New-era surgical trainees

view problems and possibilities
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On the cover: The Resident and Associate Society of the American College of Surgeons (RAS-ACS) addresses issues pertinent to residents in a series of articles on pages 8-40. (Photos courtesy of Punchstock.)
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The American College of Surgeons is dedicated to improving the care of the surgical patient and to safeguarding standards of care in an optimal and ethical practice environment.
SYLLABI SELECT: The content of select ACS Clinical Congress postgraduate courses is available on CD-ROM. These CD-ROMs run in the PC and Mac environments and offer you the ability to keyword-search throughout the CD.

ONLINE CME: Courses from the ACS' Clinical Congresses are available online for surgeons. Each online course features video of the introduction, audio of session, printable written transcripts, post-test and evaluation, and printable CME certificate upon successful completion. Several courses are offered FREE OF CHARGE. The courses are accessible at: www.acs-resource.org.

BASIC ULTRASOUND COURSE: The ACS and the National Ultrasound Faculty have developed this course on CD-ROM to provide the practicing surgeon and surgical resident with a basic core of education and training in ultrasound imaging as a foundation for specific clinical applications. It replaces the basic course offered by the ACS and is available for CME credit.

BARIATRIC SURGERY PRIMER: The primer addresses the biochemistry and physiology of obesity; identifies appropriate candidates for bariatric surgery; and discusses the perioperative care of the bariatric patient, basic bariatric procedures, comorbidity and outcomes, surgical training, and the bariatric surgical and allied sciences team, along with facilities, aspects of managed care, liability issues, and ethics.

PERSONAL FINANCIAL PLANNING AND MANAGEMENT for Residents and Young Surgeons: The CD uses an interactive/lecture format to equip young surgeons with the knowledge to manage their personal financial future, including debt management, preparation for significant life events (such as retirement or college education of their children), and financial planning for surgical practice.

PRACTICE MANAGEMENT for Residents and Young Surgeons: The CD uses an interactive/lecture format to equip residents and young surgeons with the knowledge to manage their personal surgical future, including: how to select a practice type and location; the mechanics of setting up or running a private practice; the essentials of an academic practice and career pathways; and surgical coding basics.
As the nation moves forward with efforts to address the inadequacies and inconsistencies in health care delivery, we must stay focused on helping patients and improving access to care. While we all have professional and personal concerns that tend to be at the top of our own agendas, we must seek common ground wherever possible. Many topics under discussion in the ongoing health systems improvement effort are multifaceted, and, hence, each medical and surgical specialty may have realistic and unique and divergent concerns about both the catalysts of the problems and some of the proposed solutions. It is important that we air these differences of opinion. Indeed, a little tension often stimulates creative problem-solving and enables us to arrive at more satisfactory conclusions.

However, we work only to the detriment of the profession and our patients when we allow rhetoric to get in the way of action and emotion to take the place of reason. During times of transition such as this one, we must be at our professional best, listening to all sides of the debate and showing restraint in our reactions.

Emergency workforce issue

One of the most compelling issues in surgery at this time is the looming workforce shortage, particularly in our hospital emergency departments (EDs). All stakeholders have some specific views about the causes and effects of the problem. The American College of Surgeons is taking this matter very seriously, and in March 2005 and March 2006, we hosted meetings with leaders of the surgical specialty societies to examine gaps in surgical coverage in EDs.

These meetings provided valuable insights into some of the reasons for the decline in surgical specialists taking emergency call. Forces cited include the provision of uncompensated care to uninsured patients, low reimbursement rates that inhibit surgeons’ ability to cross-subsidize charitable care, increased medical liability risk and expenses, interference with elective practice, and unreasonable scheduling demands. Other surgeons point to expectations that they provide care beyond their scope of competence; inadequate standards for patient transfers; and the perverse effects of regulations related to the Emergency Medical Treatment and Active Labor Act (EMTALA), the 1986 federal law intended to prevent “patient dumping” by hospital EDs.

In some specialties, the situation has already reached crisis proportions, and trauma patients are feeling the impact. Furthermore, the shrinking emergency workforce is leaving those surgeons who continue to participate in the emergency care system with unsustainable professional and personal burdens.

Exploring possible solutions

The ED workforce shortage now is capturing the attention of health policymakers. At press time, the Institute of Medicine was scheduled to release a report on emergency workforce in June. To help members of Congress and the Administration understand surgery’s concerns, the College has also released a report titled “A Growing Crisis in
Patient Access to Emergency Surgical Care.” This document was drafted with significant input from the surgical specialties and draws from our collaborative efforts to develop true emergency care systems that will ensure the provision of optimal, timely care to patients with major injuries and other life-threatening conditions.

For example, the College and surgical specialties largely agree that regionalization of critical specialty care would relieve EDs of the expectation that they handle every type of emergency at every hour of the day and night. In addition, we are suggesting implementation of patient transfer protocols based on the College’s Advanced Trauma Life Support® and Rural Trauma Team Development Course models. These guidelines would enable emergency health care professionals to better assess whether a patient should be sent to another facility for immediate, definitive specialty care or should be stabilized for conclusive treatment the following day.

Of course, surgery alone cannot address all the contributors to the problem and certainly is prohibited from independently implementing far-reaching, long-term solutions. The College and the specialty societies intend to work with regulators to continue refining laws, such as EMTALA, to remove disincentives for specialists to provide emergency care. We also are encouraging the federal and state governments to develop mechanisms to provide adequate financial compensation to surgeons who provide charitable care in EDs. To encourage more young people to take emergency call, we will call upon Congress to create a health professions support program that will cover medical school debt for young surgeons who provide surgical care in community or rural hospitals/trauma centers.

**Acute care surgery**

One of the more controversial ideas under discussion is the potential development of a new specialty called “acute care surgery.” Surgeons who specialize in this type of care would be trained in the range of procedures commonly performed on patients who have experienced a traumatic injury and critical surgical conditions, such as appendicitis. Typically, acute care surgeons would be salaried employees of the hospitals where they work, rather than private practitioners struggling to balance their elective caseloads with emergency call. As “surgical hospitalists,” they also would be guaranteed an annual salary and have paid liability coverage. (See related article on page 40.)

The surgical specialties have diverse opinions about the necessity of creating this new specialty and about the curriculum for individuals who choose to enter this field. We all must be sensitive to each other’s concerns as we move to address this issue, and the “house of surgery” must stand together and avoid unnecessary, unproductive internal tension.

If we do pursue the development of this specialty, we must make certain that these acute care professionals are trained in the patient transfer protocols, assessment skills, and stabilization competencies discussed previously. In addition, all specialties should have input regarding the new training curriculum for these individuals.

**Putting patients first**

Again, it is important that all sides have the opportunity to voice their perspectives on acute care surgery and other frustrations stemming from the workforce crisis. But ultimately we must stay centered on achieving some sort of consensus about which approaches will ensure that surgical patients receive appropriate care by the right person at the right time and in the right place.

Fortunately, we are finding more commonalities than disparities. On those occasions when we are unable to yield to a different perspective, we must remember the one constant, universal goal of all emergency care professionals: providing life-sustaining care to the people who are rushed to EDs each day. We must always be mindful of our patients’ needs, particularly when they are faced with a surgical emergency.

If you have comments or suggestions about this or other issues, please send them to Dr. Russell at fmp@facs.org.
ACS Fellows appointed to MedPAC

Karen R. Borman, MD, FACS, a general surgeon from Jackson, MS, has been appointed to the Medicare Payment Advisory Commission (MedPAC). On May 5, the General Accountability Office announced the appointment of four new members, including Dr. Borman, and the reappointment of two current members to the panel. Dr. Borman, who had been nominated for MedPAC by the College, is the immediate-past-co-chair of the Current Procedural Terminology editorial panel and a member of the College’s General Surgery Coding and Reimbursement Committee. Her nomination to MedPAC received broad Congressional support and was endorsed by a range of surgical specialty societies and medical organizations, including the American Board of Surgery, the American Medical Association, and the Association of American Medical Colleges.

Another surgeon, urologist Ronald D. Castellanos, MD, FACS, from Cape Coral, FL, also was appointed to MedPAC. Dr. Castellanos is the immediate-past-chair of the Practicing Physicians Advisory Council, which advises the Secretary of the U.S. Department of Health and Human Services and the Administrator of the Centers for Medicare & Medicaid Services (CMS) on proposed changes in Medicare regulations and carrier instructions.

MedPAC advises Congress on Medicare payment systems for hospitals, physicians, and other providers, and conducts analyses on access and quality of care. Additional information about the commission can be found at www.medpac.gov.

Two liability bills defeated in Senate

Two medical liability bills fell short of the 60 votes necessary for passage in the Senate on May 8. The Senate vote on the more comprehensive of the two bills, the Medical Care Access Protection Act of 2006 (S. 22), was 48–42. That legislation sought to improve patient access to medical services by reducing liability burdens on all health care professionals and institutions. S. 22 would have followed the Texas model for flexible noneconomic damage awards. More specifically, S. 22 would have allowed for the following: Final judgments against individual health care professionals would have been capped at $250,000; final judgments against individual institutions would have been limited to $250,000; and final judgments against multiple institutions would have been capped at $250,000 per facility or $500,000 for all defendant facilities. Existing and future state laws would have superseded these federal limits.

S. 22 also included the following provisions: A requirement that lawsuits be filed within three years of the date of injury, except for minors injured before age six; a provision for full recovery of necessary medical expenses and lost wages; punitive damages set at twice the amount of economic damages, or $250,000; limits on attorneys’ contingency fees; standards for expert witnesses; a mandate that outlays from collateral sources be deducted from final awards; and a requirement that each defendant only be held liable for damages attributable to them.

The Senate vote on the targeted medical liability reform bill, S. 23, the Healthy Mothers and Healthy Babies Access to Care Act,
was 49–44. This legislation included the same provisions as S. 22 but would have applied them only to providers of obstetric and gynecologic services. For more information about the bills and the College’s position, please contact cshalgian@facs.org.

On May 1, the Medicare trustees released their 2006 report on the program’s financial outlook. Of particular concern to surgeons, the trustees project that Medicare physician payments will be cut 4.7 percent in 2007 and between 4.7 and 5.1 percent annually through 2015. These reductions will result from use of the flawed sustainable growth rate formula to calculate reimbursement. The College is working with Congress to develop legislation that would eliminate the reductions and is calling on lawmakers to pass measures that would base Medicare physician payment on the rising costs of practicing medicine.

In addition, the trustees’ report indicates that in 2012, general Medicare revenues will exceed 45 percent of the dollars used to pay benefits. The 2012 date is significant because the 2003 Medicare Prescription Drug, Improvement, and Modernization Act requires the President to submit a proposal to preserve the program’s solvency when two consecutive reports project that general revenues will exceed 45 percent of Medicare spending within seven years. The 2006 report marks the first time the trustees have made this prediction. If their 2007 report includes a similar estimate, the President must submit a plan for resolution to Congress. CMS Administrator Mark McClellan, MD, PhD, has stated that the Administration is already proposing measures to limit Medicare spending, including limited payment increases to health care providers and increased premiums for higher income Medicare beneficiaries. More information on the report can be found at http://www.cms.hhs.gov/ReportsTrustFunds/.

The Emergency Medical Treatment and Labor Act (EMTALA) technical advisory group (TAG) met early in May to discuss issues related to emergency care. Four Fellows of the College—pediatric surgeon David Tuggle, MD, FACS, Oklahoma City, OK; general surgeon Richard Perry, MD, FACS, Phoenix, AZ; orthopaedic trauma surgeon James Nepola, MD, FACS, Iowa City, IA; and neurosurgeon John Kusske, MD, FACS, Orange, CA—are members of the TAG.

During the meeting, the CMS announced that it has accepted the following recommendations from the group and has included them in an April 25 proposed rule: (1) permit certified nurse-midwives and other qualified medical personnel to certify false labor, and (2) require hospitals with specialized capabilities but without dedicated emergency departments (EDs) to take equal responsibility for appropriate transfers as facilities with dedicated EDs. Other issues discussed during the meeting include physician response time to emergency call, selective call, and follow-up expectations. The TAG also circulated two draft reports on EMTALA’s effects on liability and reimbursement. For more information, contact aroberts@facs.org.
As I am sure is the case with many of those reading this article, I joined the American College of Surgeons at the urging of a senior surgeon I respected. I was a young resident when my program director told me I needed to join the ACS. I didn’t know much about the College at that time.

When I was a medical student, we didn’t have a surgery interest group at my school and medical students could not join the ACS to get more information about what it was like to be a surgeon. So when my program director told me that it would be good for me to become a member—and that I would get a free copy of a surgery journal—that was all the motivation I needed to send in my check and become a member.

For a couple of years, that was the extent of my involvement in the College. I got a dues notice, I sent in my check, and the Journal of the American College of Surgeons (JACS) showed up in my mailbox every month. When I was a senior resident, the Accreditation Council for Graduate Medical Education and the American Medical Association were shaping the framework for the restrictions on resident work hours, so I became much more involved in the ACS and represented the Resident and Associate Society of the American College of Surgeons (RAS-ACS)—which was then called the Candidate and Associate Society—in some of the related discussions. During this time, there were fewer positions for residents to participate in College activities, and I was lucky enough to find a way to become involved.
Fortunately, over the last five years, more opportunities within the College have become available and it is easier for residents to become active in many different aspects of the College. The mission of the RAS is to “…familiarize all young surgeons with the ACS, its programs, and leadership, provide an avenue for participation in ACS affairs, foster development and use of leadership skills in organized surgery, and give opportunities for the opinions and concerns of young surgeons to be heard by the ACS leadership.” Over the last several years, we have embraced this mission and looked for opportunities within the College to bring it to life. The RAS has four standing committees, along with the Executive Committee, that are actively working to further the mission of our organization. These committees focus on areas of Membership, Communications, Issues, and Education.

The Membership Committee of the RAS is charged with recruiting members and demonstrating to our membership the benefits of being a member of the College. This committee, led by Andrea Silver, MD, and Jacob Moalem, MD, has been involved in the recruitment of individual members and RAS liaisons at each of the residency programs around the country. These liaisons will engage colleagues within their residency, residents in other surgical residencies within their institution, and other medical students to encourage membership and participation. They have developed a flyer to be mailed to all second-year medical students in the U.S. The flyer will be designed to let new third-year medical students know about the resources and opportunities that are available to medical student members of the ACS. Last year, the College’s Board of Regents authorized free membership in the College for the internship year of all surgical residents. The Membership Committee is also looking at ways to track the continued membership of these individuals and demonstrate the benefits of membership so that they will continue their participation through their career.

The Communications Committee has been exceptionally successful. The RAS-ACS newsletter started as an intermittently published newsletter and has turned into a bimonthly update distributed to more than 10,000 e-mail accounts. This newsletter presents the message of the RAS to all of the members and offers opportunities for residents and young surgeons to learn more about the programs, products, and courses of the College as well as see how residents and young surgeons are involved in the affairs of the College. Another major contribution by C. Suzanne Cutter, MD, and Mecker Möller, MD, the Co-Chairs of this committee, is the July issue of the Bulletin each year, which focuses on issues relevant to young surgeons and the Resident Members of the College. By developing a close working relationship with the Communications staff at the College, the RAS has had unprecedented access to share accomplishments and publish resident-written articles relevant to our members.

Since the inception of the group, the RAS-ACS has held a symposium during the Clinical Congress designed to address controversial issues in surgery. Early symposia focused on resident work hours, whereas last year’s symposium looked at issues surrounding truncated training. This year, in Chicago, IL, a panel of speakers will explore the concept of acute care surgery from the perspective of general, orthopaedic, and neurological surgeons. The Issues Committee, led by Co-Chairs Richard Baynosa, MD, and Hima Ghanta, MD, has assembled a panel of speakers designed to examine all sides of this timely issue and hopefully engender some lively discussion during the question-and-answer portion of the symposium. (See related article, page 40.)

The Education Committee has the daunting task of identifying areas of need for educational programs for residents and young surgeons. The Co-Chairs of this committee, Joshua Mammen, MD, and Barry Jenkins, MD, along with their predecessors, have developed projects designed to educate residents on varied topics. Current programs include developing a Web-based guide to a career in academic surgery and a Web-based guide to applying for fellowships in subspecialties of surgery. This committee has conducted surveys that led to peer-reviewed published papers. Currently the committee is working with the American Board of Surgery to determine from survey results how people prepared for taking the certifying or oral board examination. This will hopefully result in another meaningful
paper that could help guide young surgeons as they prepare for this important exam. Through a partnership with the College Committee on Resident Education, the RAS Education Committee is working to develop an educational program for senior-level residents designed to help them become more effective teachers, managers, and leaders. This program, while still in the planning stage, will hopefully become a key course for senior residents as they prepare to assume the responsibilities of being a chief resident.

