# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Functional and Planning Considerations</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Operational Models</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Planning Models</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Functional Areas</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Functional Relationships</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>Design</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Construction Standards</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Environmental Considerations</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Space Standards and Components</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Safety and Security</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Finishes</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Fixtures, Fittings and Equipment</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Building Service Requirements</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Infection Control</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>Components of the Unit</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Standard Components</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Non Standard Components</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>Schedule of Accommodation – Medical Imaging Unit - General</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Medical Imaging Unit – General</td>
<td>16</td>
</tr>
<tr>
<td>6</td>
<td>Future Trends</td>
<td>22</td>
</tr>
<tr>
<td>7</td>
<td>Further Reading</td>
<td>22</td>
</tr>
</tbody>
</table>
1 Introduction

Description
The general Medical Imaging Unit is a discrete facility of the hospital which provides radiology and diagnostic investigations. Depending on the level of service and the clinical service plan, the unit may also provide diagnostic screening (fluoroscopy), ultrasound, mammography, computed tomography (CT), magnetic resonance imaging (MRI) or interventional radiographic procedures such as angiography.

The general Medical Imaging Unit may be co-located with or incorporate other specialties including Nuclear Medicine, PET and Oncology - Radiotherapy Units in a fully integrated imaging suite.

2 Functional and Planning Considerations

Operational Models

Hours of Operation
The Medical Imaging Unit will normally operate 24 hours per day, seven days per week. Smaller units may operate on a long day basis with an after-hours emergency service, depending on the hospital’s operational policy.

Models of Service Delivery
The Medical Imaging Unit may be provided as:
- As a single unit managed and operated by the hospital
- A main facility with satellite units located for ease of patient access under the management of the hospital
- A privately owned and operated facility, providing a service to all hospital units and sharing support areas with the hospital. As this is a popular model of service delivery, this option needs to be identified early in the planning process in order to allow the associated space requirements, design issues and cost implications to be addressed
- An off-site service; smaller hospitals that cannot justify a full Medical Imaging Unit, may consider access to off-site specialist services; this option needs to be identified during the planning phase, in particular, the location of the off-site services.

The general Medical Imaging Unit may be arranged in a variety of models, depending on the hospital’s clinical services plan that may include:
- A comprehensive unit located adjacent to the Emergency Unit and with good functional links to Outpatient Units
- A unit integrated with Nuclear Medicine & Radiotherapy
- A centralised Unit with satellite imaging services for Emergency Unit, outpatient ultrasound, intraoperative imaging, cardiac angiography (Catheter Laboratories) or other interventional imaging specialties.

Planning Models
The planning of a Medical Imaging Unit will be dependent on the imaging specialties to be included and the operational model adopted.

Location
The location of Medical Imaging is important for easy access by emergency patients, ambulant patients and inpatients. The Medical Imaging Unit should ideally be located on the ground floor with direct access to the Emergency Unit (EU) unless satellite imaging is provided within the EU.
The relative location of Outpatients Unit should be considered in the planning stage due to the volume of outpatient referrals to the Unit. Refer to Functional Relationships in this section for ideal internal relationships to be considered during the planning stages.

**Functional Areas**

The Medical Imaging Unit may consist of the following Functional Areas depending on the Clinical service plan of the Unit and the services to be provided:

- **Entry/ Reception areas incorporating:**
  - Reception desk for patient registration and to act as an access control point
  - Waiting for a range of occupants including children, families, elderly, and patients with limited mobility
  - Consult room for patient assessment and review
  - Amenities – toilets, vending areas for refreshments
  - Offices and workstations for Unit management and clerical functions

- **Imaging and screening areas:**
  - General and digital X-ray rooms
    - General and digital X-ray rooms
    - Screening (Fluoroscopy rooms)
    - Patient Change cubicles associated with each x-ray room
  - Access to patient amenities
  - Support areas including patient bed bays, handwashing bays, storage for linen, supplies

- **Dental/ Oral imaging:**
  - OPG Room
  - Sub waiting facilities

- **CT Scanning including:**
  - CT Scanning rooms
    - Control, reporting and computer module equipment rooms
    - Patient Change cubicles associated with each scanning room
  - Sub waiting areas
  - Access to patient amenities
  - Support Rooms including bays for linen, handwashing, utility room and store rooms

- **Ultrasound including specialty rooms such as paediatric and interventional**

- **Mammography rooms including interventional rooms**

- **Angiography/ Digital Subtraction Angiography (DSA) with:**
  - Scanning, control, reporting and computer module equipment rooms
  - Anaesthetic induction rooms
  - Patient Change cubicles associated with each scanning room
  - Holding and recovery bed bays
  - Support areas including linen bays, utilities,

- **MRI suite with**
  - Scanning, control, reporting and computer module equipment rooms
  - Patient Change cubicles associated with each scanning room
  - Sub-waiting area
  - Support facilities including bays for linen, handwashing, utility rooms and store rooms
  - Access to patient toilets

- **Shared Support Areas including**
  - Cleaner’s room/s
  - Communications room
  - Dark Room, this room may not be required if a filmless digital imaging system is implemented
  - Digital Processing areas
  - Film processing areas - daylight as required
  - Store rooms for film, files, stationery, general consumables

- **Staff Office and Reporting areas:**
  - Offices for Unit Director, Senior Radiologist/s, Senior Radiographer/s, Nurse Manager/ Supervisor
- Workstations for clerical staff, PACS technical staff, general imaging staff
- Staff Amenities including Staff Room, Change Rooms with Showers, Toilets, Lockers
- Meeting Rooms.

Entry/ Reception/ Waiting Areas

The Reception is the receiving hub of the unit where patients are first registered and should therefore ensure the security of the entire department through access control. Patient registration may include a booking and queuing system for effective management of patient bookings.

Waiting areas may be divided into separate female/ family areas to meet cultural requirements and will require convenient access to public amenities. The Waiting areas should be designed for compliance with accessibility standards and be provided with a range of seating options for occupants of varying mobility including bariatric patients. Waiting areas should include provisions for prams and a play area for children. Bed waiting areas should be separated from the ambulatory patient waiting areas for patient privacy.

X-ray, Screening and Scanning Areas

General X-ray and Fluoroscopy (Screening)

General X-ray rooms may be clustered with Fluoroscopy Screening rooms in order to share support facilities. The General X-ray room equipment will generally include an upright bucky stand for chest films. OPG and Mammography imaging equipment may be included in a General X-ray room where imaging equipment is not fully utilised. Additional equipment will require a slightly larger room.

If satellite imaging rooms are not provided in the Emergency Unit (EU), a minimum of one General X-ray room must be sized and located with rapid access for transfer of patients from Emergency Unit.

Fluoroscopic radiographic imaging procedures involve administration of contrast media to the patient and the timed use of a fluoroscopic imaging system along with sequential repositioning of the patient. The Fluoroscopy room will require a preparation room for barium mixtures and an adjacent toilet/shower that may be accessed from inside the room and from the external corridor.

Fluoroscopy Screening may be combined with an Angiography room, due to the decreasing incidence of barium usage. The room should include services for anaesthesia.

Orthopantomography (OPG)

OPG is an orbital X-ray of the upper and lower jaws, displaying teeth on a single film, used in dental, trauma, and facio-maxillary services. This equipment may be incorporated into a General X-ray room, a separate bay or within the Dental Unit.

Computerised Tomography (CT Scanning)

CT Scanning uses X-ray and computer technology to create detailed digital images, both two and three dimensional. CT scanning equipment consists of a rotating ring inside a gantry with a sliding table for the patient. Multiple images are taken in slices which are combined using computer technology. The CT Scanning room will have an associated Control Room and computer equipment room.

Refer to the Standard Component for CT Scanning for detailed room requirements. A Control Room may service 2 rooms. The room should include services for general anaesthesia and be sized for interventional procedures. A bed/trolley bay adjacent to each room is required for staff observation of waiting patients.

