



Military practice

Annesley W. Jaffin, M.D., F.A.C.S.^{a,*}, Mary Maniscalco-Theberge, M.D., F.A.C.S.^b

^aUniformed Services University of The Health Sciences, Bethesda, MD, USA

^bDepartment of Surgery, Walter Reed Army Medical Center, Washington, DC, USA

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The Armed Forces offer many opportunities for a surgeon to pursue a rewarding career, including primarily hospital-based clinical surgery, clinical or basic research, teaching, and administrative or operational medicine. Military practice differs from surgical practice in the civilian setting in several important ways, as described later.

Sources of Commission

All military physicians are commissioned officers in the Medical Corps. The entry-level grade for young physicians just out of residency is Captain (Air Force/Army) or Lieutenant (Navy). The 5 major paths by which physicians end up in the military are: Reserve Officer Training Corps, the military academies, Health Professions Scholarship Program/Financial Assistance Program (HPSP/FAP), Uniformed Services University of the Health Sciences (USUHS), and direct commission.

US Reserve Officer Training Corps scholarships are available through the Army, Navy, or Air Force and provide up to \$17,000 per year for college tuition and fees, as well as up to \$400 per month subsistence at selected universities throughout the nation. On completion of training, scholarship recipients serve in the military for a period of 8 years, with an option to serve 4 of those years on active duty.

The military academies (US Military Academy at West Point, NY; US Naval Academy in Annapolis, MD; and the US Air Force Academy in Colorado Springs, CO) provide a rigorous and academically challenging 4-year college education to their cadets (Army and Air Force) and midshipmen (Navy) in exchange for a 5-year active duty service obligation after

graduation. A certain percentage of each class is permitted to matriculate to medical school directly after graduation; the service obligation then is deferred.

The Armed Forces HPSP is a popular and competitive program whereby a student's entire medical school tuition—as well as required books, equipment, and academic fees—are paid. The student also receives a taxable monthly stipend to cover living expenses (\$1,235 as of this writing). Recipients of the scholarship incur a military service obligation of 1 year for each year they are funded, with a minimum obligation of 2 years. Service payback begins after residency, which can be completed at a military training program, or, with a deferment, at a civilian facility. To be eligible, a student must be a US citizen, and applications cannot be completed until the student has been accepted by at least 1 medical school. This program is an attractive one, particularly for students contemplating matriculation at one of the more expensive medical schools.

Similar to HPSP, FAP is open to qualified residents at any time during their residency training. FAP provides an annual grant of more than \$26,000 plus a monthly stipend of \$1,235 during residency. Participants incur an active-duty obligation of 2 years for the first year of FAP participation, plus 1 year for each additional year of participation, an option for surgical residents who find themselves in financial difficulty during their residency years.

The USUHS in Bethesda, MD, is the nation's federal health sciences university. Within it, the F. Edward Hebert School of Medicine is a tuition-free, accredited, 4-year medical school that accepts applications from civilians and military personnel. Nearly half of last year's entering class had no prior military experience. Students who attend USUHS receive an active-duty commission as a Second Lieutenant (Army/Air Force) or Ensign (Navy), and receive full pay, allowances, and benefits of that grade while they are medical students (≈\$44,830 gross in 2005 for an O-1 with dependents and no prior military service). Officers awarded the doctor of medicine degree after a 4-year program, which includes some military-unique curriculum elements, are required by law to serve on active duty for 7 years. Time spent in graduate medical education (intern-

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* Corresponding author. Tel.: +1-630-655-0392; fax: +1-630-493-0798.
E-mail address: Info@WomenSurgeons.org

ship and residency) does not count toward payback. USUHS is a particularly attractive option for medical students with families who would otherwise not be able to support them while attending medical school.

To qualify for a direct commission into the Medical Corps, a surgeon must be a US citizen younger than 47 years of age (age waivers may be available for older physicians); be a graduate of an accredited US school of medicine or osteopathy, or hold an Educational Commission For Foreign Medical Graduates Certificate; and must have a current unrestricted license to practice medicine. Rank on entry into the military should be a function of prior experience as a surgeon and fellowship training. Surgeons entering the military by the direct commission route should realize they are in a unique position to negotiate intensely for a desirable assignment. It would probably be advisable to contact a colleague in the military personally to discuss this before finalizing commissioning through a recruiter.