The Executive Committee of the RAS consists of the officers, committee chairs, and the resident representatives to the College Advisory Councils for the surgical specialties. This committee has assumed several projects this year. We continue to work closely with the Advisory Council for General Surgery (ACGS) in sponsoring three sessions at the Spring Meeting—Surgical Jeopardy, Spectacular Cases from Residents, and the Clinical Abstracts session for Residents are all jointly sponsored by the RAS and the ACGS. We are working to develop new programs for the Spring Meeting that target the needs of residents and surgeons entering practice.

New to our society this year was the RAS Leadership Scholarship. Because of a generous grant from a benefactor of the College, the RAS was able to award two fully paid scholarships for deserving young surgeons to attend a course offered by the American College of Surgeons. We are working closely with Thomas R. Russell, MD, FACS, Executive Director of the College, to ensure that we are able to offer this scholarship again in the future, hopefully as an annual award with more recipients.

The College has changed dramatically since the time that I was a medical student. Today the leadership of the College actively reaches out to young surgeons, residents, medical students, and even premedical students to solicit ideas and help with issues specific to young surgeons and residents while welcoming students to a rewarding specialty. The ACS has instituted a new category of membership for medical students. There has been a name change to describe residents' membership (it was previously called "candidate group") in an effort for the residents to have a better identity and visibility within the College. Residents and Associate Fellows now have the opportunity to serve as members in essentially all of the committees of the College. These changes reflect an attitude of inclusiveness from the leadership of the College and demonstrate recognition that today’s residents are tomorrow’s Fellows and the future leaders of the ACS. By engaging young surgeons during their training, the College can provide courses, educational products, and opportunities to be involved in the committees of the College. Residents will hopefully recognize these benefits of membership for their entire career and see that being a member of the College is more than just paying their dues and getting a copy of the Bulletin and JACS in the mail every month.

**Dr. Sutherland**

is chief of thoracic surgery, David Grant USAF Medical Center, Travis Air Force Base, CA, and Chair of the RAS-ACS.
Voltaire is credited with saying “Le mieux est l’ennemi du bien,” which is translated, “The best is the enemy of the good.”* In surgery, this sentiment has been incorporated into our training. Kenneth Rifkind, MD, FACS, an extraordinary surgeon and the vice-chair at the New York Hospital Queens, is well known for asking, “What is the enemy of good?” when he sees residents (and attendings) paralyzed by inefficient attempts at perfection. When he answers his own question—with just one word: “Better!”—he is not discouraging excellence. He wants each of us to recognize the cost associated with our inefficiency: time, good outcomes, and money.

In the context of contemporary surgery, I ask a similar question: “What is the enemy of progress?” My answer is: “Nostalgia!” Asking this question is not meant to discourage reflection. Nostalgia is the source of our inefficiency in a setting of relentless change driven by politics, industry, and the public. Characterized by a view that is often idealized and unrealistic, nostalgia is a longing for the past.

*Dictionnaire Philosophique, 1764.
There seems to be a conflict between cherishing our rich history and progressing toward our bright future. Nostalgia can be a great deceiver; since it somehow biases our memories. For example, we may be nostalgic about our high school days and the good times we shared with our friends. Somehow, we have since forgotten the strife caused by being bullied, terrible in athletics, without a date at a dance, or in competition for grades. Likewise, surgeons become nostalgic about their residency training by focusing on the high level of camaraderie, responsibility, and continuity of care they enjoyed. Unfortunately, some of these surgeons have forgotten how difficult it was to be the target of wrath on morning rounds, to deal with a neglected spouse, to only have fleeting moments with their children, to feel abandoned by attendings who never appeared for cases at outside hospitals, and to live with gnawing feelings of fatigue and hunger.

Nevertheless, most surgeons agree that the system was effective in preparing residents to be solid attending surgeons. What many surgeons fail to accept is that the environment for practicing medicine has changed too dramatically to continue to support that system. The public has forced surgeons into that realization, and their demands have caused sweeping changes in the field. I am confident that, had surgeons as a whole recognized these changes, we would have applied our great ingenuity and resourcefulness to the problem. Looking forward, we cannot allow nostalgia to lull us into the complacency that comes from lament for the changes thrust upon us. Change is not bad, it is just different.

What we can do is recognize that a new era has dawned and surgeons still have opportunities to help engineer its path. In this issue of the Bulletin, members of the Resident and Associate Society (RAS) contribute special content that provides young surgeons’ perspectives on contemporary surgical training. Through these contributions, the RAS is signaling that not only do we recognize the dawn of a new era, but as heirs to a rich legacy, we also intend to participate in engineering the future of our field.

RAS members have been slowly receiving increasing opportunities to learn leadership, statesmanship, and administrative skills under the tutelage of College leaders. The experience has been enriching and developmental for all who invested the time to participate. RAS members who have had these experiences have been chronicling them to share with the resident and young surgeon membership at large. All are grateful for the very positive feedback on their contributions to College oversight, planning national meetings, the Bulletin—both annually in July and occasionally during other months—and the bimonthly eNewsletter (see the Resident section on the Web portal at www.e-facs.org). The College has offered the RAS another forum through a new column in the Bulletin: “The call room.” Just as the call room in the hospital is the inner sanctum of the resident’s experience, the RAS will attempt to provide an insider’s view of the resident’s and young surgeon’s perspective on the surgical experience. This is quite an opportunity to broaden the understanding between young surgeons and more experienced surgeons. RAS continues to speak...we hope you are listening.

Dr. Cutter is a general surgery resident at New York Hospital Queens, Chair of the RAS-ACS Communications Committee, and Representative to the ACS Advisory Council for General Surgery.
Few issues in surgical education have caused as much controversy as the regulations in resident work hours instituted by the American Council of Graduate Medical Education (ACGME) in July 2003. Residents would be forced to work shorter shifts. Medicine—surgery, in particular—would never be the same.

It is common knowledge that sleep deprivation and fatigue can impair an individual’s ability to think clearly and blunt his or her normal physical response. The recognition that pilot fatigue is a risk factor for airplane crashes led the Federal Aviation Administration to limit the number of hours that a pilot can be on flying duty. In the setting of guidelines like these, the Bell Regulations on resident duty hours in New York, and increasing evidence that resident fatigue is associated with medical errors and motor vehicle accidents, the ACGME regulations were just a natural next step.

But if it were indeed a natural next step, why were these new regulations faced with so much resistance among the surgical community? Why did they cause so much uproar among some of the same residents whose quality of life the regulations were trying to improve? The entrenched belief that surgeons are not susceptible to the deleterious effects of fatigue and sleep deprivation may have played a role. But, most importantly, the resistance likely came from the fact that the new regulations defied the very same Halstedian principles upon which surgical residency was built.

This article will analyze some of the perceptions that surgeons, surgical residents, and medical students have regarding the regulations and will try to identify and tackle some of the challenges that we are facing as we “seamlessly” transition to a world with an 80-hour workweek. This article will also describe these perceptions and challenges as they affect residents’ quality of life, patient care, and surgical education.

Quality of life

Balancing act. There is overwhelming agreement that the new 80-hour workweek regulations have improved the quality of life for residents outside of the hospital. Several survey studies applied to residents in New York after enforcement of the Bell Regulations on resident hours have found that a majority of residents improved their overall quality of life, felt better rested, were better able to perform responsibilities outside of work, spent more time with their families, and were generally emotionally happier. A recent study analyzing

The surgical training gap:

The new era of the surgical trainee

by

Carlos M. Mery, MD, MPH, Palo Alto, CA,
and John M. Karamichalis, MD, Nashville, TN
the perceptions of residents one year after implementation of the ACGME regulations found that more than 70 percent reported an improvement in the quality of their personal relationships and their quality of parenting.\(^{11}\)

“It has definitely been a good thing. My life is much better. I have more time for my family and to pursue different interests. I feel more rested and significantly happier.”

—PGY-4 resident

Similarly, a PGY-1 resident said, “Having free time out of the hospital allows us to have a healthier lifestyle. Besides being physicians, most of us are also parents, fiancés, friends, siblings.”

It is becoming more evident that, in general, the new generations are placing more importance on work-life balance and family responsibilities when making their career choices.\(^{12}\) Nowadays, medical students seem to be more concerned with lifestyle issues and the amount of work when selecting a specialty.\(^{13}\) Although not the most important factor, the 80-hour workweek has made a surgical career slightly more appealing to medical students\(^{14}\) and may improve the ability to recruit them to this profession. As a medical student said, “While most agree that they would like to work fewer hours, few would exchange personal satisfaction solely for lifestyle during residency. Reducing the amount of hours worked during residency is attractive but it is not the sole determining factor for medical students as they decide on a specialty.”

This boost in interest is clearly evident by the recent increase in applications to surgical residency. However, it poses questions regarding the quality of the medical students and their level of commitment to a surgical career. The answer to such questions is unlikely to become evident in the near future.

“I really do think the 80-hour rule attracted more people to surgery who really don’t know what they’re getting themselves into. People think that equilibrating the work hours means that all residencies are close to being the same. In reality, you can’t always adhere to stringent rules when it comes to patient care, and when expectations of residency are at odds with this, people start to resent their training.”

—PGY-3 resident

Work ethic. Unfortunately, the same positive effects in the quality of life of residents outside of the hospital have not been uniformly seen in the quality of life inside of the hospital. Although some reports show that more than 40 percent of residents think that the regulations have improved their quality of work life\(^9\) and increased their enthusiasm and satisfaction with surgery,\(^{10}\) some have shown that the residents’ work ethic has deteriorated.\(^8\)

The changes in quality of life at work appear to be dependent on the seniority of the residents. A larger proportion of senior residents have noticed worsening in the quality of life at work when compared with junior residents.\(^8\) This appears to be result of an apparent shift of some of the responsibilities from junior to senior residents.\(^9,11\) Also worrisome, albeit less studied, is the apparent shift in responsibilities from residents and fellows to attending surgeons in some programs.\(^11,16\) This is probably more evident in programs that have limited ability to hire physician extenders such as physician assistants and nurse practitioners to cover the work traditionally done by residents. Furthermore, because of the current imperfect solutions to transfer of care between residents, attending surgeons have had to play an increasing role in providing continuity of care.

“I don’t know if faculty are working harder, but they need to be more aware of their patients. New faculty, in particular, tend to be more cautious to make sure things don’t fall through the cracks.”

—Young surgeon

Part of the impact of the regulations in quality of life at work may be also related to the sense of commitment and accomplishment of the residents and the way they are perceived by peers and faculty. Traditionally, an outstanding resident would show exceptional commitment by staying in-house until his or her patients were optimized and no menial tasks were unsettled. Another resident would then kindly monitor the patients for several hours to allow the resident to catch some sleep. The sense of accomplishment derived mainly from that perception of ownership and from the realization that
the outcome of the patient was intimately related to the diligence of the resident. Residents are now forced to abide by the rules; they are required to go home. This would not represent a problem if not for the fact that, in the eyes of some of the faculty and residents themselves, the quality and commitment of a resident is still measured in terms of the traditional framework. At what time did the resident leave at night? At what time did he or she come in to pre-round? How many menial tasks were signed out in the evening? Residents are thus faced with a dilemma. How can they demonstrate commitment to their patients, sense accomplishment, and, at the same time, comply with the regulations? Assuming that the rules will not change, we will have to rethink our views on what responsibility and commitment ought to mean in the new era of surgical training.

“I am wary of people who say that you are ‘hard-core’ just because you [spend] more time in the hospital. That makes no sense. Staying in the hospital [longer] doesn’t make you a better resident; taking care of patients and being more efficient does.” —PGY-2 resident

**Team-based ownership.** It is clear that if a single resident is not allowed to work for more than 80 out of the 168 hours that compose a week, more than two residents need to contribute significantly to the care of a particular patient. This scenario differs from the traditional one where a single primary resident would “own” the patient and be involved in almost any decision or event that pertained to that patient. A different resident would then cross-cover the patient some of the nights.

The new system cannot be expected to provide adequate continuity of care if we abide by the same prevalent ownership framework. The patients would be cross-covered more than half of the time. Patient ownership provides accountability, responsibility, and prevents the evasive statement, “It’s not my patient,” that the cross-cover resident may be tempted to utter when the patient needs care. It is therefore logical to switch from a resident ownership model to a team-based ownership. Thus, the team as a collective owns the patient and contributes to overall care. Residents on-duty should no longer be considered cross-covering residents—rather, they are members of the team in charge of their patients at a particular time. This framework change could provide not only an opportunity to comply with the regulations but could also improve the continuity of care that was disrupted during the few hours of cross-coverage when the primary resident was not in-house.

The cornerstone of such a team-based system has to be adequate communication. Because ownership is to be shared among team members, the flow of patient-related information between different members has to be effective. Haphazard sign-outs with minimal information will not be conducive to adequate continuity of care. It is surprising how a pivotal event in patient care such as the sign-out can be as archaic and unstructured as some of the sign-outs that occur every day. We ought to understand the importance of this transaction and provide some formal structure to maximize the information conveyed and minimize the probability of things falling through the cracks. The importance and degree of detail of the sign-out should not be affected by the desire of the outgoing resident to leave the hospital as early as possible.

It is necessary to foster a team environment with effective communication, shared responsibility, and maintained accountability. Such a system

**Patient care**

Even though the main aim for the ACGME regulations was the improvement of patient care by preventing fatigue-related medical errors, it is unclear if they have really accomplished the goal. Only 20 percent of residents believe that the regulations have improved the quality of patient care. The other 80 percent are equally split in believing that patient care has either worsened or remained the same. This perception tends to be more prevalent among senior residents and is usually ascribed to an erosion in continuity of care.

“Old-school physicians state that the 80-hour workweek schedule decreases the quality of patient care. Their main allegation is that working only 12 hours per shift promotes ‘discontinuity of patient care’ and therefore medical errors,” a PGY-1 resident says. “Although this statement seems reasonable, it is not totally true. Working 80 hours per week gives the resident the ability to cover 10-12 hours of work per day, at his or her maximum capacity of alertness and energy, avoiding the potential of prolonged shifts that promote medical errors.”
would not only minimize the negative effects that the regulations could have in continuity of care but also accomplish the ultimate goal of improving the quality of care.

Residents or shiftworkers. One of the main preoccupations of faculty and senior residents alike is the appearance of a shift-work mentality among junior residents and interns.

“The current night float system fosters a shift mentality. One can easily imagine a resident thinking: ‘I only have to last until 6:00 pm and then the night float can do xyz,’ or, ‘It’s 5:30 am; the regular team will be rounding in half an hour and can take care of it better.’”

—PGY-3 resident

The regulation of duty hours and even the designation of shifts should not lead people to procrastinate on work and leave it for others to do. A team-based approach—where both the day and night residents are equal members of the team, with the same degree of responsibility and patient ownership and held to the same standards—can minimize this attitude. It should not be acceptable for residents to become less efficient and leave tasks pending that could have been easily performed during the allotted time.

“Unfortunately, what has happened is that it has brought a shift mentality, a change that is not good among residents. It’s human nature: if you can get out of something because someone else can do it, people end up getting out of it. You justify it somehow but you eventually get out of it.”

—Young surgeon

Another way to make more efficient use of the required hours and deter some of the effects of this change in mentality is to add some flexibility into the system. In some instances, residents will need to stay later than usual to help with the team care of a particular patient. However, in instances where minimal work is needed, all members of the team should not be required to stay until a particular set time. This flexibility would average over time and may help maintain a sense of responsibility and stimulate a drive for efficiency that could work in favor of everyone involved.

Surgical education

One of the most important concerns has been the effect of the new regulations in surgical education. Residents have traditionally learned medicine and surgery by being completely immersed in the clinical environment for the duration of their training. A reduction in the time spent in the hospital could mean a reduction in clinical exposure and, potentially, a worsening in clinical education.

According to two different surveys of surgical residents, 35 percent to 40 percent of residents consider that the regulations in duty hours worsened their quality of training.9,11 This appears to be secondary to a perceived drop in the number of surgical procedures performed. Approximately 40 percent to 60 percent of residents report a decrease in the number of cases performed under the new regulations.8-11

“Technical experience has suffered. It takes more time for the junior residents to get their numbers and to get proficient at surgical skills. The new residents may take up until the third year to get the technical expertise we used to get in our first year.”

