A majority of cardiology fellows receive at least part of their training at the Veterans Affairs Health Administration (VHA) hospitals and clinics. In this paper, we discuss the unique role and challenges of advanced cardiology training at the VHA from the fellow’s perspective. Finally, we explore the potential improvements and future directions of cardiology training at the VHA, which will have a significant effect on future generation of cardiologists.

VHA is the largest integrated health care system in the United States, with 150 medical centers and nearly 1,400 community-based outpatient clinics. On January 30, 1946, a historic document, Memorandum Number 2, was signed permitting the establishment of VHA’s affiliations to medical schools. Title 38 U.S.C. mandates the VHA’s assistance with training of health care professionals for its own and the national health care professional demand. Through VHA’s partnership with academic institutes, it is the largest provider of education and training for health care professionals in the United States. In 2014, >41,000 medical residents, 23,000 medical students, and approximately 300 advanced fellows received at least some of their clinical training in the VHA. The accredited Veterans Affairs (VA) residency and advanced subspecialty training programs are also partly funded by the VHA. Hence, the VHA contributes significantly to U.S. medical education and has been offering training to medical students, residents, and fellows in various subspecialties for a long time. Training in the VHA is an important component of a majority of cardiology fellowships in the United States. Undoubtedly, fellows cherish the training experience at the VHA, mainly because of the unique population. But, anecdotally, fellows can feel that the VHA is lagging behind in the pace of health care delivery and implementation of modern therapeutics/intervention. Because the VHA plays a significant role in shaping future cardiologists, it is important that the role and challenges of the advanced cardiology training in the VHA are reviewed from the fellows’ perspective.

It is almost universally recognized among cardiology trainees that the VHA patient population provides enriching exposure in treating patients with higher cardiovascular risk factors, diverse pathology, and a greater disease severity spectrum. The VHA patient population is considered “high risk” for cardiovascular disease because of multiple risk factors, comorbidities, poor socioeconomic status, and possibly, exposure to chemicals and other toxins during warfare. Agha et al. compared the health status of the VHA patient population versus a non-VHA population and found substantially higher odds of poorer health status, more medical conditions, and higher medical resource usage in the VHA population. Another key benefit with regard to training is the continuity of care, which is facilitated by centralized health care delivery and medical informatics. For example, the published data demonstrates that VHA patients have high clinic attendance and better medication adherence. For instance, among patients taking warfarin, the international normalized ratio time in therapeutic range was close to 60%, which is better than non-VA community-based health care settings. These findings oppose the common myth that VHA patients are noncompliant. Furthermore, the Veterans Information Systems and Technology Architecture, which includes the Computerized Patient Reporting System,
is a nationwide information and electronic health record system implemented at all VHA facilities since 1999 (6,7). This centralized system has been credited with increasing productivity by nearly 6% each year, and has been pivotal in improving quality of care (6). From a fellow’s perspective, access to such centralized data provides unabated information on patients without any national geographical and systemic barriers, unlike those faced for non-VA patients who get care at different hospitals that do not communicate with each other electronically. In summary, the unique patient population, diverse pathology, efficient electronic medical record, and great continuity of care all make the VHA a great resource for fellows’ education and training in cardiology.

