



ACT
Government

**Canberra Health
Services**

Model of Service



Medical Imaging –
Canberra Hospital

Medical Services
Division

September 2023

Contents

1. Introduction.....	4
2. Principles.....	4
3. Description of Service.....	7
4. Models of Care and Patient Journey.....	10
5. Patient/Client journey	45
6. Innovation.....	47
7. Interdependencies.....	48
8. Workforce.....	49
9. Implementation.....	51
10. Performance and Evaluation.....	51
11. Definitions & Terms.....	52
12. References List.....	56
13. Model of Service Development Participants.....	57

Approvals

Position	Name	Signature	Date
Executive Branch Manager, Medical Services	Sarah Mogford		

Document version history

Version	Issue date	Issued by	Issued to	Reason for issue
2.0	August 2023	Andrea Willson. Client Liaison Officer, Campus Modernisation	Sarah Mogford (Lead), Director Medical Imaging, Medical Imaging Clinical Working Group –	Initial draft review
2.1	September 2023	Andrea Willson. Client Liaison Officer, Campus Modernisation	Sarah Mogford, Executive Branch Manager, Medical Services	Approval to progress to consultation.
2.2	September 2023	Andrea Willson. Client Liaison Officer, Campus Modernisation	Sarah Mogford, Executive Branch Manager, Medical Services	Updated version with approval to proceed to consultation.

1. Introduction

This Model of Service (MoS) for the Medical Imaging Department (MID) sets out the evidence-based framework for describing the right care, at the right time, by the right person/team and in the right location. A clearly defined and articulated MoS helps ensure that all health professionals are 'viewing the same picture', working towards common goals and evaluating performance on an agreed basis.

The MID at the Canberra Hospital (TCH) performs an important role in diagnosing and monitoring patients and partners with other specialists in providing clinical information to guide medical decisions. Whilst the MID provides the majority of its services at TCH, staff work on a rotating roster which includes the Weston Creek Imaging Services. Therefore, there are several references to the service in this document.

This MoS:

- outlines the principles, benefits, and challenges of each MID Models of Care.
- provides the basis for how we deliver evidence-based care; and
- contains information of patient/client flows (the areas from where patients enter and exit the service) and service co-ordination.

2. Principles

Our vision and role reflect what we want our health service to stand for, to be known for and to delivery every day. The vision and role are more than just words - they are our promise to each other, to our patients and their families and to the community. We all have a role to play in delivering on the promise:

- Vision: Creating exceptional health care together
- Role: To be a health service that is trusted by our community.

Our values:

- We are reliable - we always do what we say we will do.
- We are progressive - we embrace innovation.
- We are respectful - we value everyone.
- We are kind - we make everyone feel welcome and safe.

Our **Strategic Plan** sets out our path forward as an organisation for the next three years. It is values driven—it outlines how we will deliver against our vision of 'creating exceptional health care together' for our consumers, their families, and carers.

Our **Partnering with Consumers Framework** provides clear principles for a shared understanding of our approach and what is required from all team members for effective partnerships with consumers and carers in line with our organisational values. The principles have been developed in collaboration with our consumer and carer organisations and underpin this Framework.

In addition to the organisation values, this MoS is founded on the following service principles. They guide our work and how we deliver services for patients/clients and families accessing care in the Medical Imaging Department.

Our service principles:

- Stream Model of Care (MoC) – The MoC within the MID underpin streamlined patient pathways for diagnostic imaging and interventional procedures.
- Shared Organisational Goals - The organisation has shared goals and responsibility for achieving improved patient flow through the MID to assist Imaging turn around and reporting times.
- Access to treatment - The MID provides timely, accessible, and appropriate health services to people with acute illness or injury of varying urgency and complexity. The Medical Imaging services operate 24 hours a day, 365 days a year.
- Clinical Leadership and Expertise - Evidence-informed best practice and continuous quality evaluation - The medical imaging service use data, evidence, research, and consumer feedback to inform best practice and quality evaluation.
- Education and Training - The MID has a strong focus on education and training.
- The MID is committed to fostering an environment of inclusion, respect, and diversity. We recognise the uniqueness of every individual, regardless of their race, ethnicity, gender, age, sexual orientation, religion, disability, or socio-economic background. Together, we aim to adopt informed, flexible, and

adaptive practices which foster a culture of respectful and therapeutic relationships.

- Canberra Health Services (CHS) is committed to ensuring information collected about an individual is managed in accordance with the Health Records (Privacy and Access) Act 1997. CHS regularly perform audits for quality assurance, reporting and evaluation processes as per CHS Clinical Audit Program.

Benefits

The MID at TCH provides:

- Timely access
- Best turnaround time in the region
- Access to procedures under GA/ sedation as required.
- Specialisation in areas of expertise such as paediatric Imaging, Cardiac Imaging and Breast Imaging.

Challenges

- **Complex Cases:** The MID often handle complex and rare cases, requiring specialised imaging techniques and expert interpretation.
- **Equipment Maintenance and Upgrades:** The MID house advanced imaging equipment that requires regular maintenance and occasional upgrades. Balancing the need for maintenance without disrupting patient care can be challenging.
- **Patient Volume and Wait Times:** High patient volumes in tertiary care facilities can lead to extended wait times for imaging appointments. Managing patient expectations and streamlining scheduling processes are crucial.
- **Emergency Cases:** Tertiary care facilities often handle emergency cases that require immediate imaging. Balancing emergency cases with routine appointments while ensuring timely care for all patients is a challenge.
- **Technological Advances:** Rapid technological advancements in medical imaging require ongoing training for staff to operate new equipment effectively and interpret complex images accurately.

- Staff Recruitment and Retention: Specialised imaging staff, including radiologists, technologists, and support staff, are in high demand. Recruiting and retaining qualified personnel can be difficult.
- Regulatory Compliance: Adhering to regulatory standards and quality assurance requirements while maintaining efficient workflows can be a complex task.

3. Description of Service

The MID provides state-of-the-art diagnostic imaging, interventional radiology, and nuclear medicine services for TCH. MID enables rapid evaluation, diagnosis, implementation of suitable interventions and hospital admission or discharge.

The MID at TCH is a Level 6 Role Delineation Clinical Support Service and provides diagnostic imaging to inpatient wards, theatres and outpatients referred from GPs, specialists, Walk in Centres (WiC) and clinics in the community with complex scanning requirements. The MID also works in close collaboration with the Emergency Department (ED), Intensive Care Unit (ICU) and Operating Theatres as part of the provision of diagnostic imaging for trauma, acute and critically unwell patients, and surgical procedures.

The MoC for the MID include:

- Computerised Tomography (CT)
- Magnetic Resonance Imaging (MRI)
- Angiography
- General X Ray, Mobile and Orthopantomogram (OPG)
- Fluoroscopy
- Mammography and Breast US
- Ultrasound
- Nuclear Medicine
- Positron Emission Tomography (PET)
- Medical Imaging Day Unit (Day ward).

The MID adheres to strict radiation safety protocols, utilising advanced imaging techniques to minimise radiation exposure for patients while maintaining diagnostic efficacy. All staff working with radiation in the MID must have a radiation license. All staff who are classified as an occupational exposed person need radiation Personal Protective Equipment (PPE) and must be used as per the MID Radiation Management Plan (RMP).

The MID has robust quality assurance programs in place. Regular audits, peer reviews, and performance assessments ensure the maintenance of high standards in image quality, safety, and overall service delivery.

Service Accreditation

The MID is accredited under the Diagnostic Imaging Accreditation Scheme (DIAS). It provides diagnostic imaging and radiology services and meets expected standards for safety and quality required for the provision of Medicare eligible rebates.

Referral and reports

The procedure CHS20/098 outlines the processes in place to ensure appropriate and timely medical imaging procedures and provision of results to referring clinicians.

The MID will not undertake or approve a procedure involving exposure to ionizing radiation unless a written referral (this referral may be in hard copy for external referrers or in electronic form for internal clinicians) is provided.

Reporting Process

Examinations and procedures performed in the MID may have a preliminary report prepared by a registrar prior to a final report being validated by a specialist consultant. This reporting process is usually completed within 24 hours of the completion of the patient examination or procedure.

Key performance Indicators

Type of measurement	Classification	What measure reported	Frequency
Process	Inpatient	Inpatient referrals waiting	Daily
Performance	Inpatient	Turnaround time: average and number (%) waiting >24 hours	Weekly
Operational	Schedule	Capacity and utilisation	Weekly
Performance	All	Total activity	Weekly (and monthly report)
Performance	Elective/outpatient	Waitlist by modality and trend	Weekly (and monthly report)
Performance	Emergency	Emergency/Acute Waiting time (variance to standard)	Weekly (and monthly report)
Performance	Elective/outpatient	Cancellations to booked appointments	Monthly Report
Performance	All	Emergency and Acute Activity (variance to plan)	Monthly Report
Quality	Satisfaction	Patient experience	Quarterly

4. Models of Care and Patient Journey

The Medical Imaging MoC outline the type of service provided, location of service/equipment, principles, benefits and KPI's to measure service outcomes and patient care.

4.1 Magnetic Resonance Imaging

The MoC for Magnetic Resonance Imaging (MRI) service outlines the principles, guidelines, and strategies that the MRI department will follow to ensure the delivery of safe, efficient, and patient-centred MRI services. MRI is a powerful diagnostic tool that aids in the accurate assessment and diagnosis of various medical conditions.

This MoC aims to optimise patient experiences, improve diagnostic accuracy, and enhance overall service quality. An MRI service is a medical diagnostic imaging procedure that utilises a powerful magnetic field and radio waves to create detailed and cross-sectional images of the internal structures of the human body. MRI is a non-invasive and non-ionizing imaging technique that provides valuable information to aid in the diagnosis, evaluation, and monitoring of various medical conditions.

Magnetic Resonance Imaging	
Description	The MID at TCH is equipped with MRI scanners (3T and 1.5T) which are State-of-the-Art Equipment, well maintained modern systems that offer high-quality imaging, improved patient comfort, and faster scanning. The MID is well supported by a team MRI technologists and radiologists experienced in operating and interpreting MRI. Rigorous quality assurance protocols to monitor and maintain the accuracy and consistency of MRI results.
Principles	The MID at TCH MRI services offer a wide range of MRI examinations, covering various medical specialties. These may include neuroimaging for neurological disorders, cardiac MRI for cardiovascular conditions, musculoskeletal MRI for orthopedic and sports-related injuries, and other specialised imaging studies.

Magnetic Resonance Imaging

The MID at TCH fosters a collaborative environment in which the MRI teams work in conjunction with other medical specialties. MRI findings are shared with different healthcare teams to contribute to a comprehensive treatment plan and optimal patient care.