—PGY-4 resident

Despite the perceived decrease in the number of cases by residents in one of the surveys, objective measures showed that the number of procedures performed by senior residents actually increased.8 Similarly, other objective studies have shown no change in the number of procedures performed before and after the institution of the regulations.18 An aspect of surgical education that may have suffered is the opportunity for senior residents to be teaching assistants in the operating room, an activity that is considered important in the education of surgeons. A recent study showed that there was more than a 40 percent reduction in the participation of two residents in the same case.19

The limitation on duty hours has increased the time available for residents to read about surgery. More than 50 percent of residents report that they read more than what they used to before the implementation of the regulations.8,11 Although some programs have reported better absolute scores in the in-training exam,8 some have shown no difference.20
It is clear that the number of operative procedures, the amount of time that residents spend on reading, and the degree of direct learning from patient care depend on the particulars of the program and each resident’s passion to learn. However, with decreasing time spent in the hospital, it is less likely that serendipity will allow residents to be exposed to the wide variety of learning experiences needed for surgical training. Resident training cannot be left to chance anymore. The traditional model of learning by osmosis and full immersion into the hospital environment needs to evolve into a more structured curriculum that maximizes the educational opportunities within the available exposure time.

Resident training should include a more structured and focused exposure to surgical procedures and patient care, and a formal curriculum that allows residents to learn and acquire the necessary skills for clinical practice. A first step toward this goal would include finding ways to decrease the amount of time spent by residents in noneducational tasks by the use of physician extenders and information technology. It is estimated that residents spend up to 30 percent of their time on menial, noneducational tasks,21 time that can be used to guarantee better educational exposure. These changes may cause an initial financial burden to government, programs, and hospitals, and will require an active intervention by faculty and residents alike. However, they are necessary for maintaining the training standards required to create the next generation of surgeons.

Can the three spheres be reconciled?
The new ACGME regulations provide a unique opportunity to revisit the structure of surgical training to improve the three spheres of experience that define residents: quality of life, patient care, and education. In order to reconcile these three spheres in the setting of the new duty hours, the core structure of surgical residency needs to be revised. Based on the perceptions of residents and faculty, and suggestions by other authors, we invite residents and residency training programs to consider the following judicious changes, which may help residents balance quality of life, patient care, and education:

**Quality of life at work:**
- Definition of responsibility and commitment in terms of patient care and efficiency during work hours instead of in terms of the number of hours spent in the hospital
- Some flexibility in the system to minimize the “downtime” experienced by residents because of the unavoidable change in clinical work

**Patient care:**
- Change in the patient ownership scheme from an individual approach to a team approach
- Emphasis on the importance of communication and transfer of information between residents
- Use of more formal sign-out techniques and information technology for patient data transfer
- Work scheduled to minimize breaches in continuity of care by preventing excess patient transfer

**Education:**
- Creation of more specific and clear expectations for residents with continued accountability and responsibility for those expectations
- More formalized curriculum to maximize the value of inhospital time and exposure to the wide variety of educational experiences needed for a comprehensive training
- Increase in the amount of feedback from faculty and senior residents
- Decrease in the amount of time spent by residents on noneducational tasks by the use of physician extenders and information technology

Despite the limitations and shortcomings of the new ACGME regulations, approximately 40 percent of faculty and 65 percent to 75 percent of residents support them.9,11,22 Furthermore, the
regulations are here to stay; the 80-hour workweek is now the law. It is our duty as surgeons and surgical trainees to make the system work within the new regulations and ensure that, first and above all, patient care and safety are not compromised. We ought to enhance patient care delivery by means of well-rested and well-prepared residents on duty and at the same time enrich residency training and respect the time that residents spend outside of work for personal and family issues. However, patient care will have to remain our first priority. It is by these means that we will keep our profession as respected and noble as it has always been.

References


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William Halsted, MD, is credited for developing the traditional surgical residency model in the U.S. Much has changed since Dr. Halsted’s era, and the task of imparting the core principles of general surgery to new trainees has met new challenges, including the installment of an 80-hour workweek, an ever-growing array of surgical technology, and the rising trend toward subspecialization. Surgical training programs have sought to meet these challenges by implementing innovative approaches to ensure that graduates complete residency training prepared to care for a wide range of surgical patients.

Rural surgery electives
Imagine being a patient in a small town with only one general surgeon. The nearest hospital with subspecialists is more than 75 miles away. You are in a car accident. You suffer an epidural hematoma that must be decompressed immediately. You have a femur fracture that must be pinned. You are 38 weeks pregnant and need an emergent cesarean section for placental abruption. Will that one general surgeon be able to recognize and treat each of these emergent issues?

In the U.S., 25 percent of the population resides in rural areas; yet only 10 percent of the U.S. surgical workforce supplies these areas. Demographic analysis of this workforce suggests that rural communities in the U.S. are in danger of being severely underserved. As present-day rural surgeons retire, there are not enough new surgeons who wish to replace them. Although lifestyle issues certainly play a role in graduating residents’ choice of practice location, another factor is the present-day training environment...
in which most education occurs at the hands of highly specialized general surgeons. The majority of university- and community-based general surgery training programs in the U.S. today are not situated in rural areas, and their curricula do not provide exposure to the broad range of surgical problems that a rural surgeon may face.

The demands on rural general surgeons are quite different from the demands of general surgeons in urban and suburban areas. Rural general surgeons treat common general surgical problems as well as the communities’ urologic, thoracic, obstetric, and vascular problems. They are often the primary endoscopists for their patients. They may be called upon to perform cesarean sections, burr holes, or to pin a fracture, if gynecologists, neurosurgeons, and orthopaedic surgeons do not serve their area. Modern general surgery residencies provide little, if any, exposure to these various subspecialties. When such exposure does occur, it is usually at the intern level and consists of floor work rather than operative experience.

In response to the dearth of rural surgeons in the state of Oregon and their belief that “many general surgeons leave their residencies feeling untrained to negotiate the variety of problems that the rural general surgeon encounters,” John C. Hunter, MD, FACS, and Karen E. Deveney, MD, FACS, proposed a specialized training curriculum in 2003.1 The goal of the program is twofold. The first is to provide “complete training in the wide range of procedures performed by rural surgeons during their career.” The second is to provide the “external environment so critical to understanding the nature of practice in a small community.”

At Oregon Health Sciences University (OHSU), residents interested in pursuing rural surgery spend a year between their third and fourth year of traditional general surgery training in a rural training curriculum in Grants Pass, OR, which has a population less than 30,000 and is located less than 50 miles from the nearest town with a population of at least 50,000. The hospital in Grants Pass has several active, broad-based general surgeons and subspecialists in orthopaedics, otolaryngology, and neurosurgery. However, there are no other surgical trainees at the hospital. Therefore, residents in the rural surgery training program (RSTP) have unfettered clinical and operative exposure to basic general surgical and subspecialty procedures performed in a small town.

At the October 2005 Clinical Congress, the two residents from OHSU currently in the RSTP—Nathan Kanning, MD, and Brian Wong, MD—described their experiences as overwhelmingly positive, both personally and professionally. They echoed the sentiments of the first-ever RSTP trainee, Garrett R. Vangelisti, MD, who wrote in the May 2003 Bulletin that his year spent in the RSTP would prove to be “the most valuable portion of [his] general surgical training.”

To our knowledge, the OHSU department of surgery’s RSTP is the only one-year program of its kind. The general surgery residency at OHSU has petitioned the residency review committee to allow the year spent in the RSTP to be weighed equally as the standard PGY-4 surgical training year, thus allowing the rural surgeon to enter into practice fully prepared after five years of general surgical training.

As reported by Joseph B. Cofer, MD, FACS, at the 2005 Clinical Congress, there are 22 programs nationwide that offer rural surgery electives of a shorter duration (personal communication, October 2005). Some programs—such as the one at Iowa Methodist Medical Center under the leadership of program director Douglas B. Dorner, MD, FACS—offer simple, one-month rural surgery electives. These are generally in the PGY-3 or PGY-4 clinical year so that residents can get maximal operative and decision-making experience.

Other programs provide rural surgery rotations throughout the five-year residency. Tim Pritts, MD, acting director of the general surgery residency at the University of Cincinnati, reports that third-year residents in his program routinely work with a group of four general surgeons and subspecialists in obstetrics/gynecology, urology, and plastic surgery in Gallipolis, OH, a town of 7,000 in the foothills of the Appalachians. Residents experience a starkly different atmosphere from that in Cincinnati and are able to advance their surgical training in a broad array of services in a rural area. In 2002, the general surgery program at the University of Arizona in Tucson, under the leadership of program director James Warneke, MD, FACS, started a six-week rural surgery elec-
tive during the PGY-3 or PGY-4 clinical year at the Yuba City Indian Health Hospital, a facility of the federal government’s Indian Health Service. Roland Snure, MD, and Christopher Abbot, MD, the first residents to experience the elective, described their experience as “a great opportunity to work in a beautiful place and expand [their] surgical training.” Their experiences included “bread and butter” general surgery, trauma, endoscopy, otolaryngology, urology, and orthopaedics for pediatric and adult patients, as well as exposure to the beliefs regarding medical and surgical care among members of the Navajo Nation.

Bassett Healthcare in Cooperstown, NY, has a long tradition of graduating residents who become rural surgeons. Residents in the rural track spend two to three months during the PGY-4 year training alongside a Bassett graduate in rural practice. Despite the group’s well-developed plan to train rural surgeons, with the challenges of the 80-hour workweek, the program felt itself straying from its strength of providing “a structured, graduated experience in those subspecialty areas needed for a rural practice.”

Partly because of the desire to get back on track in this new era of surgical training and partly because of the group’s own research showing great shortcomings nationwide for patients in need of surgical care in rural areas, the faculty at Bassett established the Mithoefer Center for Rural Surgery in 2004. With a mission of “ensuring that rural citizens have access to high-quality surgical services” through research, education, advocacy, and networking, Mithoefer promises to enhance the efforts of nationwide programs that are modifying their training curricula to meet the growing need for rural surgeons in the U.S.

**International electives**

More than 90 percent of the world’s surgical needs exist outside Europe and North America.

Many programs are offering international electives to further meet the demands of broad-based surgical training, as well as to provide a unique learning opportunity for their residents. For example, residents in the department of surgery at Brown Medical School in Providence, RI, have the opportunity to travel to Kenya for a two-month rotation at a mission hospital in Tenwek. Tenwek Hospital is a 300-bed facility run by the World Medical Mission with a full-time missionary surgeon, short-term visiting attendings, residents, and medical students, and local Kenyan doctors, students, and nurses providing patient care. Residents who complete the rotation may not find a more rewarding experience. The first resident to partake in this opportunity was a PGY-3 resident who logged 80 surgical cases ranging from thyroidectomies to esophagectomies. In addition to general surgery operations, the resident performed procedures in plastic surgery, neurosurgery, obstetrics/gynecology, orthopaedics, and endoscopy.

Another example is Mount Sinai School of Medicine, New York, NY, where an optional clinical rotation in the Dominican Republic has been developed. In this setting, senior residents develop valuable skills and learn lessons that can be incorporated into patient care back home. The residents are able to participate in the humanitarian effort to deliver care to underserved areas of the world, and at the same time benefit from working in a distinctly different environment with limited resources, requiring innovative approaches and reliance on basic clinical judgment.

Opportunities are also available for those residents who do not have a formal overseas or international rotation at their program. The American College of Surgeons, through Operation Giving Back, has created a resource of resident opportunities in both domestic and overseas volunteerism. These experiences not only increase the exposure to surgical pathology, but also provide insight into global health and health policy issues unattainable through the traditional residency experience. Organizations such as Global Health Outreach and Medical Ministry International provide supervised accredited rotations overseas in various locations throughout the world. A resident may elect to spend two weeks treating surgical patients in a remote village in South America or three months in a surgical ward in Africa or China. World Medical Mission offers the “Residents Assist Fund” for motivated residents in their last year of training with an interest in overseas medical mission service. Residents selected for the program serve on
a short-term basis to a mission hospital in a developing country. Not only does the resident obtain a unique cross-cultural experience and exposure to medical missionary work, he or she also provides practical help to often overworked physicians and hospitals overseas. International electives fill a certain void in the traditional surgery residency experience. They provide an opportunity to gain new insights into global health and obtain a broader perspective of surgery. Diagnostic and technical skills gained by residents with the latest technology in modern U.S. training programs are complemented by international electives with increased reliance on history and physical exam, as well as exposure to surgical pathology and techniques rarely observed in the U.S.

Simulated surgical training

Modern-day surgical training is faced with the unique dilemma of having to teach an ever-growing array of surgical procedures and new technology to trainees in significantly less time than ever before. Training programs struggle with how to integrate these rapidly evolving technological innovations into the standard five-year general surgery curriculum and prepare residents for a more educated, demanding, and litigious patient population.

The traditional method of operating room teaching is imminently threatened due to recent changes in surgical training including work-hour limitations, faculty time constraints, increased operating room costs, and liability issues—all prohibiting the extent of teaching that can occur in the operating theater. One could further argue that the operating room is the worst place to first acquire new technical skills. This was certainly evidenced by the increase in common bile duct injuries observed with the introduction of laparoscopic cholecystectomy. This recent historical example demonstrates the need for safe training grounds prior to patient exposure.

Other professions have long used simulators to develop and perfect skills that are required for real-world situations. The flight industry, for example, requires pilots to log a certain number of flight simulation hours before being licensed. These pilots must also demonstrate continued proficiency not only with their track record in the air, but also with ongoing simulator testing. One of the benefits of this training is limitless practice in a safe environment, where the participant can learn from his or her mistakes under stress-free conditions and without any threat to patient safety. The resident is able to immediately repeat difficult techniques multiple times until a satisfactory level of competency is achieved.

The beneficial impact of surgical simulators was demonstrated for minimally invasive surgery in a study at Yale University School of Medicine. Surgical residents given presurgery simulation training made fewer mistakes and completed operations in less time than those who did not receive simulation training.6 Fewer mistakes translate into better patient outcome.

Many programs have developed formal surgical skills simulation centers to help residents quickly ascend the steep learning curve associated with particular procedures and technical skills. The majority of these simulators focus on laparoscopic skill development; however, simulators also exist for open hernia repair, breast biopsies, endoscopy, and surgical techniques in trauma management. Southern Illinois University in Carbondale, OHSU, Louisiana State University in Baton Rouge, and the University of Michigan in Ann Arbor, to name a few, have implemented surgical simulation training into their general surgery residency programs. They offer a safe, reproducible, and standardized method of both training and evaluating residents. Several other programs across the country are in the process of developing or expanding already existing surgery simulation centers and incorporating mandated simulation time into the main curriculum. As the technology advances, learning surgery outside of the operating room will no doubt become more widely adopted. Demonstration of technical proficiency with simulators may one day become part of the surgery board certification process.

Core competencies

My attending, Dr. X, flips out and throws instruments in the OR all the time…. Dr. Y never shows any compassion when he delivers bad news….

The examples of rural surgery, international surgery, and simulated surgery are signs that
Dr. Halsted’s regimented surgical curriculum is now a part of surgical history rather than surgical practice. Surely, patient care and medical knowledge were at the root of Dr. Halsted’s vision for highly skilled general surgeons. Teaching the clinical, technical, and didactic aspects of surgery encompass both patient care and medical knowledge, but these are just two of the six core competencies that the Accreditation Council for Graduate Medical Education (ACGME) mandates must be integrated in all residency programs. Surgical training programs must now educate their residents in these six competencies, as well as a broad spectrum of basic and advanced surgical procedures.

Although fund of medical knowledge and ability to provide patient care in and out of the operating room are difficult to measure, metrics can be created and tested for their validity. The annual American Board of Surgery In-Training Examination has just been altered to more appropriately measure relevant fund of knowledge during the more senior years of surgical training. The famed objective structured clinical examination of the American College of Surgeons’ Advanced Trauma Life Support® certification course is just one example of measuring capacity to care for patients. Surgical simulators present the next frontier in measuring trainees’ operative skills against an established baseline. However, the competencies of practice-based learning and improvement and systems-based practice are derived from modern health services research that are foreign to most trained surgeons and surgical residents. Whole academic departments exist to study practice-based and systems-based medicine, and there is little guidance on how surgical educators can effectively teach and measure these competencies.

The final two competencies, interpersonal and communication skills and professionalism, seem more like traits than learned skills. Certainly, strong interpersonal skills, effective communication skills, and high professional standards can be modeled, but the question remains how acquisition of these skills can be documented in an objective manner. Furthermore, there might be certain personality types that are incapable of learning these skills even through the most effective modeling. Should these trainees not be allowed to sit for their board examinations even if they display outstanding patient care skills both in and out of the operating room and have demonstrated expert knowledge in general surgery?

How surgical residencies will implement the ACGME’s core competency mandate is a work in progress and the ACS is leading the way in designing the curricula to teach and measure the competencies. It is another facet of the multidimensional nature of modern-day general surgery training.