Angiography/ Digital Subtraction Angiography (DSA).

Angiography involves x-ray imaging the inside of blood vessels using an injection of contrast media. Simple angiography procedures such as peripheral studies can be done on fluoroscopy equipment.
Digital Subtraction Angiography (DSA) refers to a process where contrast media is injected into a vessel in the area being examined. Images are taken of the blood vessels before and after injection with contrast media. The pre-contrast images are subtracted from the post contrast images by computer resulting in clear blood vessel images.

Procedures using this type of imaging include angiography, angioplasty, arterial and venous stents, biliary and renal artery imaging. DSA procedures are becoming less popular in favour of CT scanning due to the ability to produce 3D images of vessels using a less invasive procedure.

Endoscopic Retrograde Choleopancreatography (ERCP)

ERCP is a procedure that uses endoscopy and fluoroscopy to diagnose and treat conditions of the biliary and pancreatic ductal systems including removal of gall stones, insertion of stents for strictures, repair of leaks and removal of cancer. These are gastrointestinal endoscopy procedures that may be performed in the Medical Imaging Unit or in an Endoscopy Unit.

Mammography

Mammography imaging or breast screening may be included for diagnostic purposes according to the hospital’s operational policies. Mammography rooms should provide sufficient area for interventional procedures such as needle biopsy that may require bed access and prone positioning. Mammography should be located adjacent to an Ultrasound Room for fine needle biopsies. Change Rooms should be accessible directly from the Mammography room and an Interview Room will be required in close proximity.

Magnetic Resonance Imaging (MRI)

MRI scanning is a non-invasive procedure using large magnets combined with radio waves and a computer to receive signals from atoms in body tissue creating detailed cross section images of organs and vessels. MRI does not use ionising radiation.

The location of the MRI is important to restrict access, protect the magnetic field from interference and reduce the extent of electro-magnetic shielding required. Specifically the MRI should be located:

- with good external access for installing and servicing the equipment; this may be achieved through an accessible side panel
- distant to any moving metal objects that may cause interference such as lifts, passing cars, construction equipment.

The MRI should not be located below a helipad or next to a sub-station

Facilities required in the MRI suite include:

- Patient change rooms with lockers for personal property (personal property particularly items with a metallic content must not be taken into the MRI room including watches, credit cards and keys)
- An Interview Room for patient discussion
- Storage for equipment (non-metallic)

Planning and design should consider the following:

- Structural assessment is required to ensure the floor/ slab will accommodate the weight of the MRI
- The MRI unit and the associated magnetic field must be fully contained within the room, according to the equipment selection and specifications, that will require liaison with the equipment supplier
- The MRI room will require magnetic shielding and radiofrequency shielding, to be determined in conjunction with the equipment supplier, according to the machine specifications
- Access control is required to the MRI suite, the MRI room and the support areas within the suite to ensure authorised entry. Recommended exclusion zones are divided into four stages including:
  - Zone 1: Entrance which may be shared with general radiology
Zone 2: Reception, Waiting which may be shared, patient screening, toilet and change room
Zone 3: MRI waiting, patient preparation, recovery, control and equipment rooms
Zone 4: MRI Scanning room
- Equipment and fittings in the room including emergency equipment such as fire extinguishers and gas bottles need to be constructed of non-ferrous material.

MRI rooms are to comply with Standard Components, refer to Standard Component – MRI Scanning Room, Room Data Sheet and Room Layout Sheet.

Ultrasound
Ultrasound is a non-invasive procedure using high frequency sound waves for diagnostic purposes. This permits the use of ultrasound for a various types of tissue and organs and is particularly useful in obstetrics, digestive system, renal, cardiac and vascular scanning. Ultrasound does not use ionising radiation and does not require radiation shielding.

Ultrasound examinations may be done in the Medical Imaging unit, in specialist units or at the patient location, as the equipment is mobile. Ultrasound imaging may involve interventional procedures and room size may need to accommodate additional procedures and access for patients on a bed/ trolley. Ultrasound rooms may require close access to drinking water and a toilet for particular scanning procedures.

Support Areas
Preparation Room
The Preparation Room is provided for preparation of contrast media solutions, storage of medications and sterile supplies. The room should be sized to accommodate the quantity of supplies required. The Preparation Room, if conveniently located, may serve several imaging rooms. The Preparation Room shall comply with requirements identified in Standard Components.

Film Processing Areas
Film processing if required should be located convenient to the Imaging Rooms and to the quality control area and will normally involve daylight processing equipment. A Darkroom is rarely required, now replaced by digital/ computer processing. The Darkroom, if provided will require special provisions for lighting and ventilation.

For digital imaging systems, processing areas are replaced by workrooms for viewing and checking of digital images. The workrooms should be located in close proximity to the imaging rooms and sized appropriately for the numbers of workstations required.

Film Storage
For digital imaging applications, there will need to be an area for the PACS (Picture Archiving and Communications System) servers. The PACS server room should be located with ready access to the imaging rooms.

A room for filing of patient films may be provided which may include the patient’s own films and historic films for research purposes. The film store may be located close to the Reception/ administration areas.

Secure storage areas for archived film may be remote to the Imaging Unit. Film storage areas must provide a suitable environment to protect films from deterioration and damage.

Staff Areas
Offices and Workstations
Offices and workstations may be provided for the Unit Manager, Senior Radiographer, Senior Radiologist and Nurse Manager of the Unit, located in a discreet staff accessible area. The number of offices required will be determined by the clinical service plan, dependent on the role and size of the unit.
Reporting Rooms
Picture Archiving Communications Systems (PACS) reporting areas will include Radiologist workstations for viewing and reporting on procedures using high resolution (LCD) monitors on which images can be manipulated. A minimum of two linked monitors are required, occasionally four screens are provided.

In addition to the reporting monitors, a dedicated computer will be required for access to the Patient Information System and a system for dictating reports.

Locate reporting areas in a quiet area with ready access to the imaging rooms. Several workstations may be located in one room but will need to be visually and acoustically separated.

The reporting area will require:
- Ergonomic design of the workstation to accommodate multiple monitors
- Adequate ventilation and temperature control to individual spaces to minimise risk of monitor failure
- Individual cubicle lighting (dimmable)
- Acoustic measures to ensure quality of voice recordings.

Staff Amenities Areas
Staff will need access to the following:
- Toilets, shower and lockers
- Staff room with beverage facilities
- Meeting room/s for meetings, education and training.

Functional Relationships

External
The Medical Imaging Unit should be located close to the Main Entrance of the facility and ideally situated at the ground level. Wayfinding to the Medical Imaging Unit should be easily identifiable by staff and visitors.

The location of the Medical Imaging Unit is variable. Consideration must be given to its proximity to Accident and Emergency, to the Operating Unit for intra-operative imaging and Radiotherapy/Oncology for regular patient investigations associated with treatment. The requirement for an Outpatient X-ray Service may also dictate where in the facility it is located. In most instances, a compromise between travelling distance for inpatients (minor role) and convenience for outpatients (major role) will be made.

Internal
Internally, the Medical Imaging Unit will be arranged in functional zones. The entrance to the unit will provide access control with a Reception. Imaging and scanning areas will be located in clusters along with related support facilities such as holding, sub-waiting areas and change rooms for patients. Support areas such as reporting and processing will be located conveniently to the imaging areas and may be shared. Staff areas may be located in a discreet and staff only accessible area.

The Medical Imaging Unit should have a clear one-way flow of patients from entry, holding, imaging procedures, to recovery and then exit, for both ambulant and bed/trolley patients.
Functional Relationship Diagram

Medical Imaging Unit - General

The key functional relationships are demonstrated in the diagram below.

