



How long should surgical training take?

by Juan Carlos Paramo, MD,
Miami Beach, FL

The implementation of the 80-hour workweek in American residency programs has aroused significant debate within the surgical community regarding the length of surgical training. Currently, surgical residents have to be trained more efficiently in less time and are expected to provide perfect, error-free care once they graduate into the real world of surgical practice.

Cultural changes

The surgical culture has transformed as well. The motivations to pursue a surgical career have changed. There is a team rather than individual approach to patient care. Residents' expectations are now different, with lifestyle quality being an important determinant of career choices among medical graduates and an increasing priority for the emerging generation of surgeons.

Although many residents today have demonstrated a growing unwillingness to train for many years, most do want to pursue subspecialty training. Those individuals who currently opt for a surgical career now face dramatic differences in atti-

tudes, expectations, and the way they are perceived by the already established surgical family.

The younger generations of surgeons who go into practice have to deal with the current professional liability crisis, decreased reimbursement, and the public's expectations of state-of-the-art care as a *sine qua non*. Becoming a good surgeon is a complex, lengthy process, especially when new quality-assessment tools are being instituted with a continually growing emphasis on patient safety.

How long?

It is in this changing environment that some have questioned how long general surgery training should take. As the clinical experience obtained by

residents decreases with the 80-hour workweek, it has been suggested that the traditional five years of residency are too few to create proficient surgeons, and that additional years of training are necessary. But in reality, is five the magic number of years required to learn the art of surgery? Experience garnered through decades of training general surgery residents tells us that it is. Yet, from a purely technical standpoint, how many cases does one really need to perform to be proficient? Defining mandatory basic skills is difficult because a surgeon is more than a technician. The development of a resident into a competent surgeon requires much more than just exposure to a certain number of cases.

A well-rounded surgeon has a very complex set of competencies, including pristine ethics and a vast fund of knowledge about when, how, and why to operate, as well as when and why not to do so. The principles of general surgery are broad and extensive. Whatever the cost, we cannot lower our training standards and sacrifice the quality of prospective surgical graduates. Just as inadequate raw materials will create an inadequate end product, inadequate training will create inadequate surgeons. Minimum requirements are necessary so that when residents go into surgical practice, they feel comfortable dealing with the diverse types of cases and situations they will encounter in their communities. Hence, no one knows with certainty how long it will take for residents to achieve this level of expertise.

A different issue arises for those surgeons who pursue academic careers. These very dedicated individuals reinforce their training and experience with research and laboratory work, significantly lengthening their years of postgraduate education. With the current work-hour limitations, those residents who want to be the surgical educators of the future may ultimately require even longer training periods than the ones currently in place.

Because of the time constraints associated with the current system, more efficient methods of educating residents are being developed. Surgical residency programs are using the laboratory as a learning tool, virtual reality simulation training, and a modular curriculum. Experience gained from the military as well as from the airline industry proves that practice makes perfect. This totem can be applied to surgical training through the use of simu-

RAS-ACS symposium to address these issues

The Resident and Associate Society of the American College of Surgeons (RAS-ACS) symposium at the 91st Clinical Congress in San Francisco, CA, will explore the question of “Truncated training for the surgical resident—The future or fallacy?” The session will take place Sunday, October 16, 1:00 to 4:00 pm.

Each year the RAS sponsors a symposium on a topic targeted at surgery residents and young surgeons. This year’s presentation will examine the issue of training for residents proceeding to surgical specialties. The aim will be to provide insight into the future of surgical training and how truncated training would affect the trainees, training programs, and patients. Attention will be paid to the possible advantages and pitfalls of reducing the number of years a surgical specialist has to train. The discussion will also focus on the effects of altered training on limited work hours, long-term finances, and family life.

The objective of the annual symposium is to discuss topics that not only challenge the College currently but that may also affect the future. The symposium this year will consist of four speakers, who will offer opinions on both sides of the issue to generate maximum discussion. Each panel member will speak for 20 minutes and will take questions at the end of the entire session.