However, there are some concerns that a trainee faces during cardiology training at VHA facilities. Only a limited number of VHA hospitals—mostly urban facilities—are able to provide comprehensive multispecialty cardiac care, including cardiac surgery, angioplasty, primary percutaneous coronary intervention for ST-segment elevation myocardial infarction during and after regular hours, structural heart disease intervention, arrhythmia ablations, and vascular procedures. For example, cardiac surgery is available in only 44 VHA facilities, and among this selection, very few have initiated the transcatheter aortic valve replacement programs. Most VHA facilities outsource these procedures to other centers; hence, fellows in advanced fellowship are often not able to gain enough procedural experience in these fields. If the VHA could offer a spectrum of services comparable to nonfederal facilities, it would be more convenient for the patients, a boon to advanced trainee’s education, and perhaps more cost effective in the long run for the VHA. A lack of comparable infrastructure and staffing for comprehensive cardiac care in comparison to nonfederal facilities affects advanced training opportunities despite being exposed to such diverse pathologies in this unique population. Further, there is anecdotal evidence that many VHA facilities may be slow to embrace new technologies and advancements in cardiology. Further, fixed pay and less liability may undermine passion for work, innovation, and efficiency among the staff. It is also a common perception among fellows that “things move slowly” at VHA (i.e., it takes a longer time to arrange for procedures such as cardiac catheterization, or there is a long waiting period for follow-up in clinics). It is hard to quantify this perception, and the published data are scarce in this area, which causes frustration among both the patient and the provider. Further, patients are often confused about who holds the responsibility and may even blame the provider at times for such system delays. Another common notion among fellows is the VHA’s “reluctance to change.” Especially in the field of cardiology—where the science and technology is changing at a rapid pace—a delay in adopting those changes can be a hindrance to the educational experience. For instance, compared with non-VA facilities, the VHA is slow to implement availability of newer therapeutic agents in formulary. A whole spectrum of newer anticoagulants and antiplatelet agents is not readily available at many VHA centers, and even when they become available, formulary restrictions are hard to overcome, as it needs to go through several administrative jurisdictions. These restrictions limit fellows to choose only available medications or therapeutic technologies, even in cases where better alternatives exist. There are several ways in which training experience in the VHA for cardiology fellows could be improved. First and foremost, despite rigorous searches of the published data, we were unable to find readily available information that could quantify the educational experience provided by the VHA for cardiology subspecialties. There should be greater transparency in data regarding number of cardiac procedures, including invasive and noninvasive procedures, performed at different facilities. Similarly, data should be available on complication rates and referrals/transfers to outside facilities. This transparency could help to highlight areas of weakness and create a competitive environment, which would invariably lay the groundwork for improvement. This information also will help trainees make a more informed decision while choosing fellowship. We also propose that there should be annual surveys of medical trainees to gauge satisfaction with the current training experience and, more importantly, for soliciting suggestions of improvement. These data would have an invaluable effect on facilitating change toward better training.

Furthermore, the Accreditation Council for Medical Graduate Education should conduct periodic evaluations to ensure that the VHA has adequate infrastructure for advanced cardiology training, such as in the interventional cardiology and electrophysiology subspecialties. Every effort should be made by the VHA to embrace the advances in cardiology that would not only improve the training experience of cardiology fellows, but also help deliver superior patient care.

In summary, the VA is a great resource when it comes to cardiology fellowship training and provides the unique opportunity to serve people who served the nation. However, challenges remain that
influence the training of fellows. In cardiology and its subspecialties, fellows often get one-third to one-half of their training experience at the VHA. Hence, the need to review and address these challenges by the respective authorities is crucial to promote the quality of the training that the fellows receive.

References


Response: Don’t Sell the VA Healthcare System Short as an Integral Partner in Cardiology Fellowship Training

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Drs. Pant and Tripathi provide a detailed and thoughtful critique of the important, unrivaled role that the Veterans Affairs (VA) healthcare system has played as the single largest provider of post-graduate medical education and training of healthcare professionals in the United States for the past 70 years (1,2). Nevertheless, they cite concerns, limitations, and challenges associated with VA post-graduate training in general, and cardiology in particular. Among the criticisms cited of Veterans Affairs Health Administration (VHA) facilities for cardiovascular fellow trainees are the paucity of “hospitals that can provide comprehensive multispecialty cardiac care, including cardiac surgery, angioplasty, primary percutaneous coronary intervention for ST-segment elevation myocardial infarction, structural heart disease intervention, arrhythmia ablations, and vascular procedures.” Pant and Tripathi suggest that outsourcing such advanced specialized procedures to the private sector shortchanges both veterans and trainees, and were these to be incorporated into more VA facilities, it could “perhaps be more cost-effective in the long run to VHA.”