Pay, Allowances, and Benefits

Military pay scales can appear fairly complicated, but are fundamentally based on time in grade, or the number of years spent in a particular rank. In fiscal year 2005, a young surgeon entering the military as an O-3 Captain (Air Force/Army) or Lieutenant (Navy) with no prior military experience would earn a monthly base pay of \$3,124.50, a minimum basic allowance for housing (BAH) of \$1,196.00 (without dependents) or \$1,396.00 (with dependents) per month, and a basic allowance for subsistence of \$183.99 per month. The BAH is adjusted for high-cost areas, for example, in the Washington, DC metropolitan area the BAH would be \$1,641 without dependents and \$2,012 with dependents. In addition, medical officers are eligible for board-certified pay (range, \$208–\$500 per month, depending on the number of years in the service), variable special pay (range, \$100 per month for interns, up to \$1,000 per month for 6–8 years of service), and medical additional special pay, whereby officers who sign an agreement to remain on active duty for a period of 1 year receive a bonus of \$15,000 in a lump sum. In addition, incentive special pay annual contracts are available for surgeons who have completed their payback in specialties considered critically short, which at this writing include general surgery (\$29,000), neurosurgery (\$36,000), obstetrics/gynecology (\$31,000), ophthalmology (\$28,000), orthopedics (\$36,000), and otolaryngology (\$30,000). Another medical bonus, multiyear special pay, requires a 2-, 3-, or 4-year service commitment, and ranges from \$6,000 to \$14,000 annually depending on the specialty and contract duration. Lastly, a critical skills retention bonus was offered in fiscal year 2002 to certain specialties including general surgery, neurosurgery, orthopedic surgery, cardiothoracic surgery, colon and rectal surgery, oncology surgery, pediatric surgery, plastic surgery, organ transplant, trauma/critical care surgery, and vascular surgery, and included a lump sum payment of \$30,000 for a 1-year service obligation. At the time of this writing, whether this bonus will be offered in the future is

unclear. Base pay and bonuses are considered taxable income; other allowances are tax-free. Up-to-date and more detailed information is available online at www.dod.mil/dfas/money/milpay.

Active-duty service members also are entitled to receive other benefits, which include full medical coverage for service members and their families, full dental coverage, 30 days paid annual leave, free life insurance (Service Members' Group Life Insurance, Livingston, NJ), and discount shopping at military commissaries and exchanges. An additional benefit for physicians is that malpractice insurance is paid entirely by the US government.

Types of Military Practice

Patients eligible for medical care in the military system include not only active-duty service members, but also their dependent family members, and military retirees and their dependents. Consequently, military surgical practice encompasses a broad range of surgical problems in patients from the premature baby in the neonatal intensive care unit to the elderly nursing home resident. In general, military beneficiaries are a rewarding population to treat; they comprise a fairly middle-class demographic and tend to be medically compliant.

Community hospital

The surgical resident who has just completed their training (whether civilian or military residency) generally can expect to be assigned to one of the military's many community hospitals either within the United States or abroad, and step immediately into a busy practice. These hospitals vary in size, composition, and resources, but generally afford young surgeons an excellent proving ground for their surgical skills.

Medical center

Each of the services has designated medical centers—tertiary-care level referral hospitals—and are the centers for graduate medical education, clinical research, and teaching. Most offer residencies in a variety of surgical specialties and fellowship-level subspecialty training. Attending staff at the medical centers are generally senior surgeons who are fellowship-trained, have shown expertise in a particular clinical or research area, or both. Some subspecialty fellowship training, such as cardiothoracic or plastic surgery, is offered in some military medical centers, but also may be obtained in the civilian sector with military sponsorship. Military officers can obtain subspecialty training not available in any military medical center, such as colorectal, pediatric surgery, spine surgery, or transplant surgery, with a sponsorship. Military-sponsored fellows are popular in the civilian sector because they are free (from a salary and benefits standpoint) to the training institution.

