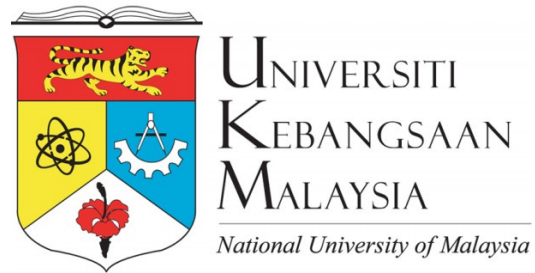


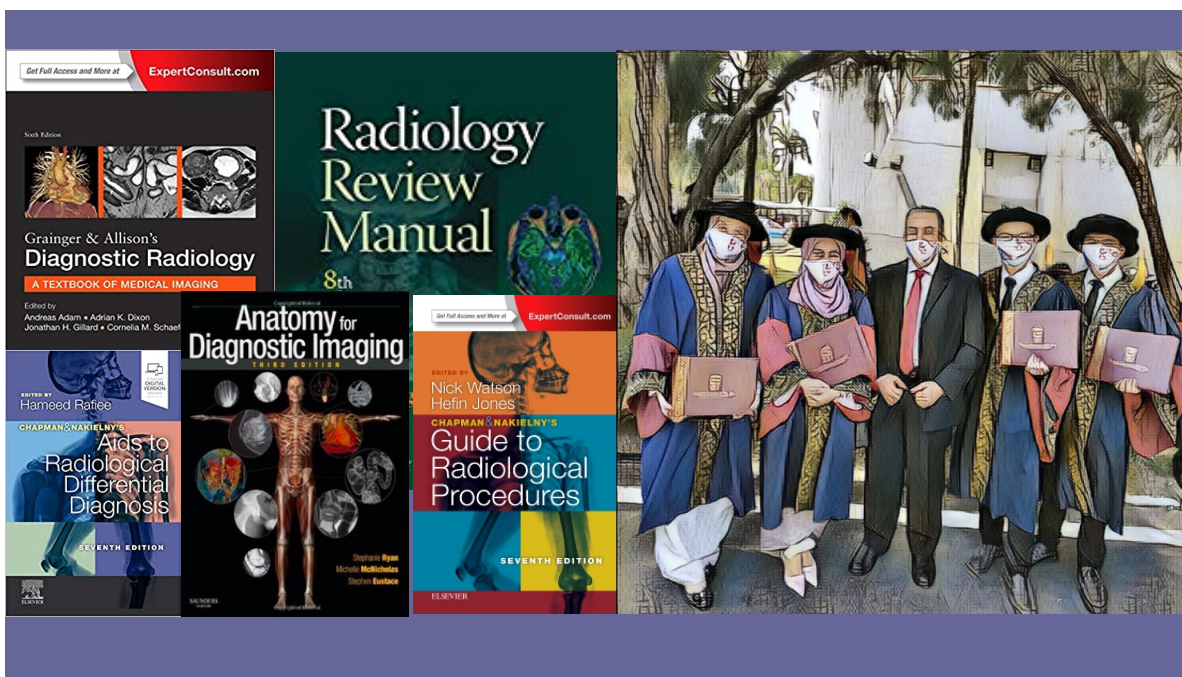
SESSION OF  
2026-2027



# DOCTOR OF RADIOLOGY (DrRad)UKM

POST-GRADUATE CLINICAL  
MASTER PROGRAMME

UNIVERSITI KEBANGSAAN  
MALAYSIA



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56000 Kuala Lumpur  
Malaysia

All questions should be diverted to:  
Jabatan Radiologi  
Fakulti Perubatan UKM  
Tel : 03-91455555 samb. 6172, 6173  
Fax: 03-91456682

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## **1. PROGRAMME INFORMATION**

### **1.1. Programme Name**

Doctor of Radiology (DrRad) UKM

### **1.2. Programme Educational Objectives**

The main goal is to increase the number of specialists in the field of Radiology. This programme not only produces radiologists who are competent from a clinical and medical point of view, but also knowledgeable in research to address issues and challenges in the field of medicine at various levels of education.

The objectives of this programme is to produce radiologists who:

PEO1: apply into practice the scientific knowledge and skills using digital technology in the field of radiology, for the improvement of patient care treatment methods.

PEO2: lead, communicate and interact effectively with stakeholders.

PEO3: competent in self-management, personal development and lifelong learning including innovation in the field of radiological medicine.

PEO4: exhibit ethical, professional behavior in career.

### **1.3. Programme Learning Outcomes**

1. Explain radiological medical knowledge in patient care.
2. Apply knowledge in the field of radiology and scientific approach as well as critical thinking in making decisions about patient treatment.
3. Perform clinical radiology procedures based on standard operating procedures.
4. Demonstrate the ability to interact and collaborate with various other professional teams.
5. Demonstrate how to effectively give oral and written advice.
6. Demonstrate skills in using digital technology in radiological medicine.
7. Using numerical skills in conducting research and patient care to improve knowledge in the field of radiology.
8. Demonstrate leadership qualities in leading a team and being able to make decisions in complex situations.
9. Exhibit good personal management skills in career.
10. Exhibit innovative nature in the field of radiology.
11. Exhibit medical ethics and act professionally throughout patient treatment process.

### **1.4. Main Training Centres**

1. Department of Radiology, Hospital Canselor Tuanku Muhriz (HCTM)
2. Department of Radiology, Hospital Tunku Ampuan Besar Tuanku Aishah Rohani, Hospital Pakar Kanak-Kanak UKM (HTABTAR)
3. Department of Diagnostic Imaging, Hospital Kuala Lumpur (HKL)
4. Department of Radiology, Hospital Tuanku Azizah (HTA), Kuala Lumpur

**1.5. Training Method**

Full time

**1.6. Training Duration**

Minimum 4 years (8 semesters);

Maximum 7 years (14 semesters)

**1.7. Program Entry Requirements:**

1. Medical degree from a university recognised by the Malaysian Medical Council (MMC)
2. Full registration certificate and current Annual Practising Certificate from MMC
3. Two years of clinical experience after graduation
4. Recommendation from at least two referees who are specialists, preferably radiologists
5. Passed the Medical Specialist Pre-entrance Examination (MedEx)
6. Passed the Radiology Entrance Exam (REE) and interview by Conjoint Board of Radiology

**1.8. Additional Entry Requirements for International / Overseas Candidates:**

1. English proficiency: IELTS at least level 6.5 or equivalent as approved by the Senate.
2. Completed a minimum of 3 months clinical observership in the Department of Radiology, HCTM (revised 2026).

## 2. TEACHING STAFF

### **Department of Radiology, Faculty of Medicine, Universiti Kebangsaan Malaysia.**

Address: Ground Floor, Hospital Canselor Tuanku Muhriz (HCTM)

#### **Head of Department**

Assoc. Prof. Dr. Faizah Mohd Zaki

MD (UKM), MMed (Rad) (UKM), Fellowship in Paediatric Radiology (Toronto)

Email: kjrdlg@hctm.ukm.edu.my

#### **Lecturers**

Prof. Dr. Hamzaini Abdul Hamid

MBBCh (Ireland), MMed (Rad) (UKM), Fellowship in Paediatric Radiology (Toronto)

Assoc. Prof. Datin Dr. Shahizon Azura Mohamed Mukari

MBChB (Glasgow), MMed (Rad) (UKM), Fellowship in Neuroradiology (UM)

Assoc. Prof. Dr. Suraya Aziz

MBBS, BMedSci (Nottingham), MMed (Rad) (UKM)

Assoc. Prof. Dr. Kew Thean Yean

MBBS, BMedSci (Nottingham), MMed (Rad) (UKM)

Dr. Rizwana Iqbal Hussain

MBBS (Bangalore), MMed (Rad) (UKM)

Assoc. Prof. Dr. Nur Yazmin Yaacob

MBChB (Otago), MMed (Rad) (UKM)

Dr. Erica Yee Hing @ Wong [Clinical Master of Radiology Coordinator]

MBBS (UM), DrRad (UKM)

Email: drradukm@ukm.edu.my

Dr. Mohd Imree Azmi

MBChB (Manchester), DrRad (UKM), Fellowship in Cardiovascular Magnetic Resonance (Leeds, UK)

Dr. Aida-Widure Mustapha Mohd Mustapha

MBChB (Sheffield), DrRad (UKM)