Figure 1 Functional Relationship Diagram: Medical Imaging Unit
Medical Imaging Unit – General, Modular Option

Figure 2 Functional Relationship Diagram: Medical Imaging Unit – Modular Option with integrated Nuclear Medicine
The optimum external relationships include:
- Visitors access from a main circulation corridor with a relationship to the Main Entrance
- Separate entry and access for inpatients, critical care units and Medical Imaging Unit
- Access for service units such as Supply and Housekeeping via a service corridor.

The optimum internal relationships include the following:
- Reception at the entrance providing access control, with Waiting and amenities.
- Imaging areas arranged into zones including general X-Ray, Fluoroscopy, CT Scanning, Angiography and MRI
- Patient areas including bed bays and Recovery centrally located convenient to Interventional and Scanning Rooms for sharing between imaging modalities
- Support areas located centrally to imaging rooms and adjacent to areas of need for staff and patient convenience
- Staff areas located in a discreet zone at the Unit perimeter.

3 Design

Construction Standards

Special attention is to be given to the following in the design of a Medical Imaging Unit:
- Structural support for equipment including equipment mounted to ceilings
- Level floor for equipment positioning and safe patient movement
- Provision for cable support trays, ducts or conduits may be made in floors, walls, and ceilings and the impact on room space of large diameter electrical cable trays (to floors or surface mounted on walls)
- Equipment ventilation
- Procedure timing (clocks)
- Task lighting/dimming and room blackout, as required
- Ceiling heights shall suit the equipment to be installed, but shall not be less than 3000 mm for ceiling tube mount installations; ceilings may be higher if required
- A tiled ceiling may be considered for ease of installation, service, and remodelling.

Standards & Codes

Radiological facilities are to comply with relevant local legislation, regulations and statutory requirements.

Environmental Considerations

Acoustics

Acoustic privacy should be provided in all imaging rooms, interview rooms and particularly in reporting areas Acoustics

The design should provide acoustic performance according to the function of spaces being provided. Acoustic separation should be provided between Offices, Meeting Rooms, Interview Rooms and adjacent corridors to reduce transfer of noise between rooms and minimise conversations being audible outside the room. This is particularly relevant for teleconferencing and large meetings.

Additional acoustic privacy considerations include:
- Waiting areas should not be located close to Offices, Meeting and Interview Room/s
- Staff Room/s should not be located close to public and waiting areas.

Natural Light/ Lighting

Natural light is desirable for patient waiting areas, offices and staff recreation areas to provide a sense of wellbeing for patients and staff.
Provide indirect lighting in all examination rooms for patient comfort and dimmable lighting as required.

Ceiling mounted shadowless lighting is required in CT and Angiography imaging rooms.

Privacy

Visual patient privacy is an important consideration to be addressed in the design of imaging rooms and waiting spaces. Doors to imaging and screening rooms should be located to avoid patient exposure to circulation areas.

Interior Decor

Interior décor refers to colour, textures, surface finishes, fixtures, fittings, furnishings, artworks and atmosphere. It is desirable that these elements are combined to create a calming, non-threatening environment.

Colours should be used in combination with lighting to ensure that they do not mask skin colours in procedure and scanning rooms where clinical observation takes place.

**Space Standards and Components**

Accessibility

Wheelchair access is required in all patient areas including Waiting, Consult and Imaging rooms. Waiting areas should also include space and power outlets for charging electric mobility equipment along with suitable seating for patients with disabilities or mobility aids. Waiting and sub-waiting areas should include suitable seating and provisions for bariatric patients.

Doors

Special consideration should be given to the width and height of doorways to ensure delivery and removal of equipment is not impeded or prevented, and that patient trolley and bed movement is not hampered.

Doors through which trolleys and beds must pass should be a minimum of 1200 mm wide.

Ergonomics/ OH&S

Design of clinical spaces including imaging rooms, bed bays and recovery areas must consider Ergonomics and OH&S issues for patient and staff safety and welfare.

Refer to Part C – Access, Mobility, OH&S of these Guidelines for further information.

Size of the Unit

The size of the Medical Imaging Unit will be dependent on the level of service and will be determined by the facility’s Service Plan and Operational Policies. Schedules of Accommodation have been provided for typical Medical Imaging Units in a hospital at role delineation Levels 2 (less complex services) to 6 (teaching/research facilities).

Imaging Room/s

The size of imaging rooms will be influenced by the following:

- ease of movement in and around the room for patients, staff and equipment; bed and trolley access to all imaging room will be required
- the number of staff required in and around the room to operate the equipment and support the patient
- the equipment to be installed; design will need to consider the manufacturer’s recommended room sizes, equipment placement and services requirements
- potential future upgrading of equipment.
Safety and Security

Design should consider the following issues:

- Access control to the unit which may be provided at Reception
- Zones within the unit should be organised to allow patients to access the intended area only and prevent patients and visitors entering unrelated areas
- Doors to all offices and at the perimeters of the Unit should be lockable
- Rooms used for storing equipment and files and records should be lockable
- Meetings and functions scheduled after-hours requiring access by staff and visitors may involve special access arrangements.

Finishes

The Medical Imaging Unit ambience should provide a calm and inviting impression. Finishes should be selected with consideration of the following:

- Infection control and cleaning
- Acoustic properties of the materials
- Durability, replacement of materials
- Fire safety of the materials

Wall protection should be provided where bed or equipment movement occurs including corridors, bed bays and imaging rooms.

Refer also to Part C - Access Mobility, OH&S in these Guidelines for further information on floors and ceilings.

Fixtures, Fittings and Equipment

Equipment, furniture and fittings shall be designed and constructed to be safe, robust and meet the needs of a range of users.

Imaging equipment and the necessary services will require installation to the manufacturer’s recommendations and specifications.

Refer to Part C - Access Mobility, OH&S of these Guidelines, the Room Layout Sheets (RLS) and Room Data Sheets (RDS) for more information

Building Service Requirements

Communications

The Medical Imaging Unit requires reliable and effective IT / Communications service for efficient operation of the service. The IT design should address:

- Booking, appointment and queuing systems
- Patient/ clinical information systems and electronic records
- Telephones including cordless and mobile phones
- Computers, laptops and hand-held computers
- Duress alarms and paging master system for staff and emergencies
- Wireless and hospital network requirements, high capacity and speed for digital equipment
- Video-conferencing and tele-conferencing requirements, including connection to imaging rooms for educational purposes
- Communications and Server Room/s
- Reporting and recording systems that may include dictation or voice recognition and include printing of reports
- Picture Archiving Communications Systems (PACS).
Emergency/ Nurse Call
Patient and Emergency Call facilities shall be provided in all patient areas (e.g. Holding bays, Recovery bays, Preparation rooms, Change Rooms, Toilets and Imaging rooms) in order for patients and staff to request for urgent assistance.

The individual call buttons shall alert to an annunciator system. Annunciator panels should be located in strategic points visible from Staff Stations and audible in Staff Rooms and Meeting Rooms.

Heating, Ventilation and Air conditioning (HVAC)
The Medical Imaging Unit should be air-conditioned to provide a comfortable working environment for staff and visitors. Interventional Imaging rooms may require air-conditioning equivalent to operating room conditions, i.e. filtered and positive pressured. Rooms with heat generating equipment may require special air-conditioning. The local or country specific mechanical provision requirements should be consulted.

Medical gases
Medical gases will be included in general and interventional imaging rooms in accordance with standards components or project specific requirements.

Refer to the Standard Components, RDS and RLS of these guidelines and to Part E for additional information.

Radiation Shielding
All rooms that are used for undertaking imaging procedures require radiation shielding. A certified physicist or qualified expert will need to assess the plans and specifications for radiation protection as required by the relevant local radiation/nuclear safety authorities. A radiation protection assessment will specify the type, location and amount of radiation protection required for an area according to the final equipment selections, the layout of the space and the relationship between the space and other occupied areas.

