



ELSEVIER

Seminars in  
**VASCULAR  
SURGERY**

# New Training Paradigms and Program Requirements

Jerry Goldstone, MD, FACS, FRCSE, and Virginia Wong, MD

**Specialized training in vascular surgery evolved over the second half of the 20th century and continues to do so in 2006. Apprenticeship-style training in the 1960s and 1970s gave way to formal curriculum- and case-based programs created in the 1980s to improve the quality and consistency of vascular care. Recent developments have resulted in the Accreditation Council for Graduate Medical Education's approval of additional training pathways leading to certification by the American Board of Surgery. This article summarizes the history of vascular surgery training in the United States and describes the four types of currently approved programs—Standard, Early Specialization, Independent, and Integrated—for specialty training in vascular surgery. These are the only programs that can lead to American Board of Surgery certification in vascular surgery.**

**Semin Vasc Surg 19:168-171 © 2006 Elsevier Inc. All rights reserved.**

PRIOR TO THE early 1960s, there was no specific training for vascular surgery. It was learned during general and/or cardiothoracic surgery programs and performed by general and cardiothoracic surgeons as large or small components of their practices. There were very few individuals at that time who limited their clinical activities to vascular surgery. As interest in vascular surgery grew, vascular fellowships began to appear, attracting primarily general surgeons who were drawn to the problems and procedures that were then being identified and developed. It is believed that the first vascular surgery fellow in the United States was Malcolm O. Perry, MD, who spent the 1962-63 academic year under the tutelage of Edwin J. Wylie, MD at the University of California in San Francisco (UCSF). As a general surgery resident at UCSF from 1965 to 1972, the senior author was exposed to one or two such fellows every year, all of whom went on to have stellar careers as vascular surgeons. Many other vascular surgery fellowships soon appeared all across the country. They were characterized by having no formal accreditation or oversight process, no formal curriculum or program requirements, and no possibility of subsequent specialty certification by the American Board of Surgery (ABS). Most were 1 year in duration unless a research component was included. They were, in fact, more like apprenticeships than the formal programs that exist today.

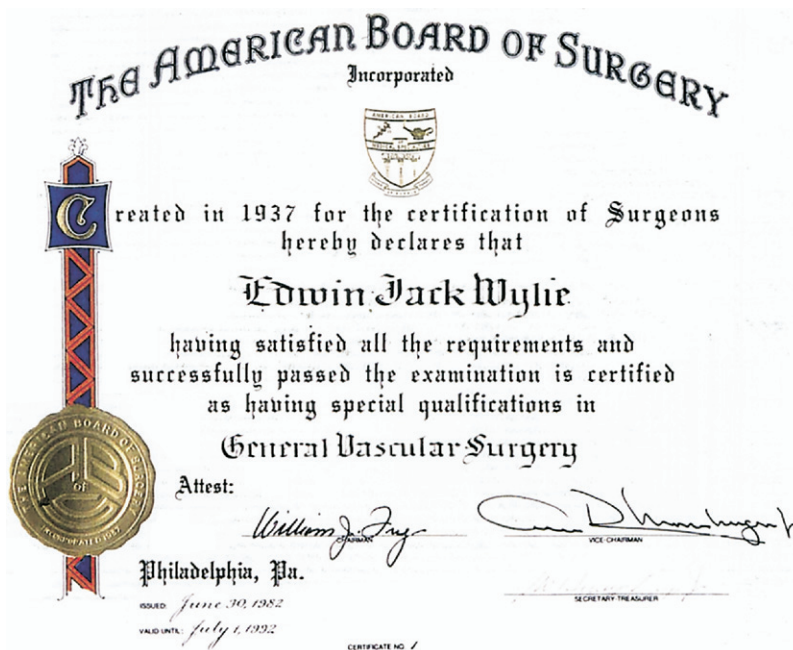
In the early 1970s, several vascular surgery leaders became