Dr. Leong Yuh Yang

MD (UKM), DrRad (UKM), FRCR UK, MMED NUS Sg, Fellowship in Interventional/Neurointerventional Radiology (UKM), Fellowship in Interventional Neuroradiology (NNI Sg)

Dr. Nik Farhan Nik Fuad

MB BCh BAO (NUI), DrRad (UKM)

Dr. Emilia Rosniza Mohammed Rusli  
MB BCh BAO (NUI), DrRad (UKM), Fellowship in Musculoskeletal Radiology (UKM, Mal), PG  
Dip. Interventional Pain Medicine (Korea University, South Korea)

Dr. Isa Azzaki Zainal  
MD (UGM), DrRad (UKM), Fellowship in Clinical Interventional Radiology (UKM), Fellowship  
in Interventional Neuroradiology (France)

Dr. Ho Shuang Yee  
MD (RSMU Russia), MMed (Diagnostic Radiology) (NUS Singapore), FRCR UK

Dr. Chai Jia Ning  
MBBS (UM), DrRad (UKM)

Dr. Ani Anisa Basir  
MBBS (UM), DrRad (UKM)

Dr. Izzat Arslan Che Ros  
MD (VSMU Russia), DrRad (UKM), Fellowship of Interventional Radiology (UKM),  
Fellowship of Interventional Neuroradiology (Limoges)

Dr. Muhammad Aminuddin Ashari  
MB BCh BAO (NUIG), DrRad (UKM)

Dr. Chong Chia Yin  
MBBS (Monash), DrRad (UKM)

Dr. Ahmad Zuhri Shin Abdul Halim  
MB BCh BAO (NUI), DrRad (UKM)

Assoc. Prof. Dr. Hanani Abdul Manan  
M.Sc. Medical Physics (USM), PhD. Biomedicine (Neuroimaging) (UKM)

**Department of Radiology, Faculty of Medicine, University of Malaya (Conjoint teaching)**

All lecturers of the Department of Radiology, UM

**Part-time/Visiting Lecturers**

Dr Rozana Hussain - PhD. Medical Physics  
Dr Mohd Syahrir bin Yusop - MB BCh BAO (NUI), MMed Nuclear Medicine (UKM)  
Assoc. Prof. Kanaga Kumari Chelliah - BSc in Medical Imaging (Curtin)

**Clinical Supervisors at Hospital Kuala Lumpur (HKL)**

Dr. Nurul Aida Selamat @ Keliwon  
Dr. Amali Ahmad  
Dr. Kartikasalwah Abd Latif

Dr. Wendy Ng Yin Ling  
Dr. Hairuddin Achmad Sankala  
Dr. Ong May Ling  
Dr. Melisa Lim Seer Yee  
Dr. Salinawati Bakin  
Dr. Sarah Yaziz  
Dr. Mohd Shafiq Sulaiman  
Dr. Victor Chong Xing Dao  
Dr. Siti Rohani Mohd Yakop  
Dr. Amanpreet Kaur Dhanoa  
Dr. Nur Atikah Mustafa  
Dr. Dalila Badrul Hisham  
Dr. Nor Asnani Mohd Ramli  
Dr. Mohd Hafiz Johari

**Clinical Supervisors at Hospital Tunku Azizah (HTA)**

Dr. Ng Chee Guan  
Dr. Hoo Hui May

### 3. CURRICULUM STRUCTURE

#### 3.1. Programme Structure

**DOCTOR OF RADIOLOGY PROGRAMME COURSES  
UNIVERSITY KEBANGSAAN MALAYSIA (UKM) (CURRICULUM REVIEW 2022)**

|    | COURSE CODE        | COMPULSORY COURSES                                 | SEMESTER | CREDIT HOURS |
|----|--------------------|----------------------------------------------------|----------|--------------|
| 1  | FFRD6119           | RADIOLOGY CORE I                                   | 1        | 9            |
| 2  | FFRD6116           | INTERVENTIONAL RADIOLOGY CORE I                    |          | 6            |
| 3  | FFRD6313           | CLINICAL RADIOLOGY I                               |          | 3            |
| 4  | FFFQ6611           | PROFESSIONAL & SELF DEVELOPMENT I                  |          | 1            |
|    |                    |                                                    |          |              |
| 5  | FFRD6129           | RADIOLOGY CORE II                                  | 2        | 9            |
| 6  | FFRD6126           | INTERVENTIONAL RADIOLOGY CORE II                   |          | 6            |
| 7  | FFRD6323           | CLINICAL RADIOLOGY II                              |          | 3            |
| 8  | FFFQ6621           | PROFESSIONAL & SELF DEVELOPMENT II                 |          | 1            |
|    |                    |                                                    |          |              |
| 9  | FFRD6139           | CLINICAL RADIOLOGY III                             | 3        | 9            |
| 10 | FFRD6236           | INTERVENTIONAL RADIOLOGY I                         |          | 6            |
| 11 | FFFQ6631           | PROFESSIONAL & SELF DEVELOPMENT III                |          | 1            |
| 12 | FFRD6433           | RESEARCH I: RESEARCH PROPOSAL                      |          | 3            |
|    |                    |                                                    |          |              |
| 13 | FFRD6149           | CLINICAL RADIOLOGY IV                              | 4        | 9            |
| 14 | FFRD6246           | INTERVENTIONAL RADIOLOGY II                        |          | 6            |
| 15 | FFFQ6641           | PROFESSIONAL & SELF DEVELOPMENT IV                 |          | 1            |
|    |                    |                                                    |          |              |
| 16 | FFRD6159           | CLINICAL RADIOLOGY V                               | 5        | 9            |
| 17 | FFRD6256           | INTERVENTIONAL RADIOLOGY III                       |          | 6            |
| 18 | FFFQ6651           | PROFESSIONAL & SELF DEVELOPMENT V                  |          | 1            |
|    |                    |                                                    |          |              |
| 19 | FFRD6169           | CLINICAL RADIOLOGY VI                              | 6        | 9            |
| 20 | FFRD6266           | INTERVENTIONAL RADIOLOGY IV                        |          | 6            |
| 21 | FFFQ6661           | PROFESSIONAL & SELF DEVELOPMENT VI                 |          | 1            |
| 22 | FFRD6463           | RESEARCH II: DATA COLLECTION                       |          | 3            |
|    |                    |                                                    |          |              |
| 23 | FFRD6179           | CLINICAL RADIOLOGY VII                             | 7        | 9            |
| 24 | FFRD6277           | INTERVENTIONAL RADIOLOGY V                         |          | 7            |
| 25 | FFFQ6671           | PROFESSIONAL & SELF DEVELOPMENT VII                |          | 1            |
|    |                    |                                                    |          |              |
| 26 | FFRD6189           | CLINICAL RADIOLOGY VIII                            | 8        | 9            |
| 27 | FFRD6287           | INTERVENTIONAL RADIOLOGY VI                        |          | 7            |
| 28 | FFFQ6681           | PROFESSIONAL & SELF DEVELOPMENT VIII               |          | 1            |
| 29 | FFRD6483           | RESEARCH III: DISSERTATION PRESENTATION & WRITE-UP |          | 3            |
|    | TOTAL CREDIT HOURS |                                                    |          | 145          |

### 3.2. Course Information

| Phase   | Year/<br>Semester                                                    | Syllabus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Formative<br>assessment                                                                  | Summative<br>assessment             |
|---------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------|
| Phase 1 | Year 1<br>(Semesters 1<br>& 2)                                       | <ul style="list-style-type: none"> <li>- imaging modality-based rotations</li> <li>- formal lectures covering all 3 components of radiology basics</li> <li>- Active and passive on-calls (angio)</li> </ul> <p>3 components of radiology basics:</p> <ol style="list-style-type: none"> <li>1. Radiology physics, apparatus, film acquisition and film faults.</li> <li>2. Radiographic anatomy, trauma of the extremities</li> <li>3. Radiology techniques, contrast media and related drugs.</li> </ol> | RIBA (x4)<br>RPBA (x4)<br>MSF (x1)                                                       | Part I exam<br>(end of semester 2)  |
|         | Year 2<br>(Semesters 3<br>& 4)<br><br>Year 3<br>(Semesters 5<br>& 6) | <ul style="list-style-type: none"> <li>- imaging modality-based rotations</li> <li>- formal lectures covering radiological pathologies of all the body systems</li> <li>- radiological procedures and theoretical knowledge in clinical radiology.</li> <li>- TWO (2) case reports (1/year)</li> <li>- Submission of research proposal to ethics and conduct a research project</li> <li>- Active and passive on-calls</li> <li>- Presenting in weekly clinical-radiology conferences</li> </ul>           | RIBA (x4)<br>RPBA (x4)<br>MSF (x1)<br><br>RIBA (x4)<br>RPBA (x4)<br>MSF (x1)<br>MDT (x2) | Part II exam<br>(end of semester 6) |

|                |                                    |                                                                                                                                                                                                                                                                                                                                                  |                                                |                                   |
|----------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------|
| <b>Phase 3</b> | <b>Year 4</b><br>(Semesters 7 & 8) | <ul style="list-style-type: none"> <li>- Continues clinical rotation</li> <li>- On-calls</li> <li>- functions as a Registrar/ Junior Specialist and supervises the junior trainees</li> <li>- Active participation in clinical-radiology conferences</li> <li>- ONE (1) case report</li> <li>- Submission of a completed dissertation</li> </ul> | RIBA (x4)<br>RPBA (x4)<br>MSF (x1)<br>MDT (x2) | Part III exam (end of semester 8) |
|----------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------|