The MRI services engage in research and academic activities, contributing to the advancement of MRI technology and knowledge. Participation in research studies and clinical trials helps to explore new applications of MRI and improve patient outcomes. While the MID's MRI department prioritises complex cases, they also ensure that imaging services are accessible and timely. Efficient appointment scheduling, reduced waiting times, and expedited reporting contribute to a positive patient experience.

Operational guidelines for scheduling

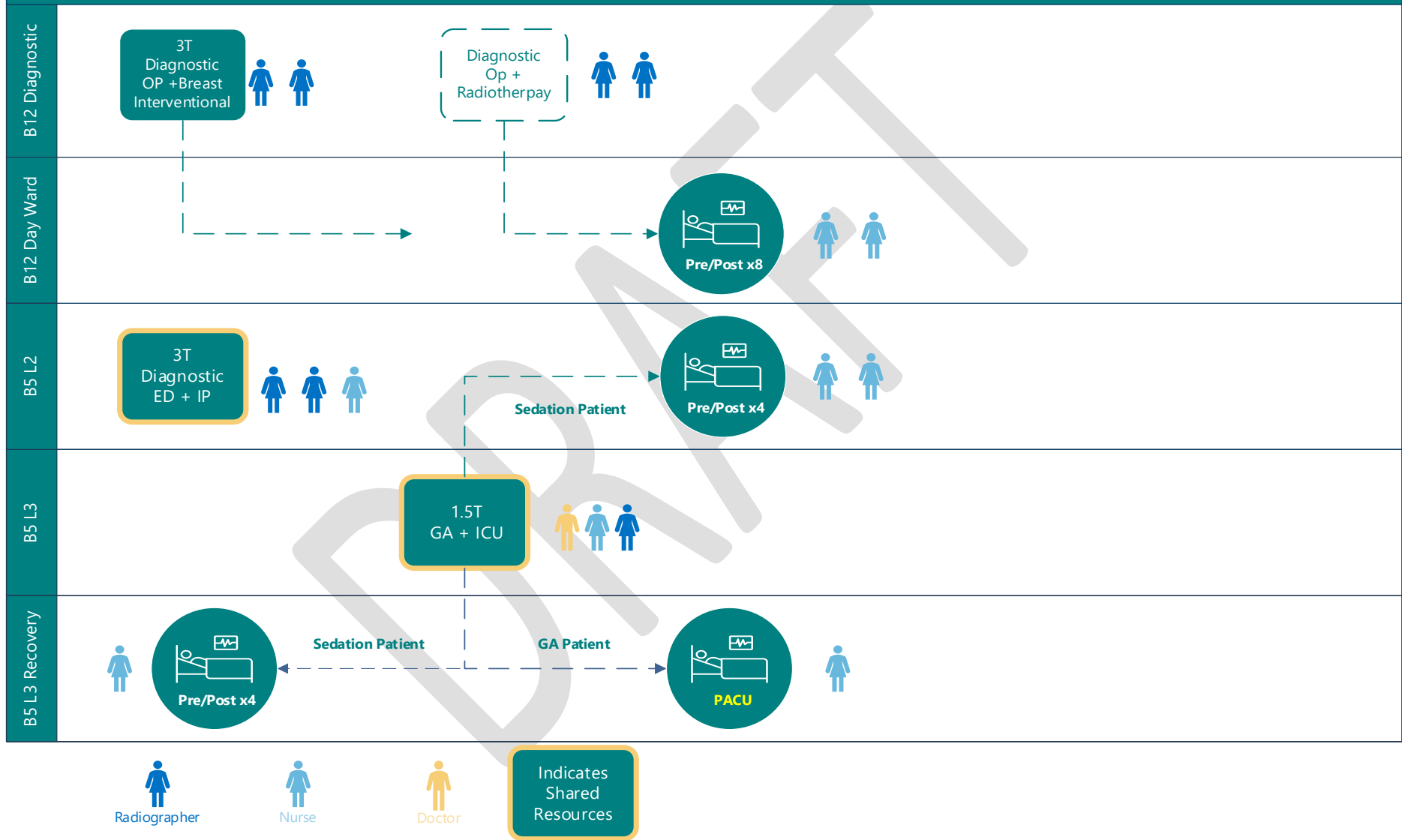
Scanner location	Scanner	Hours of operation	Type of patient groups
Building 12	3T Siemens Vida	07:00-20:00 5 days week	Outpatients and Breast Imaging
Building 12	1.5T Siemens (interdependencies when 3T not operational/ shared resource)		Pacemaker patients Outpatients with implants not suitable for 3 T Inpatient
Building 5 Level 3	1.5T Sola (interdependencies when 3T not operational/ shared resource)	08:00-17:00 5 days week	Neurosurgical Hybrid theatre cases Elective and IP GA scans

Magnetic Resonance Imaging			
			ICU
Building 5 Level 2	3T Vida	07:00-20:00 7 days week + On call service after these hours	ED and Inpatients, after hours

Figure 1 provides a diagrammatic representation of Magnetic Resonance Imaging with the modalities, location, and staff.

DRAFT

Figure 1: Medical Imaging Department – Magnetic Resonance Imaging



4.2 Computerised Tomography

A Computerised Tomography (CT) service is a medical imaging service that uses specialised X-ray equipment to produce detailed cross-sectional images of the inside of the human body. CT scans are valuable diagnostic tools that provide clear and comprehensive images of various anatomical structures and internal organs.

A CT scan can be done for the head or brain, neck, chest, abdomen, pelvis, sinus, spine, and utilised to detect bone and joint problems; cancer, heart, lung, and liver problems; internal injuries caused by accidents; tumour; internal bleeding and blood clot; excess fluid; and infection. CT scan results can determine how the body is responding to ongoing treatment and / or part of planned surgery requirements.

Computerised Tomography	
Description	<p>The MID at TCH is equipped with CT scanners which are State-of-the-Art Equipment, CT multi-slice systems that offer high-quality imaging, improved patient comfort, and faster scanning times. Regular upgrades and maintenance service is done to ensure optimal performance and minimise downtime. The MID is well supported by a team of highly skilled team of Radiographers, Nurses and Radiologists experienced in providing CT scan services. Rigorous quality assurance protocols to monitor and maintain the accuracy and consistency of CT results.</p>
Principles	<p>The principles of a tertiary CT service refer to the fundamental guiding concepts and practices followed by a specialised medical center providing advanced CT imaging services.</p> <p>The MID invest in the latest and most advanced CT equipment to ensure optimal image quality and diagnostic accuracy. State-of-the-art CT scanners, including multi-detector CT and dual-energy CT, allow for high-resolution imaging and a comprehensive assessment of complex medical conditions.</p> <p>The MID offers a wide range of CT examinations covering various medical specialties.</p>

Computerised Tomography

This includes routine CT scans for different anatomical regions, as well as specialised studies such as cardiac CT, neuroimaging, and CT angiography.

The MID plays a critical role in emergency and trauma care. They are available 24/7 to provide rapid and accurate imaging for patients with acute injuries or life-threatening conditions. The MID collaborates closely with other medical specialties within the tertiary care facility. The interdisciplinary approach ensures that CT findings are promptly shared with referring physicians, surgeons, and other healthcare professionals to facilitate comprehensive patient care and treatment planning.

The MID may engage in research and academic activities. CT technologists and radiologists may participate in research studies to explore new imaging techniques, advance CT technology, and contribute to medical literature. The MID prioritises patient safety and employ radiation dose optimisation techniques. Protocols are in place to use the lowest possible radiation dose while maintaining high-quality images, especially for patients who may require repeated CT scans.

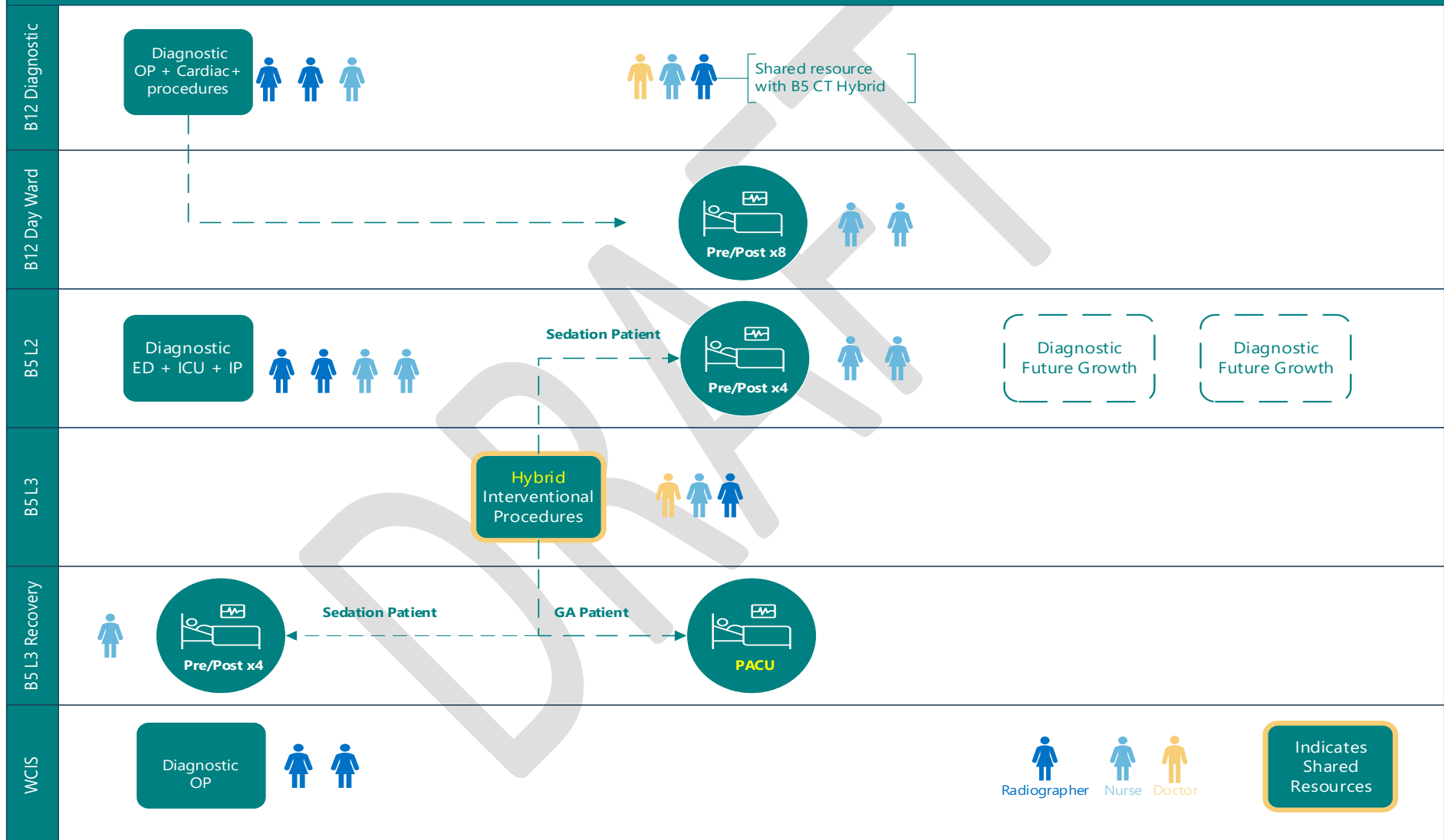
Operational guidelines for scheduling

Scanner location	Scanner	Hours of operation	Type of patient groups
Building 12	Canon 320 slice	08:00-16:00 5 days week	Outpatients and CT CA Inpatients from tower block and CHWC during business hours

