



The Royal College of Radiologists



The Royal College of Surgeons of England

A Joint Training Pathway in Vascular Surgery and Interventional Radiology

This statement from The Royal College of Radiologists and the Royal Colleges of Surgeons of England, Edinburgh and Glasgow details a scheme intended to address the needs for provision of interventional radiology and vascular surgery and benefit the development of both specialties. It will offer improvements in patient care and emergency safe cover across the full spectrum of interventional and surgical procedures currently provided by radiologists and vascular surgeons.

It has been apparent for some time that interventional radiologists and vascular surgeons benefit when they collaborate closely together with mutual respect. Both share a common interest in patients with a diverse range of conditions affecting blood vessels and in the case of interventional radiologists other organ systems. Patient management is optimised when surgeons and interventional radiologists work in tandem. This is well illustrated by endovascular aortic aneurysm repair; neither party possesses the skill set to perform the entire procedure and manage complications. Many successful teams have formed around the UK to the benefit of patients and doctors. The team will have extensive expertise in imaging, catheter and guidewire manipulation, vascular surgery and clinical skills to optimise the patient's preoperative condition and post-procedural care.

There is a realisation that the borders between the two specialties are blurred and there are areas of practice that could be performed by doctors from a radiological or a surgical background. Other individual, high-level skills cannot be successfully replicated unless practised in sufficient volume by dedicated experts. This is important for both training and the maintenance of competence. As vascular surgery and interventional radiology evolve and become more complex, there should be closer integration of the specialties with emphasis on sharing the clinical and technical skills common to both. However, it should also be recognised that it will be difficult for any individual to achieve and maintain competency across the entire surgical and interventional spectrum in the time available.

With this ethos in mind, representatives from the Royal Colleges of Radiologists and Surgeons (London, Edinburgh and Glasgow) have been meeting together with officers from the Vascular Society of Great Britain and Ireland to discuss potential training pathways that would be of mutual benefit. Emphasis has been placed on the following central tenets.

- High-quality patient care should be the driving force behind the scheme.
- The scheme must address the needs for provision of interventional radiology and vascular surgery and must benefit the development of both specialties.
- Interventional radiology and vascular surgery should be recognised by the Royal Colleges as having specific training requirements.
- The scheme should be recognised by the Royal Colleges of Radiologists and Surgeons.

- The scheme must cater for provision of emergency safe teams able to provide the full range of interventional and surgical procedures currently provided by interventional radiology and vascular surgery.
- The scheme should describe the necessary skills and competences to practise and the modular elements required to achieve these.

What has emerged is the concept of a 'vascular specialist' as an umbrella term, encompassing a variety of clinicians with a shared set of core experience related to vascular disease based on demonstrating competence in the relevant knowledge, skills and professional attitudes. These would include patient assessment, diagnosis and knowledge of management options plus basic surgical, imaging and interventional skills. This core would then be followed by a period of more advanced training where individuals would hone expertise in either catheter and wire-based intervention or in surgery. Some trainees would have the aptitude to master the full range of both, but most would select the direction best suited to their interests and local opportunities. The driving forces behind this approach are the time available for training and the provision of high-quality elective and emergency care.

Development of vascular specialist training will broaden the skill base of individuals. The competence-based structured nature of the scheme will ensure that the training produces doctors who are able to undertake complex vascular surgery or interventional radiology. Without this, there is a risk of losing essential skills. For example, it would not be helpful if, at the end of training, the trainee vascular specialist with an interest in surgery was able to perform some core endovascular procedures but could not perform emergency open aneurysm repair or bypass grafting. Conversely, there would be little point in creating a generation of vascular specialists with an interest in catheter and wire intervention who could perform femoropopliteal bypass but were unable to perform intervention for life-threatening haemorrhage from the gastrointestinal tract, lungs or from trauma and did not develop the necessary skills to perform emergency drainage of obstructed urinary and biliary systems. Hence, we believe that the vascular specialist will tend to focus on interventional radiology or open surgery.

There will always be scope for an individual to increase their range of skills as service needs change by acquiring additional competences in accordance with the curriculum. This aspect of the scheme is particularly relevant to existing consultants and trainees. The Royal Colleges of Radiologists and Surgeons will support, wherever possible, opportunities for additional training to increase the skill mix and experience by demonstrating appropriate competencies. These opportunities would follow the modular syllabus and ensure that appropriate modules were selected to increase their range of skills to promote a more inclusive practice.

For radiologists, this might include:

- Assessing patients with vascular disease and understanding the appropriate management options
- Managing medical aspects of vascular disease
- Accepting direct referral of patients
- Performing surgical cutdown and arterial closure
- Performing embolectomy.

For surgeons, this might include:

- Interpretation of diagnostic vascular imaging
- Performing duplex ultrasound assessment of patients with vascular disease
- Performing basic peripheral angiography and intervention such as superficial femoral artery (SFA) angioplasty and Iliac artery angioplasty and stenting
- Interpreting basic core imaging relevant to emergency care and intervention.

The Postgraduate Medical Education and Training Board (PMETB) has indicated that it will support and endorse a new training pathway which espouses collaboration between the Royal Colleges. The Royal Colleges will benefit from showing that they are able to co-operate and evolve training paths for the benefit of patients and doctors.

Interventional radiologists and vascular surgeons benefit from the recognition of their specialties by the Royal Colleges and ultimately PMETB. In addition:

- Regions will benefit by understanding that provision of coherent and safe out-of-hours services covering the full range of interventional and vascular surgical emergencies will require formally defined networks or centralisation. The composition of the teams of doctors needed to provide this service will be clear
- Trusts will benefit by knowing that doctors they employ possess a clearly defined set of competences
- Teams of doctors working together will have a mutual trust and respect and will be able to share clinical workload
- Individual doctors benefit by knowing that their training will be focused, relevant and, with transferable competences, allow flexibility in career direction both as trainees and senior doctors
- Finally and, most importantly, patients will benefit from all of the above, especially the provision of robust emergency safe services.

Acceptance of the above concepts would immediately strengthen collaboration between radiology and surgery in the provision of vascular services. The concept of the vascular specialist programme will produce the next generation of clinicians who will be trained to provide a high-quality vascular service as a team, while allowing great flexibility in the future to reflect changes in the provision of vascular services.

We hope that members of the Royal Colleges, the British Society of Interventional Radiology (BSIR) and the Vascular Society will support this initiative which offers better training, closer ties and wider career opportunities for all involved.

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