RIBA – Radiology imaging-based assessment

RPBA – Radiology procedural-based assessment

MSF – Multi-source feedback

MDT – Multi-disciplinary teamwork assessment

| PHASE                                       | YEAR & SEMESTER          |
|---------------------------------------------|--------------------------|
| <b>Phase 1</b>                              | Year 1 – Semesters 1 & 2 |
| <b>PART I EXAMINATION</b>                   |                          |
| <b>Phase 2</b>                              | Year 2 – Semesters 3 & 4 |
|                                             | Year 3 – Semesters 5 & 6 |
| <b>PART II EXAMINATION</b>                  |                          |
| <b>Phase 3</b>                              | Year 4 – Semesters 7 & 8 |
| <b>PART III EXAMINATION<br/>(EXIT EXAM)</b> |                          |

## **4. ASSESSMENT METHODS**

### **4.1. Summative Assessments**

#### **4.1.1. Part I Examination**

Held at the end of Phase I. Logbook must be handed in before registration of examination.

The examination consists of 4 components:

**a) Objective Structured Practical Examination (OSPE)**

- 2 stations, 15 minutes each
- Practical questions related to radiological procedures

**b) Multiple Choice Questions (MCQ)**

- 1 paper (2 hours)
- 3 sections: physics, radiological anatomy & radiological technique
- Each section 20 questions, total 60 questions

**c) Objective Structured Clinical Examination (OSCE)**

- 20 film exhibits in a 60-minute session
- Questions related to radiography, radiographic anatomy, radiological techniques, and physics.

**d) Viva Voce**

- Station A 30 minutes – physics, anatomy & technique
- Station B 30 minutes – anatomy & technique

**Requirements for passing:**

- i. Obtain a percentage of at least 50% in each component.
- ii. Candidates are required to pass all components to pass the examination.
- iii. A candidate who has passed one or more components in Part I examination shall be deemed to have passed those components and shall not be required to repeat them in the following attempts.
- iv. Candidate who fails Part I at first attempt:
  - does not continue into the next stage of the programme and will be extended 6 months.
  - shall be permitted a re-sit in the next examination 6 months later.
  - shall be required to repeat the component(s) that he/she has failed in Part I examination.

**Number of attempts permitted to pass Part 1 examination:**

- Candidates are allowed a maximum of TWO (2) YEARS to pass Part I examination.
- A maximum number of THREE (3) attempts are allowed in the 2-year period.
- Candidates who do not pass the Part 1 examination within 2 years will LEAVE the course.

#### 4.1.2. Part II Examination

Held at the end of Year 3. Logbook to be handed in before registration of examination.

The examination consists of 3 components:

**a) Single Best Answer (SBA)**

2 papers, each contains 100 questions, 2 hour 30 minutes each

**b) Film Reporting (FR)**

8 questions containing various images, 1 hour 20 minutes

**c) Viva voce:**

2 stations of clinical radiology questions containing various images,  
30 minutes / station

#### Requirements for passing:

- v. Passing mark for SBA component is based on standard settings set by the Conjoint Board of Radiology in every exam
- vi. Passing mark for viva voce is 50%
- vii. Passing mark for film reporting is 50%
- viii. Candidates are required to pass all components to pass the examination.
- ix. A candidate who has passed one or more of the components of Part II examination shall be deemed to have passed those components and shall not be required to repeat them in the following attempts.
- x. A candidate who fails Part II examination:
  - will not proceed to Year 4 and shall be extended 6 months.
  - shall be permitted a re-sit in the next examination 6 months later.
  - will be required to repeat those components that he/she has failed in Part II exam.

#### Number of attempts permitted to pass Part II examination:

- A maximum number of **THREE (3) attempts** are permitted for Part II examination.

#### 4.1.3. Part III Examination

Logbook to be handed in before registration of examination.

The examination consists of 3 components:

**a) Rapid Film Reporting**

Held at end of Year 4. 25 images, 30 minutes.

**b) Dissertation**

Assessment by a panel consisting of internal examiners.

**c) Case Reports**

Submission of 3 case reports

**Requirements for passing:**

- i. Passing mark for Rapid Film Reporting and dissertation = 50% each.
- ii. A candidate must pass Rapid Film Reporting and dissertation, and has submitted all case reports to be awarded Doctor of Radiology (UKM).
- iii. Additional requirements by Faculty of Medicine for graduation:
  - Compulsory Course Requirements: Malay Language Course (International Students).
  - Writing a dissertation in the format specified by the Faculty of Medicine.
  - Proof of submission of one (1) article to a refereed journal; or
  - Presenting at least one (1) research paper at a local / international conference; or
  - Publishing in one (1) proceeding.
- iv. A candidate who fails any of the components shall be extended 6 months.

**Number of attempts permitted to pass Part II examination:**

- A maximum number of **THREE (3) attempts** are permitted for Part III examination.

#### 4.1.4. Appeal for the continuance of study

- A student attending study under sub-regulation 6(d) who has been terminated and given the "Failed and Dismissed" status may appeal for the continuance of study with approval from the Supervisor / Programme Coordinator / Head of Department and subject to the improvement of the student's academic performance as validated by the Graduate Studies Committee.
- Each appeal must be submitted to the Dean/Director within four (4) weeks from the release date of the official decision based on the Candidate Progress Report (LKC).

- Any appeal received after the period referred to in sub-regulation 52 (2) will not be considered.
- Each appeal must be accompanied by a prescribed processing fee which is nonrefundable.
- Each appeal application received shall be considered by Faculty / Institute's Graduate Studies Committee for Senate approval.
- The decision of the Senate is final and no further appeal will be considered.
- In the event of any discrepancies, UKM Regulations (Graduate Studies) (<https://www.ukm.my/spsfper/wp-content/uploads/2023/02/UKM-STUDENTS-REGULATIONS-2021.pdf>) are referred to as the ultimate authority.

#### 4.2. Formative Assessments

Formative assessments consist of assessments in the workplace in addition to the traditional examinations of knowledge and clinical skills. They include:

- Learning Agreements (LA)
- Supervisor Reports
- Workplace-based Assessments (WPBA)
  - Radiology Imaging based Assessment (RIBA)
  - Radiology Procedural based Assessment (RPBA)
  - Multi-Disciplinary teamwork assessment (MDT)
  - Multi-Source Feedback (MSF)
  - Logbook

| TYPE OF FORMATIVE ASSESSMENT | Frequency / time period | Total throughout the program |
|------------------------------|-------------------------|------------------------------|
| Learning Agreement (LA)      | 3x / 4 years            | 3                            |
| Supervisor Report            | 1x / 1 semester         | 8                            |
| RIBA                         | 2x / 1 semester         | 16                           |
| RPBA                         | 2x / 1 semester         | 16                           |
| MDT                          | 1x / 1 semester         | 4                            |
| MSF                          | 1x / 1 year             | 4                            |
| Logbook                      | 1x / 1 phase            | 3                            |

##### 4.2.1. Learning Agreements (LA)

A learning agreement is a device for setting targets for learning and checking that they have been achieved. It is an extremely important tool for the radiology trainee with the following purposes:

- i. Ensure that both the trainee and the trainer clearly understand what needs to be achieved during the attachment
- ii. Set clear and achievable goals for the trainee
- iii. Identify tangible ways in which the trainer will support the trainee
- iv. Articulate any obstacles or problems that the trainee is experiencing and identifies actions by which they will be overcome
- v. Create a tangible record of the trainee's progress during each attachment which is a key piece of evidence that must be kept in the trainee's portfolio and the trainer's records

##### 4.2.2. Supervisor Reports

A supervisor's report needs to be performed by the trainer every 6 months. The report provides a wholistic assessment of the trainee including knowledge and professionalism.