**Practice management**

Numerous skills beyond those directly influencing patient care are also needed by graduating surgical residents. Another area that is rarely taught in modern-day residencies is practice management, including associated billing and coding issues, liability issues, and partnership negotiations. Yet, these skills are all necessary for the vast majority of surgical trainees who do not enter academic medicine or become hospital employees. Today’s residency programs must also teach their trainees how to be good business-people. Few training programs are equipped to handle this task, especially because those teaching are generally inexperienced in such matters as they are academic appointees with hospital or university salaries. To meet this need, the ACS has numerous practice-management offerings in the form of short courses, seminars, and CD-ROMs that young surgeons can use as they begin their first few years of practice.

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Conclusion

General surgery training is at a crossroads. Training programs are making a variety of efforts to ensure that their graduates are capable of providing the highest quality of surgical care, whether they choose to pursue subspecialty training independent of particular practice settings. Both rural and international electives expose residents to an environment where the local general surgeon may be the only health care provider in the area with operative skills delivering a wide variety of surgical care. Surgical simulations further enhance the educational experience by creating a virtual training reality allowing residents to develop and perfect difficult technical skills. By taking surgical training outside of the traditional realm of the residency program hospital system, programs are enhancing the clinical experience of trainees. These innovative steps are allowing for the acquisition of clinical and technical skills that might not otherwise mature successfully in today’s five-year general surgery residency.

However, meeting the dynamic demands for general surgery education is a difficult task. In contrast to the mission of “broadening skills,” there are forces promoting truncated or streamlined training for residents seeking to concentrate in a subspecialty of general surgery. Some advocate establishing separate training tracks and certification for residents wishing to specialize versus those pursuing true “general” surgery careers. The debate over acute care surgery also has an impact on the training of general surgeons. Would trauma care and emergency surgery become yet another area of specialization mastered only by those pursuing fellowships in these areas? These are controversial issues affecting the future of surgical training and general surgery as a specialty.

While these debates continue, it is vital to remember that broad-based general surgery training is essential to producing surgeons capable of competently handling an extensive range of surgical pathology. To do no less would be to fail in the primary objective of general surgery training and the propagation of the specialty. The role of the general surgeon is an important one, both locally and abroad. To maintain this role, it is critical that we continue to produce surgeons who can master a wide variety of common and life-saving surgical operations. Fortunately, there are pioneers in the field of surgical education who are committed to seeing that general surgery continues to fulfill the important role it has held for so many years in health care and train exceptionally qualified young surgeons who will continue to do the same.

References


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Historically, surgical training programs emphasized a broad-based curriculum to train residents to pursue a variety of career paths without additional surgical training. The majority of program graduates entered practice directly after completing primary surgical training. However, over the last 15 years, an increasing number of surgery residents have chosen to pursue fellowship training after completing general surgical training. Since 1992, the proportion of general surgeons pursuing fellowship training increased from more than 55 percent to more than 70 percent. Why are surgical residents choosing to lengthen their training when surgical leadership debates the pros and cons of truncated training and early specialization? The factors driving this paradoxical trend and its effects on surgical training warrant discussion.

Depending on the surgical program setting, 40 percent to 90 percent of chief residents choose fellowship training. The decision to pursue an additional one to three years of subspecialty surgical training often occurs before internship. A survey of fourth-year medical students interviewing for categorical general surgical training positions over a two-year period at The Johns Hopkins School of Medicine indicated that 93 percent of the applicants intended to pursue fellowship training. Contrary to the rising cost of medical education, 92 percent of these applicants indicated that debt did not affect their choice of specialty.
The proliferation of fellowship training is not limited to general surgery. Of the more than 600 residents who complete orthopaedic surgery each year, more than 60 percent enter into fellowship programs of some kind. In otolaryngology, there are more than 150 fellowship positions listed for approximately 265 residency program graduates each year. The number of surgical subspecialty fellowship positions continues to increase even though programs in urology, orthopaedics, and otolaryngology have shortened the previously required one or two years of general surgery training.

The progressive subspecialization of surgery has significantly affected the career choices of trainees in many ways. Surgeons with narrowed practice areas have provided the broad-based experience of modern general surgery training. Medical students and surgical residents are trained predominantly by faculty with limited areas of surgical practice. Student surgical clerkships and resident rotations are commonly defined by practice area such as breast, hepatobiliary-pancreatic, and minimally invasive surgical services. Some residents perceive that additional training will provide more attractive job opportunities. Residents also perceive that surgeons with specialized training and fellowship training credentials are more likely to succeed in academic surgery. With these focused experiences, students and residents make career choices and select surgical role models based on these narrowed practice areas. Ultimately, trainees want to be considered as experts in their chosen field of practice.

Acknowledging this trend leads to questions about how such training demands shape both current and future structures of general surgery training programs.

Surgical training and medical practice

Over the last two decades, there has been a rapid expansion of knowledge in medical science. The proliferation of information technology has not only aided the medical community, but it has allowed our patients to become more informed about their medical problems. Now, patients demand specialized care and better outcomes. In response to these and other forces, the advent of minimally invasive techniques has decreased morbidity and shortened hospital stays. Acceptance of such techniques has led to the establishment of fellowships in minimally invasive, endovascular, and radiosurgery. Furthermore, financial and lifestyle pressures associated with trauma surgery have led to recent proposals to establish a fellowship in acute care surgery—the surgeon’s version of the hospitalist. Recently, what has been historically known as “general surgery” has become the subject of a new fellowship established for rural surgery. According to Malcolm M. E. Johns, MD, these changes have affected medical practice as follows:

The usual response to new developments in medicine is to create new specialties, which trainees can generally pursue only after completing a traditional residency program. This may lead to a form of “fellowship fetishism,” where everyone has to attain the latest credential. Regardless of the general or specialty focus, residency training is treated (and residents often experience it) as if it were a term of service or servitude rather than of learning and achievement.

Skill set acquisition

General surgery programs are providing graduates with adequate skill sets to practice without acquiring further training. Approximately 30 percent of the individuals who complete a general surgery residency do not seek additional fellowship training and practice general surgery safely and well. Ultimately, most of these graduates will practice in a community setting performing a mix of open gastrointestinal procedures, breast, trauma, hernia repairs, vascular access, and basic/advanced laparoscopic procedures. It is certainly not necessary for everyone to pursue advanced training, but whether program graduates have competence in these essential practice areas must continue to be addressed.

Fellowships and surgical training programs

Surgical training is a balance between service, experience, and education. Although the Residency Review Committee (RRC) of surgery develops accreditation standards and reviews accredited program for compliance, all surgical training programs are not equivalent in service or operative volume. Therefore, experience in
diagnosis, operative skills, and management of complications in complex surgical cases will vary among programs. All training programs will not be “centers of excellence” in each area of surgery. It has been argued that it is irrelevant if the average general surgery residency does not produce competence in several advanced areas and that the resident will be best trained in those procedures and diseases in which the program has the best educational experience. The problem with this argument is that many residents change career paths during residency.

Fellowships also allow trainees to fill voids in residency training and to develop a high level of knowledge in one area rather than limited knowledge in many areas. A graduate of a program known for expertise in a certain area would not have needed to do a fellowship 30 years ago. However, that has changed. The criteria for academic excellence in surgical specialty areas have been expanded to include an expectation of fellowship training.

General surgery programs should not be adversely affected by the presence of advanced trainees in fellowships. Residents in programs without fellowships are often concerned about a negative impact on their training if a new fellowship position is planned; they worry that certain types of operations will be performed only by fellows, thus diluting the resident’s operative experience. Although the RRC in surgery mandates that chief residents and fellows should not be placed on the same service, fellows do compete with general surgery residents for number and quality of cases. But residents should not be relegated to surgical assistants if a fellow is present.

A fellowship must have a positive effect on a surgical training program. Fellows should be integral in the education of residents. Jay L. Grosfeld, MD, FACS, describes the value of a fellowship to a training program as follows:

Many post-graduate fellows, because of their experience, provide a high level of quality care and play a role in teaching junior-level residents and students assigned to their service. The general surgery residency program provides the resident manpower and support structure for the fellowship and does much of the less-gratifying legwork. In theory, as long as a facility has an adequate case volume for both the fellow and the general surgery residents, and the fellowship does not interfere with the general surgery residents training experience and continuity of care issues, the [two] can coexist. The coexistence must be carefully monitored to ensure that the resident’s education is not compromised. The residency and fellowship directors must also work together closely to prevent these issues.

The expansion of fellowship training does suggest the urgent need to redesign surgical training. More than 60 percent of all U.S. medical schools have undertaken significant curricular revision during the last decade. Graduate medical education has been much slower to evolve. The most significant changes have been duty hour limitations and longer training times in most medical disciplines. In 2004, Carlos A. Pellegrini, MD, FACS; Andrew L. Warshaw, MD, FACS; and Haile T. Debas, MD, FACS, proposed a scheme for restructured surgical training. Everyone interested in surgical education should take time to read the Surgery article written by these well-known surgical leaders. This design uses a modular system for surgical training. First, all surgical residents would be required to complete a basic surgery core module (learning basic surgical skills with a national curriculum), which would take two to three years. The resident would then be allowed to graduate to the advanced modules of surgery or a research module after competence in the basic module is verified. Completion of the advanced surgery module would then lead to board certification. Resistance to such a sweeping change is understandable, but these ideas must be evaluated in pilot programs to improve how training is conducted.

The value of the fellowship

Obviously, fellowship training allows trainees to obtain a mastery of skills and knowledge in a specific area beyond that developed in residency. Fellowship also provides the opportunity to emulate the diagnostic and treatment approaches of several faculty role models as trainees develop their own practice style. There is evidence that
fellowship training enhances career satisfaction. In a study of surgeons in academics, surgeons who completed fellowship training expressed greater career satisfaction and had fewer concerns about professional confidence as compared to those who did not complete fellowships.16

On a personal note, I am in my ninth year of training and in the second year of a surgical oncology fellowship at The University of Texas M.D. Anderson Cancer Center in Houston, TX. Participating in a fellowship has enhanced my ability to evaluate and comprehensively recommend treatment for complex cancer patients. I have been exposed to a high volume of patients with rare tumors such as sarcoma. I have developed collegial relationships with co-fellows and important mentoring relationships with faculty. The fellowship has also offered opportunities to participate in laboratory and clinical research experiences to provide a foundation for a future in academic surgery. In retrospect, this experience has certainly been of great benefit.

Conclusion

There are multiple factors that drive residents to pursue fellowship training. Medicine will continue to undergo significant change, and we should not limit our profession by allowing the lengthening of training to be our primary response to improving surgical education. We must being willing to reform graduate medical education and not allow surgical training programs to become a conduit for fellowship training. Although there are numerous benefits to fellowship training, we can no longer educate by the old mentality of: “See one. Do one. Teach one.”

References

5. Maier RV. To be or not to be? Surgery. 1992;112(2):121-129.

Dr. Amos is a fellow in surgical oncology at The University of Texas M.D. Anderson Cancer Center, Houston, TX.
The elusiveness of mentorship for surgeons:

Prologue

“"I am not a teacher, but an awakener.””

—Robert Frost

Surgical residents and young surgeons entering contemporary surgical practice have found that they need more input from experienced colleagues. For many of these individuals, adequate mentorship may be elusive unless they began residency with a mentor from medical school, had an established relationship with a surgeon through family connections, or were fortunate enough to have been noticed by someone influential.

Early use of the word “mentor” occurs in Greek mythology to describe a wizened, old friend entrusted with the care of a child whose father was at war. The student is known as “mentee,” which is a back transformation derivative of mentor. The alternative, “protégé,” is a derivation of the French verb “protéger,” which means to protect. A solid mentoring relationship is not passive on the part of mentor nor protégé. Valued mentors are responsive, accessible, knowledgeable, and well-respected in the field, and they value the mentoring relationship, set high standards and expectations, and recognize potential. Through private and public actions, they support, advocate, enable, and protect their protégé. It is important that mentors maintain appropriate boundaries and are not responsible for formal evaluations.

For these gifts, the protégé is expected to be efficient, respect the mentor’s time, and exercise discretion. Above all, protégés must assume responsibility for their own career development, actively maintain the relationship, and be open to feedback. They should not feel uncomfortable about expecting a reciprocal relationship.

Establishing a mentoring relationship is an evolutionary process. The mentor may begin as an advisor, coach, or role model. Continued shared experiences and interactions may propel the relationship into a new dimension and lead to the shared goals, open communication, and ongoing communication that is mentorship. Over time, mentorship itself may mature. In a recent interview, Barbara Bass, MD, FACS, described how, once established, the mentoring relationship evolves through a series of phases that transform the individual from protégé to colleague, and perhaps on to trusted friend (personal communication, April 25, 2006).

What follows is an exploration of mentorship in surgery from two different perspectives. First, Mallory Williams, MD, will use successful mentorship case studies to illustrate the pathway for other residents and young surgeons to follow. Then this author will explore traditional and non-traditional options for mentoring as well as how to remove barriers to the process. Finally, L. D. Britt, MD, FACS, will close the topic by helping us understand the importance of engineering a good mentoring relationship and how failure to do so allows mentorship to remain elusive.

References


—C. Suzanne Cutter, MD
Mentors provide career guidance that is essential for the academic surgeon and the surgeon in private practice. The academic surgeon depends on strong mentorship for guidance in basic science and clinical research, patient care, and professional development. The surgeon in private practice seeks clinical mentorship for technically difficult operations, assistance in expanding surgical skill sets, and practice management. So whether assisting in grant writing and research design or providing technical expertise in advanced laparoscopy, the role of the mentor is essential. Outstanding leaders in surgery have given their perspective about mentorship previously. Wiley W. Souba, MD, FACS, for example, developed the mnemonic MENTORS to describe the following seven qualities that all mentors should have:

- Motivate
- Empower and encourage
- Nurture self-confidence
- Teach by example
- Offer wise counsel
- Raise the performance bar
- Shine in reflected light

Henri R. Ford, MD, FACS, in praising his parents as mentors, stated, “They inculcated in us a sense of responsibility and helped us develop and refine an ‘acquired’ taste for academic excellence.” Edward M. Copeland III, MD, FACS, has written about a surgery department chair’s role in mentoring: “An open door policy by the chair is almost imperative... a chair should mentally change places with faculty members to see how decisions affect them.” Each of these leaders in surgery recognizes the importance of mentorship in producing future surgeons and continuing the tradition of excellence in surgery.
Profiles of effective mentorship

Julie Freischlag, MD, FACS, imparted the appropriate perspective of a mentor when she wrote, "...almost anyone with the right work ethic and interest can become a surgeon. We become what we see. Great mentors influence us all." With this in mind, I interviewed three successful young surgeons who have benefited from mentorship throughout their careers. My aim is to clearly illustrate effective mentorship in productive young surgical careers. I focused on how each of these individuals initially met their mentor. The development of each relationship is discussed, as well as a review of the successes of each relationship.

Darla K. Granger, MD, FACS

Key mentor: Arthur J. Matas, MD, FACS, professor of surgery and director of renal transplantation, University of Minnesota, Minneapolis, MN.

Dr. Granger is currently clinical associate professor of surgery at Wayne State University and director of pancreas transplantation at St. John’s Medical Center in Detroit, MI. Dr. Granger felt confident about becoming a successful academic surgeon while training at the University of Minnesota. Nancy L. Ascher, MD, PhD, Alexa I. Canaday, MD, and other female role models who completed their training and were very successful trailblazers were a source of inspiration.

Dr. Granger emphasizes the role that Richard Simmons, MD, FACS, and Dr. Ascher played in advising her during her medical school years, but she says her key mentor in her career has been Dr. Matas. She met him as a hard-working intern on the transplant service of the University of Minnesota. During her second year of residency, Dr. Matas asked if she would be interested in joining his research laboratory. Dr. Granger was interested in becoming a transplant surgeon and jumped at the opportunity. They met and began early preparation for her research years and future fellowship in transplantation.

Dr. Granger describes Dr. Matas as the perfect mentor. “He was very supportive of both our basic science and clinical projects.” Laboratory meetings were held regularly, but there was also informal time for personal development. “Dr. Matas enjoyed sharing the credit for hard work performed,” she says. Her research experience led to numerous national presentations and publications. Success as a research fellow led to a clinical fellowship in transplantation. As a clinical mentorship developed, she remembers, Dr. Matas’ teaching was impeccable and rooted in a deep concern for his patients. Dr. Granger would accept her first faculty appointment at the University of Minnesota. Dr. Granger explains that Dr. Matas was interested in her as a human being and as a student with potential academic talent.

Selwyn Rogers, MD, MPH, FACS

Key mentors: Michael J. Zinner, MD, FACS, Moseley Professor of Surgery and chairman of surgery, Brigham and Women’s Hospital, Boston, MA; John Z. Ayanian, MD, FACP, associate professor of medicine and health care policy, Harvard Medical School, Boston, MA.

