



KEMENTERIAN KESIHATAN MALAYSIA



PROTECTHEALTH

TAKLIMAT PENYUMBERLUARAN PESAKIT DARI HOSPITAL KKM KE KPJKS

8 FEBRUARI 2024

KOMPLEKS INSTITUT KESIHATAN NEGARA (NIH), SHAH ALAM, SELANGOR



PROTECTHEALTH

HOSPITAL SERVICES OUTSOURCING PROJECT: RADIOLOGY

8 February 2024

PRESENTATION OUTLINE

OVERVIEW

SCOPE OF WORK

REQUIREMENT

OTHERS

CT SCAN

CARDIAC CT

MRI

CARDIAC MRI

ULTRASOUND



OVERVIEW

Project Title

- Hospital Services Outsourcing for Diagnostic Imaging Procedures

Project Description

- General information on the imaging focus and brief information on the provider.

Project Timeline

- The project aims to have the first patient visit on April 2024.



SCOPE OF WORK – CT SCAN

Detailed Description

- List of CT services

Patient Selection/Eligibility for the Service

- Malaysian, focusing on elective/semi-urgent cases.

Potential Volume

- 18,000

Pre-procedural Care

- Consent form and pre-imaging medication

Post-procedural Care

- Emergency crisis



REQUIREMENT – CT SCAN

Equipment Needed

List of Equipment

Equipment license

System for maintenance, calibration and quality assurance

Staffing Requirements

Radiologists, Radiologic technologists, and supporting staffs

Board-certified and licensed with clinical experience

CV and reference letter

Facility Requirements

Emergency response

Radiology Department



REQUIREMENT – CT SCAN

Medication

IV Piriton

IV Hydrocortisone

B-blocker/Calcium channel blocker

Miscellaneous

Low Osmolar Contrast Media

Oral water on Table

Special preparations

Reporting Requirements

CD/DVD

Report within maximum of five (5) working days after the procedure

Image Archiving and Storage



SCOPE OF WORK – CARDIAC CT

Detailed Description

- Calcium Score and CT Coronary angiography

Patient Selection/Eligibility for the Service

- Malaysian, focusing on elective/semi-urgent cases.

Potential Volume

- 1300

Pre-procedural Care

- Counseling on cardiac CT scan necessity, procedure, and potential risks.

Reporting

- Report within maximum of five (5) working days after the procedure



REQUIREMENT – CARDIAC CT

Equipment Needed	CT Machine 128-slice, complete with cardiac software and post processing Emergency trolley Defibrillator
Staffing Requirements	Cardiologist and / OR Radiologist Trained Radiographer Paramedics
Facility Requirements	CT suites Observation area
Medications	Radio-Iodine Contrast, Beta Blocker, Calcium Channel Blocker, Corticosteroid and Anti-Allergy
Reporting	Should conform to CAD-RADS format of reporting



SCOPE OF WORK – MRI

Detailed Description

- List of MRI services

Patient Selection/Eligibility for the Service

- Malaysian, focusing on elective/semi-urgent cases.

Potential Volume

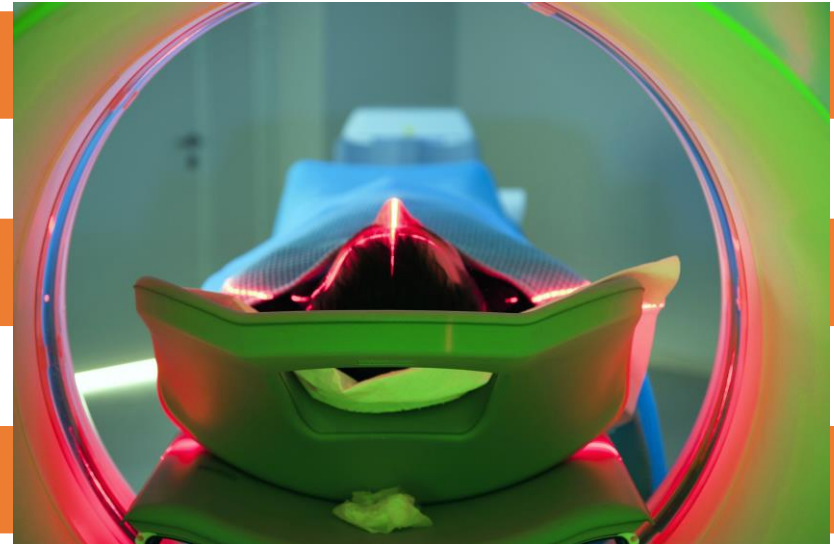
- 15,000

Pre-procedural Care

- Consent form and pre-imaging medication

Post-procedural Care

- Emergency crisis



REQUIREMENT – MRI

Equipment Needed

MRI system should be either 1.5T or 3.0T superconductive with a minimum bore size of 70 cm.