#### **4.2.3. Radiology Imaging Based Assessment (RIBA)**

*Purpose:*

The tool is designed to assess a trainee's ability to interpret medical images and to provide feedback to the trainee to identify areas of necessary improvement.

*Target trainees and activities:*

The tool is designed for use in clinical postings throughout training. In Phase 1, it will be used to assess trainee's knowledge on relevant anatomy, clinical indication for specific radiological examination and imaging techniques. In Phase 2-3 it will be used to assess image interpretation knowledge such as reporting a CT brain, reporting an MRI lumbar spine.

*Description of the tool:*

The RIBA uses a checklist of 8 items within 3 domains to facilitate structured feedback on satisfactory and unsatisfactory performance in interpreting and reporting radiological images and other tests. A 4-point global rating scale provides general feedback statements on the trainee's overall performance and makes recommendations as to the level of supervision required in the future.

*How to use the tool:*

- i. During the clinical posting, trainee and trainer agree on a case that is appropriate to the level of training (both trainee and trainer may trigger the assessment).
- ii. The trainer observes all or part of the imaging interpretation depending on the phase of training.
- iii. Types of modalities: radiographs, mammography, CT Scan, MRI, nuclear medicine. Images from angiography, fluoroscopy and ultrasound can also be used for interpretation assessment.
- iv. The trainee writes the report on the imaging
- v. The trainer reads the report alongside any other available documentation
- vi. The trainer completes the form and provides feedback to the trainee, clearly identifying areas for improvement and recognising progress
- vii. Trainee and trainer sign the form, which is entered into both the trainer and the trainee portfolio

#### **4.2.4. Radiology Procedure Based Assessment (RPBA)**

*Purpose:*

The tool is designed to assess a trainee's competence on various radiology procedure related tasks especially the core procedures.

*Target trainees and activities:*

The tool is designed for use in clinical postings throughout training. In Phase 1, it will be used to assess trainee's skill in performing ultrasound abdomen and techniques of some of the core procedures such as nephrostomy. In Phase 2-3 it will be used to assess trainee's skills in performing the core radiological procedures as outlined in the syllabus.

*Description of the tool:*

The RIBA uses a checklist of 13 items within 4 domains to facilitate structured feedback on satisfactory and unsatisfactory performance in performing core radiological procedures. A 4-point global rating scale provides general feedback statements on the trainee's overall performance and makes recommendations as to the level of supervision required in the future.

*How to use the tool:*

- i. During the clinical posting. Trainee and trainer agree on a procedure that is appropriate to the level of training (both trainee and trainer may trigger the assessment).
- ii. The trainer observes the trainee performing the radiological procedure depending on the phase of training.
- iii. Types of modalities: Ultrasound (diagnostic and therapeutic), CT/MR guided procedures, fluoroscopy (diagnostic and therapeutic), angiography (diagnostic and therapeutic).
- iv. The trainer completes the form and provides feedback to the trainee, clearly identifying areas for improvement and recognising progress
- v. Trainee and trainer sign the form, which is entered into both the trainer and the trainee portfolio

#### **4.2.5. Multidisciplinary Team Assessment (MDT)**

*Purpose:*

The tool is designed to assess a trainee's competence in conducting multidisciplinary team meeting.

*Target trainees and activities:*

The tool is designed for use in phase 2 & 3 during multidisciplinary team meeting.

*Description of the tool:*

The RIBA uses a checklist of 7 items within 2 domains to facilitate structured feedback on satisfactory and unsatisfactory performance in conducting multidisciplinary team meeting. A 4-point global rating scale provides general feedback statements on the trainee's overall performance and makes recommendations as to the level of supervision required in the future.

*How to use the tool:*

- i. The trainer observes the trainee conducting the MDT.
- ii. The trainer completes the form and provides feedback to the trainee, clearly identifying areas for improvement and recognising progress.
- iii. Trainee and trainer sign the form, which is entered into both the trainer and the trainee portfolio.

#### **4.2.6. Multisource Feedback Assessment (MSF)**

*Purpose:*

The tool is designed to assess a trainee's competence and work ethics in their daily postings/placements

*Target trainees and activities:*

The tool is designed for use in all phases of training.

*Description of the tool:*

The MSF uses a checklist of 9 items within 2 domains to facilitate structured feedback on satisfactory and unsatisfactory performance in daily work/training.

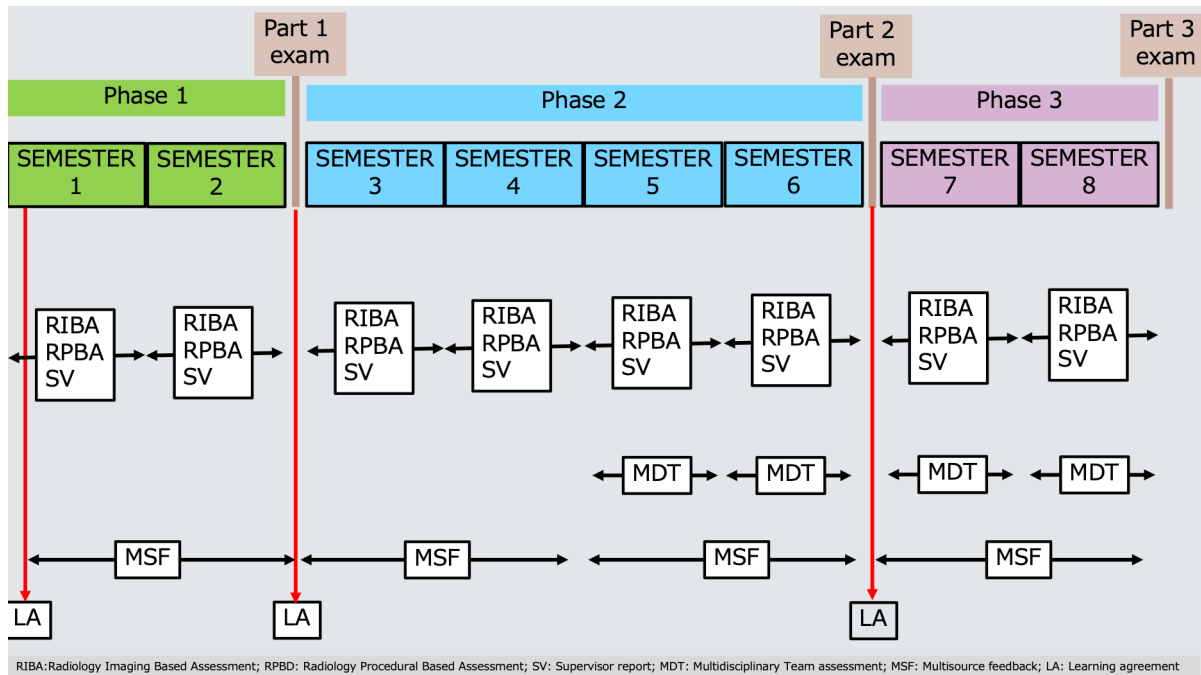
*How to use the tool:*

- i. Trainee can ask one of his/her colleagues or other staffs who has been working with him/her to assess.
- ii. The MSF will be completed for each trainee by 3 senior trainees who are at least 6 months ahead in the training. Subordinates such as radiographers, and medical assistants can also assess trainee.
- iii. The trainer/supervisor assess the MSF forms, clearly identifying areas for improvement and recognising progress
- iv. The form will then be part of the supervisor's report, which will be entered into both the trainer and the trainee portfolio

#### **4.2.7. Logbooks**

This is a record of cases reported and procedures observed/ assisted/ performed. The trainer in charge of the posting will sign the logbook to verify the students participation in the procedure.

## Summary of WPBA along the course of programme



## UNIVERSITY AND FACULTY POLICIES AND REGULATIONS

- a) This programme handbook should be read in conjunction with the academic regulations of the university and the faculty. In the event of any inconsistency, the university regulations shall be referred to as the primary authority.
- b) Students are responsible for referring to and complying with the following official documents (not limited to):
  - i. UKM Regulations (Graduate Studies) 2021
  - ii. Guidelines for Graduate Misconduct Complaint
  - iii. The UKM Thesis Writing Guideline According to GAYA UKM (BI Version)
- c) These documents can be accessed through the official portal of UKM Centre for Academic Management (<https://www.ukm.my/akademik/>), Secretariat of Postgraduate Studies Faculty of Medicine UKM (<https://www.ukm.my/spsfper/>) or other designated official communication channels.