Yet, in the context of a large, national healthcare system that must balance the diverse clinical needs of veterans across the entire spectrum of health and disease, and within the annual funding limits appropriated to VHA by Congress and the president, there are cogent reasons why the VA toes a more fiscally prudent line and chooses carefully which expensive, highly specialized procedures should be provided within VA rather than outsourced to the private sector. Such “make-or-buy” decisions are predicated on many factors, such as the recurring expenditures associated with 24/7 staffing, expensive equipment cost outlays, and whether the number of veterans who would require such procedures at a given VA facility would justify the high cost of internalizing all highly specialized care on-site. Although not having in-house access may pose certain inconveniences to patients, many such procedures are more elective (e.g., transcatheter aortic valve replacement or atrial fibrillation ablation) and not necessarily emergent. For ST-segment elevation myocardial infarction, primary percutaneous coronary intervention (PCI) is performed during weekdays at many of the VA’s 74 tertiary centers with PCI capability (and, in some facilities, primary PCI is performed 24/7); yet, well-established contractual relationships with
affiliated medical centers provide an expedited path of safe and effective patient triage and referral for emergent ST-segment elevation myocardial infarction management and other off-hour cardiac emergencies. The concern stated that many fellows regard VA as “slow” to embrace the rapid trajectory of technological change, that certain branded therapeutic agents are restricted for use on VHA’s National Drug Formulary, or that VHA imbues a certain bureaucratic “reluctance to change” seemingly ignores the present-day reality that U.S. health care expenditures exceed $3 trillion annually, and that the United States spends more per capita ($9,523) on healthcare delivery than any other developed country—without achieving the “bang for buck” best outcomes for our healthcare dollars spent, as compared with other countries (3,4). Perhaps, these data suggest that more is not inevitably better.

Finally, there are several misperceptions in the authors’ list of suggestions to improve the training experience for cardiology fellows. First, the great majority of U.S. cardiology fellowship programs are integrated within their respective medical school’s academic health center affiliates. There are few free-standing VA cardiology fellowship programs today. As such, the standards for training program educational requirements and accountability are universally applicable across both VA and non-VA training sites. Accreditation Council for Medical Graduate Education-accredited fellowship programs require annual surveys of the fellows’ training experience, curriculum assessment, and evaluations of both VA and non-VA teaching faculty. Thus, those rigorous standards are currently in place. Second, Drs. Pant and Tripathi suggest that “fixed pay and less liability may undermine passion for work, innovation, and efficiency among staff.” Although VA faculty (part- or full-time) are salaried physicians—many of whom have dual academic faculty and clinical appointments—it is questionable to propose that VA-based cardiologists lack zeal in their professional work. On the contrary, VA cardiologists are generally imbued with a great sense of responsibility and dedication to providing outstanding subspecialty care to a disadvantaged group of veterans who deserve nothing but the best care available, and to ensuring that these outcomes are achieved in an evidence-based, quality-driven, and cost-effective manner. Many comparative studies in cardiac patients between the VA and non-VA sectors find equivalent, if not better, clinical outcomes among VA-treated patients (5–7). Third, and perhaps most important, the authors’ premise that post-graduate training in cardiology at VA sites should replicate that which fellows receive as part of their core training at their respective academic health center is somewhat short-sighted. VA training in cardiology provides abundant opportunity for trainees to gain invaluable hands-on experience in a setting of graded professional responsibility with close attending physician supervision and mentoring. The strengths of VA cardiology training are to provide the fellow with a rich clinical laboratory to hone the vital skillsets of taking a careful history and physical examination (yes, these remain critically important!), one that centers on providing the cardiology trainee with proportionately more concentrated time and exposure to clinical and consultative care to learn how best to diagnose and manage complex cardiac illnesses in the setting of multiple comorbidities, and to most appropriately risk stratify patients and configure treatment plans that are driven largely by scientific evidence. Accordingly, the VA learning experience is one that complements and balances the oftentimes more high-volume, procedurally directed inpatient exposure that cardiology fellows receive routinely in their university-based educational experience.

In summary, cardiology fellows-in-training should desire a post-graduate learning experience that is not merely a duplicative, one-size-fits-all approach, but that rather encourages and embraces the diversity and enrichment of what VA-based training can offer as uniquely additive to the totality of their training experience.

REFERENCES