The radiation protection requirements are to be incorporated into the final specifications and building plans. Radiation requirements should be re-assessed if the intended use of a room changes during the planning stages, equipment is upgraded or surrounding room occupancy is altered. Consideration should be given to the provision of floor and ceiling shielding when rooms immediately above and below are occupied.

Infection Control
Standard precautions apply to the Medical Imaging Unit to prevent cross infection between patients, staff and visitors. Paths of travel for inpatients should be separated from outpatients as far as possible. Hand hygiene is important and it is recommended that in addition to hand basins, medicated hand gel dispensers be located strategically in staff areas and circulation corridors.

Consideration should be given to separate clean and dirty workflows in all imaging/ procedure, preparation and clean-up rooms.

Hand Basins
Hand basins will be located in each imaging/ procedure room, patient holding, recovery areas as well as clinical support rooms including clean and dirty utilities. In holding and recovery areas the minimum provision is one hand basin per 4 bed or chair bays.

Interventional imaging rooms such as Angiography may have an adjoining scrub facility.

Hand basins should comply with Standard Components for Bay - Handwashing. Refer to the Standard Components, RDS and RLS of these guidelines for additional information.

For further information related to Infection Control refer to Part D – Infection Control in these Guidelines.
4 Components of the Unit

Standard Components
The Medical Imaging Unit will contain Standard Components to comply with details in the Standard Components described in these Guidelines. Refer to Standard Components Room Data Sheets and Room Layout Sheets.

Non Standard Components
Non Standard rooms are identified in the Schedules of Accommodation as NS and are described below.

Orthopantomography (OPG) Room
The OPG imaging unit may be located in a room or bay. The room size will be dependent on the equipment to be installed; circulation space will be required around the imaging unit. Access will be required for patients in wheelchairs.

Room requirements will include:
- Radiation shielding of the space with access to lead gowns for the patient and staff
- Radiation warning light
- Patient and emergency call system
- A handbasin in close proximity.
## Schedule of Accommodation – Medical Imaging Unit - General

The following Schedule of accommodation is provided for RDL 2 to 6 including typical imaging specialties; the inclusion of imaging specialties in health facilities will be dependent on the operational policy of the facility:

<p>| ROOM/SPACE                     | Standard Component | RDL 2 Qty x m² | RDL 3 Qty x m² | RDL 4 Qty x m² | RDL 5 Qty x m² | RDL 6 Qty x m² | Remarks                                                                 |
|--------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|------------------------------------------------|--------------------------|
| Entry / Reception              |                    |                |                |                |                |                |                                                            |                          |
| Reception/ Clerical            | RECL-9-I RECL-12-I RECL-15-I | 1 x 9          | 1 x 12         | 1 x 15         | 1, 2 &amp; 3 staff. |                                                            |                          |
| Waiting                        | WAT-10-I WAT-15-I WAT-20-I | 2 x 15         | 2 x 20         | 2 x 25         | Public. May be divided into gender segregated areas. 1.2sqm per seat, 1.5sqm with chair. |                          |
| Bay – Drinking Fountain, 1m²   | BMF-1-I            | 2 x 1          | 2 x 1          | 2 x 1          |                                                            |                          |
| Bay – Vending Machines         | BVM-3-I BVM-5-I    | 1 x 3          | 1 x 3          | 1 x 3          | Optional                                                |                          |
| Bay – Wheelchair               | BMCH-I             | 1 x 4          | 2 x 4          | 2 x 4          | 3 x 4                                                    |                          |
| Consul/ Exam Room              | CONS               | 1 x 12         | 1 x 12         | 2 x 12         | 2 x 12 Number dependent on volumes and patient requirements |                          |
| Office -Shared                 | OFF-3P-I OFF-3P-I OFF-4P-I | 1 x 9          | 1 x 15         | 1 x 20         | 1 x 20 Clerical/ bookings; 2, 3 or 4 person shared office. |                          |
| Office – Workstation           | OFF-WS-I           | 1 x 15         | 1 x 15         | 1 x 20         | 1 x 20 Transport Staff. May be located adjacent to trolley parking |                          |
| Play Area                      | PLAP-10-I PLAP-15-I PLAP-20-I | 1 x 10         | 1 x 10         | 1 x 10         | 1 x 10 Adjacent to Family waiting 4-5 places for children. |                          |
| Toilet – Accessible, 6m²       | WCAC-I             | 2 x 6          | 2 x 6          | 2 x 6          | May be divided into gender segregated areas. |                          |
| Toilet – Public, 3m²           | WCPU-3-I           | 2 x 3          | 2 x 3          | 2 x 3          | May be divided into gender segregated areas. |                          |
| General X-ray &amp; Fluoroscopy (Screening) | GENXR-I | 1 x 35        | 1 x 35         | 2 x 35         | 3 x 35         | 4 x 35         | Includes control area; qty of rooms to suit service plan. |                          |
| Screening Room (Fluoroscopy)   | SCRHN              | 1 x 36         | 1 x 36         | 1 x 36         | 2 x 36 Optional. For both vascular and Non-vascular procedures |                          |
| Interventional Screening Room (Fluoroscopy) | SCRHN (similar) | 1 x 45         | 1 x 45         | 1 x 45         | 2 x 45 Optional. For both vascular and Non-vascular procedures |                          |
| Bay – Handwashing, Type B      | BMHS-B-I           | 1 x 1          | 1 x 1          | 1 x 1          | 1 x 1          | 1 x 1          | For patient bed bay areas |                          |
| Bay - PPE                      | BPPE-I             | 1 x 1.5        | 1 x 1.5        | 1 x 1.5        | 2 x 1.5        | 2 x 1.5        | For Lead Apron storage |                          |
| Bay - Linen                    | BLIN-1             | 1 x 2          | 1 x 2          | 1 x 2          | 1 x 2          | 1 x 2          |                                                                            |                          |
| Bay – Resuscitation Trolley    | BRES-I             | 1 x 1.5        | 1 x 1.5        | 1 x 1.5        | 1 x 1.5        | 1 x 1.5        |                                                            |                          |
| Change Cubicle – Patient       | CHPT-I             | 2 x 2          | 3 x 2          | 4 x 2          | 4 x 2          | 4 x 2          | May be divided into gender segregated areas. |                          |
| Change Cubicle – Accessible    | CHPT-D-I           | 2 x 4          | 3 x 4          | 4 x 4          | 4 x 4          | 4 x 4          | May be divided into gender segregated areas. |                          |
| Clean Utility                  | CLUR-8-I CLUR-12-I | 1 x 8          | 1 x 12         | 1 x 12         | 1 x 12         | 1 x 12         | May be shared |                          |
| Dirty Utility                  | DTUR-10-I          | 1 x 10         | 1 x 10         | 1 x 10         | 1 x 10         | 1 x 10         | Disposal, clean-up, dirty linen storage; may be shared |                          |
| Patient Bay – Holding, 10m²    | PBTR-H-10-I        | 2 x 10         | 4 x 10         | 4 x 10         | 4 x 10         | 4 x 10         | May be divided into gender segregated areas. |</p>
<table>
<thead>
<tr>
<th>ROOM / SPACE</th>
<th>Standard Component Room Codes</th>
<th>RDL 2 Qty x m²</th>
<th>RDL 3 Qty x m²</th>
<th>RDL 4 Qty x m²</th>
<th>RDL 5 Qty x m²</th>
<th>RDL 6 Qty x m²</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation/ Set-up Room (Imaging)</td>
<td>PREP-S-I</td>
<td>1 x 9</td>
<td>1 x 9</td>
<td>1 x 9</td>
<td>1 x 9</td>
<td>For contrast media storage and preparation</td>
<td></td>
</tr>
<tr>
<td>Property Bay</td>
<td>PROP-2-I PROP-6-I similar</td>
<td>2 x 2</td>
<td>2 x 2</td>
<td>2 x 2</td>
<td>2 x 2</td>
<td>Optional; patient lockers. Separate Male/ Female areas.</td>
<td></td>
</tr>
<tr>
<td>Waiting</td>
<td>WANT-SUB-I WANT-10-I</td>
<td>2 x 5</td>
<td>2 x 5</td>
<td>2 x 10</td>
<td>2 x 10</td>
<td>Optional for level-2 &amp; 3. May be divided into gender segregated areas.</td>
<td></td>
</tr>
<tr>
<td>Shower – Patient - Accessible</td>
<td>SHD-I</td>
<td>2 x 4</td>
<td>2 x 4</td>
<td>2 x 4</td>
<td>2 x 4</td>
<td>Optional. May be divided into gender segregated areas.</td>
<td></td>
</tr>
<tr>
<td>Toilet – Patient</td>
<td>WCPT-I</td>
<td>1 x 4</td>
<td>1 x 4</td>
<td>1 x 4</td>
<td>1 x 4</td>
<td>May be divided into gender segregated areas.</td>
<td></td>
</tr>
<tr>
<td>Toilet – Accessible</td>
<td>WCAC-I</td>
<td>1 x 6</td>
<td>1 x 6</td>
<td>1 x 6</td>
<td>2 x 6</td>
<td>May be divided into gender segregated areas.</td>
<td></td>
</tr>
<tr>
<td>Dental/Oral Radiology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPG Room</td>
<td>N/S</td>
<td>1 x 7</td>
<td>Room area depends on equipment selected</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay - PPE</td>
<td>BPPE-I</td>
<td>1 x 1.5</td>
<td>Lead aprons, adjacent to imaging rooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waiting</td>
<td>WANT-SUB-I</td>
<td>1 x 5</td>
<td>May be shared with adjacent imaging areas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.T Scanning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.T Scanning – Procedure Room</td>
<td>CTPR-I</td>
<td>1 x 45</td>
<td>2 x 45</td>
<td>2 x 45</td>
<td>Room size is dependent on equipment selected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.T Scanning – Control Room</td>
<td>ANCRT-I similar</td>
<td>1 x 14</td>
<td>1 x 20</td>
<td>1 x 24</td>
<td>May be shared between 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.T Computer Equipment Room</td>
<td>COEQ-I</td>
<td>1 x 8</td>
<td>2 x 8</td>
<td>2 x 8</td>
<td>Room size dependent on equipment selected.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.T Scanning – Reporting Room</td>
<td>XARR-I similar</td>
<td>1 x 9</td>
<td>1 x 9</td>
<td>1 x 9</td>
<td>One workstation/2 scanning rooms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waiting</td>
<td>WANT-SUB-I WANT-10-I</td>
<td>2 x 5</td>
<td>2 x 10</td>
<td>2 x 10</td>
<td>May be divided into gender segregated areas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Bay – Holding, 10m²</td>
<td>PBTR-H-10-I</td>
<td>2 x 10</td>
<td>2 x 10</td>
<td>2 x 10</td>
<td>1 outside each scanning room. May be divided into gender segregated areas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay – Handwashing, Type B</td>
<td>BHS-B-I</td>
<td>1 x 1</td>
<td>1 x 1</td>
<td>1 x 1</td>
<td>1 per 4 bed bays. Refer to Part D Infection Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay – Linen</td>
<td>BLIN-I</td>
<td>1 x 2</td>
<td>1 x 2</td>
<td>1 x 2</td>
<td>May be shared</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay - PPE</td>
<td>BPPE-I</td>
<td>1 x 1.5</td>
<td>1 x 1.5</td>
<td>2 x 1.5</td>
<td>For Lead Apron storage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay – Resuscitation Trolley</td>
<td>BRES-I</td>
<td>1 x 1.5</td>
<td>1 x 1.5</td>
<td>1 x 1.5</td>
<td>May be shared if located in close proximity to another unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change Cubicle – Accessible, 4m²</td>
<td>CHPT-D-I</td>
<td>1 x 4</td>
<td>1 x 4</td>
<td>1 x 4</td>
<td>May be divided into gender segregated areas. 1 cubicle per scanning room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change Cubicle – Patient</td>
<td>CHPT-I CHPT-12-I</td>
<td>1 x 2</td>
<td>1 x 2</td>
<td>1 x 2</td>
<td>May be divided into gender segregated areas. 1 cubicle per scanning room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean Utility</td>
<td>CLUR-S-I CLUR-12-I</td>
<td>1 x 8</td>
<td>1 x 12</td>
<td>1 x 12</td>
<td>May be shared</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dirty Utility</td>
<td>DTUR-S-I DTUR-12-I</td>
<td>1 x 8</td>
<td>1 x 12</td>
<td>1 x 12</td>
<td>May be shared</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office – Workstation</td>
<td>OFF-WS-I</td>
<td>1 x 5.5</td>
<td>1 x 5.5</td>
<td>1 x 5.5</td>
<td>Optional, staff base</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property Bay, 2m²</td>
<td>PROP-2-I</td>
<td>1 x 2</td>
<td>1 x 2</td>
<td>1 x 2</td>
<td>May be shared</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scrub-Up/ Gowning, 6m²</td>
<td>SCRIB-6-I</td>
<td>1 x 6</td>
<td>1 x 6</td>
<td>2 x 6</td>
<td>May be shared</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toilet – Patient</td>
<td>WCPT-I</td>
<td>2 x 4</td>
<td>2 x 4</td>
<td>2 x 4</td>
<td>May be divided into gender segregated areas; may share amenities with adjacent imaging areas.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Ultrasound & Mammography