**Learning Agreement (LA) Record**

| Trainee Name | MMC Number | Trainee Student ID | Year of training | Phase of training |
|--------------|------------|--------------------|------------------|-------------------|
|              |            |                    |                  |                   |

|                     |  |               |  |
|---------------------|--|---------------|--|
| Place of attachment |  | Trainer 1     |  |
| Start date          |  | Trainer 2     |  |
| End date            |  | Meeting date: |  |

| 1. Agenda                                                                                                        |  |
|------------------------------------------------------------------------------------------------------------------|--|
| a) Discussion of timetable and on-call rotation                                                                  |  |
| b) Explore practicalities of attachment<br>(planned absences, conferences etc.)<br>*For both trainer and trainee |  |
| c) Agree dates for future meetings and SV reports<br><br>i) Supervisor Report 1<br>ii) Supervisor Report 2       |  |
| d) Discuss future plans and career aspirations                                                                   |  |
| e) Plans, targets & personal goals                                                                               |  |

## 2. Educational Objectives and Assessments Summary

Have the targets within the Learning Agreement been achieved?

(Please specify any actions or recommendations for future attachment)

### The Educational and Assessment Components

a) Applied Clinical Skills (Procedure Profile)

b) Applied Clinical Knowledge

c) Professional & Management

d) Audit/ Research Activity

e) Assessment:

- i) RIBA
- ii) RPBA
- iii) MDT (Phase 2 & 3)
- iv) MSF

Signatures:

|          |  |         |  |      |  |
|----------|--|---------|--|------|--|
| Trainers |  | Trainee |  | Date |  |
|----------|--|---------|--|------|--|

**Malaysian Post-graduate radiology curriculum****Radiology Imaging Based Assessment**

|                                                                        |                   |                                       |                       |            |               |                        |  |
|------------------------------------------------------------------------|-------------------|---------------------------------------|-----------------------|------------|---------------|------------------------|--|
| <b>Trainee:</b>                                                        |                   |                                       | <b>Assessor:</b>      |            |               | <b>Date:</b>           |  |
| <b>Start time:</b>                                                     |                   |                                       | <b>End time:</b>      |            |               | <b>Duration:</b>       |  |
| <b>System</b>                                                          | <b>Neuro/ ENT</b> | <b>Body Imaging<br/>(GI/ GU/ HPB)</b> | <b>Chest/ Cardiac</b> | <b>MSK</b> | <b>Breast</b> | <b>Other (specify)</b> |  |
| <b>Brief clinical summary</b>                                          |                   |                                       |                       |            |               |                        |  |
| <b>Complexity</b>                                                      | <b>Low</b>        |                                       | <b>Average</b>        |            | <b>High</b>   |                        |  |
| <b>Case more difficult than usual? Yes / No (If yes, state reason)</b> |                   |                                       |                       |            |               |                        |  |

**Score:** **N** = Not observed or not appropriate    **U** = Unsatisfactory **S** = Satisfactory

| Competencies and Definitions |                                                                                            | Score<br>N / U / S | Comments |
|------------------------------|--------------------------------------------------------------------------------------------|--------------------|----------|
| <b>I.</b>                    | <b>Core knowledge</b>                                                                      |                    |          |
| C1                           | Demonstrates knowledge of relevant radiological anatomy                                    |                    |          |
| C2                           | Demonstrates understanding of clinical context and use of the appropriate imaging modality |                    |          |
| <b>II.</b>                   | <b>Image analysis</b>                                                                      |                    |          |
| IA1                          | Demonstrates ability to identify normal and abnormal findings                              |                    |          |
| IA2                          | Demonstrates the ability to formulate a diagnosis based on imaging findings                |                    |          |
| IA3                          | Demonstrates ability to correlate the imaging findings with the previous investigations    |                    |          |
| IA4                          | Demonstrates the ability to correlate the imaging findings with the clinical context       |                    |          |
| <b>III.</b>                  | <b>Report and Communication</b>                                                            |                    |          |
| RC1                          | Able to generate a report                                                                  |                    |          |
| RC2                          | Able to communicate findings to clinicians and discuss relevant findings                   |                    |          |

**Global summary**

| Level at which completed elements of the RIBA were performed |                                                                                         | Tick as appropriate | Comments |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------|----------|
| Level 0                                                      | Insufficient evidence observed to support a judgement                                   |                     |          |
| Level 1                                                      | Fails to identify abnormal findings or incorrectly identify normal findings as abnormal |                     |          |
| Level 2                                                      | Fails to formulate an appropriate diagnosis                                             |                     |          |
| Level 3                                                      | Able to reach a reasonable diagnosis with appropriate differential diagnosis            |                     |          |
| Level 4                                                      | Able to write accurate and clear reports with appropriate suggestions/ management       |                     |          |

Level 0-2: Unsatisfactory. For remedial.

Level 3-4: Satisfactory

Signatures:

|          |              |
|----------|--------------|
| Trainee: | Assessor(s): |
|----------|--------------|

## Assessment Validation for Imaging Interpretation

**Specialty: Radiology**

| Competencies and Definitions        |                                                                                                                 | Satisfactory Behaviours                                                                                          | Unsatisfactory Behaviours                                                                                        |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>V. Core knowledge</b>            |                                                                                                                 |                                                                                                                  |                                                                                                                  |
| C1                                  | Demonstrates adequate knowledge of relevant radiological anatomy                                                | Able to identify normal and variant of radiological anatomy on different imaging modalities                      | Fails to identify normal and clinically relevant variant/anomaly of radiological anatomy                         |
| C2                                  | Understands the clinical context and usage of the relevant imaging modality                                     | Able to obtain the relevant clinical information and offer the appropriate imaging modality/ies                  | Fails to obtain adequate clinical information and offer inappropriate imaging modality                           |
| <b>VI. Image analysis</b>           |                                                                                                                 |                                                                                                                  |                                                                                                                  |
| IA1                                 | Demonstrates ability to identify normal and abnormal findings in various imaging modalities                     | Able to identify the key abnormalities and differentiate this from normal findings on various imaging modalities | Fails to identify abnormal findings or incorrectly identifies findings as abnormal                               |
| IA2                                 | Demonstrates ability to formulate a diagnosis based on the imaging findings                                     | Able to combine relevant radiological findings and formulate the appropriate diagnosis                           | Fails to use the relevant radiological findings and formulate the appropriate diagnosis                          |
| IA3                                 | Demonstrates ability to correlate the imaging findings with the previous investigations                         | Able to use the previous relevant investigations and correlate with the current imaging finding                  | Unable to make a correlation between the previous investigations and the imaging finding                         |
| IA4                                 | Demonstrates the ability to correlate imaging findings with clinical context (history, lab, clinical scenarios) | Able to correlate clinical context with the current imaging findings                                             | Unable to correlate clinical context with the current imaging findings                                           |
| <b>II. Report and Communication</b> |                                                                                                                 |                                                                                                                  |                                                                                                                  |
| RC1                                 | Able to generate a report                                                                                       | Able to write a clear and concise report that is grammatically correct and has all the relevant findings         | Unable to write an accurate and clear report                                                                     |
| RC2                                 | Able to communicate findings to clinicians and discuss                                                          | Clarify the findings and proposed management strategies that student plan to communicate to clinicians           | Unable to clarify the findings and proposed management strategies that student plan to communicate to clinicians |

Malaysian Post-graduate radiology curriculum**Radiology Procedure Based Assessment**

|                                                                             |                  |                  |
|-----------------------------------------------------------------------------|------------------|------------------|
| <b>Trainee:</b>                                                             | <b>Assessor:</b> | <b>Date:</b>     |
| <b>Start time:</b>                                                          | <b>End time:</b> | <b>Duration:</b> |
| <b>Name of Procedure:</b>                                                   |                  |                  |
| <b>Procedure more difficult than usual? Yes / No (If yes, state reason)</b> |                  |                  |