Dr. Rogers is assistant professor of surgery; chief of trauma, burns, and critical care; and director of the Center for Surgery and Public Health at Brigham and Women’s Hospital. Upon returning to the Brigham and Women’s Hospital as faculty, Dr. Rogers established a very clear research focus in health care policy. His desire to work with Dr. Ayanian, a proven academician in health care policy research, was supported by Dr. Zinner, his surgical mentor. Dr. Rogers initially met Dr. Ayanian while a medical student at Harvard. Dr. Rogers admired Dr. Ayanian’s academic work and wanted to acquire similar skills for surgical outcomes analysis. Dr. Rogers approached Dr. Ayanian and was immediately received warmly. They set up formalized meetings twice monthly and began the development of the mentoring relationship.

As time has passed, Dr. Rogers’ skill set has developed and he has gained increasing responsibility for projects. Dr. Rogers has continued to highly respect the time of his mentor and, even though he has tremendous responsibility inside the department of surgery, their time together collaborating on mutually beneficial projects continues to be cherished. When asked what he considers to be the most important aspect of successful mentorship, Dr. Rogers says, “A passion for what you are doing, a wealth of ideas and original thought, a vision of where you want to
be, and stamina.” He defines a successful career as the ability to mentor other individuals to successful academic endeavors.

**Jeffrey S. Upperman, MD, FACS**

Key mentor: Henri R. Ford, MD, FACS, vice-president and surgeon-in-chief, Children’s Hospital of Los Angeles, and professor and vice-chairman of surgery, University of Southern California (USC).

Dr. Upperman is associate professor of surgery and associate director of trauma at the Children’s Hospital of Los Angeles, at the University of Southern California. Dr. Ford is his key academic and career mentor, but he has also benefited professionally from a wealth of mentors who encourage him to excel in surgery, research, and organized medicine, including the following: Edwin Deitch, MD, FACS; Robert Johnson, MD, FAAP; Benjamin Rush, MD, FACS; George Machiedo, MD, FACS; Thomas R. Russell, MD, FACS; Onye Akwari, MD, FACS; Edward Barksdale, MD, FACS; Eugene Wiener, MD, FACS; George Gittes, MD, FACS; and Timothy Billiar, MD, FACS.

Dr. Upperman initially met Dr. Ford at the Clinical Congress of the American College of Surgeons. While attending a reception, he introduced himself to Dr. Ford, a young faculty member in the division of pediatric surgery at the University of Pittsburgh. Dr. Ford inquired about Dr. Upperman’s career interest and Dr. Upperman mentioned his interest in pediatric surgery. Dr. Upperman obtained Dr. Ford’s contact information and invitation to call him, which Dr. Upperman followed up with a thank-you letter.

Later, at the annual meeting of the British Association of Paediatric Surgeons in Istanbul, Turkey, Dr. Upperman again met Dr. Ford. He affirmed his interest in pediatric surgery. Dr. Ford made suggestions regarding Dr. Upperman’s early career and introduced him to pediatric surgeons. Determined to succeed, Dr. Upperman interviewed widely and carefully applied the guidance given to him by Dr. Ford and others and was named administrative chief resident at the University of Medicine and Dentistry–New Jersey Medical School.

Dr. Upperman joined Dr. Ford’s laboratory in pediatric surgery at University of Pittsburgh. Regularly scheduled laboratory meetings with clear focus led to national presentations and a well-developed academic mentorship. During his fellowship, Dr. Upperman was awarded a K08 grant. When Dr. Upperman became a clinical fellow, a clinical mentorship developed. Dr. Upperman says he appreciated “the attention to detail and overall bedside manner of Drs. Wiener and Ford.” Valuing Dr. Ford’s mentorship, Dr. Upperman joined the faculty in the division of pediatric surgery and continued to develop as a surgeon-scientist. Before being recruited to USC, Dr. Upperman continued to enjoy the support of Dr. Ford’s mentorship as he evaluated other opportunities and says Dr. Ford responded very well to his desire for more administrative responsibility.

**What are pathways to effective mentorship?**

In these profiles of mentors in surgery, there are similar steps taken by each young surgeon that led to successful identification of a mentor and initiation of effective mentorship. They all recognized the importance of mentorship in achieving their career goals. Each young surgeon identified key individuals to serve as their mentor. After identifying mentors, each went through a careful process in order to clarify and develop the relationship. Key to this process was the formulation of strategy to accomplish clearly specified goals. Inherent in the strategy was the creation of a formal structure for the relationship. Finally, one of the most important aspects of this process was execution by the mentee. I summarize the process of recognition, identification, specification, and execution using the mnemonic RISE:

- Recognition that mentorship is important
- Identification of specific mentors
- Specification of goals of the mentorship
- Execution of the strategy

Recognition of mentorship as a career priority is essential. The investment of the necessary time and resources to identify and nurture a mentoring relationship requires that it is a high priority. This investment occurs when the benefits and value of mentorship are clearly seen. In the mentorship profiles provided in this article, each
individual recognized the need for effective mentorship to accomplish his or her career goals.

Identification of specific mentors is an art. It requires that mentees first identify their career interests and needs. This will be a continual process throughout one’s career. Once this is accomplished, the individual can begin to identify appropriate mentors. It is also important to identify the seven qualities that Dr. Souba stated were necessary for effective mentoring. These qualities exist in the mentors profiled previously.

When searching for a mentor, start with current trusted advisors. Mentorship resources may be available in the institution or department. The identification process usually begins locally and may expand to the regional, national, and international levels. Technology facilitates long-distance mentoring; however, mentors present in one’s institution are important and should be considered. Surgery societies all have mechanisms for the development of formal mentoring. There are resident memberships available that usually grant access to the faculty member names, e-mails, and research interests. The Association for Women Surgeons and the Society of Black Academic Surgeons, for example, have important mentorship missions specifically focused on these key constituencies. Different individual expertise will be sought in the identification process. For Dr. Rogers’ research, this meant someone outside his department. For Dr. Upperman, this was initiated at the American College of Surgeons’ Clinical Congress with someone outside his institution. And for Dr. Granger, this meant developing a relationship with someone in her institution who was able to facilitate her research and future clinical fellowship. All of the profiled surgeons had more than one mentor. And each surgeon had identified his or her career interests and needs upon approaching the prospective mentors.

Specification of clear goals for the relationship creates the measuring stick for effective mentorship. This process allows for the strategy to be created and the relationship to be structured for success. The accountability is in the structure of the relationship, and this structure includes timetables and deadlines. Throughout each mentorship profile, regular meeting times and informal meetings were a consistent feature. Often the mentorship began with a very specific goal and then developed to include added responsibility. All of the surgeons became junior faculty at the institution of their mentor and their administrative responsibility increased with their development. This demonstrates the vital qualities of mentorship, trust, commitment, and empowerment. Execution of the strategy with continued structure and support creates the opportunity for success. Success is a powerful fuel for the continued development of the mentorship in new and expanding directions. No matter how great the strategy and structure created to accomplish goals, there must be action on the part of both the mentee and mentor, as failure to execute the strategy is a pitfall of mentorship.

References

“…Mentoring requires a faculty member to engage in a dynamic, emotionally connected, and reciprocal relationship with the protégé. As intimate and long-term alliances…mentorships often begin informally and involve some degree of attraction based on common interests, mutual validation, and reciprocity, increasing trust, and successful collaboration.”

Episodic mentorship: A misnomer

Sometimes, no matter how hard a person tries, he or she just cannot seem to find someone to fill the mentorship role. Although potential mentors who are accessible may seem to have a subset of the traits desired in a mentor, none seems to be the “total package.” Have you ever met someone briefly who gave you life-changing advice or insights? Perhaps you met this person at the airport, at a surgeon’s conference, or on an elevator. No matter where you met, the brief encounter provided you with words that gave you hope, healed your spirit, or set a standard. These episodic mentors are everywhere, but only the intuitive, open, or introspective individual is able to realize the benefit.

In a recent interview, Barbara Bass, MD, FACS, mentioned that she has had a series of these helpful mentoring encounters, often when the individual was unaware of the impact they were having at that time (personal communication, April 25, 2006). Each encounter offered her a low-stakes opportunity for inspiration, redirection, or affirmation. Although episodic mentorship is not ideal, it can be very helpful in the absence of a formal mentor or during times of transition. For the unfortunate, this approach wastes time on a dizzying array of conflicting directives and opinions, which ultimately hinder progress. Alternative terms include “coaching” if the result was improved performance, “role-modeling” if the student were
inspired to emulate the mentor, or “sponsoring” if the encounter resulted in a well-placed phone call. Because mentoring characterizes an active, reciprocal relationship based on an interchange of professional and personal experiences, episodic mentorship is somewhat of a misnomer.

Apprenticeship

Mentorship used to be inherent when surgical training was simply an apprenticeship. With the dawn of the clinical clerkship in the late 1800s, that dynamic was refurbished into a structured program suited for a reduced faculty-to-resident ratio. Yet, the interaction still fostered mentoring relationships that started as early as medical school for individuals such as Judah Folkman, MD, FACS, who enjoyed the special attention of Robert Gross, MD, who pioneered corrective surgery for ventral septal defects. Technically, Dr. Folkman’s surgical mentorship began in high school under the tutelage of Robert Zollinger, MD, FACS, who ushered him into the world of surgery through experiences in the canine laboratory and, surprisingly, the operating room.

Dr. Folkman was very gifted in his youth. When those who are gifted are fortunate to be mentored by others who are gifted, the results can be startlingly successful. Some of these gifted individuals become Nobel laureates. Zuckerman has demonstrated that more than 50 percent of persons awarded the Nobel laureate in the U.S. had served under former Nobel laureates in some capacity—student, postdoctoral fellow, or junior collaborator. She concluded that master-apprentice relationship fostered in the laboratory developed enduring personal and professional linkages that were consequential for the protégé. Contemporary practice pressures have slowly and subtly eroded the master-apprentice model, leaving surgical residency programs fertile for new approaches to mentorship.

Alone at last?

Distance, increased prevalence of subspecialization, and availability of communications technology are strong motivators for seeking nontraditional approaches to mentoring. Large institutions with a diverse faculty perhaps offer the best opportunity for the formation of advantageous mentor-protégé relationships. Yet, most institutions in the U.S. (or throughout the world for that matter) are neither large nor diverse. Thus, individuals whose mentorship needs surpass the local resources may seek mentorship through nontraditional means. Perhaps the most accessible source is the written word. Leveraging textbooks, journal articles, and self-help nonfiction allows the potential protégé to attempt self-mentoring. The benefit of this approach is the ability to readily review materials at an individual’s leisure. Of course, the disadvantage is the lack of dynamic, tailored interactions that place the advice and counsel into perspective based on the potential protégé’s specific developmental objectives.

An emerging trend in mentorship adopted by business professionals is coaching. This modality is available to individuals and institutions. The service is sourced from a broad spectrum of providers spanning individual coaches to large coaching firms. Encounters transpire face-to-face, over the telephone, or online. Coaching is basically “mentoring for hire” and, at a cost of more than a $1,000 per encounter, most residents and young surgeons in need of mentoring would find ongoing coaching services to be cost-prohibitive.

A recent qualitative study of academic medicine faculty about their experiences with mentoring concluded that when mentoring is not accessible, individuals experience more stress, less opportunity for academic advancement, and financial disparities.

Homosocial reproduction

As highlighted by the American Association of Medical Colleges’ (AAMC) project implementation committee, groups tend toward homosocial reproduction. This describes an inherent human trait that causes individuals to gravitate toward and promote others with whom they identify and feel comfortable. This tendency may cause evaluators to view even highly qualified women, underrepresented ethnic groups, and, surprisingly, members of Generation X as risky candidates for promotion.

Social capital

“Women face many more challenges than men in obtaining career-advancing mentor-
ing such that they frequently lack ‘social capital’ and hence essential information; this isolation further reduces their capacity for risk-taking, often translating into a reluctance to pursue professional goals or a protective response such as niche work or perfectionism.⁷⁶

In recent years, it has become obvious that women are not achieving a level of success in academic medicine that is commensurate with their representation, preparation, and education. A unique study investigated the career progress of 15 years of medical school graduates by stratifying them into cohorts by year of graduation. Examination of career advancement toward professorship demonstrated that the number of women who advanced to associate and full professor were significantly lower than expected. In this study, the number of women who would have been expected to reach the rank of associate professor was 14 standard deviations less than expected; and of the smaller number of women then available to progress to full professorship, the number of women advancing was five standard deviations less than expected. Of the surgical specialties studied, the shortfall in career progress was less in otolaryngology, orthopaedic surgery, and ophthalmology.⁷

A Harvard Business Review case study
Understanding that women have challenges receiving appropriate mentoring, minority women (or women of underrepresented ethnic groups) face additional challenges. In fact, racial stereotypes prevent mentors from giving ethnic protégés the benefit of the doubt, whereas fast-track nonethnic protégés are often evaluated based on their perceived potential.⁶ When the protégé approaches the mentor to discuss difficult issues of race, the mentor’s protective hesitation about being politically incorrect or offensive may interfere with the communication process.⁶,⁸

A recent article in the Harvard Business Review examines such protective practices in a case study related to hiring an African-American sales trainee for a position serving a nonethnic customer base.⁹ The subject of the case study had solid credentials, stellar interpersonal skills, and a demonstrated ability to learn. Yet, upper management had informally discouraged other managers from hiring the eager trainee into areas where they perceived that clients would be racially intolerant.

Experts consulted in the case study agreed that these concerns should not prevent managers from extending offers for promotion. Furthermore, it is incumbent on those managers to provide the trainee with support in private and champion the individual in public to neutralize stereotype-based criticisms internally and externally. One expert pointed out that studies have demonstrated that minorities who are accustomed to being treated as outsiders often outperform members of other groups.⁹ Still, another expert wondered whether there was a way to insulate minorities experiencing these challenges from being damaged personally.

Benefits accruing to mentored protégés include accelerated promotion rates, greater career mobility, higher overall salaries and compensation packages, greater personal and career satisfaction, enhanced professional confidence and self-esteem, decreased role-related stress, reduced work-family conflict, and a sense of enhanced power within the organization. This may explain why individuals from underrepresented groups without mentorship have difficulty advancing, suffer from self-doubt, experience more stress at work, and may change jobs more frequently.⁶ Not surprisingly, “When mentorship occurs, the organization often experiences reduced turnover, greater organizational commitment, and higher rates of productivity and employee satisfaction.”¹⁴

Generation X-pectations
An oft-unrecognized challenge to mentoring is generational differences. The contemporary potential conflict arises between members of Generation X, born in 1963 to 1981, and the Baby Boomers born in 1945 to 1962. Generation X is the first to be raised in a dual-career household and likewise it is the first generation to experience such high levels of parental divorce. Thus, Generation X is more likely to emphasize opportunities to enhance family experience and less likely to put work before family.¹⁰

Seasoned faculty—likely to be Baby Boom-
ers—are frustrated with residents and young faculty, likely to be Generation Xers who tend to view mentoring as a right rather than privilege. The Boomer faculty find themselves offended by the members of Generation X who tend to be more direct and outspoken without intending to be disrespectful. Senior faculty are labeling this generation as “slackers,” “uncommitted to medicine,” and “self-centered.” This commentary alienates the resident or young faculty member who is truly interested in achieving. “Mentoring represents the most tangible bridge to continuing the traditions of excellence that are now threatened by lack of funding for medical education, dysfunctional payment mechanisms, and other concerning trends.”

**Erecting a bridge**

Cross-gender, cross-race, and cross-cultural mentoring illustrates that there are many characteristics that distinguish each of us. Demographic and cultural differences often erect a screen that is used to filter or interpret the characteristics and behavior of the “different” individual. “Competent mentors are alert to their own responses to protégés and work to acknowledge and accept these feelings as normal, without allowing them to harm the mentorship or lead to exploitation or violations of boundaries.” Although some allow differences to divide us, it is important to see beyond the differences. An individualized understanding of the protégé characterized by an acceptance of the differences and an empathy with the cultural barriers that are erected in the career experiences of the protégé will serve the relationship well.

“Mentorship programs for either medical students or residents will help the development of professional identity. Mentorship programs for residents may help to promote research training, subspecialty selection, and fellowship training.”

**Benchmarking**

Being a mentor does not always come naturally, but with time and interest, these skills can develop. Most agree that mutual openness, establishment of clear goals, objective and personalized feedback, and a participative approach foster a good mentoring relationship. Advocacy, interest, commitment, and candor allow the relationship to flourish. Several institutions and professions have recognized this and developed roadmaps for mentorship programs.