Computerised Tomography			
Building 12	Canon 320 slice (interdependencies when Hybrid CT/Angio in bldg. 5 not operational/ shared resource	08:00-18:00 5 days week	Superficial interventional procedures Inpatients from tower block Outpatients which cannot be performed at WCIS
Building 5 Level 3	Canon CT/ Angio	08:00-16:00 5 days week + On call service	All deep organ procedures (GA/ Sedation support as required)
Building 5 Level 2	Canon 320 slice	1 x 24x 7 service 1 x 08:00-22:00 x 7 days	B5 IP & ED M-F 08:00-18:00 All IP/ED outside these hours
Weston Creek Imaging service	Canon 80 slice	08:30-17:00 x 5 days week	Outpatients only within inclusion criteria as per WCIS MOC

Figure 2 below provides a diagrammatic representation of Computerised Tomography with the modalities, location, and staff.

Figure 2: Medical Imaging Department – Computerised Tomography



4.3 Ultrasound

Ultrasound (US) services refer to the medical imaging modality that uses high-frequency sound waves to create real-time images of internal organs and structures within the body. Ultrasound imaging, also known as sonography, is a non-invasive and safe diagnostic tool used for a wide range of medical applications.

During an ultrasound examination, a sonographer applies a gel to the patient's skin over the area of interest. A handheld device called a transducer is then placed on the gel-coated skin and moved to capture images. The transducer emits high-frequency sound waves that bounce back as echoes when they encounter different tissues and structures. These echoes are then converted into real-time images displayed on a monitor. US services are non-invasive, meaning that there are no incisions or injections involved.

The procedure is generally painless and does not require the use of ionizing radiation, making it safe for patients of all ages, including pregnant women and infants. Ultrasound is a versatile imaging modality used to evaluate various body parts, including the abdomen, pelvis, heart, blood vessels, thyroid, breasts, musculoskeletal system, and foetal structures during pregnancy.

It is valuable for diagnosing a wide range of conditions, such as organ abnormalities, tumours, cysts, gallstones, and vascular conditions. In addition to diagnostic imaging, US services can be used for interventional procedures.

For example, ultrasound-guided biopsies, drainages, and injections allow for precise targeting of tissues or fluid collections, minimizing invasiveness and enhancing patient safety.

Ultrasound	
Description	<p>The MID at TCH is equipped with US scanners which are State-of-the-Art doppler enabled systems providing high-quality imaging. Regular upgrades and maintenance service is done to ensure optimal performance and minimise downtime.</p> <p>The MID is well supported by a team of highly skilled team of Sonographers providing US scan services.</p>

Ultrasound

Principles

The principles of US service provision refer to the fundamental guidelines and practices followed by healthcare facilities and sonographers when providing ultrasound imaging services. These principles ensure the safe, accurate, and patient-centered delivery of ultrasound examinations.

The MID at CHS prioritises patient safety, diagnostic accuracy, and patient-centered care. By following these principles, the MID can deliver high-quality and reliable imaging services to support accurate diagnosis and patient care.

Patient safety is the top priority in US service provision. Sonographers follow strict safety protocols to ensure that ultrasound examinations are conducted safely without causing harm to patients.

Additionally, efforts are made to create a comfortable and reassuring environment for patients during the procedure. US services are performed by skilled and accredited sonographers.

Sonographers adhere to established protocols and standards to ensure the highest level of diagnostic accuracy in obtaining ultrasound images.

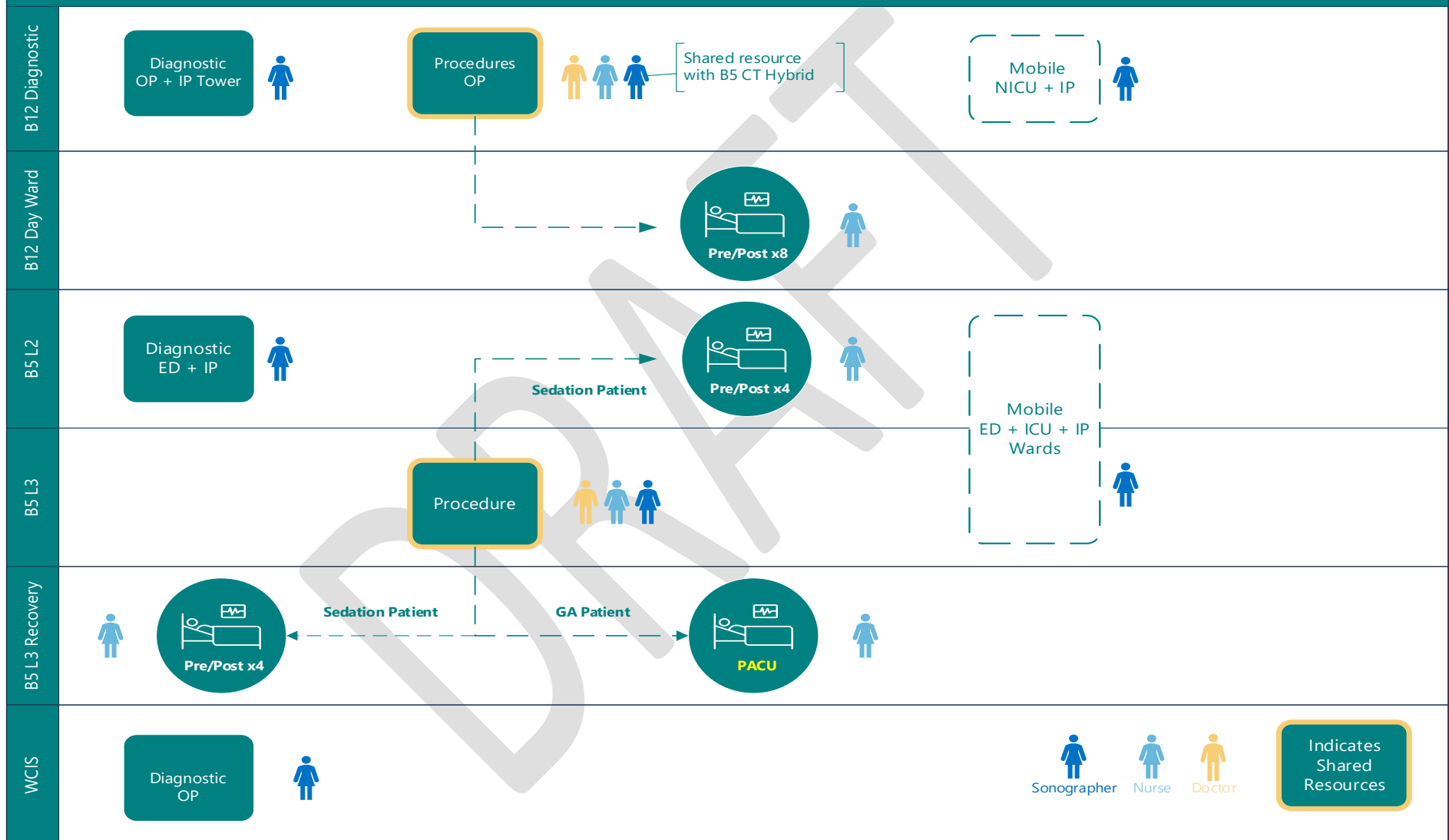
A patient-centered approach is adopted throughout the ultrasound service provision. Sonographers communicate effectively with patients, address their concerns, and provide clear explanations of the procedure to enhance patient understanding and comfort.

Sonographers respect patients' privacy and dignity during the ultrasound examination. Modesty and sensitivity to cultural preferences are upheld to create a respectful and dignified experience for all patients.

Ultrasound			
Operational guidelines for scheduling			
Scanner location	Scanner	Hours of operation	Type of patient groups
Building 12	Canon i800 (3 rooms)	07:30 -17:00 5 days week	Outpatients and inpatients from tower block, Superficial Interventions
Building 12	Mobile	As required	Inpatients +NICU
Building 5 Level 3	Integrated system in hybrid with CT/Angio	08:00-17:00 5 days week	All deep organ procedures (GA/ Sedation support as required)
Building 5 Level 2	Canon i800	09:00-17:00 5 days week, 09:00-17:00 Saturday and On-call support out of hours	Inpatients from Building 5 and ED
Building 5	Mobile	As required	Inpatients + ICU+ ED+ CCU
Weston Creek Imaging service	Canon i800	09:00-17:00 5 days week	Outpatients only within inclusion criteria as per WCIS MOC

Figure 3 below provides a diagrammatic representation of Ultrasound Services with the modalities, location, and staff.

Figure 3: Medical Imaging Department – Ultrasound Service



4.4. Nuclear Medicine

Nuclear Medicine service plays a crucial role in providing functional and physiological information to diagnose and manage various medical conditions. Its unique abilities make it an essential component of modern healthcare, contributing to improved patient outcomes and personalised treatment approaches. Nuclear Medicine is a medical imaging specialty that uses small amounts of radioactive materials, known as radiotracers or radiopharmaceuticals, to diagnose and treat various medical conditions. Nuclear Medicine service offers unique insights into the function and physiology of organs and tissues, complementing the information obtained through other imaging modalities.

In Nuclear Medicine, a radiopharmaceutical is administered to the patient, either through injection, inhalation, or ingestion, depending on the specific procedure. These radiopharmaceuticals emit gamma rays that are detected by a gamma camera or other specialized imaging devices.

Unlike traditional anatomical imaging, such as X-rays or CT scans, Nuclear Medicine focuses on the functional and metabolic activities of organs and tissues. It provides information about organ function, blood flow, cellular activity, and biochemical processes. Nuclear Medicine offers high sensitivity and specificity in detecting various physiological processes. It can detect changes at the cellular level, making it useful in early disease detection and monitoring treatment response.