It must have dedicated MRI software tailored to specific organ systems.

Additionally, for cardiac MRI, it should align with cardiology specifications to ensure streamlined functionality.

Staffing Requirements

Radiologist positions include NSR registration with a minimum of 3 years of experience.

For Cardiac Radiologist/Imaging Specialist, a minimum of 5 years of experience, NSR registration, and a minimum Level 2 CMR training.

Trained radiographers, including MR cardiac radiographers

Facility Requirements

Emergency response

Radiology Department



REQUIREMENT –MRI



Medication

IV hydrocortisone

IV buscopan

Primovist

IV Piriton

Sedation

Reporting
Requirements

CD/DVD

Report within seven (7) working days after the procedure.



SCOPE OF WORK – CARDIAC MRI

Detailed Description

- MRI of the Heart. The MRI require usage of contrast and in some cases needed infusion Adenosine.

Patient Selection/Eligibility for the Service

- Malaysian, focusing on elective/semi-urgent cases.

Potential Volume

- 1500

Pre-procedural Care

- Consent form and pre-imaging medication

Reporting

- Observation for 30 minutes post procedure
- Report should be submitted in PHCorp system within 3 working days
- CD images + Drive shall be desptached to the referral hospital within 5 working days



REQUIREMENT – CARDIAC MRI

Equipment Needed

1.5 OR 3T MRI machine with cardiac software package

Emergency Trolley

Defibrillator

Staffing Requirements

Cardiologist and / OR Radiologist

Trained Radiographer

Paramedics (for stress cardiac MRI)

Facility Requirements

MRI suites

Observation area

Medications

Adenosine (for stress cardiac MRI)

Gadolinium contrast

Corticosteroid

Antiallergy

Reporting

Society for cardiovascular Magnetic Resonance (SCMR) guidelines for reporting cardiovascular magnetic resonance examinations



ADDITIONAL INFORMATION - MRI



MRI Protocol

MRI Reporting



SCOPE OF WORK – ULTRASOUND

Detailed Description

- List of Ultrasound services

Patient Selection/Eligibility for the Service

- Malaysian, focusing on elective/semi-urgent cases.

Potential Volume

- 10,000

Reporting

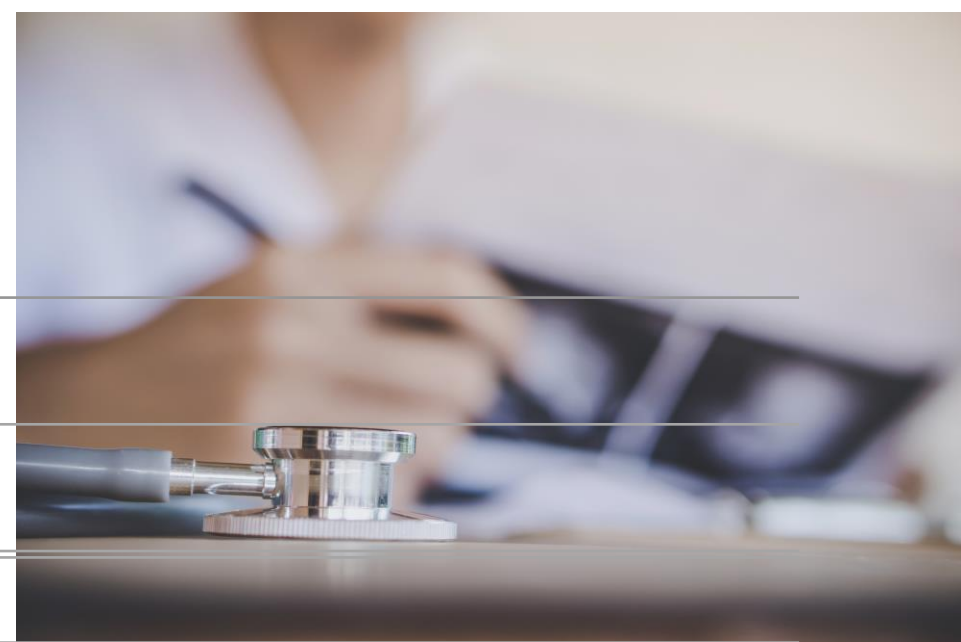
- General information on reporting

Examination Details

- Description terms based on parts



REQUIREMENT – ULTRASOUND



Equipment Needed	List of Equipment
	Equipment license
Staffing Requirements	Radiologists
	Board-certified and licensed with clinical experience
	CV
Facility Requirements	Emergency response
	Radiology Department
Reporting Requirements	Reason for Referral and History
	Report must be sent within 3 working days.
	Reporting Template



ADDITIONAL INFORMATION - ULTRASOUND



Ultrasound Reporting Template



OTHERS

Radiology Request
Form

Consent and
Checklist





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THANK YOU