Among those institutions, the AAMC project implementation committee highlighted several institutions working to strengthen their institution through programs that assist faculty in making optimal use of their academic appointment:

- Stanford University School of Medicine Faculty Mentoring Program
- University of Arkansas College of Medicine Women’s Faculty Development Caucus Mentoring Project
- University of Wisconsin-Madison Medical School Faculty Mentoring Program
- Mayo Medical School Mentoring Initiative
- Boston University Mentoring Program
- University of Ottawa Academic Women’s Association Mentoring Program
- MCP Hahnemann University School of Medicine Preceptor and Mentoring Programs
- East Carolina University’s Brody School of Medicine

**Prognosis for surgery?**

The American Dental Education Association (ADEA) is especially motivated to foster mentoring relationships between its members and students. A devastating dearth of faculty has forced the profession to actively develop new talent. Now the ADEA is focused on mentoring as a means to revive commitment to academic dentistry. The association’s research has demonstrated that the protégé enjoys an increase in job satisfaction, promotion rates, and confidence while the relationship provides the mentor with opportunities for intellectual engagement, sharing expertise and knowledge, attracting collaborators, remaining current, and creating a legacy. It is likely that the ADEA did not anticipate this faculty shortfall when initial indicators appeared.

As surgeons, we must anticipate how current
conditions will affect the fate of our field. Surgeons feel plagued by managed care, Medicare reimbursement guidelines, health care liability, pay for performance, residency work hours restrictions, and other legislative actions. With broad-based mentorship efforts in place, could we have developed talented surgeons who would have recognized the conditions leading to these restrictions on practice patterns? If we had that talent available, were these individuals in a position to develop alternative, more productive approaches that simultaneously serve the public’s needs while preserving conditions for effective surgical practice? Knowing the answer to such questions is not nearly as important as recognizing the lesson.

References

Although not often recognized, mentorships can and do fail. Lack of or poor communication is the common denominator for many of the failures, with both parties of the mentoring relationship being responsible. The figure below highlights some examples of these communication deficiencies. In addition, a failed mentorship can be the direct result of choosing the wrong mentor. Irrespective of the mentor’s accomplishments and accolades, he or she must be willing to dedicate the time and effort required to be an effective mentor, realizing that this will be a longitudinal process. A 100 percent failure rate in any mentorship arrangement occurs when the following factors exist:

- An unprepared mentee with unrealistic professional goals
- A detached mentor who has minimal, if any, active participation in the mentorship process

Although it is preferred to have a mentor who is at the top of his or her field, it is not essential. A professional who is competent and accomplished can provide the necessary guidance and active involvement for a successful mentorship. Being a “role model” does not always equate to being a good mentor. Furthermore, being an enthusiastic and energetic mentee does not guarantee success.

In summary, true mentorship is a planned process that requires continual cultivation and reevaluation.

**Failed mentorship:**
Communication deficiencies

- Strategic plan never established (verbal or written)
- Infrequent or ineffective update and reevaluation sessions
- Lack of problem-solving skills
- Poor interpersonal and communication skills

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Acute care surgery:
Enhancing outcomes or fragmenting care?

by Gregory S. Cherr, MD, Buffalo, NY
Leaders from all medical specialties agree that there are profound problems affecting the emergency workforce. A proactive approach to the issue may avert the looming crisis. Among the many changes proposed to improve emergency care, development of a new specialty, “acute care surgery,” may be the most controversial. Therefore, this topic has been chosen for the Resident and Associate Society (RAS) symposium at the 2006 Clinical Congress in Chicago, IL.

Background

Emergency room visits are increasing at twice the rate of population growth. At the same time that emergency departments are becoming busier, changes in the Emergency Medical Treatment and Active Labor Act regulations and decreased funding for trauma systems have reduced the efficiency of care for surgical patients. Further exacerbating the problem is reduced interest in emergency department call among surgical specialists. Some reasons are shared across specialties (including increased medical liability, reduced compensation, lack of institutional support, and interference with elective practice), whereas other causes are peculiar to particular specialties (such as frequent inappropriate consults for hand and plastic/reconstructive surgeons).

Many solutions have been proposed and have resulted in varying degrees of acceptance across surgical specialties. Essential to improvement of emergency care is enhancement of communications and fostering of collaboration among the surgical stakeholders. Efforts to enact liability reform, appropriately fund trauma systems, and improve regionalization of care will relieve some of the pressure on the emergency surgical workforce. There is also agreement that the emergency surgical workforce may be enhanced with on-call stipends and increased reimbursement for emergency surgery. However, the proposal to develop a new specialty of “acute care surgery” (as an extension of trauma/critical care surgery) has caused great controversy among the surgical specialists.

The proposed acute care surgery practice is based on the so-called European model of trauma and emergency surgery. In this model, surgeons care for acutely ill patients across a broad spectrum of disease processes. This specialized trauma surgeon may operate on the chest, abdomen, blood vessels, bones (for fracture fixation), and head (to place intracranial pressure monitoring devices or decompress subdural and epidural hematomas). With an ultimate goal of maintaining life and limb, the surgeon is trained to triage, stabilize, and potentially operate on a great majority of patients presenting with trauma or acute surgical illnesses.

By developing a cadre of trauma surgeons to care for surgical emergencies across specialties, the acute care surgery paradigm is anticipated to relieve some of the strain on the surgical workforce, maintain or improve patient care, and increase the attractiveness of trauma surgery to surgical trainees.

Advantages

• Increase ability to recruit trauma surgery trainees to allow complete trauma center coverage. Trauma/critical care fellowships are struggling to attract young surgeons. Many fellowship positions are unfilled and trauma centers are experiencing difficulties recruiting new faculty. The expanded role of the acute care surgeon will increase the attractiveness of the specialty and help with recruitment and retention of trauma surgeons.

• Improve the cost/benefit ratio for trauma surgery and avoid the distractions of a heavy elective surgical practice. New studies have highlighted the growing dichotomy between the reimbursements for the hospital and the trauma surgeon. Although trauma is often profitable for the trauma center, the poor reimbursement and labor-intensity of care for the critically ill trauma patient have made it difficult for the trauma surgeon to have a financially feasible practice without a significant component of elective surgical practice. The more inclusive specialty of acute care surgery is proposed to address many issues that are believed to make the field of trauma surgery unappealing.

• Expand surgical practice that maintains technical skills while preserving a manageable lifestyle. Increasingly, trauma surgery has become a nonoperative specialty. By performing emergency nontrauma surgery, the acute care surgeon will have an expanded scope of practice. This will lead to increased satisfaction and reim-
bursery while allowing the trauma surgeon to maintain technical skills. Compared with the traditional trauma surgeon, the acute care surgeon will perform more surgeries when on-call and feel less need to generate clinical income when off-call. Overall, this will lead to more predictable hours and a manageable lifestyle, which are increasingly important to medical students and general surgery residents.1

• Reduce the necessity for nontrauma surgical consultations and increase the comprehensiveness of patient care. Patient outcomes will improve as the in-house acute care surgeon renders timely and efficient care. By providing “one-stop shopping,” the acute care surgeon will be able to diagnose and treat myriad acute conditions. In a manner similar to “closed” intensive care units, it is hoped that emergency and trauma care provided by a practitioner devoted exclusively to the acutely ill patient will result in improved outcomes.

• Increase overall hospital efficiency issues associated with staffing and resource utilization for the acute surgical patient. It is believed that the specialty of acute care surgery will be attractive to hospitals. Emergency departments will have fewer problems with coverage issues from surgical specialists. Acutely ill patients will have improved access to emergency care from an in-house specialist. Finally, operating room utilization will be enhanced as more procedures are performed at night and fewer cases interrupt the elective schedule or are added on at the end of the day.

Disadvantages
Many surgeons have noted potential problems with “acute care surgery.”

• Identifying sufficient cases during fellowship to ensure adequate training. Foremost is the difficulty in training the acute care surgeon. Having completed a general surgery residency, the acute care surgeon should be able to perform urgent intra-abdominal operations. However, obtaining and documenting proficiency in other areas may prove to be more difficult. With the increasing use of endovascular techniques, obtaining an adequate caseload of open vascular surgery cases is becoming problematic even for vascular surgery fellows. How will the vascular surgery training of the acute care surgeon be accomplished? Even more daunting is learning the subtleties of urgent neurosurgical or orthopaedic interventions. How this might be accomplished in a brief fellowship rotation remains to be seen.2

• Lack of well-established model and supporting data for the overall practice. It is difficult to look across the Atlantic Ocean for guidance, as the European model of acute care surgery seems to exist in only in a small number of countries in Europe.3 In most European countries, trauma and emergency surgical care is provided by a cadre of specialists in a manner very similar to the process in the U.S. Given the scarcity of practicing European model trauma surgeons and the paucity of data to validate its safety and efficacy, it may be difficult to persuade skeptics that a convincing model of acute care surgery exists.

• Potential lack of financial recovery for delivering care. Recent studies have called into question the notion that the addition of emergency general surgery will improve the financial viability of trauma and critical care as a specialty. Although an elective surgical practice increased billing and reimbursements, the covering emergency general surgery cases did not result in financial benefits to the trauma surgeon.7

• Inability to eliminate specialist call schedule. Although proposed to relieve the shortage of on-call physicians, acute care surgeons will likely need back-up from these same on-call surgical specialists. Vascular surgery may be used as an example. Although some vascular emergencies would be (and already are) addressed by trauma surgeons, many would remain outside the scope of the acute care surgeon. Faced with an ischemic leg, even seasoned vascular surgeons struggle with the decision to proceed with open or endovascular strategies. The acute care surgeon, with less training and experience, would have great difficulty with management decisions for this patient. Endovascular therapeutic options are available for many vascular emergences (such as ruptured abdominal aortic aneurysms, traumatic arterial dissections, or thrombosed bypass grafts) and would likely challenge the decision-making capacity and technical skills of the acute care surgeon. This argument would obviously apply for orthopaedic and neurological surgery as well. Many acutely ill surgical patients may continue
to require urgent consultation from specialists. Therefore, acute care surgery may not relieve problems with on-call specialists.

- **Uncertainty regarding the attractiveness of the practice model to potential trainees.** Finally, as a primary goal of “acute care surgery,” enhanced recruitment of young surgeons into the specialty of trauma surgery is not guaranteed with this significant change in patient care. Will students and residents find the new specialty attractive or daunting? By pursuing fellowship training, most surgical trainees choose to further specialize after completing general surgery residency. As acute care surgeons will perform such a broad variety of procedures outside the purview of general surgery, will it appear to be less specialized rather than more? The perception that the acute care surgeon will be the “jack of all trades, but the master of none” may prove to be difficult to overcome.

**Conclusion**

Many factors are contributing to an impending crisis in emergency surgical workforce. All stakeholders are in agreement on most of the potential solutions. However, development of the new surgical specialty of “acute care surgery” has generated great controversy. We hope that you will attend the symposium at the 2006 Clinical Congress as we examine this proposal in greater detail.

Each year, the RAS sponsors a symposium during the Clinical Congress on a topic targeted at surgical residents, young surgeons, and Fellows. This year’s presentation is scheduled for Sunday, October 8, 1:00–4:00 pm. The aim of the session is to provide insight into the future of acute care surgery. The symposium will explore the possible advantages and disadvantages of training for acute care and elective surgical practices, as well as the impact of these changes on the training of residents and provision of care to patients. The impact on both general surgery training and surgical specialties such as neurosurgery and orthopaedics will be examined.

Attendance is open to all RAS members, as well as medical students and Fellows of the College. An open-microphone discussion will promote audience participation in the symposium. We hope to see you there.

**References**


**Dr. Cherr** is an assistant professor of surgery, social and preventive medicine, at State University of New York at Buffalo. He is also Vice-Chair of the RAS-ACS.
Clinical Congress
American College of Surgeons
92nd Annual Clinical Congress

PRELIMINARY PROGRAM

Working Together Toward Humanitarian Ideals

OCTOBER 8-12, 2006, CHICAGO, IL
Dear Colleague,

An outstanding educational opportunity and one of the largest international surgical meetings of the year, the 92nd Annual Clinical Congress of the American College of Surgeons offers you the unique opportunity to learn the latest from the best. The 2006 meeting, “Working Together Toward Humanitarian Ideals,” will be held October 8–12, 2006, at McCormick Place in Chicago, IL. On behalf of the entire College, I would like to extend our warmest invitation to you to join us.

The Clinical Congress will afford you the opportunity, regardless of your specialty area, to advance your knowledge in the traditional surgical areas as well as learn about the latest innovations in surgery. Participants will choose from a variety of educational offerings, including named lectures, skills-oriented and didactic postgraduate courses, general session panels, specialty and multidisciplinary sessions, the Surgical Forum sessions, and video-based education sessions. Papers will be presented on leading-edge clinical research, and extraordinary scientific and technical exhibits will be on display.

The program spans virtually every area of contemporary surgical research and practice, including critical topics such as Breast Cancer Update: What Every Surgeon Needs to Know, Pancreatic Pseudocysts and Chronic Pancreatitis: Evidence-Based Management, and Surgical Simulators and Continued Learning in Surgery. Innovative and hot topics include Acquisition and Validation of New Surgical Skills, Practice-Based Learning and Improvement: An Essential Component of MOC, and Pay for Performance: The Future Is Now. Sessions will also be offered on Colorectal Hepatic Metastases: Evidence-Based Treatment Protocols, Advances in the Management of Inflammatory Bowel Disease, Emergency Management of Head Injury in Adults and Children, Laparoscopic Entry Techniques: How Far Do You Go with a Scope?, and Complications in Surgery: Getting Out of Trouble in the Operating Room.

The Clinical Congress offers numerous didactic postgraduate courses including The Hernia Course, Benign Disease of the Gastrointestinal Tract, and Surgery of the Pancreas. Our hands-on skills courses provide a unique opportunity to learn the latest techniques from the experts in the field. Courses include Accelerated Partial Breast Irradiation, Ultrasound Course for Residents, Bariatric Surgery for All Surgeons, and Preparing Your Community: How to Structure a Mass Casualty Disaster Response.

The Clinical Congress offers a wide range of educational opportunities that will enable you to keep abreast of the latest scientific developments in surgery. By attending you will learn how to meet the various professional challenges facing you today and will likely encounter in the future, and you will also be able to experience firsthand what your College is doing for you. I hope you will plan to join us in Chicago this year.

With best wishes,

Gerald B. Healy, MD, FACS
Chair, Board of Regents
A Brief Overview

GOAL
The Clinical Congress is designed to provide individuals with a wide range of learning opportunities, activities, and experiences that will match their educational and professional development needs.

OBJECTIVE
By the conclusion of the Clinical Congress, participants should gain and be able to apply the knowledge to improve their current practice, research, and care of surgical patients.

ACCREDITATION
The American College of Surgeons is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

CME CREDIT
The American College of Surgeons designates this educational activity for a maximum of 50.75* AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

* A maximum of 37.25 AMA PRA Category 1 Credits™ for general sessions only, including evening video sessions.

CME CERTIFICATES
CME certificates for attendance at general sessions will be issued at the ACS Registration Area at McCormick Place beginning Monday, October 9, at 1:00 pm.

SCIENTIFIC AND TECHNICAL EXHIBITIONS
The Scientific Exhibit is a forum of more than 150 exhibits presenting completed research, research in progress, and case reviews. Innovative surgical practices and teaching methods will also be presented.

The Technical Exhibition comprises more than 250 companies displaying their products and services. The exhibition provides an excellent opportunity to explore the surgical marketplace by comparing products firsthand and planning purchases.

Scientific and Technical Exhibit hours are Monday through Wednesday, 9:30 am–3:30 pm; and Thursday, 9:30 am–12:30 pm. The exhibits are located in McCormick Place Lakeside Center, Hall E.

CONVOCATION
Sunday, October 8, 2006 | 6:00–8:00 pm | Convocation Ceremony | Hilton Chicago

Initiates of the ACS will automatically be registered for the Clinical Congress and only need to return the registration form if postgraduate course or Social Program event tickets are desired.

Family members of Initiates do not need to register to attend the Convocation Ceremony only.