**Score:** **N** = Not observed or not appropriate    **U** = Unsatisfactory    **S** = Satisfactory

| Competencies and Definitions |                                                                                                                                                                             | Score<br>N / U / S | Comments |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------|
| <b>I.</b>                    | <b>Consent</b>                                                                                                                                                              |                    |          |
| C1                           | Demonstrates sound knowledge of indications and contraindications including alternatives to the procedure                                                                   |                    |          |
| C2                           | Explains the perioperative process and steps of procedure to the patient and/or relatives or carers                                                                         |                    |          |
| C3                           | Demonstrates awareness of sequelae and complications of procedure                                                                                                           |                    |          |
| C4                           | Explains likely outcome and time to recovery and checks understanding                                                                                                       |                    |          |
| <b>II.</b>                   | <b>Pre procedure planning</b>                                                                                                                                               |                    |          |
| PL1                          | Checks patient records, personally reviews investigations                                                                                                                   |                    |          |
| PL2                          | Demonstrates ability to make reasoned choice of appropriate equipment, contrast media and devices                                                                           |                    |          |
| PL3                          | Demonstrates recognition of anatomical and pathological abnormalities (and relevant co-morbidities) and selects appropriate corresponding procedural strategies/techniques. |                    |          |
| <b>III.</b>                  | <b>Procedural technique</b>                                                                                                                                                 |                    |          |
| PT1                          | Patient positioning, localisation of region of interest and asepsis                                                                                                         |                    |          |
| PT2                          | Appropriate and safe use of analgesia and/or sedation.                                                                                                                      |                    |          |
| PT3                          | Demonstrates safe and competent technical ability using devices and imaging modalities to perform the procedure                                                             |                    |          |
| PT4                          | Demonstrates relevant radiation protection measures                                                                                                                         |                    |          |
| PT5                          | The ability to recognise and manage complication and to seek help when appropriate                                                                                          |                    |          |
| <b>IV.</b>                   | <b>Post procedural management</b>                                                                                                                                           |                    |          |
| PM1                          | Monitoring of vital signs and post procedural care                                                                                                                          |                    |          |

## Global summary

| Level at which completed elements of the PBA were performed |                                                                                     | Tick as appropriate | Comments |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------|----------|
| Level 0                                                     | Insufficient evidence observed to support a judgement                               |                     |          |
| Level 1                                                     | Unable to perform the procedure under supervision                                   |                     |          |
| Level 2                                                     | Able to perform the procedure under supervision                                     |                     |          |
| Level 3                                                     | Able to perform the procedure with minimum supervision (would need occasional help) |                     |          |
| Level 4                                                     | Competent to perform the procedure unsupervised (could deal with complications)     |                     |          |

Level 0-2: Unsatisfactory. For remedial.

Level 3-4: Satisfactory

## Signatures:

|          |              |
|----------|--------------|
| Trainee: | Assessor(s): |
|----------|--------------|

# Assessment Validation for Radiological Procedures

Specialty: Radiology

| Competencies and Definitions          |                                                                                                                                        | Satisfactory Behaviours                                                                                                                                                                                                                                   | Unsatisfactory Behaviours                                                                                         |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>V. Consent</b>                     |                                                                                                                                        |                                                                                                                                                                                                                                                           |                                                                                                                   |
| C1                                    | Demonstrates sound knowledge of indications and contraindications including alternatives to the procedure                              | Explains using examples relevant to the patient: <ul style="list-style-type: none"> <li>■ Principle benefit of procedure</li> <li>■ Subsequent improvement</li> <li>■ Limitations of procedure</li> <li>■ Consequences of not having procedure</li> </ul> | Fails to point out the limitations of the procedure                                                               |
| C2                                    | Explains the perioperative process and steps of procedure to the patient and/or relatives or carers                                    | Describes the entire procedure step-by-step and checks patients/relatives understanding                                                                                                                                                                   | Uses medical jargon, misses relevant steps of the procedure and does not check patient's/carers understanding     |
| C3                                    | Demonstrates awareness of sequelae and complications of procedure                                                                      | Describes consequences, prioritises complications and checks patient understanding                                                                                                                                                                        | Fails to mention key consequences and complications                                                               |
| C4                                    | Explains likely outcome and time to recovery and checks understanding                                                                  | Describes the outcome and benefit of the procedure and checks patient understanding                                                                                                                                                                       | Fails to mention about outcome and benefit                                                                        |
| <b>I. Pre procedural planning</b>     |                                                                                                                                        |                                                                                                                                                                                                                                                           |                                                                                                                   |
| PL1                                   | Demonstrates recognition of anatomical and pathological abnormalities and selects appropriate procedural techniques to deal with these | Articulates the realistic clinical findings and correlates to the correct procedure                                                                                                                                                                       | Fails to take into account specific medical conditions and selects inappropriate procedure                        |
| PL2                                   | Demonstrates ability to make reasoned choice of appropriate equipment, materials or devices including contrast media                   | Chooses the appropriate equipment, contrast media and devices for the procedure                                                                                                                                                                           | Makes an inappropriate decision regarding equipment, contrast media and devices                                   |
| PL3                                   | Checks patient records, request form and relevant investigations                                                                       | Ensures that the relevant information such as investigative findings are present, checks wristband                                                                                                                                                        | Fails to check notes to ensure all information is available that is needed                                        |
| <b>II. Procedural Technique</b>       |                                                                                                                                        |                                                                                                                                                                                                                                                           |                                                                                                                   |
| PT1                                   | Patient positioning, localisation of region of interest and asepsis                                                                    | Correct positioning of patient, able to identify region of interest using imaging and good aseptic technique                                                                                                                                              | Inappropriate patient positioning, unable to localise region of interest using imaging and poor aseptic technique |
| PT2                                   | Use of analgesia, sedation and drugs                                                                                                   | Selects appropriate analgesia, sedation and/or drugs for the procedure                                                                                                                                                                                    | Inappropriate or inadequate use of sedation and/or analgesia and other drugs                                      |
| PT3                                   | Demonstrates safe and competent technical ability using devices and imaging modalities to perform the procedure                        | Shows competence in performing the procedure                                                                                                                                                                                                              | Unable to perform the relevant steps in the procedure                                                             |
| PT4                                   | Demonstrates relevant radiation protection measures                                                                                    | Implements ALARA principle with appropriate radiation shields                                                                                                                                                                                             | Does not apply ALARA principle and radiation protection techniques                                                |
| PT5                                   | The ability to recognise and manage complications and to seek help when appropriate                                                    | Able to recognise the warning signs of complications and act accordingly                                                                                                                                                                                  | Unable to recognise or treat complications                                                                        |
| <b>II. Post procedural management</b> |                                                                                                                                        |                                                                                                                                                                                                                                                           |                                                                                                                   |
| PM1                                   | Monitoring of vital signs and post procedure care                                                                                      | Gives relevant instructions for monitoring and after care                                                                                                                                                                                                 | Does not give appropriate instructions                                                                            |

**Malaysian Post-graduate radiology curriculum****Multi Source Feedback (MSF)**

Trainee Name: .....

Matric / IC No: .....

Phase of Training: ☐ 1 ☐ 2 ☐ 3Year(s) of professional contact: ☐ 6months - 1 year ☐ >1 year

Supervisor Name: .....

\*Please tick (/) the appropriate box

|                              |                                               | Satisfactory | Unsatisfactory | Comment |
|------------------------------|-----------------------------------------------|--------------|----------------|---------|
| <b>Communication</b>         |                                               |              |                |         |
| 1.                           | Verbal Communication                          |              |                |         |
| 2.                           | Teamwork                                      |              |                |         |
| 3.                           | Approachability                               |              |                |         |
| 4.                           | Temperament and ability to cope with stress   |              |                |         |
| 5.                           | Listening ability                             |              |                |         |
| <b>Professionalism</b>       |                                               |              |                |         |
| 1.                           | Ethics and confidentiality                    |              |                |         |
| 2.                           | Responsible behaviour and punctuality         |              |                |         |
| 3.                           | Professional appearance                       |              |                |         |
| 4.                           | Integrity, honesty, compassion and respectful |              |                |         |
| 5.                           | Awareness of own limitations                  |              |                |         |
| <b>Knowledge &amp; Skill</b> |                                               |              |                |         |
| 1.                           | Adherence to departmental SOP                 |              |                |         |
| 2.                           | Proper handling of equipment and asset.       |              |                |         |

Assessor's Name and designation: .....

Date: .....

\*\*Completed form to be submitted directly to the supervisor.