Nuclear Medicine

Description

The Nuclear Medicine department at TCH MID is a specialised unit that offers advanced nuclear medicine imaging and therapeutic services to patients with complex medical conditions. As part of the larger medical imaging services, the Nuclear Medicine department plays a crucial role in contributing to accurate diagnosis, treatment planning, and patient management. The Nuclear Medicine department is equipped with state-of-the-art imaging equipment. The advanced technologies provide high-quality functional images for precise diagnosis and evaluation of various medical conditions.

Nuclear Medicine

Principles

The principles of provision for nuclear medicine services are fundamental guidelines and practices followed by healthcare facilities and professionals to ensure the safe and effective delivery of nuclear medicine imaging and therapeutic services. These principles prioritise patient safety, accurate diagnosis, and optimal treatment while adhering to ethical and regulatory standards.

Proper radiation safety protocols are strictly followed to protect patients, staff, and the public from unnecessary radiation exposure. The use of the lowest effective radiation dose is prioritized to minimise any potential risks.

Nuclear medicine department adhere to regulatory requirements and is compliant with local and national standards ensures the highest level of quality, safety, and patient care.

Nuclear medicine services are provided by qualified and registered nuclear medicine technologists, radiologists, and nuclear medicine physicians. These professionals undergo specialised training to ensure accurate and safe delivery of nuclear medicine procedures.

Patients are provided with comprehensive information about the nuclear medicine procedures, including potential risks and benefits. Informed consent is obtained before any examination or treatment to ensure that patients fully understand the procedures.

Nuclear medicine services are tailored to each patient's specific medical condition and needs. The choice of radiopharmaceuticals and imaging protocols is evidence-based and aligned with established clinical guidelines.

Nuclear Medicine

Continuous quality assurance programs are in place to monitor and maintain the accuracy and reliability of nuclear medicine procedures. Regular audits and performance evaluations help identify and address any potential issues.

Nuclear medicine professionals work collaboratively with referring physicians and other healthcare providers. Clear and timely communication of imaging findings ensures that the information is effectively utilised in patient management and treatment planning.

Nuclear medicine facilities may engage in research activities to explore new radiopharmaceuticals, imaging techniques, and therapeutic applications. Advancements in nuclear medicine technology contribute to improved patient care and outcomes.

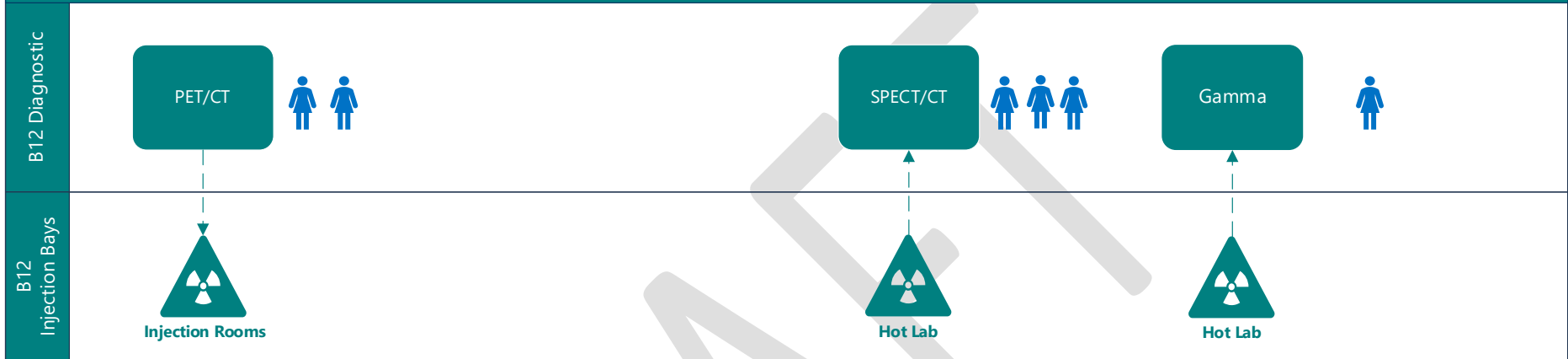
Nuclear medicine services adhere to ethical principles, including patient autonomy, privacy, and confidentiality. Patients' rights and welfare are respected throughout the entire nuclear medicine process.

Operational guidelines for scheduling

Scanner location	Scanner	Hours of operation	Type of patient groups
Building 12	SPECT/CT	08:00-17:00 5 days week	Outpatients and inpatients
Building 12	Gamma Camera	08:00-17:00 5 days week	Outpatients and some inpatients

Figure 4 below provides a diagrammatic representation of Nuclear Medicine with the modalities, location, and staff.

Figure 4: Medical Imaging Department Nuclear Medicine



Nuc Med Tech Nurse Doctor

DRAFT

4.5. Positron Emission Tomography

Positron Emission Tomography (PET) is a specialised medical imaging service that provides valuable information about the cellular function and metabolism of tissues and organs in the body. PET imaging involves the use of radiopharmaceuticals, which emit positrons (positively charged particles) that interact with electrons in the body. These interactions result in the emission of gamma rays, which are detected by a PET scanner to create detailed 3D images.

In a PET service, a radiopharmaceutical is administered to the patient, usually through intravenous injection. The radiopharmaceutical is carefully chosen based on the specific medical condition being evaluated. Commonly used radiopharmaceuticals include fluorodeoxyglucose (FDG) for cancer imaging and other specialized tracers for specific organ or disease assessments. PET is a functional imaging modality that provides information about the metabolic activity and cellular function of tissues and organs. Unlike anatomical imaging techniques like CT or MRI, PET offers insights into how tissues are functioning at the molecular level.

PET is widely used in oncology to detect and stage various cancers. It can identify areas of abnormal metabolic activity, helping to distinguish between benign and malignant tissues, and assess the spread of cancer (metastasis). PET is combined with CT to provide fused images that combine anatomical and functional information.

PET-CT fusion imaging offer comprehensive and detailed assessments in a single examination. PET service is a powerful imaging modality that provides functional insights into the body's tissues and organs. It plays a crucial role in cancer diagnosis and staging, cardiac assessment, neurological studies, and infection/inflammation imaging. With its ability to detect metabolic changes at the molecular level, PET significantly contributes to the accurate diagnosis and effective management of various medical conditions.

PET

Description

PET (Positron Emission Tomography) service at the TCH MID is a specialised and advanced medical imaging department that offers state-of-the-art PET imaging services to patients with complex and challenging medical conditions.

As part of the larger medical imaging department, the PET service plays a crucial role in contributing to accurate diagnosis, treatment planning, and patient management.

Advanced PET-CT: The PET service is equipped with the latest PET-CT scanner. The hybrid imaging systems combine the functional information from PET with the anatomical details from CT, providing comprehensive and precise imaging results.

Principles

The principles of provision for PET services are fundamental guidelines and practices followed by healthcare facilities and professionals to ensure the safe and effective delivery of PET/CT and therapeutic services. These principles prioritise patient safety, accurate diagnosis, and optimal treatment while adhering to ethical and regulatory standards.

Proper radiation safety protocols are strictly followed to protect patients, staff, and the public from unnecessary radiation exposure. The use of the lowest effective radiation dose is prioritised to minimise any potential risks. PET department adhere to regulatory requirements and is compliant with local and national standards ensures the highest level of quality, safety, and patient care.

PET services are provided by qualified and certified nuclear medicine technologists, radiologists, and nuclear medicine physicians. These professionals undergo specialised training to ensure accurate and safe delivery of nuclear medicine procedures.

PET

Patients are provided with comprehensive information about the PET procedures, including potential risks and benefits. Informed consent is obtained before any examination or treatment to ensure that patients fully understand the procedures.

PET services are tailored to each patient's specific medical condition and needs. The choice of radiopharmaceuticals and imaging protocols is evidence-based and aligned with established clinical guidelines. Continuous quality assurance programs are in place to monitor and maintain the accuracy and reliability of PET procedures. Regular audits and performance evaluations help identify and address any potential issues.

PET professionals work collaboratively with referring physicians and other healthcare providers. Clear and timely communication of imaging findings ensures that the information is effectively utilised in patient management and treatment planning. PET facility may engage in research activities to explore new radiopharmaceuticals, imaging techniques, and therapeutic applications. Advancements in PET technology contributes to improved patient care and outcomes.

PET services adhere to ethical principles, including patient autonomy, privacy, and confidentiality. Patients' rights and welfare are respected throughout the entire nuclear medicine process.

Operational guidelines for scheduling

Scanner location	Scanner	Hours of operation	Type of patient groups
Building 12	PET/CT	08:00-17:00 5 days week	Outpatients and inpatients

4.6. Interventional Radiology Model of Care

Interventional Radiology (IR) is a subspecialty of radiology that uses minimally invasive image-guided procedures to diagnose and treat a wide range of medical conditions. Interventional radiology services offer an alternative to traditional surgical procedures, providing less invasive and often safer treatment options for patients. Here is a description of interventional radiology services:

Interventional radiology procedures are performed using real-time imaging guidance, such as fluoroscopy, ultrasound, CT, or MRI. These imaging modalities help the interventional radiologist visualize the targeted area and guide the instruments to the precise location within the body.

The hallmark of interventional radiology services is their minimally invasive nature. Instead of large incisions, interventional radiologists use small catheters or needles to access the target area through the skin. This approach leads to reduced pain, shorter hospital stays, faster recovery, and lower risk of complications compared to traditional surgery.

Interventional radiology services cover a wide range of diagnostic and therapeutic procedures. Some common interventions include angiography, angioplasty and stenting, embolization, biopsies, drainages, ablations, thrombolysis, and kyphoplasty, among others.

Interventional radiologists are particularly skilled in diagnosing and treating vascular conditions. They can perform procedures to treat blocked arteries, dilate narrowed blood vessels, and place stents to improve blood flow. Vascular Interventional services will be provided by Vascular surgeons in the hybrid labs such as GI bleeds, neurovascular, uterine fibroid embolisations. Arterial lower limbs angioplasty, pelvic arterial and fistuloplasty will be performed by vascular surgery.

Interventional radiology services play a crucial role in cancer treatment. Procedures like radiofrequency ablation (RFA), microwave ablation (MWA), chemoembolization, and radioembolization are used to target and destroy tumours in various organs.

Interventional radiologists can provide pain relief by performing nerve blocks, epidural injections, facet joint injections, and vertebroplasty/kyphoplasty for patients with chronic pain conditions.

In gastrointestinal interventional radiology, procedures such as percutaneous gastrostomy (PEG) tube placement, biliary drainage, and treatment of liver and prostate are commonly performed.

Interventional radiology services may include procedures like nephrostomy, antegrade ureteric stent placement, and treatment of kidney and prostate conditions. Interventional radiology services work closely with other medical specialties, including surgery, oncology, cardiology, and neurology. The interventional radiologist collaborates with the referring physicians to determine the most appropriate treatment plan for each patient.

