EDITORIAL

A Value-Based Approach to Cross-Training of Vascular Interventionalists

Grant T. Fankhauser
Division of Vascular Surgery and Endovascular Therapy, The University of Texas Medical Branch at Galveston, 301 University Boulevard, Galveston, Texas, USA

Editorial

Thousands of residents and fellows in cardiology, cardiothoracic surgery, vascular surgery, and interventional radiology train each year to intervene on disorders of blood vessels. While the vessels targeted and methods used may differ between specialties, the goal is the same: to treat blood vessel pathology in the most effective and minimally invasive means possible. Certainly, some pathology is less amenable to a minimally invasive approach, but none would advocate major open surgery when an equally effective, less invasive treatment is available.

Our trainees learn cutting edge treatments for complex pathologies, but they may learn a relatively narrow approach if the majority of their interventional education comes from within their own specialty. Patients are living longer with chronic medical problems and developing more complicated and overlapping conditions. These complex problems often require complex solutions-solutions that approach a problem in a multi-specialty manner. Interventionalists with exposure to multiple specialties during training are well-equipped to approach problems this way.

Value is the prevailing wind in healthcare today. Value combines the concepts of quality and cost toward the goal of better outcomes using fewer resources. Physicians and hospitals are increasingly graded on the quality of their outcomes while pressured to achieve those results with shorter lengths of stay and lower direct costs. Complex problems can no longer be attacked in a piecemeal fashion, as quality and cost are both likely to suffer. Specialists much work together, recognizing how each’s planned approach may affect other organ systems or the treatment planned by others on the care team.

Interventional cardiologists have pioneered endovascular treatment of complex vascular pathology. Interventional radiologists have contributed equally with image-guided interventions for venous and arterial conditions. Vascular surgeons have been the most aggressive amongst the surgical specialties at adopting endovascular treatments. Cardiothoracic surgeons are becoming more receptive to endovascular intervention with some performing peripheral angiograms or carotid stenting. Few would argue that knowledge of how other specialties approach vascular problems is valuable. There are situations where no endovascular option can take the place of open surgery, such as femoral endarterectomy or aortic replacement. But when multiple options are available for treating some complex conditions, getting the perspective from another specialty can be beneficial.

It is relatively common for trainees of surgical specialties to spend time training with other surgical specialties, such as vascular surgery and cardiothoracic surgery exchanging residents for a few months. It is less common for medical and surgical specialties to exchange trainees, such as interventional cardiology fellows rotating on cardiothoracic surgery or vascular surgery fellows rotating with cardiology. Interventional radiology fellows may spend their entire training career working only with other radiologists. To produce interventionalists who are not only familiar with the approaches of other specialties but welcome the opportunity to work collaboratively, the cross-training must start during residency or fellowship.

At times we shelter our trainees from the realities of fiscal constraints. We may not involve them in discussions of length of stay or reducing the cost of care. We are more willing but remain inconsistent in discussing quality metrics such as freedom from re-intervention or readmission. We may not even mention other value metrics such as how soon the patient returns to work, the cost of follow-up care, or freedom from long-term side-effects or complications. Some of these factors are actively used in grading physicians and ranking hospitals. Others are harder to measure, but patients and payers alike are focusing more on the big picture of value in healthcare with long-term consideration of costs and outcomes. The best...
way to create interventionalists who thrive in the value-based healthcare environment is to initiate them during training.

Each specialty has much to offer in the education of the other specialty’s trainees. But beyond skills or techniques learned from another specialty, the opportunity to work with other specialties creates the milieu where value can take the forefront. A multi-specialty approach fosters the inventiveness and resourcefulness likely to maximize the value equation by increasing quality and constraining cost. Trainees are especially receptive to such thinking outside of the box, and by practicing such approaches during training they will find it all the easier to continue such practices during their careers. We owe it to our trainees to start them out on the right path by exposing them to other specialties during training and encouraging treatments using multiple approaches.