The Generation Gap in Modern Surgery

A New Era in General Surgery

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General surgery remains one of the most respected residencies available to medical students today. At the same time, the number of medical school graduates applying for general surgery residencies continues to decline. Despite this decline, we still search for those individuals exhibiting qualities shared by general surgeons who excel. Although the field of general surgery is constantly evolving, these qualities remain the same. While intellect and good technical skills are essential, they alone do not ensure success as a surgery resident. Confidence, stamina, tenacity, and patience are imperative. Good leadership, motivational, and decision-making skills are also vital characteristics. Finally, the importance of dedication to patient care cannot be overstated. Because disease, injury, and pain are not scheduled events, general surgery residents regularly spend long hours, day and night, caring for and worrying about their patients. To ensure that we continue to add a sufficient number of general surgery residents each year without lowering our standards, those of us in general surgery must attempt to determine why fewer medical school graduates are applying for general surgery residencies. Then we must find ways in which we can improve the residency programs and, probably more important, emphasize to students the things about this field that led us to devote our lives to its practice.

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It is not entirely clear why fewer people are applying for general surgery residencies. One possibility may be the rapidly changing makeup of medical school graduates. There is an apparent increase in the average age of today’s graduating medical students. A lengthy residency might seem less attractive to older applicants. Many students today have had prior careers. Although these students likely view a medical career as a new life challenge, the challenge they seek may not involve the personal sacrifice often required of surgical residents.

It is not just older students or those beginning a second career, however, who may hesitate to choose a general surgery residency because of quality-of-life concerns. Many current medical school graduates, like their peers outside medicine, hope to achieve a better balance between their work and personal lives. Some are willing to sacrifice their professional aspirations, including financial reward, for better personal and family lives. Unlike many residents of prior generations, a growing number of today’s residents, both men and women, are no longer willing to delay marriage and childbearing until they have completed their residencies. Moreover, most residents with families want more time away from work to spend with their families and may be less willing to delegate family responsibilities to a spouse or a paid caregiver.

The quantity and quality of night-call and in-hospital hours required for a particular residency may influence an applicant’s choice. The night-call and in-hospital work hours required of general surgery residents are among the most rigorous of all residencies. A general surgery resident’s training, as well as the patient care he or she provides, frequently requires a resident’s full attention and maximum effort during all hours of the day and night. In addition to the personal sacrifice such hours require, general surgery residents also must regularly place the demands of their jobs before the needs of family and friends. Those who are not willing or able to have a 24-hour commitment to patient care are likely to choose surgical programs with less demanding curricula.

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Subspecialties, such as otolaryngology, urology, and ophthalmology, for example, seem to allow for a better quality of life during residency and in private practice. These fields are reputed to require less in-hospital hours, lighter call schedules (in quality and/or quantity), and more lucrative financial returns after residency.

The intellectual challenges that a resident will experience in a given residency are also important to graduating medical students. As in the past, general surgery residents are faced with a broad range of intellectual challenges that arguably differ from those in many other specialties. While many other residencies focus on a specific aspect of pathology, eg, urology, otolaryngology, or orthopedics, general surgery residents are expected to become “experts” in the pathophysiology of a variety of systems. In my program, the residents provide all preoperative and postoperative care, including all critical care. As a result, general surgery residents develop skills in radiograph interpretation and advanced critical care in addition to the technical aspects of general surgery. Although many general surgeons find this cross-specialty aspect of their training extremely beneficial in the long run, some of today’s new generation conceivably might find this aspect of general surgery overwhelming and prefer to focus their training on a specific area of patient care.

The quality of training offered by a residency is of obvious importance to new residents. Although the quality of training of this generation of surgery residents remains strong, it is difficult to compare it with that provided to previous generations. General surgery programs can vary widely. Those interested in general surgery now seek programs offering staff-supervised training as well as significant resident autonomy. A sufficient quality of training exists in a general surgery program that teaches its residents to teach autonomy. A sufficient quality of training exists in a general surgery program that teaches its residents to teach autonomy.

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Medical school graduates are also likely to consider a residency program’s policies regarding research when choosing how they will spend the final years of their medical training. The role of research in modern surgical training varies from program to program. Some programs require research; with others it is optional. While a residency program with a strong research component may be attractive to some students, it may deter others. Although research is the cornerstone of medical breakthroughs, most general surgery residents today eventually will practice as community surgeons; fewer will regularly be involved in the forefront of medical research. For those who are genuinely interested in a long-term commitment to medical research, a general surgery residency that has a strong research component should be encouraged. On the other hand, mandatory research may discourage those who believe a 5-year residency is already long enough and that their time may be better spent developing the required technical skills that will be used nearly every day of their surgical careers.

As medicine continues to evolve and advance, new fields emerge and residency programs in these fields are instituted. The appeal of these new residency programs may influence whether a medical school graduate decides to complete a residency in general surgery. Many students who previously would have been attracted to general surgery now find fields such as interventional radiology, emergency medicine, and invasive cardiology to be attractive alternatives. These fields, like general surgery, offer the satisfaction associated with “hands-on” medical care. Unlike general surgery, however, they also can provide a better quality of life during training and during private practice. In addition, they generally provide greater financial rewards than does general surgery.

Viewed as having many of the benefits of general surgery but with less of the costs, it is understandable that many current medical graduates might find these subspecialties more appealing, particularly in the long run, than general surgery.

Although certain aspects of a general surgery program arguably discourage rather than encourage some medical school graduates, general surgery remains an attractive residency and career. This continued attraction probably is most attributable to the intense enjoyment and satisfaction that performing an operation can provide. To me, this is the most rewarding aspect of being a surgeon. Because of the unique opportunity for hands-on care that surgery offers its practitioners, there are few other fields in which a physician can feel more actively and personally involved in a patient’s care and improvement than in general surgery. General surgeons take great pride and satisfaction in their patients’ recoveries and incredible defeat in their complications.

Having ourselves recognized the positive attributes of a career in general surgery, our challenge for the future of this field is to effectively promote it to the new generation of medical school graduates, and to enable them to understand why we chose to become general surgeons and why we still think our choice was the best one. In doing this, we must remember that the general surgeons of this new era will be taken from an applicant pool more influenced by computers and technology. The technological advancements currently in use, such as laparoscopy, intraoperative ultrasound, and endovascular techniques, should be emphasized to these graduates. At the same time, although the rapid changes and advances that have occurred in general surgery in recent years likely will appeal to this new generation, we must continue to adapt and to encourage further advances in technology and operative technique that will improve and shape the delivery of care to future surgery patients.

As the general surgery applicant pool continues to decline, we must actively seek out those individuals who share our unique commitment to patient care. Despite the challenges we continue to face in attracting general surgery residents, including competition from new technologically driven medical fields, we are still attracting qualified residents who show the requisite commitment to patient care. To continue to have an adequate applicant pool from which to choose tomorrow’s general surgeons, however, today’s residents and staff must persuasively market the field of general surgery to this new era of graduating students. If we can show the new generation what it was that inspired us to become surgeons, I think there will be no generation gap in modern surgery.

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