Interventional radiology is a rapidly evolving field with continuous advancements in technology and techniques. Interventional radiology services stay updated with the latest innovations to provide the best possible care to patients.

Interventional radiology services offer minimally invasive image-guided procedures for the diagnosis and treatment of various medical conditions. These services provide an essential component of modern medicine, delivering effective and less invasive alternatives to traditional surgical interventions. Advanced interventional procedures such as Endovascular clot retrieval, aneurysm coiling, and AVM embolization are provided within MID Angiography suites.

Interventional Radiology services	
Description	<p>The MID at TCH is equipped with two Angio suites and one Hybrid CT/ Angio suite equipped with State-of-the-Art, Angiographic biplane/ single plane systems that offer high-quality imaging. Regular upgrades and maintenance service is done to ensure optimal performance and minimise downtime.</p> <p>The MID is well supported by a team of highly skilled team of Radiographers, Nurses and Radiologists experienced in providing interventional services. Rigorous quality assurance protocols to monitor and maintain the accuracy and consistency of interventional services.</p>
Principles	<p>The provision of interventional radiology services within the MID at TCH is guided by several fundamental principles aimed at delivering the highest standard of care to patients with complex</p>

Interventional Radiology services

medical conditions. These principles ensure patient safety, optimal treatment outcomes, and collaborative care.

Patient safety is the foremost principle in interventional radiology services. Tertiary-level interventional radiology services at TCH adopt a multidisciplinary approach, collaborating closely with various medical specialties. This collaborative effort ensures comprehensive patient evaluation, treatment planning, and post-procedure care.

The MID at TCH has highly skilled interventional radiologists who possess specialised expertise in performing complex and advanced procedures. These professionals undergo extensive training and continually update their knowledge to offer the best care to patients. Interventional radiology services invest in state-of-the-art imaging technology, such as high-resolution fluoroscopy, CT, MRI, and ultrasound systems. These advanced tools enable precise image guidance during procedures.

The provision of interventional radiology services at TCH is grounded in evidence-based practice. Decisions regarding treatment options and procedures are based on the latest scientific evidence and clinical guidelines.

Facilities at TCH emphasise continuous quality improvement to enhance patient outcomes and safety. Regular audit and review processes are in place to identify areas for improvement and implement best practices.

Operational guidelines for scheduling

Scanner location	Scanner	Hours of operation	Type of patient groups
Building 12	Fluoroscopy	08:00-17:00 5 days week	Outpatients and inpatients

Interventional Radiology services			
UCH	Fluoroscopy	08:00-17:00 2 days week	Outpatients and inpatients – shared resource for X Ray and Barium swallows
Building 5 Level 3	Hybrid CT/ Angio	08:00-17:00 5 days week	Outpatients and inpatients – all deep organ procedures under GA and sedation as required
Building 5 Level 3	Biplane	08:00-17:00 5 days week+ On call service as required	Outpatients and inpatients - all deep organ procedures under GA and sedation as required
Building 5 Level 3	Single plane	08:00-17:00 5 days week	Outpatients and inpatients - all deep organ procedures under GA and sedation as required
Building 5 Level 3	Hybrid Vascular theatres	08:00-17:00 5 days week	Shared resource with single plane

Figure 5 below provides a diagrammatic representation of Angiography with the modalities, location, and staff.

Figure 5: Medical Imaging Department – Angiography

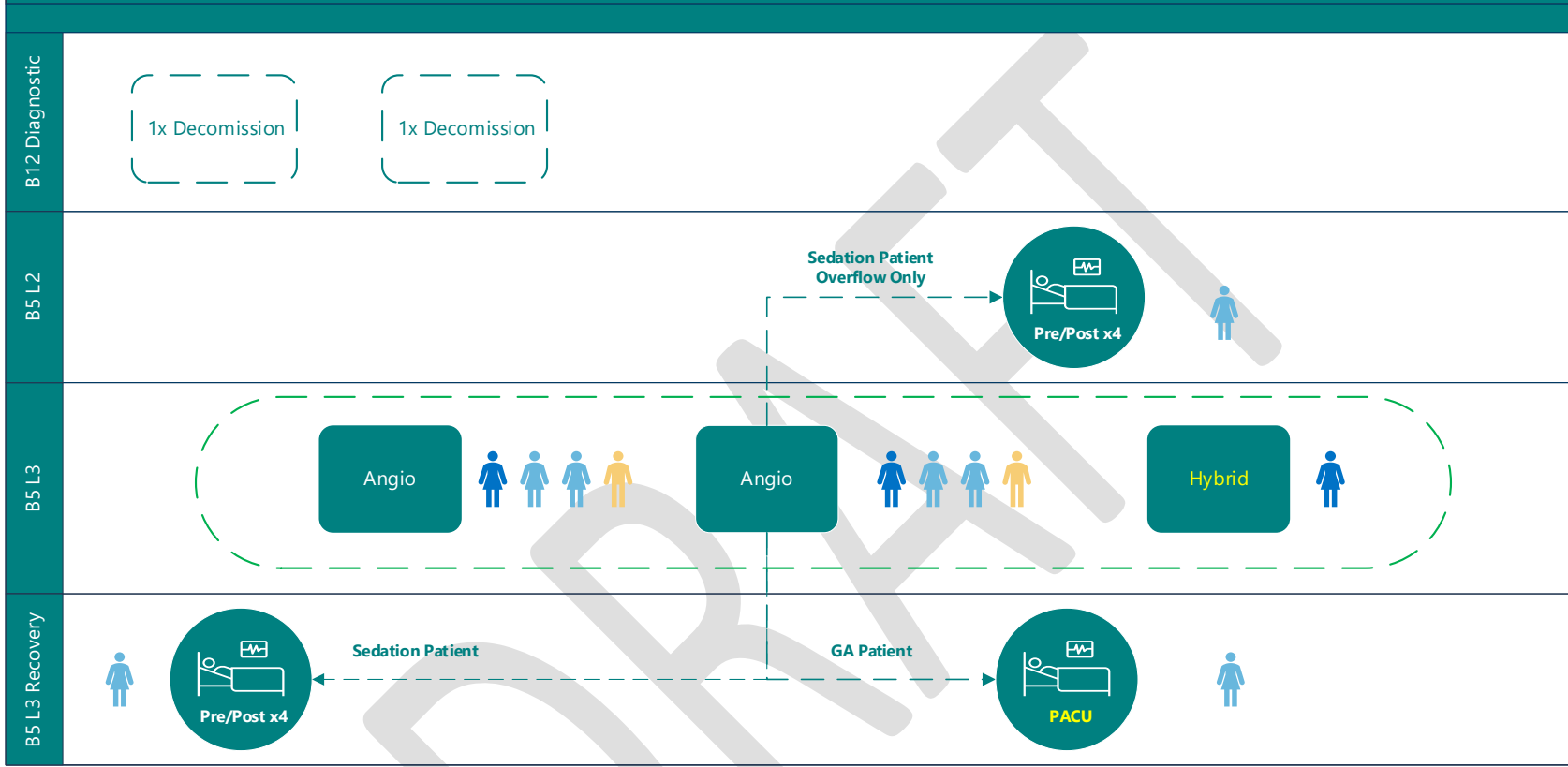
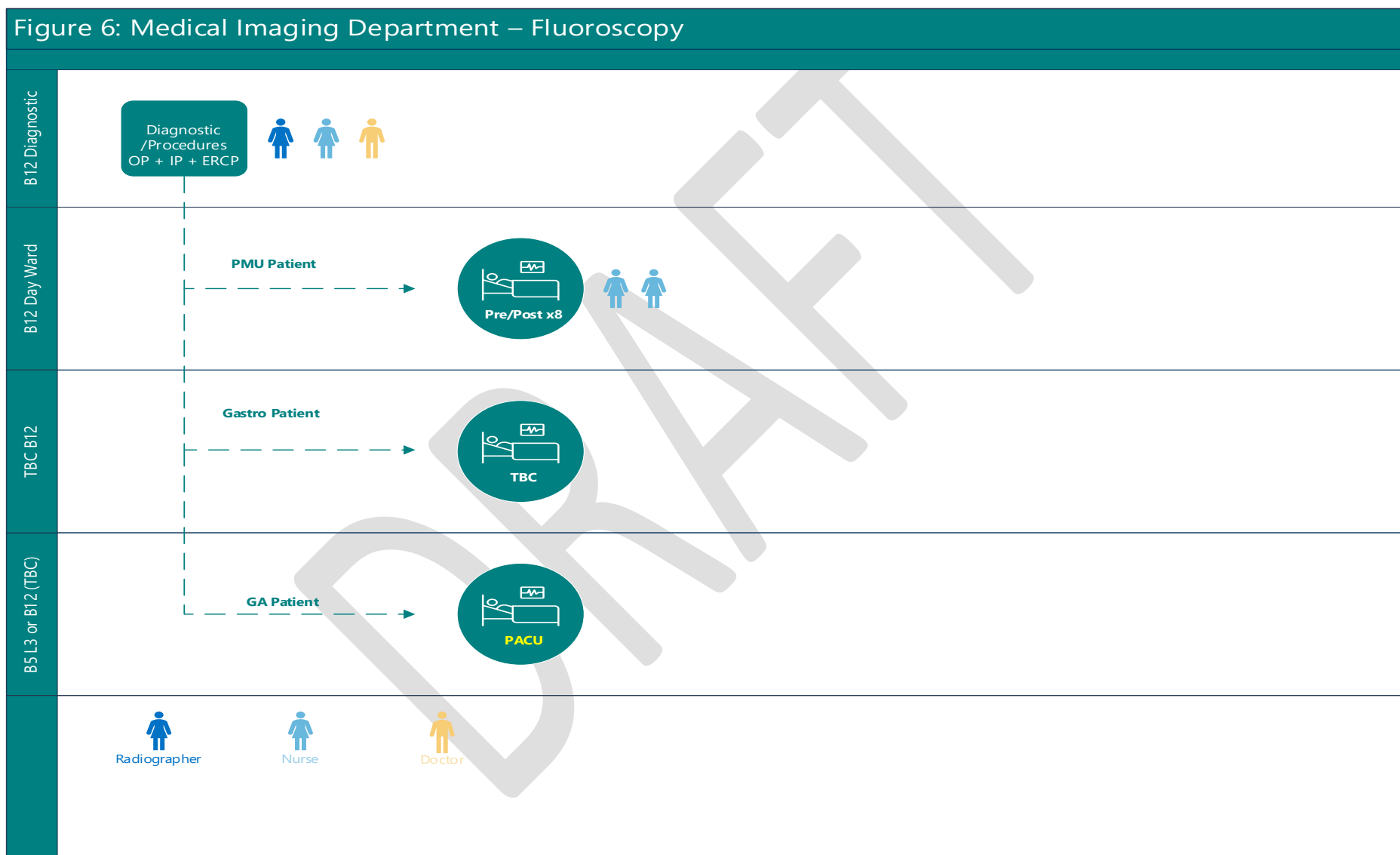


Figure 6 below provides a diagrammatic representation of Fluoroscopy with the modalities, location, and staff.



