

Future Interventional Radiologists and Where to find them: Commentary

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Interventional radiology [IR] has emerged as a fundamental component of the modern health care treating patients with a vast variety of maladies both in elective and emergency basis, in such a way that it is hard to imagine a hospital without 24/7 IR services.

However, there is a shortage of IRs. A report published in the UK identified a compelling need for qualified interventional radiologists as 45% of health services did not have access to IR [1]. To the best of my knowledge this is a global problem.

Therefore, the impending question is how to attract the appropriate candidate physicians into IR? There are several challenges to address, foremost of which is the core of IR practice itself, which is a combination of radiology and surgery; this differs significantly from the diagnostic radiology exercise. The modern interventional radiologist acquires complex technical skills, works in a setting similar to surgery, and is available 24/7. The IR has to consult patients in clinics and provide longitudinal patient care. The mindset of the IR inevitably cannot be similar to the diagnostic radiology [DR] colleague.

An additional factor that might deter junior doctors from choosing IR as a carrier is the limited awareness of IR among the physicians and the public, which might deprive the discipline of its prestigious profile [2].

Another negative attribute of paramount importance is the poor inclusion of IR education in the medical school

curricula. For example, in the UK there is currently no defined undergraduate IR curriculum, whilst the European Society of Radiology (ESR) found that an average of just 5.3 h is dedicated to radiology at the undergraduate level [3].

To address this void in undergraduate IR education, the Cardiovascular and Interventional Radiological Society of Europe (CIRSE) has published in 2012 the first undergraduate IR curriculum to guide the integration of IR into undergraduate teaching; the curriculum has been revisited in 2018 [4]; however, there remains scarcity of data around its implementation.

In their current article, Xu Y. et al. explore additional contributing factors that may encourage medical students and junior doctors to join the IR community using questionnaires addressed to a selected cohort with higher than usual interest in IR. Their results showed early involvement in IR clinical activities such as participating in procedures, in multidisciplinary meetings, and clinics as the most important contributors for choosing an IR carrier; additional contributors were IR electives, portfolio building and involvement in IR professional organizations as junior members [5]. Interestingly, despite the respondents high IR interest 84% of them were not aware of any published IR undergraduate curricula; 74% of them have not engaged with CIRSE.

IR is a relatively young but exciting medical field, which is extremely rewarding for both patients and doctors. The great challenges that it faces, call for intense and immediate actions: IRs should fight to further establish IR undergraduate curriculum into medical schools; medical students should be involved in clinical rotations during their clinical semesters. The students should be encouraged to be involved in research projects. New educational

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formats such as online webinars, hands-on workshops, simulation training, and junior doctors focused symposia can provide additional IR education. Finally, the active involvement of trainees in national and international IR societies provides fresh ideas and better understanding of the expectations of the younger doctors, which is deemed essential for the future growth of the specialty.

On the other end, the IR community should provide the IR trainees with a clear and structured IR training pathway: in a survey published by the European Trainee Forum [ETF] of CIRSE, 72% of trainees indicated that the biggest challenge is getting into an IR training programme together with inadequate training opportunities and available positions [6]. It would be a logical approach to assign an IR trainee from the outset of training, even if DR training will have to take precedence. The American model is the first such model with direct assignment of an IR training number from the beginning of radiology training [6]. Clinical training also is fundamental for the modern IR. However this is still lacking: a recent survey of 296 trainees organised by the BSIR trainee committee in 2016 identified a lack of clinical training with more than 60% of the participants reporting limited exposure to vascular outpatient clinics and ward rounds. CIRSE ETF survey found that in only four out of the 19 participating countries there is some form of clinical training [6]. Last but not least critical issue for IR is to obtain subspecialty recognition. Although this has been achieved in some countries, in many others it remains unrealized.

In conclusion, although in the quest for future interventional radiologists we encounter complex challenges, I believe that the opportunities are even greater and the results will be very rewarding for the IR community and the patients.

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Compliance with Ethical Standards

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