**Malaysian Post-graduate radiology curriculum****Multi-Disciplinary Team (MDT) Assessment**

Trainee's Registration Number

|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|

Date of Assessment (DD/MM/YY)

|  |  |   |  |  |   |  |  |
|--|--|---|--|--|---|--|--|
|  |  | / |  |  | / |  |  |
|--|--|---|--|--|---|--|--|

Trainee

Assessor

Year of study:

☐ 3   ☐ 4

Semester:

☐ 1   ☐ 2

Summary of meeting:

|  |
|--|
|  |
|--|

Specialty MDT:

(e.g.: Neurology , Paediatric, Orthopaedic etc)

| No                      | Activity                                       | Unsatisfactory | Satisfactory | Comment |
|-------------------------|------------------------------------------------|----------------|--------------|---------|
| <b>1.0 Pre-planning</b> |                                                |                |              |         |
| PP1                     | Clinical information                           |                |              |         |
| PP2                     | Relevant radiological investigation and images |                |              |         |
| <b>2.0 Presentation</b> |                                                |                |              |         |
| PT1                     | Communication of information/ideas             |                |              |         |
| PT2                     | Usage of workstation / AV equipment            |                |              |         |
| PT3                     | Analytical thinking / Decision making          |                |              |         |
| PT4                     | Time management /organisation and efficiency   |                |              |         |
| PT5                     | Leadership and teamwork                        |                |              |         |

**GLOBAL SUMMARY**

| Level | Description                                                                                                                                                      | Recommendation                                                                  |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| 1     | Demonstrates little knowledge and lacking ability to evaluate issues resulting in only a minimal contribution to the radiology report and management plan        | Trainee requires additional support and supervision                             |
| 2     | Demonstrates some knowledge and limited evaluation of issues resulting in a limited report and management plan                                                   | Trainee requires direct supervision                                             |
| 3     | Demonstrates satisfactory knowledge and logical evaluation of issues resulting in an acceptable report and management plan consistent with early higher training | Trainee requires minimal/indirect supervision                                   |
| 4     | Demonstrates detailed knowledge and good evaluation of issues resulting in a succinct report and clear management plan                                           | Trainee requires very little/no senior input and able to practise independently |

**OVERALL PERFORMANCE**

|                                       |                                         |
|---------------------------------------|-----------------------------------------|
| <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Unsatisfactory |
|---------------------------------------|-----------------------------------------|

**Assessor's comments – state areas of good practice and areas for development** *(mandatory field)*

**Trainee's Signature**

**Assessor's Signature**

## MDT Assessment Validation

Specialty: Radiology

| Competencies and Definitions  |                                                                                                                                  | Satisfactory Behaviours                                                                                              | Unsatisfactory Behaviours                                                                        |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>I. Pre MDT preparation</b> |                                                                                                                                  |                                                                                                                      |                                                                                                  |
| PP1                           | Demonstrates ability to obtain adequate clinical information                                                                     | Able to obtain relevant clinical history as well as biochemical that will help to narrow down differential diagnosis | Fails to provide relevant clinical information                                                   |
| PP2                           | Demonstrate ability to select relevant radiological investigation and images to be discussed based on the current clinical issue | Able to select relevant key radiological exams and images to be presented during the conference                      | Missed the relevant radiological exams and key images.<br>Does not compare with previous studies |
| <b>II. Presentation</b>       |                                                                                                                                  |                                                                                                                      |                                                                                                  |
| PT1                           | Demonstrates ability to present relevant findings pertaining to the current clinical issue                                       | Able to methodically demonstrate the main radiological abnormalities and related findings                            | Fails to address radiological abnormalities                                                      |
| PT2                           | Demonstrates ability to use workstation/ AV equipment smoothly                                                                   | Able to handle the workstation/ AV equipment without hesitation                                                      | Fails to manipulate workstation/ AV equipment adequately                                         |
| PT3                           | Demonstrate ability to solve clinical problem based on radiological findings                                                     | Provides relevant differential diagnosis based on clinical information<br>Suggest further management/ investigation  | Unable to answer clinical issue, provide adequate differential diagnosis                         |
| PT4                           | Appropriate time management                                                                                                      | Present in a timely manner, concise                                                                                  | Long winded presentation, irrelevant details                                                     |
| PT5                           | Demonstrate leadership and teamwork skill                                                                                        | Involve clinicians and other members in the discussion<br>Delegate tasks within the team                             | Unable to incorporate others opinion, poor delegation skills                                     |

### Overall unsatisfactory:

- a) If the trainee is rated Level 1 or 2 in global rating scale; or
- b) If the trainee is rated unsatisfactory for PT 1 and/or PT3; or
- c) If the trainee is rated unsatisfactory in 4 or more items under the two domains

Malaysian Post-graduate Radiology Curriculum  
SUPERVISOR REPORT

Name of trainee:

Trainee ID:

Date:

Meeting number, phase (e.g. SV1, Phase 1):

Rotation:

Supervisor:

TRAINEE PROGRESS

Examination results:

| No. | Component | Pass or Fail |
|-----|-----------|--------------|
|     |           |              |
|     |           |              |
|     |           |              |
|     |           |              |
|     |           |              |

Research Progress:

| Milestone           | Current Status (please tick) | Expected date of completion |
|---------------------|------------------------------|-----------------------------|
| Proposal submission |                              |                             |
| Data collection     |                              |                             |
| Data interpretation |                              |                             |
| Manuscript writing  |                              |                             |
| Viva defense        |                              |                             |

Please comment:

Supervisor report - global rating assessment

| Not Observed<br>(N.O.) | Does Not Meet<br>Basic Expectations | Occasionally Does<br>Not Meet Basic<br>Expectations | Meets Basic<br>Expectations<br>(for end-of-<br>clerkship) | Occasionally<br>Exceeds Basic<br>Expectations | Consistently Exceeds<br>Expectations |
|------------------------|-------------------------------------|-----------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------|--------------------------------------|
| 0                      | 1                                   | 2                                                   | 3                                                         | 4                                             | 5                                    |

# Malaysian Post-graduate Radiology Curriculum

## SUPERVISOR REPORT

| No | Components                                                                      | Rating<br>(0 – 5) |
|----|---------------------------------------------------------------------------------|-------------------|
| 1  | Medical Knowledge- base                                                         |                   |
| 2  | Application of medical knowledge to radiological examination and interpretation |                   |
| 3  | Self-Directed Learning                                                          |                   |
| 4  | Understanding relevant clinical context and utilisation of appropriate modality |                   |
| 5  | Observation of findings and image interpretation                                |                   |
| 6  | Problem solving                                                                 |                   |
| 7  | Clarity of report                                                               |                   |
| 8  | Responsibility/ Reliability                                                     |                   |
| 9  | Integrity *(0,1,3,5)                                                            |                   |
| 10 | Respectfulness                                                                  |                   |
| 11 | Response to feedback                                                            |                   |
| 12 | Rapport with colleagues                                                         |                   |
| 13 | Oral presentation                                                               |                   |

**Provide constructive feedback to illustrate areas for improvement:**

**Highlight areas where the student has been successful (e.g. areas exceeding expectations)**

Supervisor name, signature

Date:

### Guide for Supervisor Report

#### **(1) Medical Knowledge- base (RIBA, MDT)**

| 0    | 1                                                              | 2                                                            | 3                                                                            | 4                                                                                               | 5                                                                                                                                              |  |
|------|----------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--|
| N.O. | Major deficiencies in knowledge base. Consistently inaccurate. | Often inaccurate. Incomplete understanding of basic concepts | Sound understanding of pathologic substrate of important clinical disorders. | Thorough textbook understanding of pathophysiology and mechanisms of therapeutic interventions. | Aware of current concepts of disease pathogenesis & therapeutic mechanisms of action. Asks probing scientific questions at the 'cutting edge'. |  |

#### **(2) Application of medical knowledge to radiological examination and interpretation (RIBA, MDT)**

| 0    | 1                                                                           | 2                                                                               | 3                                                                                                              | 4                                                                            | 5                                                                                                                                                                              |  |
|------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| N.O. | Unable to apply preclinical knowledge to understand basic medical problems. | Inconsistent understanding of patient problems. Limited differential diagnosis. | Knows basic differential diagnoses of major/active problems in patients. Understands team's choice of therapy. | Knows expanded differential diagnoses, including recognition of emergencies. | Knows nuances of differential diagnosis, including disease prevalence and anticipated history & exam findings. Able to independently formulate a radiological management plan. |  |

