HONG KONG COLLEGE OF RADIOLOGISTS

Higher Subspecialty Training in Magnetic Resonance Imaging

[This document should be read in conjunction with the ***Guidelines on Higher Specialist Training (Radiology)***.]

1. INTRODUCTION

1.1 Magnetic Resonance Imaging (MRI) is a well-established subspecialty in the context of Diagnostic Radiology.

1.2 MRI requires understanding in terms of the physics underlying the image formation, the performance of the hardware and software available, the limitations and the hazards, the disease processes and their appearances as well as the diagnostic impact on the management of the patients as a whole.

1.3 Training in MRI is classified as a technique-based subspecialty (Category B Subspecialty).

2. OBJECTIVES

At the completion of the training program, trainees are able to:

2.1 Understand broad principles and physics of MR imaging,

2.2 Evaluate application of MR procedures with respect to other imaging diagnosis and clinical management options,

2.3 Develop technical and interpretative skill and confidence for clinical MR procedures,

2.4 Be familiar with MR safety rules and capable to enforce such rules in practice,

2.5 Know how to appreciate the related literature and apply the knowledge in caring their patients, teaching and research,

2.6 Understand the process of subspecialization and be able to guide one-self to further develop one's own skill in depth,

2.7 Understand and appreciate MR imaging is a rapidly expanding and advancing area, with continuing introduction of new MR technology, new sequences and research areas.

2.8 Be prepared for the advancement and new technology.

3. TRAINING REQUIREMENTS

3.1 TRAINING CENTRE REQUIREMENTS

The pre-requisite is the presence of an on-site MR scanner. Short of this, the arrangement of sufficient sessions and workload will not be possible for both the trainees and the trainers.

3.2 TRAINER REQUIREMENTS

As specified in the Guidelines on Higher Specialist Training (Radiology).

3.3 DURATION OF TRAINING

It can be taken in 6 months for in-depth training, or in 3 months for brief training.

3.4 DUTY SESSIONS

A minimum of 50% of duty sessions in the form of actual hands-on scanning of the patients are required during the subspecialty training.

3.5 MINIMUM NUMBER OF EXAMINATIONS REQUIRED FOR 6-MONTH TRAINING

3.5.1 The core requirement:

MRI Examination	***RIS Coding***	***Requirement***
Brain, head & neck	8101-8199, 8601-8611	300
Body MRI	8301-8399	80
Spine MRI	8201-8299	100
Musculoskeletal MRI other than spine	8401-8499	50

3.5.2 Some of these examinations should involve specialised MR techniques. The trainees should satisfy the required exposure in at least two out of the following five groups of MR techniques

MRI Technique	***RIS Coding***	***Requirement***
Cardiovascular MR	8501-8599	25
MR hydrogram, including cholangiogram, urogram, myelogram, etc.	8311, 8314, 8210	20
MR Spectroscopy	8601, 8605-8606	20
Functional MR examinations including diffusion, perfusion and brain activation	8603, 8608-8614, 8617	10
MR Breasts	8301-8302,	6

3.5.3 For ease of counting examinations directly from RIS, the present workload code framework of the Hospital Authority on MRI is to be adopted.

3.5.4 MR guided intervention/procedures (such as MRI guided biopsy, cryotherapy) are advanced area gaining increasing clinical importance.
Exposure to these precious techniques is recommended (optional training requirement). Trainees are encouraged to observe when encounter with manually logging.

3.5.5 Trainees are recommended to strengthen the knowledge on MRI safety, physics, ways of MR artefact reduction and new technology/techniques. Activities such as self reading, attending a few learning sessions from local MR physicists or senior MR radiographers; are highly recommended to broaden the knowledge. These activities should be manually logged as record.

3.5.6 Trainees are recommended to deliver a few intradepartmental presentations/short lectures on MR-related topics (such as new MR sequences; principles on MR angiography; MR contrast agents; ways of reducing MR imaging artefacts, etc.) for knowledge sharing.
The minimal requirement is 4 presentations/lectures for 6 months training (or 2 presentations/lectures for brief 3 months training).
These activities should be manually logged as record.

3.5.7 Trainees are encouraged to attend MR-related lectures/courses organized by external parties in the Higher Specialist Training period (for instance occasional MR symposiums announced in the HKCR official website; or educational symposium from local/overseas educational parties such as the Hong Kong College of Radiographers and Radiation Therapists). (Optional requirement)
The activities should be manually logged as record.

3.6 CLINICAL RADIOLOGICAL CONFERENCES AND OTHER MEETINGS

The trainees should chair or present cases in MRI in at least 6 clinico-radiological meetings for a 6-month training period.

3.7 PRESENTATIONS AND PUBLICATIONS

Please refer to the Guidelines on Higher Specialist Training (Radiology).

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