



## Editorial

# Road Map to Become an Interventional Radiologist in India

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Interventional radiology (IR) procedures are life-saving or life-altering. Ranging from the treatment of acute stroke to oncology, IR is bringing significant changes to traditional treatment options with better outcomes for patients and shorter stays in hospitals. It is important, therefore, that in a country such as ours, with limited resources for our population, there is widespread availability of this expertise. This will increase overall efficiency of our health care system.

The route to become an interventional radiologist requires dedicated training. Though IR is part of the MD or Diplomate of National board (DNB) radiology curriculum in India, the 3-year training may only provide an overview of the field. Further training is necessary to learn the skills required to be a competent and safe interventional radiologist. With limited number of training posts available in India, there is a shortage of interventional radiologists to cater to the rising need.

In earlier days, a combination of basic training in radiology, passion for IR, and some training would have been adequate to pursue IR as a career. The evolution of IR was predominantly need-based, with initial clinical services including renal angiograms for potential live renal donors. Training/clinical attachment visits to centers of excellence, overseas faculty spending dedicated time in Indian institutions to help set up service, local innovations, workshops etc., had major influences in developing the specialty. One such example has been published in *Journal of Clinical Interventional Radiology (JCIR)*.<sup>1,2</sup> Subsequently, training of IR practitioners in India was concentrated in a few radiology departments with a dedicated clinical IR service where one could join as a senior resident.

Initially, dedicated IR fellowships or post-doctoral certified courses (PDCC) for duration of 1 or 2 years were the main source of formal training. The selection process was variable

and included written exams and interviews. Some of these were recognized by the Universities of the National Board though there were variations in the course title and syllabus.

Over the years, the spectrum of interventional services available has significantly widened and local availability of certain IR procedures with a short window period such as stroke intervention, and embolization for massive hemorrhage has become crucial. Today, formal training to practice IR in India is essential. Various DM super-specialty courses such as neuroradiology and cardiovascular radiology do have their respective spectrum of interventional training.

IR super-specialty courses have been introduced including DM and DNB in IR. The selection process is through a highly competitive single national level entrance exam.<sup>3</sup>

The selection tests are multiple choice questions based, which include questions from the general radiology and IR. These training courses have a formal syllabus. The institutions providing these courses need to maintain high standards and have standard infrastructure and training faculty appointments to continue to fulfil their eligibility to conduct these courses.

Currently, DM courses pertaining to IR are available in 11 institutions, while DNB IR is available in 3 hospitals. IR fellowship courses are available in around 45 institutions. Indian Society of Vascular and Interventional Radiology (ISVIR) plays a role in providing the expertise at various levels.

Training opportunities overseas are many and some of them have been mentioned below. In the UK, IR trainees from other countries can apply either for a fellowship or as a specialist. For fellowship application, one must have full General Medical Council (GMC) registration and 5 years of radiology training. In the USA, introduction of IR residency has made the fellowship opportunities limited for overseas

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candidates. IR residency can be either an integrated residency, independent residency, or independent IR residency with early specialization in interventional Radiology (ESIR). However, completion of diagnostic radiology residency in the USA is mandatory in all these training pathways. IR practitioners who are trained outside the USA can apply via the American Board of Radiology (ABR) alternate pathway, which requires completion of 4 years as a resident or a fellow, faculty member, or as a combination of all. Canadian IR fellowships are equally competitive, but they are open to international trainees and the Medical Council of Canada Qualifying Examination (MCCQE) examination is not mandatory. Statement of purpose letters, letter of recommendation, International english language testing system (IELTS) results and scanned, verified medical degree should suffice for the application. In Australia, radiologists can apply for provisional registration or postgraduate training if the requirements of competent authority pathways are met. IR trainees can apply for fellowship positions though they require special purpose postgraduate training registration by medical council of New Zealand. However, the number of available positions is limited.<sup>4</sup>

The European Board of Interventional Radiology (EBIR) and European Diploma in Interventional Neuroradiology (EDiINR) are exams with wider recognition provided by the European society of radiology and Cardiovascular and interventional Radiological Society of Europe (CIRSE).<sup>5,6</sup> Anyone who has completed their 2 years of IR training with the maintenance of logbook can apply for the EBIR

exam. Examinations such as this provide an international uniform standard of assessment.

Need of the hour is for a greater number of skilled IR radiologists. With limited number of training positions, landing one is highly competitive and requires intense preparation.

#### Conflict of Interest

None declared.

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