



Quick Facts

- ➔ Hot topic at @Vascular Health meeting: according to @AnnalsofSurgery, 1 in 5 fellows unprepared to perform surgery
- ➔ Healthier patients, less invasive procedures could lead to training gap for surgeons, according to @VascularHealth

Surgeons to Discuss Education Challenges, Solutions at 2014 Vascular Annual Meeting

Society for Vascular Surgery

CHICAGO – Combined with healthier patients and stricter work-hour limits, the rapid adoption of minimally invasive procedures could create a training gap among vascular surgeons who treat diseases of the veins and arteries, according to the Society for Vascular Surgery, members of which will discuss education challenges and solutions during the 2014 Vascular Annual Meeting, taking place June 4-7 at the Hynes Convention Center in Boston.

Of concern, according to SVS members, is anecdotal and empirical evidence suggesting that the next generation of surgeons might be undertrained and therefore underprepared – particularly when it comes to complex open procedures.

Case in point: a 2013 study published in *The Annals of Surgery*, which examined readiness of general surgery residents entering subspecialty fellowships in North America. One in five (21 percent) fellows, it found, were unprepared for the operating room and two-thirds (66 percent) were unable to operate independently. Another quarter (24 percent) could not recognize early signs of complications.

Test scores raise similar concerns. A 2013 study of thoracic surgery examinations, for instance, found that the failure rate for oral exams administered by the American Board of Thoracic Surgery doubled from 14.4 percent in 2000 to 30 percent in 2012.

The same problems facing general and thoracic surgery threaten vascular surgery, according to Gustavo Oderich, MD, a vascular surgeon at the Mayo Clinic in Rochester, Minn. “We already face several challenges in terms of vascular education and training, and it’s only going to get worse,” he says.

Among vascular surgeons’ concerns:

- **Duty hour limits:** In 2003, the Accreditation Council for Graduate Medical Education instituted duty hour reforms limiting workweeks for residents to 80 hours. The less time they spend at the hospital, the less experience surgical residents receive, in general, and the less opportunity they have to participate in complex open surgeries, in particular.
- **Declining disease rates:** As more patients have adopted healthy lifestyles, the prevalence of vascular disease has dropped. In particular, the rate of aneurysm disease has decreased in direct proportion to declining smoking rates. Although it’s good for patients, the decline translates into fewer cases with which to train residents and fellows.
- **Rise in endovascular procedures:** An increase in the number of minimally invasive endovascular procedures for all types of vascular disease has created a dynamic duo of surgical challenges. The first challenge is technological. Demand for endovascular treatment has created a surge in new surgical tools that require training and education; old and new surgeons alike struggle to stay current. The second challenge is case volume. As more patients undergo endovascular procedures, fewer undergo traditional open procedures, which again yields fewer training opportunities for residents and fellows.

The last point is especially significant, according to Oderich. While fewer patients require open surgeries, he admits, those who do are especially vulnerable to complications. “There has been a significant decrease in the number of open cases, and the open cases that remain are the most difficult ones,” Oderich explains. Even though they’re performing fewer open procedures, surgeons therefore need superior open skills, he argues. Without opportunities to develop such skills, a training gap emerges, putting patients with complex vascular disease at risk.

Vascular surgeon John Eidt, MD, of Greenville, S.C., doesn’t believe there’s a “gap” in surgical training. He does, however, acknowledge the need for an “evolution” in it. “I wouldn’t say there’s a training crisis. We are, however, adjusting to new endovascular technologies,” says Eidt, who is chair of the Vascular Surgery Board of the American Board of Surgery. “In response, I expect there will be a continued evolution of vascular surgery training.”

Although they disagree on the nature of the challenge, Eidt and Oderich agree on potential solutions, including:

- **Duty hour reforms:** Relaxing duty hour restrictions on residents and fellows will maximize their operative breadth and volume, resulting in surgeons with more and better experience.
- **Surgical simulations:** While there is no substitute for hands-on experience with living patients, increasing the availability and quality of surgical simulations will allow residents and fellows to develop fundamental skills outside the operating room so they can extract more value from training inside it.
- **Super fellowships:** Offering them the chance to participate in “super fellowships” at home or abroad gives vascular surgeons the opportunity to develop complex skills they lack during an extra one to two years of specialized education in between surgical residency and independent practice.
- **Centers of Excellence:** Reduced demand for and training in open procedures necessitates a shift towards a new model of care. Instead of being widely offered at a large number of hospitals, complex open procedures should be performed only at select “Centers of Excellence” where the volume of cases is large enough to provide residents, fellows and surgeons with the experience they need to become experts.

For now, patients need not worry. “Vascular surgeons are as well trained now as they ever have been,” Eidt insists. “In virtually every domain where we look at the quality of surgical care – stroke rates, death rates, amputation rates – patient outcomes are better today than ever before.”

Still, reforms are needed to keep it that way. “The generation that’s being trained now is going to have an impact on patient care within about five to 10 years,” Oderich says. “The biggest shift, however, is going to be in 20 to 30 years, when there will be no one left from the old generation that was trained in the open-surgery era.”

Editor’s Note: Vascular surgeons will discuss vascular training and education during a dedicated session at the 2014 Vascular Annual Meeting. The session, “Collaborating on Resident/Student Education: Opportunities for Education Abroad and in North America,” takes place Friday, June 6, from 3:30 p.m. until 5:30 p.m. For the complete meeting program, please visit the event’s official website, www.VascularAnnualMeeting.org.

ABOUT THE SOCIETY FOR VASCULAR SURGERY

The Society for Vascular Surgery is a professional medical society dedicated to improving vascular health. The society is an advocate for vascular surgeons and the patients they care for. It counts more than 4,600 medical professionals as members, including surgeons, physicians and nurses. For more information about vascular health and the society, please visit the society’s website, www.vascularweb.org.

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