4.7. General X-Ray

Plain X-rays are the simplest of medical images created through X-radiation absorption by different structures or parts in the body. A dense structure, such as bone, absorbs a high percentage of the X-ray beam (which appears light grey on the image), whereas low-density structures, such as soft tissues, absorb a small percentage (which appears dark grey on the image).

X-ray imaging is performed to see if different organs in the body are injured, check for fractures, diagnose, and manage disease processes, and to check the location of foreign objects that may have been swallowed. The speed of the test will vary depending on the part of the body being examined, position (i.e., standing, sitting, or lying), and the number of X-rays taken.

General X Ray	
Description	<p>The MID at TCH is equipped with General X Ray rooms, nine mobile X Ray units, UCH fluoroscopy machine (predominately used as diagnostic X-ray) and C Arm equipment for Imaging guidance in theatres. The MID is equipped with State-of-the-Art Equipment, well maintained modern DR systems that offer high-quality imaging. Regular upgrades and maintenance service is done to ensure optimal performance and minimise downtime.</p> <p>The MID is well supported by team of highly skilled team of Radiographers and Radiologists experienced in providing General X Ray services. Rigorous quality assurance protocols to monitor and maintain the accuracy and consistency of imaging services.</p>
Principles	<p>The X-ray service at a modern tertiary care facility ensures a quick and efficient turnaround time for imaging studies. Prompt image acquisition and interpretation facilitate timely diagnosis and treatment decisions.</p> <p>The X-ray service offers a range of specialised examinations tailored to specific medical needs. This may include chest X-rays, skeletal X-rays, abdominal X-rays, and dental X-rays, among others.</p>

General X Ray

The MID prioritise patient safety, and the X-ray service follows strict radiation safety protocols. X-ray technologists ensure that patients receive the lowest possible radiation dose while still obtaining high-quality images.

X-ray service is available at TCH for Emergency patients, ensuring that urgent and emergency cases can be promptly evaluated and diagnosed.

The X-ray images are interpreted by specialised radiologists who have expertise in various medical subspecialties. Their skills and experience contribute to accurate and comprehensive diagnoses.

The X-ray service at TCH maintains a rigorous quality assurance program. Regular audits and peer reviews are conducted to ensure image quality, accuracy, and adherence to protocols. The X-ray service follows a patient-centred approach, ensuring that patients are comfortable, informed about the procedure, and actively involved in their healthcare decisions.

Operational guidelines for scheduling

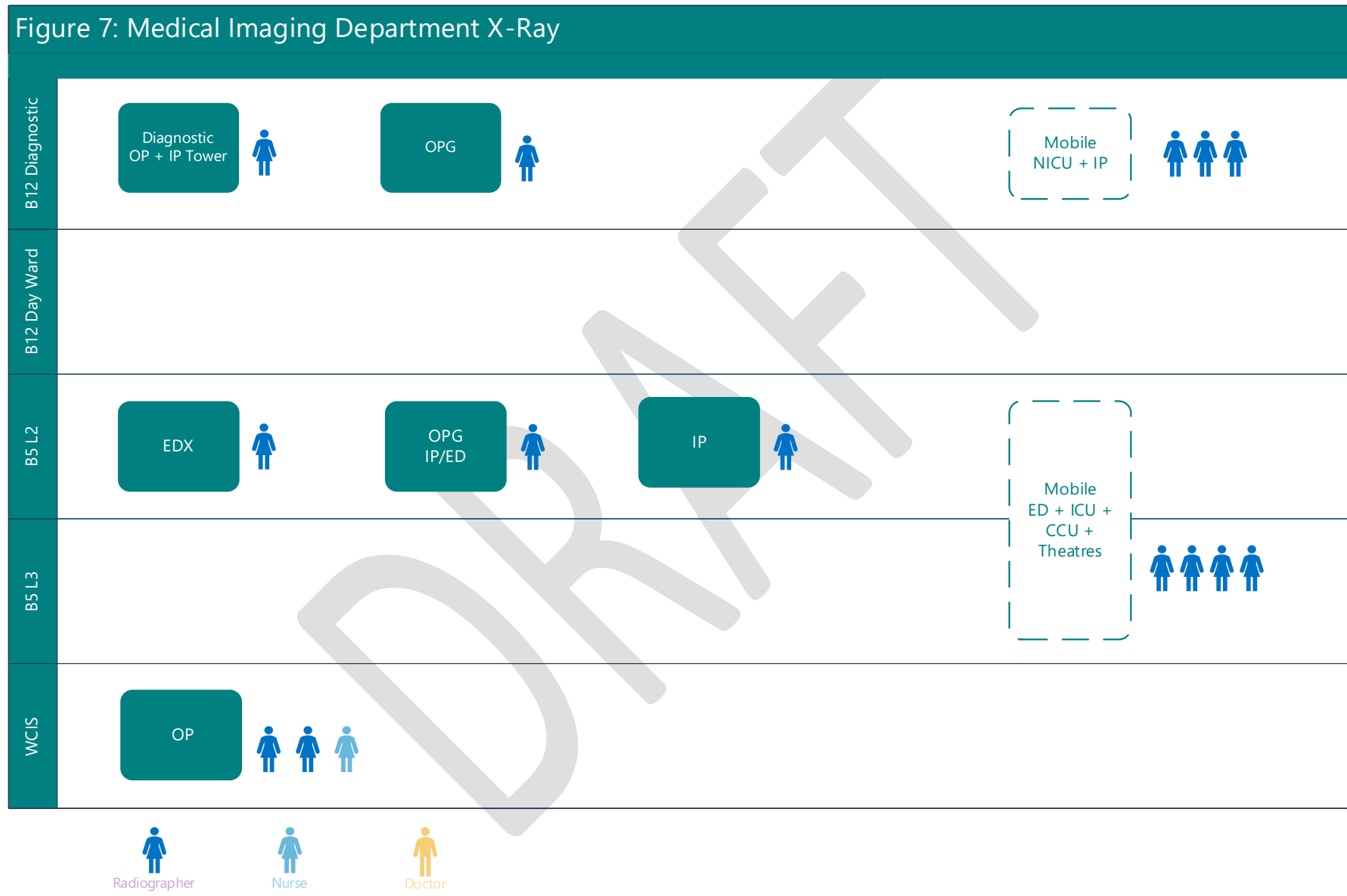
Scanner location	Scanner	Hours of operation	Type of patient groups
Building 12	Philips DR rooms	08:00-18:00 5 days week	Outpatients and inpatients from tower block
Building 12: as required	Philips mobile units	24 x 7	Inpatients + NICU
Building 5	Philips DR rooms (1 x HUB and 1 x Fast track)	24 x 7	Inpatients + ED + (afterhours) CALMS, reg review and WIC referrals

General X Ray			
Building 5	Philips, Carestream and GE mobile X-ray units	24 x 7	Inpatients + ICU+ ED+ CCU
Building 5	C Arm units	08:00-18:00 7 days week + 1 x evening shift and on-call overnight	
WCIS	Philips DR room	08:30-17:00 5 days week	Outpatients

Figure 7 below provides a diagrammatic representation of X-Ray with the modalities, location, and staff.

DRAFT

Figure 7: Medical Imaging Department X-Ray



4.8. Breast Imaging Service (Mammography and US)

Medical Imaging at TCH provides a comprehensive breast imaging service which includes both mammography and ultrasound (US) as key components further supplemented by MRI. These imaging modalities play complementary roles in breast health assessment, providing a comprehensive approach to breast imaging for diagnostic purposes. Here's an overview of a mammography and ultrasound-supported breast imaging service:

Mammography: Mammography is a specialised medical imaging technique used primarily for the early detection and diagnosis of breast diseases, particularly breast cancer. It involves using low-dose X-rays to create detailed images of the breast tissue. Mammography plays a critical role in breast cancer screening, diagnosis, and monitoring. The mammography unit at the TCH is state of the art 3D Mammography (Tomosynthesis). Also known as breast tomosynthesis, 3D mammography captures multiple images of the breast from different angles. These images are reconstructed into thin slices, providing a three-dimensional view of the breast tissue. 3D mammography can improve the detection of small cancers and reduce the need for additional imaging.

Ultrasound (US) Imaging: Breast ultrasound is a non-invasive imaging technique that uses high-frequency sound waves to create images of the breast tissue. It is often used in conjunction with mammography to provide assessment, which is a supplement to Mammography. It is particularly useful for differentiating between solid masses and fluid-filled cysts and providing more information for treatment planning.

Mammography and Breast Ultrasound	
Description	The MID at TCH is equipped with 3D tomosynthesis Mammography equipment supported by i800 Canon US equipment.
Principles	Breast imaging services at a TCH are guided by several fundamental principles that ensure high-quality care, patient safety, accessibility, and comprehensive assessment.

Mammography and Breast Ultrasound

Breast imaging services aim to provide equitable access to all patients, regardless of their socioeconomic background, ethnicity, or other demographics.

The highest standards of clinical excellence are maintained in breast imaging. This includes using state-of-the-art equipment, following evidence-based guidelines.

Breast imaging services prioritise patient-centred care, respecting the unique needs, preferences, and concerns of everyone. Clear communication, patient education, and shared decision-making are integral components.

A comprehensive approach is taken to breast health assessment. This involves utilising a combination of imaging modalities, such as mammography, ultrasound, and MRI, as needed, to achieve accurate diagnoses and treatment plans.

Together, these modalities offer a more comprehensive assessment of breast health, allowing for a more accurate diagnosis.

Breast ultrasound can be especially effective in detecting abnormalities in dense breast tissue that might be less visible on mammography. Both mammography and ultrasound can assist in guiding minimally invasive biopsies, ensuring precise targeting of the suspicious area for tissue sampling.

The complementary information provided by both modalities enhances diagnostic confidence and reduces the likelihood of false negatives.

TCH breast imaging service is part of a multidisciplinary team, collaborating with breast surgeons, oncologists, pathologists, and other specialists. This collaboration ensures that patients receive comprehensive care that is tailored to their unique circumstances.