ANNUAL BUSINESS MEETING OF MEMBERS
Thursday, October 12, 2006 | 7:30–8:30 am | McCormick Place Lakeside Center
The Clinical Congress is designed to provide a range of educational experiences on a variety of topics—from contemporary issues, leading-edge research, and advances in technology to professional competence and clinical applications of new developments in the basic sciences. Some of the special topics being offered during this year’s Clinical Congress include the following:

- Inguinal Hernia Repair: An Evidence-Based Approach
  General Session sponsored by the Program Committee

- Breast Cancer Update: What Every Surgeon Needs to Know
  General Session sponsored by the Program Committee

- Team Training in Surgery: Lessons from Aviation
  Skills Course sponsored by the Committee on Emerging Surgical Technology and Education

- Pancreatic Pseudocysts and Chronic Pancreatitis: Evidence-Based Management
  General Session sponsored by the Program Committee

- Effective Communication: An Essential Competency to Enhance Surgical Care, Promote Safety, and Reduce Liability
  General Session sponsored by the Program Committee

- Acquisition and Validation of New Surgical Skills
  General Session sponsored by the Program Committee

- Esophageal-Gastric Junction Carcinoma
  General Session sponsored by the Program Committee

- Laparoscopic Colectomy: How, Who, Why?
  General Session sponsored by the Program Committee

- Accreditation of Surgery Centers to Optimize Patient Care
  General Session sponsored by the Committee on Research and Optimal Patient Care

- Acute Lower Gastrointestinal Hemorrhage: Diagnostic and Management Strategies
  General Session sponsored by the Program Committee

- Advances in the Management of Inflammatory Bowel Disease
  Specialty Session sponsored by the Advisory Council for Colon and Rectal Surgery

- Evolving Strategies for Patient Safety in the Operating Room: Time Out and the Debriefing
  General Session sponsored by the Program Committee

- Benign Disease of the Gastrointestinal Tract (Parts I & II)
  Postgraduate Course sponsored by the Advisory Council for General Surgery

- Complications in Surgery: Getting Out of Trouble in the Operating Room
  Multidisciplinary Session sponsored by the Advisory Council for the Surgical Specialties

- Surgical Simulators and Continued Learning in Surgery
  General Session sponsored by the Program Committee

- Prevention of Nosocomial Infections on the Surgery Service
  General Session sponsored by the Advisory Council for General Surgery

- The On-Call Specialist Crisis: A Moral Dilemma
  General Session sponsored by the Committee on Ethics

- Multidisciplinary Management of Gastrointestinal Malignancies
  General Session sponsored by the Program Committee

- How Practicing Surgeons Can Use the ACS Web Portal to Enhance Their Practice
  General Session sponsored by the Committee on Informatics

- Colorectal Hepatic Metastases: Evidence-Based Treatment Protocols
  General Session sponsored by the Program Committee

- Choledocholithiasis: Diagnostic and Management Strategies
  General Session sponsored by the Program Committee

- Practice-Based Learning and Improvement: An Essential Component of Maintenance of Certification
  General Session sponsored by the Education Task Force on Practice-Based Learning and Improvement

- Intra-Abdominal Catastrophes: Timely Diagnosis and Emergency Treatment
  General Session sponsored by the Program Committee

- Modeling, Simulation, and Virtual Reality: What’s Proven, What’s Not
  General Session sponsored by the Committee on Emerging Surgical Technology and Education

- Pay for Performance: The Future Is Now
  General Session sponsored by the Program Committee

- Surgical Errors and Adverse Outcomes: Impact on Surgical Residents
  General Session sponsored by the Committee on Resident Education

- Grant-Writing Symposium for New Investigators
  General Session sponsored by the Forum on Fundamental Surgical Problems

This preliminary program is subject to change. For program updates and registration information, please consult the Web site (www.facs.org).
Named Lectures

MONDAY, OCTOBER 9, 2006

NL01 | 8:30–9:30 am
American Urological Association Lecture
Lecturer: Andrew C. Von Eschenbach, MD, FACS
Sponsored by the American Urological Association

NL02 | 11:00 am–12:00 noon
John H. Gibbon, Jr. Lecture:
General Thoracic Surgery—An Oxymoron
Lecturer: Alec Patterson, MD
Sponsored by the Advisory Council for Cardiothoracic Surgery

NL03 | 1:30–2:30 pm
Charles G. Drake History of Surgery Lecture:
The Impact of the Civil War on American Medicine and Surgery
Lecturer: Arnold G. Diethelm, MD
Sponsored by the Advisory Council for Neurological Surgery

TUESDAY, OCTOBER 10, 2006

NL04 | 1:30–2:15 pm
Scudder Oration on Trauma:
Physiology for the 21st Century:
An Iconoclastic Analysis of Cardiopulmonary Function in Sepsis and Critical Illness
Lecturer: Frank R. Lewis, MD, FACS
Sponsored by the Committee on Trauma

WEDNESDAY, OCTOBER 11, 2006

NL05 | 9:00–10:00 am
Ethics and Philosophy Lecture: Disclosing Medical Errors to Patients—A Challenge for Physicians
Lecturer: Wendy Levinson, MD
Sponsored by the Committee on Ethics

NL06 | 11:00 am–12:00 noon
Commission on Cancer Oncology Lecture:
Melanoma—A Model of Evidence-Based Oncology Practice
Lecturer: Charles M. Bach, MD, FACS
Sponsored by the Committee on Cancer

NL07 | 1:30–2:15 pm
I. S. Ravdin Lecture in the Basic Sciences:
The Fetus Becomes a Surgical Patient—Science/Fiction
Lecturer: Michael R. Harrison, MD
Sponsored by the Committee on Perioperative Care

NL08 | 3:00–4:00 pm
Distinguished Lecture of the International Society of Surgery:
Fast Track Surgery—From Here to Where?
Lecturer: Henrik Kehlet, MD, PhD
Sponsored by the International Surgical Society

THURSDAY, OCTOBER 12, 2006

NL09 | 8:30–9:15 am
Martin Memorial Lecture:
Scientific Conflict of Interest—Facts and Friction
Lecturer: Catherine D. DeAngelis, MD, MPH
Sponsored by the Honors Committee

This preliminary program is subject to change. For program updates and registration information, please consult the Web site (www.facs.org).
Postgraduate Skills Courses

**POSTGRADUATE COURSES AND FEES**

Only registered meeting attendees may purchase postgraduate course tickets. Seating capacities are limited, and ticket requests will be filled on a first-come, first-processed basis. Postgraduate course tickets may be purchased on-site in Chicago, subject to availability. All courses require a ticket for admission. Tickets may only be exchanged before the beginning of a course and may only be exchanged for another course. Course syllabi will be distributed on-site in Chicago.

**DESCRIPTIONS OF FEE CATEGORIES**

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<tr>
<th>Category</th>
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<tr>
<td>Fellow</td>
<td>A surgeon who is a Fellow of the College</td>
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<td>Non-Fellow</td>
<td>A practicing physician who is not currently a member of the College</td>
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<td>RAS</td>
<td>Associate Fellows, Resident Members, Medical Student Members, and Affiliate Members of the College</td>
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<td>A physician or member of the surgical team who is currently in an accredited training program or working in a surgical-related setting, but has no membership affiliation with the College</td>
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**ACS SYSTEM FOR VERIFICATION OF KNOWLEDGE AND SKILLS**

The Board of Regents of the American College of Surgeons has approved a five-level model for verification and documentation of knowledge and skills by the Division of Education, following participation in the educational programs of the College. The model provides a framework for designing and implementing cutting-edge educational courses, based on principles of contemporary surgical education and permits provision of appropriate documentation to the attendees.

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<td>Verification of satisfactory completion of the entire education and training program, including satisfactory completion of course objectives, verification of knowledge and skills, verification of subsequent preceptorial experience, and demonstration of satisfactory patient outcomes</td>
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Postgraduate Skills Courses (continued)

SATURDAY, OCTOBER 7, 2006

SC01: Mammography for the General Surgeon
5 credits, Verification Level I
Saturday, October 7 | 1:00–6:15 pm
Chair: Darius Francescatti, MD, FACS, Chicago, IL

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SUNDAY, OCTOBER 8, 2006

SC02: Fundamentals of Breast Imaging for the General Surgeon
4 credits, Verification Level I
Sunday, October 8 | 8:00 am–12:15 pm
Chair: Darius Francescatti, MD, FACS, Chicago, IL

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SC03: Surgical Education: Principles and Practice
6 credits, Verification Level I
Sunday, October 8 | 8:30 am–5:00 pm
Co-Chairs:
Mary E. Maniscalco-Theberge, MD, FACS, Reston, VA
Michael R. Marohn, DO, FACS, Baltimore, MD

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SC04: Vascular Ultrasound: New Applications and Laboratory Management
7 credits, Verification Level II
Sunday, October 8 | 9:00 am–5:30 pm
Chair: David C. Han, MD, FACS, Hershey, PA

PREREQUISITE: Registrants must have completed a course in basic ultrasound to register for this course. Three options are available to meet the prerequisite:

1. Completion of the previously offered ACS postgraduate course titled Ultrasound for Surgeons.
2. Completion of the CD-ROM course, Ultrasound for Surgeons: The Basic Course. The CD-ROM is available for purchase online at www.facs.org in the ACS Publications and Services Catalog or by contacting ACS Customer Service at 312/202-5474.
3. Completion of a comparable course elsewhere. Please include the following documents with your registration form:
   • CME certificate
   • Certificate of completion
   • Registration confirmation/verification

If you do not have one of these documents, please contact the organization that sponsored your course to obtain one. Your registration will not be processed until the National Ultrasound Faculty has approved your accompanying documentation.

SC05: Accelerated Partial Breast Irradiation
4 credits, Verification Level I
Sunday, October 8 | 1:00–5:15 pm
Chair: Peter Beitsch, MD, FACS, Dallas, TX

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MONDAY, OCTOBER 9, 2006

SC06: Fundamentals of Laparoscopic Surgery (FLS)
No FLS Examination: 6 credits, Verification Level I
With FLS Examination: 6 credits, Verification Level III
Monday, October 9 | 9:45 am–5:15 pm
Co-Chairs:
Gerald Fried, MD, FACS, FRCSC, Montreal, QC
Nathaniel Soper, MD, FACS, Chicago, IL
Lee Swanstrom, MD, FACS, Portland, OR

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Postgraduate Skills Courses

SC07: Team Training in Surgery: Lessons from Aviation
6 credits, Verification Level I
Monday, October 9 | 9:45 am–5:15 pm
Co-Chairs:
Jack Barker, PhD, Miami, FL
Donald W. Moorman, MD, FACS, Boston, MA

SC08: Using Advanced Multimedia in PowerPoint Presentations
6 credits, Verification Level I
Didactic and workshop
Monday, October 9 | 9:45 am–5:30 pm
Chair: William D. Hardin, Jr., MD, FACS, Birmingham, AL

SC09: Breast Ultrasound
7.5 credits, Verification Level II
Monday, October 9 | 9:45 am–5:45 pm
Chair: Victor J. Zannis, MD, FACS, Phoenix, AZ

PREREQUISITE: Registrants must have completed a course in basic ultrasound to register for this course. Three options are available to meet the prerequisite:

1. Completion of the previously offered ACS postgraduate course titled Ultrasound for Surgeons.
2. Completion of the CD-ROM course, Ultrasound for Surgeons: The Basic Course. The CD-ROM is available for purchase online at www.facs.org in the ACS Publications and Services Catalog or by contacting ACS Customer Service at 312/202-5474.
3. Completion of a comparable course elsewhere. Please include the following documents with your registration form:
   • CME certificate

SC10: Lymphatic Mapping and the Significance of Sentinel Node Biopsy
7 credits, Verification Level I
Monday, October 9 | 9:45 am–5:45 pm
Chair: Armando E. Giuliano, MD, FACS, Santa Monica, CA

SC11: Minimally Invasive Colorectal Surgery
Part I, Lectures: 6 credits, Verification Level I
Part II, Hands-On: 8 credits, Verification Level II
Tuesday, October 10 | 8:00 am–2:30 pm (Lectures)
Wednesday, October 11 | 8:00 am–5:00 pm (Hands-On)
Chair: Peter W. Marcello, MD, FACS, Burlington, MA

PREREQUISITE FOR THE HANDS-ON PORTION:
Application for Part II approved by the course chair and registration for Part I required. E-mail Uriah Melchizedek at umelchizedek@facs.org for more information and an application for Part II.

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PRE Requisites:
• Certificate of completion
• Registration confirmation/verification
If you do not have one of these documents, please contact the organization that sponsored your course to obtain one. Your registration will not be processed until the National Ultrasound Faculty has approved your accompanying documentation.
### Postgraduate Skills Courses (continued)

**SC12: Preparing Your Community: How to Structure a Mass Casualty Disaster Response**  
7 credits, Verification Level I  
*Tuesday, October 10 | 8:00 am–4:15 pm*  
Chair: Jeffrey S. Hammond, MD, FACS, New Brunswick, NJ

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**SC13: Laparoscopic and Open Intraoperative Ultrasound in Abdominal Surgery**  
8 credits, Verification Level II  
*Tuesday, October 10 | 8:00 am–5:30 pm*  
Co-Chairs: Maurice E. Arregui, MD, FACS, Indianapolis, IN  
Juni Machi, MD, FACS, Honolulu, HI

**PREQUISITE:** Registrants must have completed a course in basic ultrasound to register for this course. Three options are available to meet the prerequisite:

1. Completion of the previously offered ACS postgraduate course titled Ultrasound for Surgeons.
3. Completion of a comparable course elsewhere. Please include the following documents with your registration form:
   - CME certificate
   - Certificate of completion
   - Registration confirmation/verification

If you do not have one of these documents, please contact the organization that sponsored your course to obtain one. Your registration will not be processed until the National Ultrasound Faculty has approved your accompanying documentation.

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**SC14: The Minimally Invasive Approach to Breast Biopsy: Stereotactic Technique and Application**  
8 credits, Verification Level II  
*Tuesday, October 10 | 7:30 am–5:00 pm*  
Chair: Philip Z. Israel, MD, FACS, Marietta, GA

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**SC15: The Personal Data Assistant (PDA)**  
6 credits, Verification Level I  
*Tuesday, October 10 | 8:30 am–4:30 pm*  
Chair: M. Michael Shabot, MD, FACS, Los Angeles, CA

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**SC16: Ultrasound Course for Residents**  
5 credits, Verification Level II  
*Tuesday, October 10 | 12:00 noon–5:30 pm*  
Co-Chairs: Heidi Lee Frankel, MD, FACS, Dallas, TX  
M. Margaret Knudson, MD, FACS, San Francisco, CA

**PREQUISITE:** Registrants must have completed a course in basic ultrasound to register for this course. Three options are available to meet the prerequisite:

1. Completion of the previously offered ACS postgraduate course titled Ultrasound for Surgeons.
3. Completion of a comparable course elsewhere. Please include the following documents with your registration form:
   - CME certificate
   - Certificate of completion
Postgraduate Skills Courses (continued)

- Registration confirmation/verification
If you do not have one of these documents, please contact the organization that sponsored your course to obtain one. Your registration will not be processed until the National Ultrasound Faculty has approved your accompanying documentation.

WEDNESDAY, OCTOBER 11, 2006

SC17: Ultrasound Instructors Course
4 credits, Verification Level III
Wednesday, October 11 | 8:00 am–12:30 pm
Chair: Reid B. Adams, MD, FACS, Charlottesville, VA

PREREQUISITE: Approval by the National Ultrasound Faculty Module Director; application required.
E-mail Uriah Melchizedek at umelchizedek@facs.org for additional information.

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SC18: Thyroid and Parathyroid Ultrasound
7 credits, Verification Level II
Wednesday, October 11 | 8:00 am–4:30 pm
Chair: Robert A. Sofferman, MD, FACS, Burlington, VT

PREREQUISITE: Registrants must have completed a course in basic ultrasound to register for this course. Three options are available to meet the prerequisite:

1. Completion of the previously offered ACS postgraduate course titled Ultrasound for Surgeons.
2. Completion of the CD-ROM course, Ultrasound for Surgeons: The Basic Course. The CD-ROM is available for purchase online at www.facs.org in the ACS Publications and Services Catalog or by contacting ACS Customer Service at 312/202-5474.
3. Completion of a comparable course elsewhere. Please include the following documents with your registration form:
   - CME certificate
   - Certificate of completion

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SC19: Bariatric Surgery for All Surgeons
8 credits, Verification Level I
Wednesday, October 11 | 8:00 am–5:00 pm
Chair: Henry Buchwald, MD, PhD, FACS, Minneapolis, MN

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SC20: Advanced Technology in Image-Guided Diagnosis and Treatment of the Breast for Ultrasound and Stereotactic Imaging
8 credits, Verification Level II
Wednesday, October 11 | 8:00 am–5:30 pm
Chair: Richard E. Fine, MD, FACS, Marietta, GA

PREREQUISITE: Approval by the course chair; application required. E-mail Uriah Melchizedek at umelchizedek@facs.org for more information.

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SC21: Computers and the Internet for the Practicing Surgeon
5.5 credits, Verification Level I
Wednesday, October 11 | 8:30 am–3:30 pm
Chair: Ronald B. Hirschl, MD, FACS, Ann Arbor, MI

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Postgraduate Didactic Courses

This preliminary program is subject to change. For program updates and registration information, please consult the Web site (www.facs.org).