<table>
<thead>
<tr>
<th>ROOM/SPACE</th>
<th>Standard Component</th>
<th>RDL 2</th>
<th>RDL 3</th>
<th>RDL 4</th>
<th>RDL 5</th>
<th>RDL 6</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultrasound</td>
<td>ULTR-I</td>
<td>1 x 14</td>
<td>2 x 14</td>
<td>4 x 14</td>
<td>6 x 14</td>
<td>For general and obstetrics</td>
<td></td>
</tr>
<tr>
<td>Ultrasound – Paediatric</td>
<td>ULTR-I similar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td>Ultrasound - Interventional</td>
<td>PROC-20-I similar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>For Interventional ultrasound procedures</td>
<td></td>
</tr>
<tr>
<td>Mammography</td>
<td>MAMMO-I</td>
<td>1 x 16</td>
<td>2 x 16</td>
<td>3 x 16</td>
<td></td>
<td>For Symptomatic and Needle biopsy procedures</td>
<td></td>
</tr>
<tr>
<td>Mammography - Interventional</td>
<td>MAM-INT-I</td>
<td>1 x 16</td>
<td>2 x 16</td>
<td>3 x 16</td>
<td></td>
<td>May be shared. May be divided into gender segregated areas.</td>
<td></td>
</tr>
<tr>
<td>Patient Bay – Holding, 10m²</td>
<td>PBTR-H-10-I</td>
<td>2 x 10</td>
<td>4 x 10</td>
<td>4 x 10</td>
<td></td>
<td>May be shared if located in close proximity to another unit</td>
<td></td>
</tr>
<tr>
<td>Bay – Handwashing, Type B</td>
<td>BHMS-B-I</td>
<td>1 x 1</td>
<td>1 x 1</td>
<td>1 x 1</td>
<td>1 x 1</td>
<td>1 per 4 bed bays. Refer to Part D Infection Control</td>
<td></td>
</tr>
<tr>
<td>Bay – Linen</td>
<td>BLIN-I</td>
<td>1 x 2</td>
<td>1 x 2</td>
<td>1 x 2</td>
<td>1 x 2</td>
<td>May be shared with adjacent area</td>
<td></td>
</tr>
<tr>
<td>Bay – Resuscitation Trolley</td>
<td>BRES-I</td>
<td>1 x 1</td>
<td>1 x 1</td>
<td>1 x 1</td>
<td>1 x 1</td>
<td>May be shared if located in close proximity to another unit</td>
<td></td>
</tr>
<tr>
<td>Change Cubicle – Patient</td>
<td>CHPT-I, CHPT-12-I</td>
<td>1 x 4</td>
<td>1 x 2</td>
<td>2 x 2</td>
<td>4 x 2</td>
<td>Total of 1 per Ultrasound or Mammography room</td>
<td></td>
</tr>
<tr>
<td>Change Cubicle – Accessible</td>
<td>CHPT-D-I</td>
<td>1 x 4</td>
<td>1 x 4</td>
<td>2 x 4</td>
<td>2 x 4</td>
<td>Total of 1 per Ultrasound or Mammography room</td>
<td></td>
</tr>
<tr>
<td>Clean Utility</td>
<td>CLUR-I</td>
<td>1 x 8</td>
<td>1 x 8</td>
<td>1 x 8</td>
<td></td>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td>Dirty Utility</td>
<td>DTUR-S-I</td>
<td>1 x 8</td>
<td>1 x 8</td>
<td>1 x 8</td>
<td></td>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td>Office – Workstation</td>
<td>OFF-WS-I</td>
<td>1 x 5.5</td>
<td>1 x 5.5</td>
<td>1 x 5.5</td>
<td>1 x 5.5</td>
<td>For Sonographers</td>
<td></td>
</tr>
<tr>
<td>Processing</td>
<td>DPRP-I similar</td>
<td>1 x 6</td>
<td>1 x 6</td>
<td>1 x 6</td>
<td>1 x 10</td>
<td>For Mammography</td>
<td></td>
</tr>
<tr>
<td>Property Bay</td>
<td>PROP-2-I, PROP-6-I similar</td>
<td>2 x 4</td>
<td>2 x 8</td>
<td>2 x 8</td>
<td></td>
<td>For patient lockers. May be divided into gender segregated areas.</td>
<td></td>
</tr>
<tr>
<td>Toilet – Patient</td>
<td>WCPT-I</td>
<td>1 x 4</td>
<td>3 x 4</td>
<td>4 x 4</td>
<td></td>
<td>For Ultrasound. Within ultrasound room</td>
<td></td>
</tr>
<tr>
<td>Toilet – Accessible</td>
<td>WCAC-I</td>
<td>2 x 6</td>
<td>1 x 6</td>
<td>1 x 6</td>
<td>2 x 6</td>
<td>Patient. May be divided into gender segregated areas.</td>
<td></td>
</tr>
<tr>
<td>Waiting</td>
<td>WATT-SUB-I, WATT-10-I</td>
<td>2 x 5</td>
<td>2 x 5</td>
<td>2 x 10</td>
<td>2 x 10</td>
<td>May be divided into gender segregated areas.</td>
<td></td>
</tr>
<tr>
<td>Viewing and Reporting Room</td>
<td>XRRR similar</td>
<td>1 x 12</td>
<td>1 x 12</td>
<td>1 x 12</td>
<td>1 x 12</td>
<td>Adjust size to suit service plan.</td>
<td></td>
</tr>
<tr>
<td><strong>Angiography/ Digital Subtraction Angiography (DSA)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angiography Procedure Room</td>
<td>ANFR-I similar</td>
<td>1 x 55</td>
<td>2 x 55</td>
<td>3 x 55</td>
<td></td>
<td>Number of rooms to suit service plan.</td>
<td></td>
</tr>
<tr>
<td>Angiography Control/ Reporting Room</td>
<td>ANORT-I</td>
<td>1 x 14</td>
<td>1 x 14</td>
<td>1 x 14</td>
<td></td>
<td>May be shared between rooms</td>
<td></td>
</tr>
<tr>
<td>Computer Equipment Room</td>
<td>COEQ-I</td>
<td>1 x 8</td>
<td>2 x 8</td>
<td>3 x 8</td>
<td>1 per Angiography room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anaesthetic Induction Room</td>
<td>ANIN-I</td>
<td>1 x 15</td>
<td>1 x 15</td>
<td>1 x 15</td>
<td></td>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td>Bay – Linen</td>
<td>BLIN-I</td>
<td>1 x 2</td>
<td>1 x 2</td>
<td>1 x 2</td>
<td>1 x 2</td>
<td>May be shared</td>
<td></td>
</tr>
<tr>
<td>Bay – PPE (Personal Protective Equipment)</td>
<td>BPPE-I</td>
<td>1 x 1.5</td>
<td>1 x 1.5</td>
<td>1 x 1.5</td>
<td>1 x 1.5</td>
<td>For Lead Apron</td>
<td></td>
</tr>
<tr>
<td>Bay – Resuscitation Trolley</td>
<td>BRES-I</td>
<td>1 x 1.5</td>
<td>1 x 1.5</td>
<td>1 x 1.5</td>
<td></td>
<td>May be shared if located in close proximity to another unit</td>
<td></td>
</tr>
<tr>
<td>Change Cubicle – Patient</td>
<td>CHPT-I, CHPT-12-I</td>
<td>1 x 2</td>
<td>2 x 2</td>
<td>4 x 2</td>
<td></td>
<td>May be divided into gender segregated areas.</td>
<td></td>
</tr>
<tr>
<td>ROOM/SPACE</td>
<td>Standard Component</td>
<td>RDL 2</td>
<td>RDL 3</td>
<td>RDL 4</td>
<td>RDL 5</td>
<td>RDL 6</td>
<td>Remarks</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>--------------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Change Cubicle – Accessible</td>
<td>CHPT-D-I</td>
<td>2 x 4</td>
<td>4 x 4</td>
<td>4 x 4</td>
<td>4 x 4</td>
<td>Patient. May be divided into gender segregated areas.</td>
<td></td>
</tr>
<tr>
<td>Clean Utility</td>
<td>CLUR-8-I CLUR-12-I</td>
<td>1 x 8</td>
<td>1 x 12</td>
<td>1 x 12</td>
<td>1 x 12</td>
<td>May be shared</td>
<td></td>
</tr>
<tr>
<td>Dirty Utility</td>
<td>DTUR-S-I DTUR-12-I</td>
<td>1 x 8</td>
<td>1 x 12</td>
<td>1 x 12</td>
<td>1 x 12</td>
<td>May be shared</td>
<td></td>
</tr>
<tr>
<td>Patient Bay – Holding, 10m²</td>
<td>PBTR-H-10-I</td>
<td>1 x 9</td>
<td>1 x 9</td>
<td>1 x 9</td>
<td>Refer to Holding/Recovery Areas for patient bays.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparation/ Set-Up Room (Imaging)</td>
<td>PREP-S-I</td>
<td>1 x 4</td>
<td>2 x 8</td>
<td>2 x 8</td>
<td>For patients; may be divided into gender segregated areas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property Bay</td>
<td>PROP-2-I PROP-6-I similar</td>
<td>2 x 4</td>
<td>2 x 8</td>
<td>2 x 8</td>
<td>For patients; may be divided into gender segregated areas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scrub-Up/ Gowning</td>
<td>SCRUB-6-I</td>
<td>1 x 6</td>
<td>1 x 6</td>
<td>1 x 6</td>
<td>May be shared.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Store – Sterile Stock</td>
<td>STSS-12-I STSS-24-I</td>
<td>1 x 12</td>
<td>1 x 18</td>
<td>1 x 24</td>
<td>May be shared.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toilet – Patient</td>
<td>WCPT-I</td>
<td>1 x 4</td>
<td>2 x 4</td>
<td>2 x 4</td>
<td>Within Angiography Suite.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toilet – Accessible</td>
<td>WCAC-I</td>
<td>1 x 6</td>
<td>1 x 6</td>
<td>1 x 6</td>
<td>Patient. May be divided into gender segregated areas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waiting</td>
<td>WAIT-SUB-I WAIT-10-I</td>
<td>2 x 5</td>
<td>2 x 10</td>
<td>2 x 10</td>
<td>May be divided into gender segregated areas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-Ray Viewing and Reporting</td>
<td>XRRR-I</td>
<td>1 x 12</td>
<td>1 x 12</td>
<td>1 x 12</td>
<td>May be combined with Control room.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MRI**