Mammography and Breast Ultrasound

Benefits	<p>Combining mammography and ultrasound in a breast imaging service offers several benefits:</p> <p>Comprehensive Assessment: Together, these modalities offer a more comprehensive assessment of breast health, allowing for a more accurate diagnosis.</p> <p>Improved Sensitivity: Breast ultrasound can be especially effective in detecting abnormalities in dense breast tissue that might be less visible on mammography.</p> <p>Guided Biopsies: Both mammography and ultrasound can assist in guiding minimally invasive biopsies, ensuring precise targeting of the suspicious area for tissue sampling.</p> <p>Personalised Care: The combination of these imaging techniques allows for personalised care based on individual patient needs and breast tissue characteristics.</p> <p>Enhanced Confidence: The complementary information provided by both modalities enhances diagnostic confidence and reduces the likelihood of false negatives.</p>	
Performance Indicators	<p>Patient experience surveys.</p> <p>Appointment availability and waiting lists audits.</p> <p>Report turnaround times.</p> <p>Equipment quality- average age in months.</p> <p>Equipment utilization.</p> <p>Revenue.</p>	
Operational guidelines for scheduling		
Equipment location	Hours of operation	Type of patient groups
Building 12	08:30 – 16:30 Every Thursday	All public referrals as applicable

4.8. Medical Imaging pre/post procedural beds (day ward and holding bays)

Medical Imaging pre/post procedural beds are specialised areas within a hospital dedicated to the observation and monitoring of patients before/after they have undergone medical imaging procedures. Patients who undergo certain medical imaging procedures, particularly those involving interventional procedures with/without sedation, may be admitted to the Imaging pre/ post procedural beds for observation after the procedure.

The primary focus of the imaging pre/post procedural areas is patient safety. Medical staff in these wards are trained to recognise and manage any immediate post-procedure complications or adverse reactions that may occur. In case of any medical emergencies or complications, the Imaging pre/ post procedural beds is equipped to provide immediate medical intervention and resuscitation measures if required. TCH has rapid response teams that can be activated to provide urgent medical assistance in case of deteriorating patient conditions. The imaging pre/ post procedural areas are designed to provide a comfortable environment for patients to rest and recover before and after their imaging procedures.

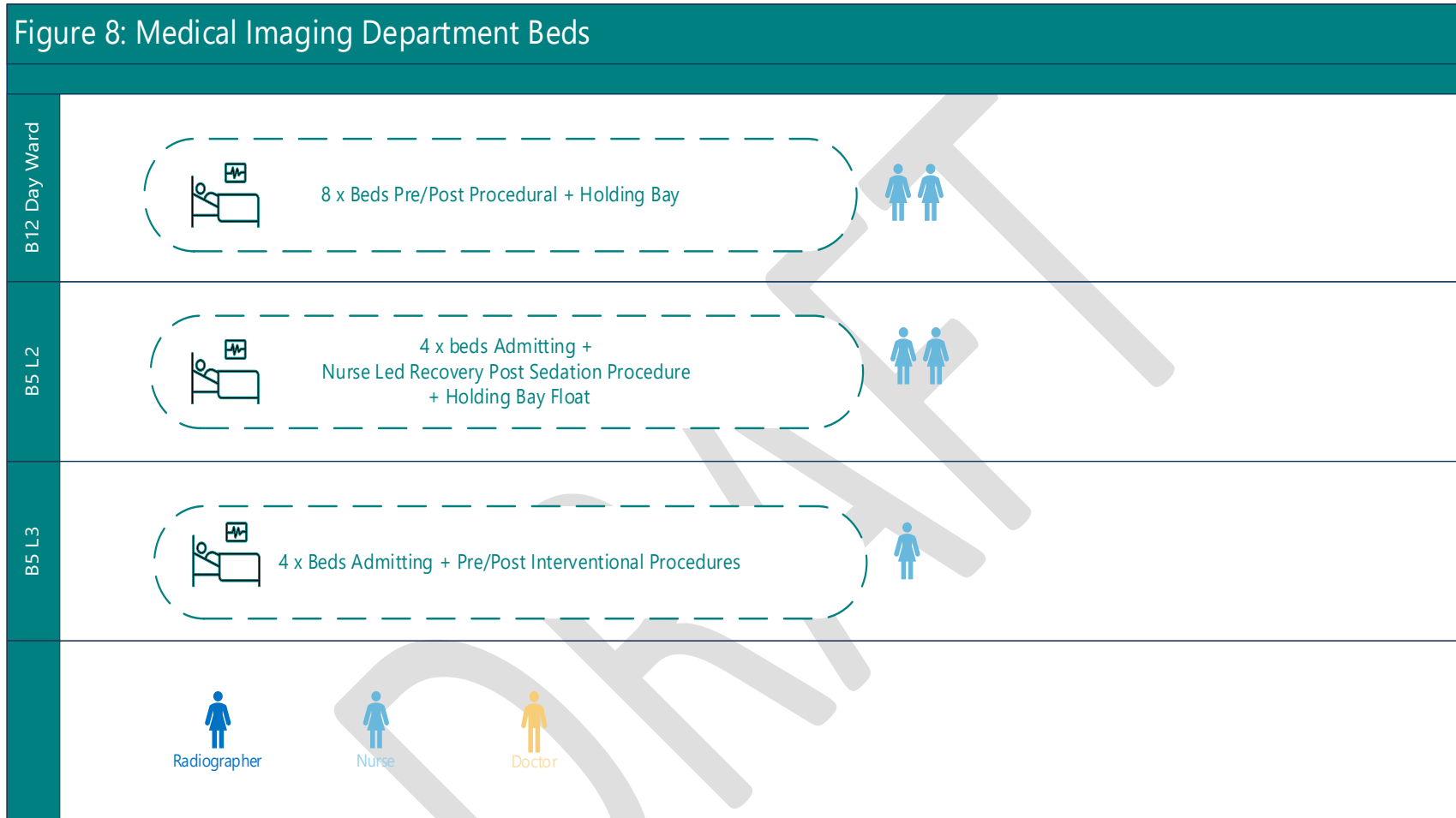
Patients admitted to the imaging pre/post procedural areas are provided with relevant information about their imaging procedure, potential side effects, and what to expect during the observation period. The medical staff in the Imaging pre/ post procedural areas maintain communication with radiologists and other healthcare providers involved in the patient's care to share any relevant findings or observations. Once patients are stable and the observation period is complete, appropriate discharge plans are made, which may include further monitoring or instructions for follow-up care. The imaging pre/post procedural areas works closely with the medical imaging team to ensure a seamless transition of patients from imaging procedures to observation.

In summary, medical imaging pre/post procedural areas/wards are specialised units within a hospital that provide close monitoring and care for patients after they have undergone medical imaging procedures. These units play a vital role in ensuring patient safety and well-being following imaging examinations and provide a crucial link between the imaging department and other medical services within the hospital.

Medical Imaging Day Unit			
Description	MID at TCH is equipped with pre/post procedural areas/wards for close monitoring and care for patients before/ after they have undergone medical imaging procedures.		
Principles	Timely patient care.		
Benefits	Pre and post procedural care for patients as required.		
Performance Indicators	Patient experience surveys. Appointment availability and waiting lists audits. Report turnaround times. Equipment utilisation. Revenue.		
Operational guidelines for scheduling			
Bed location	No of beds/ bays	Hours of operation	Type of patient groups
Building 12 Day ward	8	08:00- 16:30 5 days week 09:00-17:00 Saturday (Holding Bay)	Pre and post procedural care for patients as required
Building 5 Level 2	4	08:00- 16:30 5 days week	Pre and post procedural care for patients as required
Building 5 Level 3	4	08:00- 16:30 5 days week	Pre and post procedural care for patients as required

Figure 8 below provides a diagrammatic representation of the allocation of relevant beds.

Figure 8: Medical Imaging Department Beds



5. Patient/Client journey

The patient journey through the MID typically involves a series of steps that patients follow from the moment they arrive for their imaging examination until the completion of the procedure and, if necessary, post-procedure care.

The journey can vary based on the specific imaging modality and the type of examination being performed.

Here is a general outline of the patient journey through the MID:

- **Scheduling and Check-In:** Outpatient's journey begins with scheduling the imaging examination, either through a referral from their primary care physician or a specialist. On the day of the appointment, the patient checks in at the reception desk of the Medical Imaging department.
- **Pre-Procedure Preparation:** Depending on the type of imaging examination, the patient may need to undergo certain preparatory steps. This may include fasting for a specific duration, removing metal objects or jewellery, or changing into a gown.
- **Patient Education:** The imaging technologist or a nurse provides the patient with information about the procedure, its purpose, and what to expect during the examination. The patient may also be informed of any potential risks or side effects associated with contrast agents or sedation.
- **Patient Consent:** refer to policy CHS20/251. TCH staff must obtain valid and informed consent from a person or their legal guardian or other substitute decision maker before commencing any clinical activity, treatment, or procedure.

Obtaining consent from a person before treating them is an important part of communication in shared decision-making. It is not simply about getting a form signed. The context and conversation are both important.

- **Imaging Examination:** The patient is escorted to the imaging suite where the procedure will take place. The imaging technologist or radiographer positions the patient on the examination table and ensures that the patient is comfortable and in the correct position for imaging.

- **Image Acquisition:** The imaging technologist performs the imaging examination, operating the imaging equipment to capture the necessary images. Depending on the modality, this process may take a few minutes to several minutes or longer.

- **Contrast Administration (if applicable):** For certain imaging procedures, contrast agents may be administered to enhance the visibility of specific structures or abnormalities.

In such cases, the contrast is administered through an IV line or orally, depending on the examination.

- **Post-Procedure Care (if applicable):** After the imaging examination is complete, some patients may need to stay in a post-procedure observation area, especially if they received sedation or contrast.

The patient is closely monitored for any adverse reactions or complications during this period.

- **Image Review and Reporting:** The acquired images are reviewed by a radiologist, who interprets the images and generates a detailed report. The report is sent to the referring physician, who will discuss the results with the patient.

- **Follow-up and Further Care:** Depending on the results of the imaging examination, the patient may need further medical care, additional imaging studies, or treatment. The referring physician will provide appropriate guidance based on the imaging findings.

- **Discharge:** After the imaging examination and any necessary post-procedure care, the patient is discharged from the MID.

Throughout the patient journey, the staff in the MID ensure patient comfort, safety, and privacy. The department strives to provide high-quality imaging services while maintaining clear communication with the patient and other healthcare providers involved in the patient's care.

6. Innovation

Hybrid Operating Theatres (HOT)

Building 5 Perioperative Services (PS) has HOTs with fixed angiography platforms including single and biplane systems designed to support multi-disciplinary teams in delivering real-time intra-operative guidance for complex open and minimally invasive surgery.

Building 5 PS offers a Computerised Tomography (CT) angio-HOT, with CT functionality, predominantly used in major trauma, interventional oncology, and advanced neurosurgical procedures.

