

From the Society for Clinical Vascular Surgery

## An evaluation of the availability, accessibility, and quality of online content of vascular surgery training program websites for residency and fellowship applicants



Bryant Y. Huang, BS,<sup>a,b</sup> Taylor D. Hicks, MD,<sup>a,c</sup> Georges M. Haidar, MD,<sup>a,c</sup> Lori L. Pounds, MD,<sup>a,c</sup> and Mark C. Davies, MD, PhD, MBA,<sup>a,c</sup> San Antonio, Tex

### ABSTRACT

**Background:** Vascular surgery residency and fellowship applicants commonly seek information about programs from the Internet. Lack of an effective web presence curtails the ability of programs to attract applicants, and in turn applicants may be unable to ascertain which programs are the best fit for their career aspirations. This study was designed to evaluate the presence, accessibility, comprehensiveness, and quality of vascular surgery training websites (VSTW).

**Methods:** A list of accredited vascular surgery training programs (integrated residencies and fellowships) was obtained from four databases for vascular surgery education: the Accreditation Council for Graduate Medical Education, Electronic Residency Application Service, Fellowship and Residency Electronic Interactive Database, and Society for Vascular Surgery. Programs participating in the 2016 National Resident Matching Program were eligible for study inclusion. Accessibility of VSTW was determined by surveying the Accreditation Council for Graduate Medical Education, Electronic Residency Application Service, and Fellowship and Residency Electronic Interactive Database for the total number of programs listed and for the presence or absence of website links. VSTW were analyzed for the availability of recruitment and education content items. The quality of VSTW was determined as a composite of four dimensions: content, design, organization, and user friendliness. Percent agreements and kappa statistics were calculated for inter-rater reliability.

**Results:** Eighty-nine of the 94 fellowship (95%) and 45 of the 48 integrated residencies (94%) programs participating in the 2016 Match had a VSTW. For program recruitment, evaluators found an average of 12 of 32 content items (35.0%) for fellowship programs and an average of 12 of 32 (37%) for integrated residencies. Only 47.1% of fellowship programs (53% integrated residencies) specified the number of positions available for the 2016 Match, 20% (13% integrated residencies) indicated alumni career placement, 34% (38% integrated residencies) supplied interview dates, and merely 17% (18% integrated residencies) detailed the selection process. For program education, fellowship websites provided an average of 5.1 of 15 content items (34.0%), and integrated residency websites provided 5 of 14 items (34%). Of the fellowship programs, 66% (84.4% integrated residencies) provided a rotation schedule, 65% (56% integrated residencies) detailed operative experiences, 38% (38% integrated residencies) posted conference schedules, and just 16% (28.9% integrated residencies) included simulation training.

**Conclusions:** The web presence of vascular surgery training programs lacks sufficient accessibility, content, organization, design, and user friendliness to allow applicants to access information that informs them sufficiently. There are opportunities to more effectively use VSTW for the benefit of training programs and prospective applicants. (*J Vasc Surg* 2017;66:1892-901.)

Candidates for vascular surgery training positions are now drawn from the millennial generation. These applicants, part of Generation Y, increasingly use the Internet to find, filter, and evaluate information, especially when it comes career planning.<sup>1-4</sup> At present, applications to vascular surgery training programs are managed

through several online systems: applications are submitted through the Electronic Residency Application Service (ERAS) and matriculation of graduate medical students is coordinated through the National Resident Matching Program (the 'Match'). In addition to ERAS and the Match, various additional databases—the

From the Division of Vascular and Endovascular Surgery, Department of Surgery,<sup>a</sup> and Long School of Medicine,<sup>b</sup> University of Texas Health Science Center at San Antonio; and the South Texas Center for Vascular Care, South Texas Medical Center.<sup>c</sup>

Author conflict of interest: none.

Presented at the Thirtieth Annual Meeting of the Eastern Vascular Society, Philadelphia, Pa, September 15-17, 2016; presented at the Forty-fifth Annual Symposium of the Society for Clinical Vascular Surgery, Orlando, Fla, March 18-22, 2017; and presented at the Association of Program Directors in Vascular Surgery Annual Meeting, Chicago, Ill, March 23-24, 2017.

Correspondence: Mark C. Davies, MD, PhD, MBA, South Texas Center for Vascular Care, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Dr, MC7741, San Antonio, TX 78229 (e-mail: [daviesm@uthscsa.edu](mailto:daviesm@uthscsa.edu)).

The editors and reviewers of this article have no relevant financial relationships to disclose per the JVS policy that requires reviewers to decline review of any manuscript for which they may have a conflict of interest.