<table>
<thead>
<tr>
<th>ROOM/SPACE</th>
<th>Standard Component</th>
<th>RDL 2</th>
<th>RDL 3</th>
<th>RDL 4</th>
<th>RDL 5</th>
<th>RDL 6</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI Scanning Room</td>
<td>MRRR-5C-42-I</td>
<td>2 x 42</td>
<td>Room size dependant on equipment selected</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRI Computer Equipment Room</td>
<td>COEQ-8-I similar</td>
<td>2 x 8</td>
<td>MRL requirements as per manufacturers specifications</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRI Control/ Reporting Room, 14m²</td>
<td>AOCR-14-I similar</td>
<td>2 x 14</td>
<td>Shared between 2 MRI rooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anaesthetic Induction Room</td>
<td>AINH-I</td>
<td>1 x 15</td>
<td>Optional</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viewing and Reporting Room</td>
<td>XRRR-12-I similar</td>
<td>1 x 12</td>
<td>May be combined with Control Room.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Bay - Holding, 10m²</td>
<td>PBTR-H-10-I</td>
<td>2 x 10</td>
<td>May be shared. May be divided into gender segregated areas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay – Handwashing, Type A</td>
<td>BHMPS-A-I</td>
<td>2 x 1</td>
<td>1 per MRI room, in close proximity to MRI rooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay – Linen</td>
<td>BLINH-I</td>
<td>1 x 2</td>
<td>May be shared.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay – Resuscitation Trolley</td>
<td>BRES-I</td>
<td>1 x 1.5</td>
<td>May be shared if located in close proximity to another unit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change Cubicle – Accessible</td>
<td>CHPT-D-I</td>
<td>2 x 4</td>
<td>May be divided into gender segregated areas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean Utility</td>
<td>CLUR-8-I CLUR-12-I</td>
<td>1 x 12</td>
<td>May be shared.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dirty Utility</td>
<td>DTUR-S-I DTUR-12-I</td>
<td>1 x 12</td>
<td>May be shared.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property Bay</td>
<td>PROP-2-I</td>
<td>4 x 2</td>
<td>Patient lockers. May be divided into gender segregated areas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Store - Dewar Tank</td>
<td>N/S</td>
<td>1 x 6</td>
<td>As required, accessible to MRI rooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Store – Files, 8m²</td>
<td>STFS-8-I</td>
<td>1 x 8</td>
<td>Optional</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toilet – Accessible</td>
<td>WCAC-I</td>
<td>2 x 6</td>
<td>Patient. May be divided into gender segregated areas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waiting – Sub</td>
<td>WAIT-SUB-I</td>
<td>2 x 5</td>
<td>May be divided into gender segregated areas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Patient Holding/ Recovery Areas**
<table>
<thead>
<tr>
<th>ROOM / SPACE</th>
<th>Standard Component Room Codes</th>
<th>Qty x m²</th>
<th>Qty x m²</th>
<th>Qty x m²</th>
<th>Qty x m²</th>
<th>Qty x m²</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Bay – Holding, 10m²</td>
<td>PBTR-H-10-I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4 x 10 6 x 10 8 x 10 Holding/ recovery. 2 Bays per interventional imaging room; May be divided into gender segregated areas.</td>
</tr>
<tr>
<td>Staff Station</td>
<td>SSTN-10-I SSTN-14-I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 x 10 1 x 10 1 x 14</td>
</tr>
<tr>
<td>Bay – Beverage</td>
<td>BEVE-OP-I</td>
<td>1 x 4</td>
<td>1 x 4</td>
<td>1 x 4</td>
<td>1 x 4</td>
<td></td>
<td>Optional</td>
</tr>
<tr>
<td>Bay – Handwashing, Type B</td>
<td>BHW-8-I</td>
<td>1 x 1</td>
<td>2 x 1</td>
<td>2 x 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay – Linen</td>
<td>BLIN-I</td>
<td>1 x 2</td>
<td>1 x 2</td>
<td>2 x 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay – Resuscitation Trolley</td>
<td>BRES-I</td>
<td>1 x 1.5</td>
<td>1 x 1.5</td>
<td>1 x 1.5</td>
<td></td>
<td></td>
<td>May be shared if located close to another trolley</td>
</tr>
<tr>
<td>Consult Room</td>
<td>CONS-I</td>
<td>1 x 12</td>
<td></td>
<td>2 x 12</td>
<td></td>
<td></td>
<td>Optional</td>
</tr>
<tr>
<td>Clean Utility, 12m²</td>
<td>CLUR-S-I CLUR-10-I CLUR-12-I</td>
<td>1 x 8</td>
<td>1 x 10</td>
<td>1 x 12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dirty Utility</td>
<td>DTUR-S-I DTUR-10-I DTUR-12-I</td>
<td>1 x 8</td>
<td>1 x 10</td>
<td>1 x 12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disposal Room, 8m²</td>
<td>DISP-8-I DISP-10-I</td>
<td>1 x 8</td>
<td>1 x 8</td>
<td>1 x 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Store – Equipment, 10m²</td>
<td>STEQ-10-I</td>
<td>1 x 10</td>
<td>1 x 10</td>
<td>2 x 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support Areas - Shared</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay – Mobile Equipment</td>
<td>BMEQ-4-I BMEQ-6-I</td>
<td>1 x 4</td>
<td>1 x 6</td>
<td>2 x 6</td>
<td>2 x 6</td>
<td></td>
<td>Depends on facility requirement</td>
</tr>
<tr>
<td>Cleaner’s Room, 5m²</td>
<td>CLR-5-I</td>
<td>1 x 5</td>
<td></td>
<td>1 x 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communications Room</td>
<td>COMM-12-I COMM-20-I similar</td>
<td>1 x 10</td>
<td>1 x 12</td>
<td>1 x 20</td>
<td>1 x 30</td>
<td></td>
<td>For PACS Server. Size determined by Operational Policy</td>
</tr>
<tr>
<td>Dark Room</td>
<td>DARK-I</td>
<td>1 x 6</td>
<td>1 x 6</td>
<td>1 x 6</td>
<td>1 x 6</td>
<td></td>
<td>Optional</td>
</tr>
<tr>
<td>Digital Processing</td>
<td>DPRD-I similar</td>
<td>1 x 16</td>
<td>1 x 24</td>
<td>1 x 30</td>
<td>1 x 40</td>
<td></td>
<td>Digital processing/ printing. As required by service plan</td>
</tr>
<tr>
<td>Disposal Room, 8m²</td>
<td>DISP-8-I shared</td>
<td>1 x 8</td>
<td>1 x 8</td>
<td>1 x 8</td>
<td></td>
<td></td>
<td>Optional. Depends on facility &amp; digital imaging requirements</td>
</tr>
<tr>
<td>Store – Current Film</td>
<td>STFS-20-I similar</td>
<td>1 x 30</td>
<td>1 x 50</td>
<td>1 x 70</td>
<td>1 x 100</td>
<td></td>
<td>Films/ CDs/ Discs. Size determined by Operational Policy</td>
</tr>
<tr>
<td>Store – Files</td>
<td>STFS-8-I STFS-20-I</td>
<td>1 x 8</td>
<td>1 x 8</td>
<td>1 x 12</td>
<td>1 x 16</td>
<td>1 x 20</td>
<td></td>
</tr>
<tr>
<td>Store – General</td>
<td>STGN-9-I</td>
<td>1 x 9</td>
<td>1 x 9</td>
<td>1 x 12</td>
<td>1 x 12</td>
<td>1 x 16</td>
<td></td>
</tr>
<tr>
<td>Store – Photocopy/ Stationery, 8m²</td>
<td>STPS-8-I</td>
<td>1 x 8</td>
<td>1 x 8</td>
<td>1 x 8</td>
<td></td>
<td></td>
<td>Laser Printing/ Digitiser; may be included in work space for radiographers.</td>
</tr>
<tr>
<td>Staff Offices &amp; Reporting Areas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office – Single Person, 12m²</td>
<td>OFF-S12-I</td>
<td>1 x 12</td>
<td>1 x 12</td>
<td>1 x 12</td>
<td></td>
<td></td>
<td>Director</td>
</tr>
<tr>
<td>Office – Single Person, 9m²</td>
<td>OFF-S9-I</td>
<td>1 x 9</td>
<td>1 x 9</td>
<td>2 x 9</td>
<td></td>
<td></td>
<td>Radiologists</td>
</tr>
<tr>
<td>Office – Single Person, 9m²</td>
<td>OFF-S9-I</td>
<td>1 x 9</td>
<td>1 x 9</td>
<td>2 x 9</td>
<td></td>
<td></td>
<td>Radiographers</td>
</tr>
<tr>
<td>Office – Single Person, 9m²</td>
<td>OFF-S9-I</td>
<td>1 x 9</td>
<td>1 x 9</td>
<td>2 x 9</td>
<td></td>
<td></td>
<td>Nurse Manager/ Supervisor</td>
</tr>
<tr>
<td>Office – Shared</td>
<td>OFF-2P-I OFF-3P-I</td>
<td>1 x 12</td>
<td>1 x 15</td>
<td>1 x 15</td>
<td></td>
<td></td>
<td>PACS Operation Management. 2-3 person; see Notes</td>
</tr>
<tr>
<td>Office – Shared</td>
<td>OFF-2P-I OFF-3P-I OFF-4P-I</td>
<td>1 x 12</td>
<td>1 x 16</td>
<td>1 x 20</td>
<td></td>
<td></td>
<td>2, 3 &amp; 4 person shared areas. May be used as a film study/ library room; as required by operational policy</td>
</tr>
<tr>
<td>Office - Workstation</td>
<td>OFF-WS-I</td>
<td>2 x 5.5</td>
<td>4 x 5.5</td>
<td>6 x 5.5</td>
<td></td>
<td></td>
<td>General imaging staff</td>
</tr>
<tr>
<td>ROOM/ SPACE</td>
<td>Standard Component Room Codes</td>
<td>RDL 2 Qty x m²</td>
<td>RDL 3 Qty x m²</td>
<td>RDL 4 Qty x m²</td>
<td>RDL 5 Qty x m²</td>
<td>RDL 6 Qty x m²</td>
<td>Remarks</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Office - Workstation</td>
<td>OFF-WS-I</td>
<td>2 x 5.5</td>
<td>4 x 5.5</td>
<td>6 x 5.5</td>
<td>Picture Archiving Comms Systems (PACS) Reporting. Qty will depend on service plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change – Staff (Male/ Female), 14m²</td>
<td>CHST-14-I</td>
<td>2 x 14</td>
<td>2 x 14</td>
<td>2 x 14</td>
<td>May be divided into gender segregated areas. Includes showers/ toilets/ lockers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meeting Room Canterbury</td>
<td>MEET-9-I MEET-12-I</td>
<td>1 x 9</td>
<td>1 x 9</td>
<td>1 x 12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meeting Room Medium/ Large</td>
<td>MEET-L-15-I MEET-L-20-I</td>
<td>1 x 15</td>
<td>1 x 15</td>
<td>2 x 20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Store – Photocopy/ Stationary</td>
<td>STPS-8-I STPS-10-I</td>
<td>1 x 8</td>
<td>1 x 8</td>
<td>1 x 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Room</td>
<td>SRM-15-I SRM-20-I</td>
<td>1 x 15</td>
<td>1 x 20</td>
<td>1 x 20</td>
<td>May be divided into gender segregated areas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub Total</td>
<td></td>
<td>77.5</td>
<td>385.0</td>
<td>1290.5</td>
<td>1833.5</td>
<td>2661.5</td>
<td></td>
</tr>
<tr>
<td>Circulation %</td>
<td></td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Area Total</td>
<td></td>
<td>104.6</td>
<td>519.8</td>
<td>1742.2</td>
<td>2566.9</td>
<td>3726.1</td>
<td></td>
</tr>
</tbody>
</table>