This year’s panel includes Barbara Bass, MD, FACS, a Regent and the current chair of the American Board of Surgery. She will start the discussion by giving us her insights into both the short- and long-term impact of truncated training. To help us understand the pitfalls of this type of training, Lawrence Levin, MD, FACS, will share with us the experiences of the plastic surgery division at Duke University Hospital, Durham, NC. A third speaker will discuss the reasons why vascular surgery has adopted truncated training as the primary mode of training young surgeons. Finally, Amit Kumar, MBBS, a vascular surgery fellow at Rochester (NY) University, will give the trainees’ perspective.

Attendance is open to all RAS members as well as all residents, fellows, and medical students. An open-microphone discussion will promote audience participation.

lators that provide limitless opportunities to practice in a safe environment. Surgical residents may need to complete homework assignments in order to fulfill their academic requirements.

Subspecialty training raises different issues. Some surgical subspecialties are attempting to implement fast-track specialization. This perspective is rooted in the assumption that training pathways that focus on core topics related to that subspecialty will provide similar, if not better, education in less time.

But, again, how much training does one really need in order to be surgically proficient in a subspecialty? Despite individual differences in performances, both from an academic and practical standpoint, general surgery training is a core precursor pathway that is necessary to provide the fundamental basis of surgical knowledge and technique. It provides the common grounds and standards for the creation of a strong platform from which additional specialized training may progress.

How long this basic general surgery training should take varies according to subspecialty, with some requiring completion of a full five-year program before additional subspecialty training begins. Some people have challenged this approach, and the current standards required to enter certain subspecialties, such as plastic, cardiac, thoracic, vascular surgery, and others, may disappear in the future. Whether it is possible to learn surgical principles and technique regardless of the case is a subjective question. Likewise, how a general skill can be transferred into a specialty-specific skill varies according to the individual surgeon. But, do you need to be a “super-pluri-potential” general surgeon before going into a subspecialty? Is reduced training time for specialists a disaster waiting to happen? Are we weakening surgical training and sacrificing quality by letting all these changes happen?

Demand versus need

There is a public demand for subspecialized surgeons, the best in their field. But, in reality, there is a public need for well-rounded general surgeons, especially in rural communities. Arbitrarily creating a line that divides fundamental from specialty training is impossible. Surgery cannot be compartmentalized; yet, for example, if your area of interest is breast surgery, do you really need to be profi-

cient in trauma and transplantation? Is performing a pancreatectomy relevant to a plastic surgeon? Does a cardiac surgeon need formal training in colorectal surgery? Which skills are truly necessary and transferable?

These questions present surgical educators with an enormous challenge as to how we deliver the necessary skills and knowledge to the next generation. Lowering standards to fit lifestyles is unacceptable, especially in an era of surgical quality improvement programs, possible pay-for-performance, the growing predominance of volume as an indicator of quality, and the persistent liability crisis. Inadequate training will initiate a domino effect that will yield significant consequences for the future of surgery.

I consider myself an old-fashioned young surgeon. I believe training is a lifelong effort and part of a never-ending contract with our patients. Yes, all surgeons are not created equal, but, even accounting for individual differences, surgeons are natural-born leaders. We cannot turn back. Changes are here to stay. What we need to do is adapt to the new culture, modify the current teaching schemas, and defy the present challenges with quality and patient safety as our endpoints, while maintaining the fundamental values of surgery.

Today’s surgical residents and young surgeons are the future of our profession. The important task is to instill the motivation, dedication, honor, service, respect, honesty, responsibility, and other core values of our profession in the new generation, regardless of how long their training takes. □

Dr. Paramo is a surgical oncologist at Mount Sinai Medical Center, Miami Beach, FL. He is the Co-Chair of the Communications Committee of the RAS-ACS.