Research

The Department of Defense offers a number of unique opportunities for clinical and basic research. All the military

medical centers conduct clinical research in concert with their teaching mission, similar to civilian University hospitals. Funding is available through a number of possible sources, including The Henry M. Jackson Foundation for the Advancement of Military Medicine. The Jackson Foundation is a private, not-for-profit service organization dedicated to improving military medicine and public health, and accomplishes this by helping military personnel conduct quality medical research and education programs. The Army Medical Research and Materiel Command encompass a number of research opportunities. Of unique interest to surgeons is the US Army Institute of Surgical Research in San Antonio, Texas, better known as *the Army Burn Unit* (<https://mrmc-www.army.mil/>), which for decades has been on the forefront of clinical and basic research related to the care of burn victims. The Walter Reed Army Institute of Research (<http://www.wrair.army.mil/>) in Forest Glen, Maryland has a long and distinguished history and continues to conduct basic and clinical research into a number of problems, particularly those that pertain to management of battlefield casualties. The Walter Reed Army Institute of Research also offers a 1-year Medical Research fellowship position. The Naval Medical Research Center (<http://www.nmrc.navy.mil/>) in Silver Spring, Maryland has a Combat Casualty Care directorate that includes a Resuscitative Medicine Department and conducts research in blood component therapy and shock resuscitation, as well as transplantation immunology.

University/USUHS

The Uniformed Services University (<http://www.usuhs.mil/>) has academic departments in surgery, anatomy, anesthesiology, military and emergency medicine, neuroscience, and obstetrics/gynecology, among others. Faculty assigned to USUHS includes active duty military and civilians, many of whom are retired military. The University provides opportunities to teach medical students and to conduct basic and clinical research into a number of surgical problems.

Administrative/operational/command

At every level of military medicine opportunities are available to obtain administrative experience. Surgeons who show exceptional administrative skill may choose a primarily administrative career path and assume hospital Committee Chair, Service Chief, Department Chief, or Chief of Staff positions in succession. As in civilian life, as greater administrative responsibilities are assumed, it becomes more and more challenging for a surgeon to remain active clinically. Fortunately for those who do not find administration rewarding, many opportunities exist to remain primarily clinical through the senior ranks.

Unique in military medicine are the many opportunities to participate in operational medicine. Each service has its own way of packaging medical support for conflict. Whether as part of an Army Forward Surgical Team, a member of an Air Force Air Transportable Hospital, or while serving on the Navy's hospital ship—the *Comfort*—a surgeon may serve in numerous ways.

Commanders in the military, including hospital commanders, are chosen by selection boards. The command track in military medicine historically has been traveled heavily by surgeons. Medical Corps officers who have strong administrative skills and desire to command must pay particular attention to their military career development, including a mix of operational and administrative assignments as well as military schooling.

Military: Unique Features of Military Medicine

All military services expect their officers to maintain proper military bearing and appearance, which includes maintaining a minimum level of physical fitness and adherence to weight standards. Twice yearly, physical fitness testing is performed.

Officers' Basic Course

All newly commissioned officers attend an Officers' Basic Course. Officers learn about military culture, how to wear the uniform, how to render proper military courtesy, unique military medical regulations, and certain basic service-specific tasks (eg, in the Army, land navigation and how to fire a weapon).

Moves (permanent change of station)

In general, military families can expect to move, or experience a permanent change of station, every 3 to 4 years. Typically, the officer submits a *dream sheet* of desired assignments, and a career manager matches physicians with open slots. Generally, a move is to a position of greater responsibility. Some positions, such as Graduate Medical Education Program Directors, are expected to remain stable over a long period of time and are not subject to a permanent change of station. Also, many senior surgeons at medical centers remain assigned to the medical centers until they retire. The actual moves are financed by the Department of Defense.