Access to intraoperative CT provides surgeons and interventionalist with critical CT images for real time evaluation enabling decision making during surgery and procedures.

Scheduling

Perioperative and interventional radiology (IR) services have operated as two separate services -including list management and staff utilisation. The inclusion of IR services in the Building 5 PS provides the opportunity for coordinated scheduling of patients for interventional and surgical procedure which aims to optimise efficiencies and the provision of the service.

Intraoperative Medical Resonance Imaging

Access to intraoperative Medical Resonance Imaging (MRI) provides surgeons and interventionalists with critical MRI images for real time evaluation.

An MRI room is positioned adjacent to a HOT and is used for patients who need to be scanned while under general anaesthetic with minimal movement of the patient. The MRI scanning room is designed to be a separation room from the HOT to enable simultaneous use of the MRI while the HOT is in use.

7. Interdependencies

Interdependencies describe internal and external functional relationships with other services that specifically enable the Medical Imaging MoS and Models of Care.

Emergency Department and Inpatient wards

The MID operates to facilitate timely access to Imaging services for all inpatients and ED with appropriate access to help facilitate patient flow through the acute hospital.

Patient Support Services

The MID services all inpatient wards and ED. It requires patients to be brought to and from its rooms. This flow is critically dependant on Patient Support Services (PSS).

Healthcare Technology Management

As medical technology, equipment and innovations continue to advance, biomedical engineering and technical support is increasingly important for complex care areas such as MID.

The Healthcare Technology Management (HTM) team provide biomedical engineering, technical support, and expert advice to MID to ensure safe, quality patient care, by maintaining international best practice. As equipment becomes increasingly technical and complex, there is a growing need for services and equipment to be maintained by the vendors and HTM. HTM assists with various agreements and contractual arrangements with vendors relating to medical devices, equipment and ICT systems used within the MID.

Medical Physics and Radiation Engineering

Medical Physics and Radiation Engineering provide expert advice on, services for, training in and high-level management of radiation safety and use of radiation producing devices. MPRE are responsible for regular clinical X-Ray equipment quality assurance testing which is scheduled through the nominated Senior Radiographer. Dose audits are also undertaken annually to assess the radiation dose to the consumer for typical diagnostic examinations as the primary step in consumer radiation dose optimisation.

Procurement

The Procurement Services team provide support and advice to MID when acquiring medical imaging equipment, services, and supplies. This team ensures all procurement activities are completed in accordance with relevant legislation, policies, and ACT Government processes.

Product Consultants

Product consultants and representatives provide information and support to the MID team in relation to medical equipment, products, and services.

Support may be provided to the interventional radiology teams in the form of product or equipment demonstration, training, education and intraoperative onsite support for specialised products, equipment, and devices used within the MID.

Supply Services

The MID uses a high volume of medical and other consumable items and products which are ordered and delivered by Supply Services.

Supply Services provide regular stock orders of inventory stock, replenishment of storerooms and assist with non-inventory orders as required.

8. Workforce

The management of staff within MID is undertaken in accordance with the:

Relevant Enterprise Agreements:

- ACTPS Work Level Standards
- Public Sector Management Act (1994)
- Public Sector Management Standards (2016)
- Health Act 1993
- ACT Public Sector Nursing and Midwifery Safe Care Staffing Framework
- Visiting Medical Officer Contracts.

Workforce requirements are based on the number of points of care, number of patient presentations, patient types and intensity of care provided in different areas of the MID.

The MID workforce is summarised in Table 1.

Table 1: MID workforce categories

Category	Roles
Medical staff	Staff Specialist Radiologists Registrar Staff may also hold conjoint appointments with the ANU.
Allied Health	Radiographers Ultrasound Sonographers Nuclear Medicine and PET techs
Nursing	Assistant Director of Nursing Clinical Nurse Coordinators Clinical Development Nurses Registered Nurses (Grades 1, 2 and 3) Enrolled Nurses
Administration	Executive Quality Admin support
Support staff	Wards persons

9. Implementation

The MoS will be implemented through the following strategies:

- Orientation and training programs for new and existing staff to work within the service.
- Ongoing training programs for staff working within the service.
- Processes and documentation used within the service that support the principles of the MID Models of Care.

10. Performance and Evaluation

The MID MoS will be delivered in accordance with key government strategic performance objectives and priorities. The MID MoS supports achieving performance indicators related to MID access targets and quality safe patient care.

The objective for all performance improvements is to ensure patients receive quality, safe health care in 'the right care, at the right time, by the right team and in the right place'. The MID will evaluate performance against:

- ACT Health Strategic Indicators
- Australian Council of Healthcare Standards (ACHS), National Safety and Quality Standards
- Clinical Governance Structure and Committees
- Strategic Indicators
- Consumer Feedback.
- Diagnostic Imaging accreditation standards (DIAS)
- National Association of Testing Authorities.
- Royal Australian and New Zealand College of radiologists (RANZCR) Quality and Accreditation programs.

The MID will ensure the provision of high-quality service through ongoing feedback from patients, families and carers who use the service, as well as the measure of staff satisfaction and well-being.

Monitoring and evaluation of the MID will occur through a range of mechanisms including:

- Clinical Governance Structure and Committees.
- Risk Management Processes.
- Diagnostic Imaging accreditation standards (DIAS)
- National Safety and Quality Health Service (NSQHS) Standards Committees
- Medical Imaging Reporting and Procedures CHS20/098.

Data collected by the Consumer Engagement team via the Australian Hospital Patient Experience Question Set (AHPEQS) has a key role in monitoring, identifying and acting on themes from surveys and other feedback sources. This process includes seeking input from the Consumer and Carer Sub-Committee, to ensure subsequent quality indicators from the consumers perspective are appropriate and meaningful.

11. Definitions & Terms

Table 2 provides abbreviations and acronyms used in this document.

Table 2: Acronyms

Acronym	Meaning
ACHS	Australian Council on Healthcare Standards
ACSQHC	Australian Commission on Safety and Quality in Health Care
ANU	Australian National University
BCP	Business Continuity Plan
CHS	Canberra Health Services
CHWC	Centenary Hospital for Women and Children
CIT	Canberra Institute of Technology
CT	Computed Tomography
DHR	Digital Health Record
DIAS	Diagnostic Imaging Accreditation Scheme

Acronym	Meaning
ED	Emergency Department
ERP	Emergency Response Plan
HTM	Healthcare Technology Management
ICT	Information and Communications Technology
ICU	Intensive Care Unit
IVC	Intravenous Cannula / Cannulation
KPI	Key Performance Indicator
LSPN	Location Specific Practice Number
MID	Medical Imaging Department
MoC	Model of Care
MPRE	Medical Physics and Radiation Engineering
MRI	Magnetic Resonance Imaging
NATA	National Association of Testing Authorities
NGO	Non-Government Organisation
NSQHS	National Safety and Quality Health Service
RANZCR	Royal Australian and New Zealand College of Radiologists
TCH	The Canberra Hospital
TIS	Translating Interpreting Services
UC	University of Canberra
UCH	University of Canberra Hospital
US	Ultrasound
WCCHC	Weston Creek Community Health Centre
WHSMS	Work Health Safety Management System
WiC	Walk-in Centre
WCIS	Weston Creek Imaging Service

Table 3 provides term definitions used in this document.

Table 3: Term Definitions

Term	Definition
Guideline	Aimed at CHS staff, guidelines detail the recommended practice to be followed by staff but allow some discretion or autonomy in its implementation or use. Guidelines are written when more than one option is available under a given set of circumstances, and the appropriate action requires a judgement decision.
Model of Care	Model of Care describes the way health services are delivered including best practice, population groups and patient cohorts through the stages of care.
Model of Service	Model of Service describes overarching operational principles of a service area and performance measures.
Next of Kin	Patient nominated next of kin include biological family relations of any degree, but also family of choice who may not be biologically related, carers or loved ones such as friends.

Term	Definition
Policy	Aimed at CHS staff, policy documents are an overarching, organisational wide directive about how staff are to act in defined circumstances or regarding a particular situation.
Procedure	Aimed at CHS staff, procedures detail specific methods or actions staff must undertake to complete required processes within CHS. The actions are evidence based and informed by staff who are subject matter experts. Non-compliance with a clinical procedure must be clearly documented in the patient's clinical record.
Riskman	A core software tool used by CHS for consumer and staff incident reporting, integrated risk management, legislative compliance, and quality improvement monitoring.
Tertiary care	The term tertiary care refers to services provided by hospitals with specialised equipment and expertise.

12. References List

Frameworks

- CHS Exceptional Care Framework 2020-2023
- CHS Clinical Governance Framework 2020-2023
- CHS Partnering with Consumers Framework 2020-2023
- CHS Corporate Plan 2020-2023

Policies & Procedures

- ACT Health Incident Management
- ACT Health Language Services
- Management of People Subject to Section 309 of the Crimes Act 1900

ACT Health Work Health and Safety

- ACT Health Work Health and Safety Management System
- CHS Consumer Feedback Management

CHS Consumer Handouts

- CHS Protective Security – Security Design for Facilities
- CHS, Seclusion of Persons Detained under the Mental Health Act 2015
- CHS, Restraint and or Forcible Giving of Medication to a person Detained under the Mental Health Act 2015

Annual Reports

- ACT Government, Annual Report 21-22, Canberra Health Services
- ACT Government, Annual Report 21-22, ACT Health Directorate

Legislation

- Human Rights Act 2004
- Charter of Health Care Rights
- Workplace Privacy Act 2011

13. Model of Service Development Participants

Position
Director Medical Imaging CHS
Clinical Director, Medical Imaging CHS
Deputy Clinical Director, Medical Imaging CHS
Director of Allied Health, Medical Imaging
Director of Operations, Medical Imaging
Assistant Director of Nursing, Medical Imaging CHS
Deputy Director, Health Care Consumers' Association
Senior Change Specialist, CSB Campus Modernisation
Medical Imaging, Client Liaison Officer, Campus Modernisation
Project Director, CSB Operational Commissioning

ACKNOWLEDGMENT OF COUNTRY

Canberra Health Services acknowledges the Traditional Custodians of the land, the Ngunnawal people. Canberra Health Services respects their continuing culture and connections to the land and the unique contributions they make to the life of this area. Canberra Health Services also acknowledges and welcomes Aboriginal and Torres Strait Islander peoples who are part of the community we serve.

ACCESSIBILITY

If you have difficulty reading a standard printed document and would like an alternative format, please phone 13 22 81.



If English is not your first language and you need the Translating and Interpreting Service (TIS), please call 13 14 50.

For further accessibility information, visit: www.health.act.gov.au/accessibility

www.health.act.gov.au | Phone: 132281

© Australian Capital Territory, Canberra