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

Imaging is widely used as an essential adjunct to clinical assessment for diagnosis and staging of human disease, and increasingly in the design of appropriate therapies and then monitoring response to these treatments and has been described as one of the fastest growing healthcare sectors in the developed world. Medical liability considerations also weigh heavily in many decisions by physicians to utilize medical imaging if clinically warranted.

It is expected that radiation dosages will continue to drop and utilization of imaging services will become more efficient, with fewer healthcare resources wasted. With the Internet, borders have blurred between the concepts of information and communication systems, making access to data and distribution of information faster and more efficient. Mobile and wearable media will accelerate these trends.

New energy sources—magnetic, radiofrequency, sonic, optical and nuclear—combined with fast, dynamic, digital methods of applying and recording them, will continue to add dozens of parameters to the imaging toolkit. Future images will be photo realistic; using all the sources of data combined, enhanced using interactive rendering with additional details, and available remotely at the desktop.

Future new technologies (e.g., molecular imaging) could yield rapid utilization changes if these provide the clinical value that has been attributed to traditional advanced imaging during its recent boom.

7 Further Reading

- Agency for Science, Technology and Research, Clinical Imaging Research Centre, Singapore, Professor David W. Townsend, PhD, FRCR (Hon) Director, lecture: Future Trends in Medical Imaging refer to website: http://infieri-network.eu/sites/default/files/users/user270/DT_INFIERI_Lecture_Final.pdf
- University of Oxford, Department of Physics, Future Trends in Medical Imaging 2016; refer to website: https://www2.physics.ox.ac.uk/events/2013/07/10/future-trends-in-medical-imaging
The International Health Facility Guidelines recommends the use of HFBS “Health Facility Briefing System” to edit all room data sheet information for your project.

HFBS provides edit access to all iHFG standard rooms, and departments, and more than 100 custom report templates.

The Health Facility Briefing System (HFBS) has numerous modules available via annual subscription. It suits healthcare Architects, Medical Planners, Equipment Planners Project Managers and Health Authorities.

Use the HFBS Briefing Module to quickly drag in health facility departments or pre-configured room templates from the iHFG standard, edit the room features such as finishes, furniture, fittings, fixtures, medical equipment, engineering services. The system can print or download as PDF more than 100 custom reports including room data sheets, schedules, and more...

To learn more about the HFBS web-based Healthcare Briefing and Design Software and to obtain editable versions of the “Standard Components” including Room Data Sheets (RDS) and Room Layout Sheets (RLS) offered on the iHFG website, signup for HFBS using the link below.

Get Started Now: hfbs.healthdesign.com.au

- iHFG Room Data Sheets and Departments are instantly editable in the HFBS software available online.
- You can access hundreds of report templates to print your iHFG room data in HFBS.
- HFBS has a onetime free 3 day trial available to all new users.

Get Started Now: hfbs.healthdesign.com.au

---

HFBS

Health Facility Briefing System

hfbsinfo.com | techsupport@healthdesign.com.au