

# **CORR® Curriculum—Orthopaedic Education: Whither the Military Residency?**

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The US military has maintained graduate medical education (GME) programs since the end of World War II as a means to provide specialized medical care for eligible patients in military hospitals [11]. Over the past few years, military hospitals have seen a decline in surgical patients, largely because of changing patient eligibility for care [5, 7, 9]. This has led to a decrease in clinical volume for military GME programs, making it more difficult to maintain programs at

military hospitals and resulting in the need for more outside rotations. Given a decreased scope of surgical practice, why should there be military residencies? What is their value? And how can the advantages of an active-duty military residency be preserved?

## **Why Have Military Residencies?**

Aside from having the privilege to care for service members, going through residency as an active-duty member in a military hospital offers opportunities that are not readily available anywhere else.

Being on active duty as a resident is a readiness multiplier for the armed forces [11], and military residencies hold an important reservoir of active-duty physicians who can respond quickly to a crisis. At any given time, about a quarter of all active-duty physicians are in a GME program. During mobilization and wartime, these residencies provide military-experienced doctors quickly under exigent circumstances [11], like during Desert Storm, when PGY-5 residents from military orthopaedic surgery programs were deployed as orthopaedic surgeons to staff hospitals in Saudi Arabia.

Second, it is important for the military to conduct research in order to provide the best possible treatment for service members [4]. This is particularly relevant for research in combat casualty care. War surgery is a discontinuous practice, and understanding the clinical course and outcomes of battlefield casualties is important for each new generation. Researching areas specific to the military is enhanced by maintaining an academic environment at a military hospital. Having graduate medical education in a military environment fosters this area of research. Recent advances in orthopaedic care conducted by researchers at military hospitals have been well documented by this [3, 6, 8, 10] and other journals. Furthermore, investigation into the military application of newer treatments is an important part of military research.

Third, active-duty residents have access to leadership opportunities that are not afforded to those in non-military settings. For example, the Army's Basic Officer Leader Course and the Advanced Leader Course are high-quality leadership-building programs within the context of military service. Because of these unique opportunities, those with active-duty experience in graduate medical education are expected to become the core leadership of military medicine. It's worth noting that leadership development recently has been emphasized as a part

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*A note from the Editor-in-Chief: We are pleased to offer the next installment of "CORR® Curriculum—Orthopaedic Education," a quarterly column. The goal of this column is to focus on aspects of resident education. We welcome reader feedback on all of our columns and articles; please send your comments to [eic@clinorthop.org](mailto:eic@clinorthop.org).*

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of resident education by the ACGME [2]. Military programs have a long tradition of providing quality leadership education at various stages in a person's career.

### Problems Remain

However, graduate medical education in military hospitals faces particular strains. First is the cyclic nature of available clinical material for surgical and other programs. Military hospitals experience cycles of “boom and bust” with patient volume when there is variation in the size of the military or changes in benefits for military members, retirees, and dependents. Furthermore, service members who experience wartime casualties are evacuated back to the US for definitive care, most often at military teaching hospitals where rehabilitation services are readily available. Case volume and case mix vary over time because of the frequent changes of patient eligibility for care in military hospitals where these residencies are sponsored, resulting in the need for rotations at other—often civilian—facilities to make up for the shortfall in clinical volume in particular subspecialties.

The reduced case volume also has adverse effects on the retention of young attending surgeons. Increasing numbers of young faculty members at the military's training programs are leaving because of decreases in case volume; in fact, there are relatively few surgeons left in the military who have more than 10 years of experience after residency. In contrast, faculty at most university programs have a mix of senior, mid-level, and junior faculty. Many military surgeons are ending their careers in the service at the conclusion of their initial obligations. These cycles at military hospitals are not new, but because of

recent updates to the standards for residency programs, changes in patient populations are more likely to have adverse effects on accreditation of military residency programs [1].

### Possible Solutions

Because of cyclical changes in eligible beneficiaries for military hospitals, it is unlikely they will ever have a constant, stable patient volume. To preserve GME programs and retain attending surgeons, one idea is to integrate military medicine with a more stable hospital system, such as the Veterans Administration or University Hospital System. Such arrangements occur overseas with other nations' military hospitals. For example, British military physicians are fully integrated with NHS doctors at Queen Elizabeth Hospital in Birmingham, England. Seven of eight US military orthopaedic residency programs already have agreements to rotate with local university programs. One program in El Paso, TX has maintained a combined orthopaedic program of the military and university for the past 40 years.

When first established, VA hospitals were supposed to be affiliated with university hospitals because it was felt a higher quality of care was provided by teaching hospitals [12]. More recently, the VA healthcare system has become more of an independent entity, though many VA hospitals do maintain university affiliations as well as graduate medical education. Integration of VA healthcare with the military would make a lot of sense, and not just for graduate medical education. An example is the Lovell VA in Chicago, which has some active-duty members working full time on staff. Having a continuum of healthcare for service members and beneficiaries while on active duty or afterward would streamline the

administration of those eligible for care. Second, VA hospitals are present near every current major military teaching hospital. Integrating the two systems geographically might reduce duplication of services and reduce overall costs. Third, the VA healthcare system maintains very active research programs to benefit present and former service members. By integrating with the VA, graduate medical education would benefit by having a more stable patient population, as well as being less susceptible to fluctuations of faculty when major deployments occur. Further cost savings would occur through combining efforts, as well as utilizing a single electronic medical record.

### Conclusion

It is clear that cycles of “boom and bust” at military hospitals have adverse effects on graduate medical education and the retention of surgeons. Now is a good time for military medical leadership to consider alternatives for stabilizing the career paths of surgeons who are needed during war, as well as graduate medical education.

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