0741-5214

Copyright © 2017 by the Society for Vascular Surgery. Published by Elsevier Inc. <https://doi.org/10.1016/j.jvs.2017.08.064>

Accreditation Council for Graduate Medical Education (ACGME), the Fellowship and Residency Electronic Interactive Database (FREIDA), and the Society for Vascular Surgery (SVS)—have been established in an effort to consolidate and standardize online information available to prospective graduate medical students applying to vascular surgery programs. The Association of Program Directors in Vascular Surgery (APDVS) also provides a website for vascular surgery program directors, trainees, and applicants. These databases provide various information, including program names, location, addresses and contacts, accreditation status, program size, and number of trainee positions available, which allow applicants to identify potential programs. Importantly, these databases direct prospective vascular surgery residency applicants to websites of either the sponsoring institutions or directly to the programs.

Analyses of online information have been conducted for a range of residency programs, including general surgery, emergency medicine, orthopedic sports medicine, plastic surgery, otolaryngology, pediatric orthopedic surgery, radiation oncology, neurosurgery, and orthopedic surgery.<sup>2,3,5-12</sup> To our knowledge, no published study has evaluated the accessibility, availability, and quality of online content for vascular surgery training programs. However, studies in other specialties have demonstrated the importance of program websites during the application process.<sup>13-15</sup> Of particular relevance, studies in other surgical subspecialties suggest underuse of program websites for education and recruitment of prospective applicants by the recruiting program.<sup>2,3,5,8-10,12</sup> Given the importance of online resources—evidence from marketing and the retail domains suggest that website quality, rather than mere existence<sup>16</sup> is key to enhancing a company's competitiveness,<sup>17</sup> attracting consumers, and influencing intentions<sup>18</sup>—we sought to assess the current state of vascular surgery training program websites. Thus, the purpose of this study was to evaluate the presence, accessibility, comprehensiveness, and quality of vascular surgery training program websites.

## METHODS

**Study design.** A comprehensive list of accredited vascular surgery training programs (integrated residencies and fellowships) was obtained by cross-referencing four databases for vascular surgery education: the ACGME,<sup>19</sup> ERAS,<sup>20</sup> the FREIDA,<sup>21</sup> the APDVS, and the SVS.<sup>22</sup> Programs participating in the 2016 National Resident Matching Program were eligible for study inclusion. After identification of all programs with vascular surgery training websites (VSTW), all websites for programs participating in the 2016 National Resident Matching Program were accessed and evaluated by six independent reviewers (three medical students with an interest in vascular surgery [applicants], one senior practicing vascular surgeon, and one middle and two

junior practicing vascular surgeons) for the availability of recruitment and educational content items and for the quality of VSTW as determined by a composite of four dimensions: content, design, organization, and user friendliness. Each reviewer was trained by examining an optimal website, an average website, and a minimal website. The first author and the senior author designated the three examples based on their joint opinion and scoring. An optimal website scored in the first quartile, an average website scored close to the mean of the rating scale and a minimal website was in the fourth quartile. Each reviewer then viewed each website independently of the other reviewers in a guided manner lead by one author (B.Y.H.); the sequence of the websites was randomly selected for each reviewer. The reviewers were not blinded because they were viewing the actual website.

**Accessibility of websites.** Accessibility of VSTW was determined by surveying ERAS, ACGME, FREIDA, and SVS for total number of vascular surgery programs listed and for presence or absence of website links. If a link was provided, it was characterized as either functional or nonfunctional. Functional was defined as whether or not a website link worked. In other words, if clicking on a link produces a website—any website—then the link is considered functional. However, if clicking on a link produces an error, and then the link is considered nonfunctional. All functional links were subsequently classified as being either “direct” (ie, clicking on the link directs the viewer directly to the vascular surgery program website) or “indirect” (ie, clicking on the link directs the viewer to a website other than the vascular surgery program homepage, such as to the hospital school or departmental website).

**Availability of content.** VSTW were analyzed for the availability of information used to inform and recruit prospective applicants. Variables related to resident, recruitment, and educational variables, selected based on ACGME program requirements for graduate medical education in vascular surgery<sup>23</sup> and previously published literature in the field,<sup>3,7,8,11,12</sup> were noted as either being present or absent (Table I). The evaluation of online content was limited to the VSTW, unless a direct URL link to specific information was present in the VSTW.

**Program recruitment and education.** VSTW were evaluated for descriptive content that might be used for the purpose of recruiting future trainees. Such content included general program description, faculty information, details regarding the application process, and program benefits. In total, 32 program recruitment variables were analyzed (Table I). VSTW was also evaluated for thoroughness in detailing how its specific program meets core components of vascular surgery integrated residency and fellowship training as mandated by the

Download English Version:

<https://daneshyari.com/en/article/8672232>

Download Persian Version:

<https://daneshyari.com/article/8672232>

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