

RAS

Requiem for the general surgeon:

The end of an era (Who will repair that hernia now?)

by **George Kasotakis, MD**

Editor's note: *The following two articles are part of an ongoing series of articles written by members of the Resident and Associate Society of the American College of Surgeons (RAS-ACS). The series provides a forum for the concerns and needs of residents and young surgeons in all surgical specialties. This month we offer two views on the subject of the general surgeon.*

Each year approximately 1,000 general surgeons graduate from 251 accredited residency programs in the U.S.¹ At the same time, approximately 700 general surgeons retire annually from the current workforce, which is composed of 21,500 surgeons.² This shortage in the general surgical manpower is becoming increasingly apparent (see Figure, page 21), and its impact on the American public is echoing louder than ever in the mainstream media.³ Yet, despite the expanding deficit in surgical generalists, the number of residency programs and training facilities has remained

largely unchanged in the past two decades.⁴ Additionally, interest in general surgery among U.S. medical students appears to be declining, mainly due to lifestyle concerns.⁵ Even among the graduating general surgery residents, more than 70 percent seek fellowship training⁶—and the trend is increasing.

The reasons behind the desire to subspecialize are multiple and diverse, and some of those reasons are specifically related to the nature of surgical training in itself: The majority of surgery residents in the U.S. train in large university-based programs, and are exposed almost exclusively to surgical subspecialties.⁵ Not unexpectedly, they often choose to emulate their mentors. But with the rapid proliferation of post-residency fellowships, more and more procedures are being performed by fellows in training, and not by the residents, who are being deprived of valuable operative time. And with the operative experience in decline, combined with the current work hour restrictions, many residents believe that the model of general surgical education, as it currently

exists, fails to prepare them adequately to be independent practitioners, and they feel compelled to seek additional training.

In addition, the advances made in basic science research and surgical technology have had a serious impact on the technical skills and knowledge required for a surgical generalist to remain proficient in treating a wide variety of conditions. At the same time, well-informed patients and customers continue to drive super-specialization by seeking out experts in lieu of general surgeons, even for the simplest procedures.⁴ Evidence that practitioners who perform complex procedures in large volumes have better outcomes than generalists only reinforces the value of a limited spectrum subspecialty practice.⁷ To be competitive in today's modern health care arena, many general surgery graduates aim at refining their skills and knowledge in narrow areas, and at the same time enjoy the financial rewards and more controllable lifestyle that typically accompany a highly specialized practice.

And while the incentives to enter a specialized field are multiplying, the obstacles facing general surgeons continue to mount. With the introduction of the relative value units in 1992—which, it is interesting to note, were only meant to function as a research tool—reimbursement from Medicare (and subsequently from private insurers too) for general surgical procedures was devalued precipitously. Most medical specialties were affected, but general surgery was hit disproportionately hard. Malpractice liability, the pressure to provide charitable care in emergency settings, and the loss of procedures (and income) to specialists have all contributed to an increasingly “unfavorable workplace,” which is cited as the single most important reason for retirement by most mid-career surgical generalists.⁶

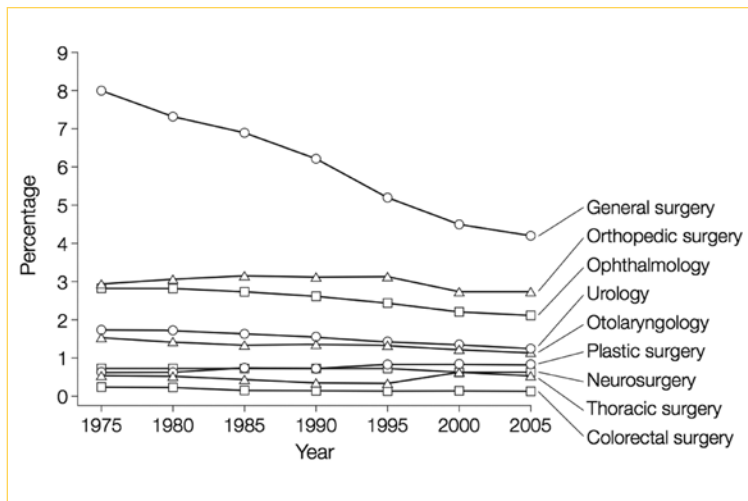


Figure. Physician distribution and specialty trends in the U.S., 2007 (adapted with permission from *Physician Characteristics and Distribution in the U.S.*, 2008).³

These trends in the general surgical field were not without significant implications, and nowhere is this crisis more tangible than in rural America. While 25 percent of Americans live in towns with a population of 50,000 or less, less than 9 to 12 percent of the surgical workforce practices in those rural areas.⁸ Many rural and suburban hospitals are threatened with closure, as their fates are intertwined with general surgical coverage, with up to 40 percent of their income derived from surgical procedures.⁶

The field of general surgery is undeniably going through a crisis with significant socioeconomic ramifications, and radical steps need to be made toward redesigning surgical education and practice. First of all, considering the confines of current work hour limitations and subsequent dwindling operative exposure experienced by residents today, the addition of a sixth clinical year of training could help strengthen technical skills and knowledge, and reinforce graduates' confidence as generalists, especially if that time is dedicated to

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core general surgery rotations. Early diversification into subspecialty training, following the increasingly popular model of plastic and vascular surgery (similar to the European prototype) can also help augment exposure in traditional general surgical procedures for the non-subspecialty-minded trainees. Revisions in the compensation model from Medicare need to be made, and federally funded insurance coverage for the underprivileged should be offered to counter the effects of declining reimbursement. Another measure to consider is the establishment of a rural surgery fellowship for those who wish to practice traditional general surgery in its full breadth and scope.

Surgical education and the practice of general surgery now, more than ever before, require urgent transformation. It is the responsibility of the American College of Surgeons to seize the opportunity to conceive and to implement the process of change through specific recommendations (such as the addition of a sixth clinical training year and early diversification of subspecialty residencies) to prepare and to sustain the

general surgeon of the 21st century. Or a hernia specialist consult will be needed in the near future for a routine inguinal hernia repair. ^Q

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