so concerned about the poor quality of vascular surgery performed outside of the large academic medical centers that they called for the establishment of formal training programs as the best means of improving quality of vascular care.<sup>1</sup> When the ABS and the Accreditation Council for Graduate Medical Education (ACGME) declined to accredit these vascular surgery programs and certify their fellows, the two major national vascular societies, the Society for Vascular Surgery (SVS) and the North American Chapter of the International Society for Cardiovascular Surgery, established a "program endorsement and evaluation committee," whose responsibility was inspection and approval of vascular fellowship programs. Although no formal curriculum was established, certain requirements, along with minimum case numbers, were recommended. This professional, society-based effort was very successful and well-received, but not entirely satisfying.<sup>2</sup> Ongoing efforts and negotiations finally led to approval of vascular surgery training programs by the Residency Review Committee for Surgery (RRC-S) and of a vascular surgery certificate by the ABS in 1982. The first vascular board examination was administered (only to directors of the ABS) in 1982 (all passed), and then to the first group of successful applicants in November, 1983. As one of the most forceful proponents of accredited vascular training, it was appropriate that Edwin J. Wylie received the first vascular certificate issued by the ABS (Fig 1). Because there were no ACGME-accredited vascular programs until 1983, the ABS initially permitted only highly qualified vascular surgeons, as determined by an ABS committee, after reviewing their training and documented clinical experiences, to take the examination. Those passing the examination received a certificate of *Special Qualifications* in General Vascular Surgery. The ABS anticipated that this would be a very small

Department of Surgery, Case School of Medicine and Division of Vascular and Endovascular Surgery, University Hospitals Case Medical Center, Cleveland, OH.

Address reprint requests to Jerry Goldstone, Division of Vascular and Endovascular Surgery, 11100 Euclid Avenue, Cleveland, OH 44106-7060.  
E-mail: Jerry.Goldstone@UHHS.com

**Figure 1** Photograph of first certificate of Special Qualifications in General Vascular Surgery issued to Edwin Jack Wylie on June 30, 1982.



group, probably no more than a few hundred. Obviously, none of the early examinees had completed a certified fellowship because none existed until the first ones were approved in 1984. The ABS initially permitted this sort of “grandfathering” for 5 years, but later extended it another 2 years, finally ending this means of qualification in 1989. Since then, only those who have successfully completed an accredited vascular fellowship (synonymous with residency) have been permitted to take the vascular qualifying (written) and certifying (oral) examinations. Successful examinees receive a certificate of *Added* Qualifications in General Vascular Surgery (consistent with other ABS specialty certificates such as Hand Surgery and Surgical Critical Care). There are currently more than 2,500 surgeons who hold either a certificate of *Special* or *Added* Qualifications in Vascular Surgery (the word *General* was dropped several years ago).

### Training Paradigms

There has historically been two pathways that could lead to vascular certification: (1) after the completion of a complete residency program in general surgery, followed by completion of an accredited vascular surgery residency; and (2) after completion of a cardiothoracic surgery residency, if vascular operative case volume and other requirements within that program were met. Very few certificate holders are from the latter pathway, and it no longer exists. With both pathways, possession of a general surgery certificate from the ABS was a requirement for admission to the vascular qualifying examination. The required length of vascular training was 1 year (officially, 12 months). In 2000, the RRC-S approved 2-year training programs, although a single year was still permitted until July 1, 2006. All programs must now be a minimum of 2 years, and only those fellows who matched into existing ACGME-accredited 1-year programs prior to July 1, 2006

and started those programs on or before that date will be allowed to take the vascular board examinations after only 1 year of vascular training.<sup>3</sup> Many, in fact most, programs had already incorporated an unaccredited second year early on; this was often a research year, but it evolved into a second clinical year to meet the demands of increased educational content in endovascular procedures and noninvasive vascular diagnosis. Accreditation of the additional fellowship year was straightforward, and by July 1, 2006, only a very small number of 1-year programs remained. They will obviously have to meet the new requirement or lose their accreditation status.

There are now four types of training programs approved by the RRC-S and ABS (Table 1):

1. Standard: This is the traditional, sequential type of program that is currently in existence in the vast majority of institutions.<sup>4</sup> It requires completion of a complete general surgery residency of 5 clinical years. As much as 6 to 12 months of vascular surgery may be included in this interval. This is followed by a 2-year residency (fellowship) devoted exclusively to vascular surgery. Thus, there is a minimum of 7 years of formal training

**Table 1** Types of Accredited Vascular Programs

Program Type	Years			Certificate	
	GS	VS	Total	GS	VS
Standard	5	2	7	Yes	Yes
ESP*	4	2	6	Yes	Yes
Independent*	3	3	6	No	Yes
Integrated*	0	5	5	No	Yes

ESP, Early Specialization Project; GS, general surgery; VS, vascular surgery.

\*All training must be in same institution.

Download English Version:

<https://daneshyari.com/en/article/3026509>

Download Persian Version:

<https://daneshyari.com/article/3026509>

[Daneshyari.com](https://daneshyari.com)