x	15	Shared between rooms, for immediate post procedure
Scrub-up	scrib-6-i	2	x	6	4	x	6	6	x	6	
Bay - Linen	blin-i	1	x	2	1	x	2	1	x	2	
Bay - Mobile Equipment	bmeq-2.5-i	2	x	2.5	4	x	2.5	6	x	2.5	also for imaging equipment
Store - Sterile Stock	stss-12-i	1	x	12	2	x	12	3	x	12	
Store - Equipment	steq-6-i steq-10-i	1	x	6	1	x	10	2	x	10	Additional specialist equipment
Recovery Areas											

Part B: Health Facility Briefing & Design
Endoscopy Unit

Room / Space	Standard Component Room Codes	RDL 4 Qty x m2			RDL 5 Qty x m2			RDL 6 Qty x m2			Remarks
Patient Bay - Recovery Stage 1	pbtr-rs1-12-i	4	x	12	8	x	12	10	x	12	2 Beds per Procedure/ OR; Separate M/ F as required
Patient Bay Enclosed – Recovery Stage 1, Isolation	pbhe-is-n-i							2	x	14	Provide according to service demand
Anteroom	anrm-i							2	x	6	
Patient Bay - Recovery Stage 2	pbtr-rs2-12-i	6	x	12	12	x	12	18	x	12	3 Beds/Chairs per Procedure/OR; Separate M/ F as required
Recovery Lounge	lnpt-rs2-i	4	x	6	6	x	6	8	x	6	Optional; according to service plan; screened bays
Bay - Beverage	bbev-op-i	1	x	5	1	x	5	1	x	5	
Bay - Handwashing/PPE	bhws-ppe-i	3	x	1.5	7	x	1.5	10	x	1.5	
Bay - Linen	blin-i	1	x	2	2	x	2	2	x	2	
Bay - Resuscitation Trolley	bres-i	1	x	1.5	1	x	1.5	1	x	1.5	
Clean Utility	clur-8-i clur-12-i				1	x	8	1	x	12	
Dirty Utility	dtur-s-i dtur-10-i	1	x	8	1	x	8	1	x	10	
Medication Room	medr-10-i	1	x	10	1	X	10	1	x	10	
Property Bay - Patient	prop-2-i	1	x	2	2	x	2	2	x	2	separate M/F areas
Staff Station	sstn-10-i sstn-20-i				1	x	10	1	x	20	
Staff Station/ Clean Utility	sscu-i	1	x	9							
Store - General	stgn-8-i similar	1	x	6	1	x	8	1	x	8	
Store - Equipment	steq-10-i steq-15-i	1	x	10	1	x	10	1	x	15	with power for equipment recharging
Toilet - Accessible	wcac-i	2	x	6	2	x	6	2	x	6	
Toilet - Patient (M/F)	wcpt-i	2	x	4	2	x	4	2	x	4	
Reprocessing Areas											
Bay - Handwashing	bhws-b-i	1		1	1		1	1		1	
Clean-up/ Decontamination	clup-15-i similar	1	x	15	1	x	30	1	x	30	Endoscopes and instruments

Part B: Health Facility Briefing & Design
Endoscopy Unit

Room / Space	Standard Component Room Codes	RDL 4 Qty x m2			RDL 5 Qty x m2			RDL 6 Qty x m2			Remarks
Endoscope Reprocessing	NS	1	x	6	1	x	10	1	x	20	
Store - Endoscope	steq-6-i similar	2	x	2	4	x	2	6	x	2	1 endo store/cupboard per Procedure room/ OR – or stored in single area next to disinfection area
Staff and Support Areas											
Change - Staff (M/F)	chst-10-i chst-14-i chst-20-i	2	x	10	2	x	14	2	x	20	Toilets, Shower and Lockers
Cleaner's Room	clrm-6-i	1	x	6	1	x	6	1	x	6	
Disposal Room	disp-5-i disp-8-i	1	x	5	1	x	8	1	x	8	May be shared with adjacent Unit
Loading Dock	lodk-i similar	1	x	10	1	x	15	1	x	20	
Linen Holding – Clean	lho-cl-i similar	1	x	10	1	x	15	1	x	20	
Store – Gas Bottles	stgb-f-i similar	1	x	8	1	x	10	1	x	10	
Store - Main	stgn-10-i stgn-16-i similar stgn-20-i	1	x	10	1	x	15	1	x	20	Consumables
Store - Medical Records	stfs-8-i stfs-10-i	1	x	8	1	x	8	1	x	10	
Meeting Room	meet-12-i meet-l-15-i	1	x	12	1	x	12	1	x	15	Optional; may be shared
Office - Single Person, 9m2	off-s9-i	1	x	9	1	x	9	2	x	9	Note 1; Nursing/ Medical
Office - 2 Person, Shared	off-2p-i				1		12	1		12	Note 1; Clerical support
Property Bay - Staff	prop-2-i	1	x	2	2	x	2	2	x	2	May be shared with adjacent Unit
Staff Room	srm-15-i srm-25-i srm-30-i	1	x	15	1	x	25	1	x	30	May be shared with adjacent Unit
Waste Holding/ Recyclables	waco-i	1	x	15	1	x	20	1	x	30	General, Contaminated, Sharps & Recyclables
Sub Total				662.5			972.5			1320	
Circulation %				25			25			25	
Area Total				828			1216			1650	

Note 1: Offices and workstation to be provided according to the number of approved full time positions within the Unit requiring access to this space

Please note the following:

- Areas noted in Schedules of Accommodation take precedence over all other areas noted in the FPU.
- Rooms indicated in the schedule reflect the typical arrangement according to the Role Delineation.
- Exact requirements for room quantities and sizes will reflect Key Planning Units identified in the Service Plan and the Operational Policies of the Unit.
- Room sizes indicated should be viewed as a minimum requirement; variations are acceptable to reflect the needs of individual Unit.
- Staff and support rooms may be shared between Functional Planning Units dependent on location and accessibility to each unit and may provide scope to reduce duplication of facilities.

8 Further Reading

- Australasian Health Facility Guidelines, Health Planning Units, B.0270 Day Surgery / Procedure Unit and B.0190 Sterilizing Services and Endoscope Reprocessing Unit; refer to website <https://healthfacilityguidelines.com.au/>
- Practical Gastrointestinal Endoscopy, The Fundamentals, Peter B Cotton, ed, 2014; Gastrohep ebook refer to www.gastrohep.com
- Digestive Diseases - Endoscopy Service. Design Guide, Department of Veteran Affairs, Office of Construction & Facilities Management, USA, 2011
- Endoscopy, Standards for Endoscopy Facilities and Services, GESA Gastroenterological Society of Australia, 2011
- Endoscopy Unit Design, Infection Prevention & Control Guidelines, Public Health Agency of Canada; www.phac-aspc.gc.ca
- Guidelines for Design and Construction of Health Care Facilities; The Facility Guidelines Institute; www.fgiguide.com
- DH (Department of Health) (UK) Health Building Note HBN 52 Accommodation for day care Endoscopy unit, 2008, refer to www.estatesknowledge.dh.gov.uk