Deployments

As a commissioned officer, one takes an oath to “uphold and defend the Constitution of the United States against all enemies, foreign and domestic.” Particularly in the current political climate, no one should enter the military who does not take this vow seriously. Surgeons, especially orthopedic surgeons, general surgeons, and general surgical subspecialists are always among the first medical elements called on to deploy in support of military troops. In addition to an assignment to a fixed facility, nearly all surgeons are assigned on paper to a deployable unit, and when that unit deploys—whether to a combat zone, Joint Task Force, peacekeeping mission, or any one of many possible military missions—the surgeons can expect to be deployed as well. Those assigned to some highly deployable units may find themselves on a deployment or training to deploy as much as 50% of the time. Surgery on deployments typically is practiced in a rather austere environment and presents its own challenges and rewards. The bulk of

operations on any deployment consist of a small number of routine surgical cases while the surgical teams remain prepared to deal with a mass casualty situation, which may occur at any moment. In major conflicts, surgeons obtain trauma experience unparalleled in civilian life. In fact, many prominent civilian trauma and burn surgeons cut their teeth while serving as medical corps officers in Vietnam. There is no question that a bond develops among officers deployed together that is unlike any other. Peacekeeping missions usually are accomplished as part of a multinational effort, which affords surgeons the opportunity to meet and exchange information with medical professionals from other countries.

Promotion

Approximately every 5 to 6 years, officers' personnel records are reviewed by a Board that assesses their past performance and ranks them in comparative order with their peers. Boards consider the officers' annual evaluation reports among other items included in a promotion packet. This ordering determines promotion, and also is considered for such things as schooling or command selection. When officers are selected for promotion on time, they are promoted to the next higher rank, with all the attendant increased pay and benefits, at 6 years from the date of their last promotion. Highly competitive officers, typically those on operational or command tracks, may be selected for promotion up to 2 years earlier. Officers passed over for promotion for 2 sequential years are retained on active duty only with a waiver.

Retirement

After 20 or more years of active duty service, officers may retire and receive a pension at 50% of their basic pay at their last rank. For retiring O-5s (ie, Air Force/Army Lieutenant Colonels, Navy Commanders), that pension in 2005 would be almost \$41,000 annually. This is a comfortable cushion for those typically in their mid-40s on retirement from the military and in an excellent position to begin a second career in the civilian sector.

Dual military couples

Many military surgeons are married to other military members. All the services make a great effort to keep military couples together. As a practical matter, this is accomplished much more easily if both members are in the same service.

Quality of life

The benefits of practicing surgery in the US military are many and include the opportunity to have a busy, rewarding clinical practice without the headaches of starting up a practice, office expenses, malpractice premiums, and reimbursement

worries. The practice environment tends to be extremely collegial because partners and consultants are viewed as colleagues rather than competitors. It is nice not to have to be concerned with whether or how our patients can pay for our services. In general, hours are not as long as in private practice, although the financial compensation is not as great either. However, clearly the military is not for everyone. Deployments, particularly long and frequent deployments, can be hard on the surgeon and family and are probably the single biggest detractor. However, some view deployments as the true purpose of military medicine and an opportunity to provide a unique service. Although some thrive on moving to a new location every 3 years or so, others may find this hard on families, including spouses with careers of their own and older children. Lastly, there is no question that the infamous military bureaucracy can sometimes be frustrating to deal with. The military is not for everyone.

Army Medicine

The Army has the largest and busiest medical department with the greatest number of medical facilities. Its flagship hospital is Walter Reed Army Medical Center in Washington, DC; other medical centers are located in Honolulu, Hawaii; Tacoma, Washington; San Antonio, Texas; El Paso, Texas; Fort Bragg, North Carolina; Augusta, Georgia; and Landstuhl, Germany. Army community hospitals are scattered throughout the United States. On the operational side, the Army has Forward Surgical Teams, Combat Support Hospitals, and Field Hospitals. Further information is available online at: <http://www.goarmy.com/amedd>.

Navy Medicine

The Navy's flagship hospital is the National Naval Medical Center in Bethesda, Maryland, the President's hospital. Portsmouth Naval and San Diego Naval Hospitals, however, are both busier in terms of patient volume. Because the Marine Corps does not have its own medical corps, the Navy provides medical support to the Marines. The Navy has two 1,000-bed hospital ships, the *Comfort* and the *Mercy*, deployed in support of military operations worldwide. Further information is available online at: <http://www.navy.com/careers/officer/healthcare/physicians>.

Air Force Medicine

The Air Force, the smallest service, has Wilford Hall Medical Center in San Antonio, Texas as its flagship hospital. Operationally, the Air Force fields Mobile Field Surgical Teams, Flying Ambulance Surgical Teams, and Air Transportable Hospitals. Further information is available online at: <http://www.af.mil/>.