

HKCRRT Certified Interventional Radiographers

1. Admission of Members

- 1.1 A candidate may admit as a Member of the HKCRRT (Interventional Radiology) and is entitled to use the title **MHKCRRT(Certified Interventional Radiographer)** if satisfying the enlisted requirements.
- 1.2 Being a Radiographer registered with the Hong Kong Radiographers Board; **AND**
- 1.3 Have had 5 years of post-registration working experience in radiography or medical imaging; **AND**
- 1.4 Academic requirements
 - 1.4.1 A recognised Master degree or above in Interventional Radiology; **OR**
 - 1.4.2 A recognised Bachelor degree in medical imaging or related fields or Professional Diploma in Diagnostic Radiography (PDDR) of the Hong Kong Polytechnic University or equivalent, plus an Interventional Radiology specialist qualification recognized by the College (as outlined below in Section 4); **AND**
- 1.5 Have completed the required clinical training or experience (as outlined below in Section 2); **AND**
- 1.6 Being recommended by the Council.

2. Part A: Academic Requirements

Syllabus

(A) Principles and Instrumentation in Interventional Radiology

Patient Care, Safety and Communication

- Patient identification, verification, and documentation
- Informed consent for procedures
- Patient assessment and preparation
- Sterile and aseptic techniques; infection control concepts
- Management of medical emergencies in the IR suite
- Pharmacology (contrast media, sedation, analgesia, emergency drugs)

Imaging Acquisition and Equipment

- Advanced principles of X-ray production and interaction
- Digital Subtraction Angiography (DSA) principles and technology
- Fluoroscopy systems: continuous vs. pulsed, flat-panel detectors
- Image processing and manipulation

- Imaging artifacts: cause and correction
- Principles of CT, Ultrasound and MRI as adjuncts to intervention

Radiation Safety and Dosimetry

- Radiobiology and tissue reactions
- Principles of radiation protection (Justification, Optimisation - ALARA, Limitation)
- Staff and patient dosimetry; dose monitoring and recording
- Factors affecting patient and staff dose in IR
- Shielding, equipment design, and room layout
- Relevant regulations (Cap. 303 Radiation Ordinance, code of practice) and ICRP guidelines

Interventional Instrumentations

- Needles, sheaths, and dilators
- Guidewires: construction and characteristics
- Catheters: diagnostic and guiding
- Balloon angioplasty catheters
- Stents and stent-grafts
- Embolization agents (coils, particles, liquid agents)
- Drainage catheters and other non-vascular devices
- Physio-monitor
- Injectors

Quality Assurance / Quality Control

- Performance testing of angiographic and fluoroscopic systems
- Preventative maintenance and malfunction identification
- QA for ancillary equipment (power injectors, monitors)

(B) Anatomy & Physiology

- Detailed cross-sectional and angiographic anatomy of the vascular system (arterial and venous).
- Anatomy of the hepatobiliary, genitourinary, and musculoskeletal systems relevant to non-vascular procedures.
- Normal physiological flow dynamics (hemodynamics).

(C) Pathology

- Pathophysiology of vascular diseases (e.g., atherosclerosis, aneurysm, dissection, thrombosis).
- Pathophysiology of non-vascular conditions requiring intervention (e.g. obstruction, abscess, tumor).
- Congenital anomalies.
- Post-operative anatomy and complications.

(D) Integration of Clinical Information

- Correlation of clinical history and laboratory values with imaging findings.
- Integration of findings from other imaging modalities (CT, MRI, US).
- Understanding procedural indications, contraindications, and potential complications.

(E) Protocols and Procedures

- Procedural protocols for common vascular and non-vascular interventions.
- Role of the radiographer in the IR team, from assisting in complex cases to pathways for training in performing specific procedures as the primary operator.
- Management of contrast media reactions and other procedural complications.

(F) Advanced Imaging Processing

- Measurements, vascular analysis, and necessary calibrations
- 3D rendering/ volumetric rendering from rotational angiogram/ cone-beam CT
- Segmentation

3. Part B: Clinical Requirement

- 3.1. Candidates are required to complete and maintain a logbook documenting substantial experience in a minimum of **200 IR cases which at least 50 cases in vascular and at least 50 cases in non-vascular** over a 2-year period.
- 3.2. The clinical component requires the candidate's Supervisor to acknowledge completion of the required clinical examinations.

4. Admission as First Batch Member under special accreditation pathway

- 4.1. Not less than 15 years clinical practice in the specialty of Interventional Radiology, **AND**
- 4.2. Not less than 5 years clinical practice in the specialty of Interventional Radiology at a role of specialty in-charge; **AND**
- 4.3. Being recommended by the Council
- 4.4. The clinical component requires the candidate's Supervisor to acknowledge completion of the required clinical examinations