#### **(3) Self-Directed Learning (RIBA, MDT)**

| 0    | 1                                                               | 2                                                                                    | 3                                                                                     | 4                                                                                    | 5                                                                                           |  |
|------|-----------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--|
| N.O. | No self directed learning. Lack of effort. Denies inadequacies. | Rarely self directed. Frequent prompting required. Minimal evidence of outside work. | Appropriate use of textbooks and reference sources. Well prepared. Clearly motivated. | Sets goals. Reads in advance. Timely use of resources. Consistent effort to improve. | Never needs prompting. Outstanding initiative. Effective use of resources. Educates others. |  |

**(4) Understanding relevant clinical context and utilisation of appropriate modality (RIBA, MDT)**

| 0    | 1                                                                                                                                                                                       | 2                                                                                                                                                                       | 3                                                                                                                                                                             | 4                                                                                                                                                                                       | 5                                                                                                                                                                                                 |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| N.O. | Disorganized. Fails to gather important radiological anatomy. Fails to identify the appropriate modality needed for the case. Never reviews old records or seeks collateral informants. | Incomplete at times. Inappropriate modalities and minimal radiological anatomy knowledge. Unfocused. Inappropriate communications rendered. Rarely reviews old records. | Obtains appropriate basic knowledge in anatomy and role of modalities. May need attention to efficiency and exploration of difficult ideas. Reviews old records as available. | Precise, detailed knowledge in anatomy and role of modalities appropriate to the setting. Seeks understanding of clinician's perspective. Seeks collateral informants when appropriate. | Consistently precise and efficient detailed knowledge in anatomy and role of modalities. Insightful and consistently elicits subtle historical points. Gathers and carefully reviews old records. |

**(5) Observation of findings and image interpretation (RIBA, MDT)**

| 0    | 1                                                                                                                                                       | 2                                                                                                          | 3                                                                                                                               | 4                                                                                                  | 5                                                        |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| N.O. | Unreliable, incomplete, disorganized. Major deficiencies. Inadequate technique. Disregards patient comfort ie medical emergencies and clinician concern | Sometimes unreliable, incomplete or disorganized. Some major findings missed. Exam skills need refinement. | Most findings identified. Usually logical and focused exam. Properly structured, few omissions, considers clinician perspective | Very comfortable approach to the exam. Major findings always identified. Focused, organized skills | Well organized. Subtle findings elicited. Very efficient |

**(6) Problem Solving (RIBA, MDT)**

| 0    | 1                                                                             | 2                                                                                                                                                | 3                                                                                                                                           | 4                                                                                                     | 5                                                                                                   |
|------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| N.O. | Cannot interpret basic data. Unable to identify basic issues on problem list. | Frequently reports data without interpretation. May be able to list problems, but analysis of issues is superficial. Cannot prioritize problems. | Constructs appropriate problem list and develops basic differential diagnosis. Analysis of problems reflects basic understanding of issues. | Consistently offers reasonable interpretation of data. Arrives at prioritized differential diagnosis. | Consistently understands complex issues and interrelated patient problems. Always well prioritized. |

| <b>(7) Clarity of report (RIBA, MDT)</b> |                                      |                                                            |                                                                                 |                                                                                                                                                  |                                                                                                                                                 |
|------------------------------------------|--------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 0                                        | 1                                    | 2                                                          | 3                                                                               | 4                                                                                                                                                | 5                                                                                                                                               |
| N.O.                                     | Consistently shows poor composition. | Disorganized reporting with omission of important findings | Organized report. Adequate important findings answering to clinical indication. | Organized report. Good detection of important and minor findings answering to clinical indication. Able to provide sound differential diagnosis. | Excellent composition and successive report with list of differential diagnosis. Clear direction with suggestion of appropriate management plan |

| <b>(8) Responsibility / Reliability (MSF)</b> |                                                                                                         |                                                                                                                        |                                                                           |                                                              |                                                                         |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------|
| 0                                             | 1                                                                                                       | 2                                                                                                                      | 3                                                                         | 4                                                            | 5                                                                       |
| N.O.                                          | Unexplained absences. Unreliable. Inappropriately dressed. Does not follow through with assigned tasks. | Often unprepared, lackadaisical, needs reminders in fulfillment of responsibilities. Often late, appears uninterested. | Punctual. Fulfills assigned tasks consistently. Responsible and reliable. | Seeks and is capable of taking on additional responsibility. | Excellent initiative. Unusual dedication to patient care and education. |

| <b>(9) Integrity (MSF)</b> |                                                                                                                                    |   |                                                                                  |   |                                                             |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------|---|-------------------------------------------------------------|
| 0                          | 1                                                                                                                                  | 2 | 3                                                                                | 4 | 5                                                           |
| N.O.                       | Unreliable. Lapses in truthfulness, honesty with patients and peers, respect for other health professionals, patients or families. |   | Reliable, but some aspect of integrity that need to be acknowledged and improved |   | Appropriate behaviors of honesty, truthfulness and respect. |

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**(10) Respectfulness (MSF)**

| 0    | 1                                                                                                           | 2                                                                                         | 3                                                                                                                    | 4                                                                                                        | 5                                                           |
|------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| N.O. | Inconsiderate, lacks respect. Unable to work with medical team. Indifferent to concerns/opinions of others. | Occasional lapses in respectful behavior Often intolerant to opinions/concerns of others. | Considerate and shows appropriate deference. Treats patients, families, and staff with respect. Culturally sensitive | Shows respect in difficult situations such as conflict resolution. Extra effort in cultural sensitivity. | Actions can both foster and maintain respectful environment |

**(11) Response to feedback (MSF, MDT)**

| 0    | 1                                                                                                                                 | 2                                                                                              | 3                                                             | 4                                                         | 5                                                                       |
|------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------|
| N.O. | Completely unaware of own inadequacies. Uninterested in receiving feedback on performance. Refuses or makes no effort to improve. | Resistive or defensive in accepting feedback. Makes marginal efforts to improve with feedback. | Accepts and generally makes efforts to improve with feedback. | Seeks and accepts feedback. Shows consistent improvement. | Able to self assess and make necessary changes for growth and progress. |

**(12) Rapport with colleagues (MSF)**

| 0    | 1                                                                                                                                      | 2                                                                                                                                 | 3                                                                                                                                  | 4                                                                                                                             | 5                                                                                                                                                 |
|------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| N.O. | Avoids contact with team members. Inadequate skills to establish relationships with medical colleagues and other health professionals. | Sometimes has difficulty in relating well to medical colleagues and other health professionals. Maintains distance from the team. | Relates well with medical colleagues and other health professionals. "Good team player." Functions well within the team structure. | Able to establish excellent rapport with medical colleagues and other health professionals. Gains confidence of team leaders. | Establishes tone of mutual respect and dignity with medical colleagues and other health professionals. Highly integrated into the team structure. |

| (13) Oral presentations (MDT) |                                                                                         |                                                                                                                                                                    |                                                                                                                                                                           |                                                                                                                                                        |                                                                                                                                                             |  |
|-------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 0                             | 1                                                                                       | 2                                                                                                                                                                  | 3                                                                                                                                                                         | 4                                                                                                                                                      | 5                                                                                                                                                           |  |
| N.O.                          | Unprepared. Major omissions frequent. Poorly organized and incomplete. Misses key data. | Presentations incomplete. Poorly focused. Some omissions in characterizations, chronology and pertinent data. Irrelevant facts. Rambling. Relies heavily on notes. | Uses proper format. Acceptable delineation of primary problems with reasonable characterization and chronology. Culturally-sensitive presentations. Minimal use of notes. | Presentation usually complete, well characterized and organized. May need attention to length and efficiency, and summarization of problems and plans. | Consistently clear and succinct delineation of patient story. Accurate characterization with differential diagnosis and plan. Mastery of oral presentation. |  |

**Provide constructive feedback to illustrate areas for improvement:**

**Describe** at least one specific example of knowledge, skill, attitude/behavior(s) you feel the student could improve.  
**Explain** how the existence of or lack of this knowledge, skill, attitude/behavior impacts the student's performance.  
**Suggest** a strategy the student could employ that would improve upon this knowledge, skill, attitude/behavior.  
 Identify the **Consequences** if the knowledge, skill, attitude/behavior is not improved.

**Highlight areas where the student has been successful (e.g. areas exceeding expectations)**

**Describe** at least one situation where the student exhibited outstanding or exceptional knowledge, skill, attitude/behavior in any of the above categories. **Explain** why this impressed you.

