



# Optimisation of training pathway in Interventional Radiology

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## Introduction

Interventional Radiology (IR) as a speciality presents the need for a focused specialist training pathway<sup>1</sup>. At the heart of IR are technology, innovation and patient-centred care<sup>2</sup>. The training pathway should aim to provide optimal IR workforce while maintaining high standards by incorporating relevant core clinical and specialist IR skills, personal and professional development, and integrating a holistic and effective clinical pathway<sup>3</sup>. This journey should begin from Medical School and continue throughout one's career.

## Optimal Training Pathway



### A. Medical School

Early IR exposure in Medical School can cultivate interest<sup>4</sup>. The key approach includes interactive lectures, group seminars and problem-based scenarios with IR application.

Basic IR related skills including hand-eye coordination could be introduced during clinical years with simulation-based training. Every IR training centre should offer opportunities for taster sessions or a structured student-selected component programme.

### B. Foundation Years (FY)

Patient care by FY can be extended to day case IR patients and clinics. This would enhance interaction with the IR team, generate insight into IR practice and develop interest.

### C. Diagnostic Radiology Training

A 2.5-year modified curriculum containing relevant core diagnostic radiology with a strong emphasis on disease recognition and clinical relevance would form a solid foundation<sup>5</sup>. Some modules can be condensed e.g. breast imaging and nuclear

medicine, providing relevant exposure without unnecessary depth. Radiology exam preparation can be supported by virtual high quality and effective teaching from national experts.

### D. Specialist IR Training

This is a 2.5-year focused vascular and non-vascular IR curriculum incorporating a 6-week surgical ward rotation to enhance clinical skills, communication and patient-centred care<sup>6,7</sup>. Formal regional and specialist training networks should be established.

Simulation technology can standardise training by allowing all trainees equal access reducing training variability by refining technical ability and shortening procedure time to improve patient outcome and experience<sup>7-10</sup>. IR innovation and research can be encouraged through integrated clinical engineering and technology initiatives. Regular high-fidelity training on non-technical skills of communication, teamwork, leadership and decision-making is essential<sup>10</sup>. Interventional Radiologists are medical specialists, not technicians<sup>11,12</sup>.

The examination model will consist of a modified diagnostic radiology exam after 2.5 years and a specialist IR exam before completing training.

### E. Junior consultant (first 2 years)

A mentor support scheme would provide ongoing reflective learning and identify gaps. The opportunity should exist for acquiring further development elsewhere in the country or abroad, where appropriate. This would help drive innovation by exposing them to different systems and techniques.

## Role of Interventional Radiology Societies

The relevant College of Radiology and IR Societies are central in developing the IR curriculum. It can also support talent recruitment, trainee progress and training network. It is key to implementing a high-quality virtual training programme, provide synergism in innovation and research, and underpin mentorship and leadership in IR.

## Conclusion

An optimal IR training pathway involves a focused and practical IR programme incorporating core clinical and specialist IR skills, with an emphasis on innovation, technology and patient-centred care. A comprehensive 5-year diagnostic and IR programme extending to junior consultant level would ensure optimal clinical, technical and professional development.

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Submitted: 03 July 2020 | Accepted: 28 July, 2020 | Published: 31 July, 2020

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Citation: Xian See AJ (2021) Optimisation of training pathway in Interventional Radiology. SM J Radiol 6: 2.



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