MONDAY, OCTOBER 9, 2006

PG22: Principles of Cancer Surgery
6 credits, Verification Level II
Monday, October 9  |  9:45 am–5:15 pm
Chair: Frederick L. Greene, MD, FACS, Charlotte, NC

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PG23: The Hernia Course (Parts I & II)
12 credits, Verification Level I
Monday, October 9  |  9:45 am–5:15 pm
Tuesday, October 10  |  8:30 am–4:00 pm
Chair: Robert J. Fitzgibbons, Jr., MD, FACS, Omaha, NE

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PG24: Update on Mechanical Ventilation
6 credits, Verification Level I
Monday, October 9  |  9:45 am–5:15 pm
Chair: Jeffrey M. Nicholas, MD, FACS, Atlanta, GA

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PG25: Unresolved Issues in Trauma and Critical Care
6.25 credits, Verification Level I
Monday, October 9  |  9:45 am–5:30 pm
Co-Chairs:
George C. Velmahos, MD, PhD, FACS, Boston, MA
Gregory J. Jurkovich, MD, FACS, Seattle, WA

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PG26: Mastering Surgical and Office-Based Coding
6 credits, Verification Level I
Monday, October 9  |  10:00 am–5:30 pm
Chair: John T. Preskitt, MD, FACS, Dallas, TX

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TUESDAY, OCTOBER 10, 2006

PG27: Minimally Invasive Esophageal Surgery
6 credits, Verification Level I
Tuesday, October 10  |  8:30 am–4:00 pm
Chair: William O. Richards, MD, FACS, Nashville, TN

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PG28: Benign Disease of the Gastrointestinal Tract (Parts I & II)
12 credits, Verification Level I
Tuesday, October 10  |  9:00 am–4:30 pm
Wednesday, October 11  |  9:00 am–4:30 pm
Chair: Keith D. Lillemoe, MD, FACS, Indianapolis, IN

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PG29: Surgery of the Pancreas
6 credits, Verification Level I
Tuesday, October 10  |  9:00 am–4:30 pm
Chair: Michael G. Sarr, MD, FACS, Rochester, MN

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WEDNESDAY, OCTOBER 11, 2006

PG30: Review Course in Cardiac and Thoracic Surgery for Certification and Maintenance of Certification Candidates (Parts I & II)
11 credits, Verification Level I
Wednesday, October 11  |  7:45 am–5:15 pm
Thursday, October 12  |  9:30 am–12:30 pm

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Postgraduate Didactic Courses (continued)

Co-Chairs:
Thomas A. D’Amico, MD, FACS, Durham, NC
Robert S. Higgins, MD, FACS, Chicago, IL

PG31: Urology Review for Recertification Candidates
6 credits, Verification Level I
Wednesday, October 11 | 8:30 am–3:30 pm
Co-Chairs:
Robert R. Bahnson, MD, FACS, Columbus, OH
Judd W. Moul, MD, FACS, Durham, NC

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6 credits, Verification Level I
Wednesday, October 11 | 8:00 am–3:45 pm
Chair: Richard P. Cambria, MD, FACS, Boston, MA

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PG33: Minimally Invasive Surgery: The Next Steps
6 credits, Verification Level I
Wednesday, October 11 | 9:00 am–4:30 pm
Co-Chairs:
Bruce D. Schirmer, MD, FACS, Charlottesville, VA
Gerald M. Fried, MD, FACS, Montreal, QC

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PG34: Foundations in CPT and ICD-9-CM Coding
6 credits, Verification Level I
Wednesday, October 11 | 9:00 am–4:30 pm
Chair: Albert Bothe, Jr., MD, FACS, Chicago, IL

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General information

Registration is open to all physicians and individuals in the health care field. Registration includes a name badge, program, and entrance to the exhibits and all sessions other than postgraduate courses. Registered attendees may purchase postgraduate course tickets based on availability. Advance registration is strongly encouraged.

Please use one of the following registration options:

INTERNET Register online at www.facs.org

BY MAIL Complete and mail the registration form (form available from Program Planner or Web site) to:
American College of Surgeons
Attn: Registration Services
PO Box 92340
Chicago, IL 60675-2340

BY FAX (Credit card payments only)
Complete the registration form and fax to:
800/682-0252 or 312/202-5003

Payment of applicable fees must accompany the registration form. Space in postgraduate courses cannot be reserved without payment. All fees are payable in U.S. dollars. Purchase orders are not accepted. If registration is submitted by fax or online, the original form from the Program Planner is not required.

Deadline for Registration

The registration form is available in your Program Planner, which you will receive in the mail. You can also go to the College's Web Site, www.facs.org, to register.

The registration deadline for international registrants is August 7, 2006. The deadline for U.S. and Canadian registrants is August 21, 2006. Registrations received and postmarked after the deadlines will be billed according to the pricing structure published on the registration form.

Visa Information

International Fellows, guest physicians, and meeting attendees: Please be aware that the process of obtaining a visa to attend meetings in the U.S. takes much longer than in the past. You are strongly urged to apply for a visa as early as possible, preferably at least 60 days before the start of the meeting.

You may request a letter from the College welcoming you to the meeting if you believe this will be helpful by contacting the International Liaison Section via e-mail at postmaster@facs.org or by fax at 312/202-5001.

Cancellation

Refunds will be issued if written requests are postmarked no later than August 7 for international registrants and August 21 for U.S. and Canadian registrants. A $50 handling fee will be retained from all refunds. Cancellations and registrations postmarked after the deadline will not be eligible for refunds.

Conference attendee substitution from one individual to another is not permitted.

The American College of Surgeons reserves the right to cancel any regularly scheduled session prior to the start of the meeting and assumes no responsibility for nonrefundable airline tickets or other travel costs. The ACS will make every effort to immediately notify registrants of a cancellation.

This preliminary program is subject to change. For program updates and registration information, please consult the Web site (www.facs.org).
In March 2006, the U.S. Department of Health and Human Services Office of Inspector General (OIG) released a report indicating that approximately 75 percent of services billed as consultations were incorrectly coded. The inaccuracies cost the Medicare program more than $1.1 billion in 2001, the year for which the data were analyzed. In addition, Medicare reimbursement for consultations has risen without explanation from $3.3 billion in 2001 to $4.1 billion in 2004, fueling speculation that improper coding is growing.

In its report, the OIG listed the three most common problems as follows:

- Services billed as consultations did not meet the definition of a consultation
- Consultations were billed as the wrong type or level of consultation
- Services provided were unsubstantiated by documentation

In addition, effective January 1, Current Procedural Terminology (CPT) eliminated two commonly used types of consultations—follow-up inpatient consultation (codes 99261-99263) and confirmatory consultation (codes 99271-99275).*

What is a consultation?

CPT defines a consultation as a service provided by a physician when his or her opinion or advice is sought regarding the evaluation and management (E/M) of a specific problem for a specific patient because the consultant has expertise beyond the requesting professional’s knowledge of the medical problem. Consultations must be reasonable and necessary and must meet the following criteria:

- Requested by a physician or qualified non-physician practitioner
- Request must be included in the requesting physician’s plan of care in the patient’s medical record

*All specific references to CPT (Current Procedural Terminology) terminology and phraseology are © 2005 American Medical Association. All rights reserved.
Types of consultations

Previously, CPT acknowledged four types of consultations: (1) office or other outpatient, (2) initial inpatient, (3) follow-up inpatient, and (4) confirmatory (also called a second opinion). Since January 1, however, CPT only recognizes office or other outpatient and initial inpatient consultations that meet the criteria described previously.

For a consultation in the inpatient setting, the initial consultation should be billed as an initial inpatient consultation (99251-99255), and follow-up visits should be billed as subsequent hospital care codes (99231-99233). The initial inpatient consultation may be reported only once per consultant per facility stay.

In the office or outpatient setting, the consulting physician should use the office or other outpatient consultation code (99241-99245) for the initial consultation and should use office or other outpatient established patient codes (99212-99215) for any additional follow-up visits.

Transfers of care are often miscoded as consultations. A transfer of care occurs when a physician asks another physician to assume responsibility for managing the patient’s complete care for the condition and does not expect to continue treating the patient for that condition. The receiving physician should document the transfer of care in the medical record and should code services using the appropriate new, established, or inpatient E/M codes.

A second opinion requested by a patient or family member is not a consultation; rather, it is a second-opinion E/M service. A second opinion performed in an office or outpatient setting should be reported using the office or other outpatient codes for a new patient (99201-99205) or established patient (99212-99215). The three-year rule regarding new patient status applies.

Levels of consultations

The recent OIG report concluded that 95 percent of consultations billed as “high level” did not meet the criteria for that level. To properly code the consultation, the physician must determine the appropriate level of consultation based on patient history, physical examination, and medical decision making. Each of these services is broken down into various categories, including the following:

- History: Patient-focused, expanded problem-focused; detailed problem-focused and comprehensive
- Examination: Problem-focused, expanded problem-focused; detailed exam and comprehensive exam
- Decision making: Straightforward, low complexity, moderate complexity, high complexity

The highest-level codes call for the most complicated levels for the history, exam, and decision-making levels. For example, to bill 99245, the highest level of consultation for an office visit, the physician would have to record a comprehensive history, conduct a comprehensive examination, and make medical decisions of high complexity. Meeting just one requirement does not qualify the service for this high-level code. In addition, the level of consultation may be based on time if counseling and coordination of care constitute more than 50 percent of the face-to-face encounter between the physician and the patient. CPT has provided the following time estimates for office and inpatient consultation codes:

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<td>99245 80 minutes</td>
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When time is the determining factor, the total one-on-one time of the visit and the total face-to-face time spent in counseling and coordination of care should be documented in the medical record.

Guidelines for documentation

When payors analyze claims, one maxim holds true: If it is not documented, it did not happen. The Documentation Guidelines for Evaluation and Management Services (available online at http://www.cms.hhs.gov/MLNEdWebGuide/25_EMDoc.asp) apply to consultation services. The reason for the consultation must be documented in the medical records maintained by the ordering physician and the consultant. The outcome of the consultation also must appear in both
Dr. Folkman receives Jacobson Award

Judah Folkman, MD, FACS, a pediatric surgeon from Boston, MA, has received the twelfth Jacobson Innovation Award of the American College of Surgeons. The award was presented during a dinner ceremony June 9 in Chicago, IL.

Begun in 1994, the Jacobson Award honors living surgeons or surgical teams who have been innovative in the development of a new technique in any field of surgery. The award is made possible through a donation from Julius H. Jacobson II, MD, FACS, a general vascular surgeon known for his pioneering work in the development of microsurgery. Dr. Jacobson is director emeritus and the Distinguished Service Professor of Surgery at the Mount Sinai School of Medicine of the City University of New York.

Dr. Folkman received this award in recognition of his founding of the field of angiogenesis research. His hypothesis in 1971 that solid tumors are angiogenesis-dependent led to studies in tumor biology, developmental biology, ophthalmology, and dermatology. The award also honors his discovery of angiogenesis inhibitors, which can be used to control abnormal blood vessel growth in tumors as well as other “angiogenic” diseases such as diabetic blindness and rheumatoid arthritis, and which are now approved by the U.S. Food and Drug Administration and 28 other countries.

More recently, he has investigated injecting proteins into tumors that destroy the blood vessels that feed cancer and studied vascular malformations in children.

Dr. Folkman was born in Cleveland, OH, and received a bachelor of arts degree from Ohio State University in 1953, where he graduated cum laude. He graduated magna cum laude from Harvard Medical School in 1957. After receiving his medical degree, Dr. Folkman was an intern (1957-1958) and assistant resident (1959-1960) at Massachusetts General Hospital (MGH) in Boston. From 1960 to 1962, Dr. Folkman served as a lieutenant in the U.S. Navy in Bethesda, MD. After his military stint was complete, Dr. Folkman returned to MGH to perform the duties of senior assistant resident (1962-1964) and chief resident (1964-1965) in surgery. In 1969, he was the chief resident of pediatric surgery at Philadelphia Children’s Hospital, Philadelphia, PA, where he also served as surgeon-in-chief and chairman of the department of surgery from 1967 to 1981.

A Fellow since 1968, Dr. Folkman began his teaching career as an instructor of surgery at Harvard Medical School in 1965. Afterward, he was associate professor of surgery (1966-1967), professor of surgery (1967), and Julia Dyckman Andrus professor of pediatric surgery (1968) at Harvard. In 1979, he was professor of pediatric surgery for the Harvard–Massachusetts Institute of Technology Division of Health Sciences and Technology, and from 1980 to 1994, he was professor of anatomy and cellular biology at Harvard.

Dr. Folkman has authored or coauthored more than 400 articles in peer-reviewed medical literature and more than 100 book chapters and monographs and has been an active participant in many medical member organizations. He has been president of the Boston...
Surgical Society (1999) and the American Pediatric Surgical Association (2005-2006). And, for the past 40 years, he has received continuous funding from the National Institutes of Health.


Dr. Folkman’s theory and its proof that tumors regenerate their own vascular supply and that the control of this process can lead to the successful treatment of malignancies and abnormal vascular growth has been the central thrust of his long, successful career. However, as he persisted in this theory, there was opposition and, at times, ridicule because he was able to connect the observed pattern of vascular development and growth of tumors to their application in the treatment of cancer.

Currently Dr. Folkman is a professor of pediatric surgery, anatomy and cellular biology, at Children’s Hospital in Boston.

The Jacobson Innovation Award is administered by the Honors Committee of the American College of Surgeons. Original thought combined with the first presentation of work that had led to a milestone in the advancement of surgical care is the main criterion for choosing a recipient of the Jacobson Innovation Award.

Jacobson Innovation Award recipients

1994, Professor Francois Dubois, Paris, France: Laparoscopic cholecystectomy.
1995, Thomas Starzl, MD, FACS, Pittsburgh, PA: Liver transplantation.
1996, Joel D. Cooper, MD, FACS, St. Louis, MO: Lung transplantation and lung volume reduction surgery.
1998, Juan Carlos Parodi, MD, Buenos Aires, Argentina: Treatment of arterial aneurysms, occlusive disease, and vascular injuries by using endovascular stented graphs.
1999, John F. Burke, MD, FACS, Boston, MA: Development and implementation of a number of innovative techniques in burn care, including the codevelopment of an artificial skin (Integra™).
2000, Paul L. Tessier, MD, FACS (Hon), Boulogne, France: Development of a new surgical specialty (craniofacial surgery).
2003, Robert H. Bartlett, MD, FACS, Ann Arbor, MI: Pioneer in the development and establishment of the first extracorporeal membrane oxygenation (ECMO) program.
2005, Stanley J. Dudrick, MD, FACS, Waterbury, CT: Research in nutritional support for surgical patients.
Dr. Fildes named COT Chair

John Fildes, MD, FACS, of Las Vegas, NV, has been appointed the new Chair of the ACS Committee on Trauma (COT). Dr. Fildes’ term will run from 2006 through 2010.

Dr. Fildes earned his bachelor of science degree in biomedical engineering at Union College in Schenectady, NY, in 1977. He graduated from the University of Santo Tomas Medical School in Manila, Philippines, in 1982. Dr. Fildes was an intern (1982-1983), resident (1983-1986), chief resident (1986-1987), and fellow (1987-1988) in general surgery at Bronx-Lebanon Hospital in Bronx, NY. Following his work at Bronx-Lebanon, Dr. Fildes received fellowship training in surgical critical care and trauma (1988-1989) at Cook County Hospital, Chicago, IL.

Dr. Fildes began his academic career as an assistant professor of surgery at the University of Illinois at Chicago College of Medicine (1989-1995), at which time he was also a lecturer (1990-1992) and visiting assistant professor in general surgery (1992-1995) at Rush Medical College in Chicago.

Among the awards and honors Dr. Fildes has received are the White House Medical Unit Certificate of Appreciation (1998), and the Las Vegas Chamber of Commerce’s Community Achievement Award (1998).

He has received numerous awards for excellence in teaching. Dr. Fildes was named the 2006 Physician of the Year by the Nevada State Medical Association.

Dr. Bass appointed to National Commission on Digestive Diseases

A Fellow since 1992, Dr. Fildes has been active in the American College of Surgeons. He has been a member of the COT, Trauma Registry, and National Trauma Data Bank® (NTDB®) since 2001 and a State Advocacy Representative (since 2003) and Secretary/Treasurer (since 2005) for the Nevada Chapter. Dr. Fildes is also co-author of the Bulletin’s monthly column about the NTDB.

Currently Dr. Fildes is chair of the department of trauma in the University Medical Center and professor and vice-chair of the department of surgery, University of Nevada, Las Vegas.

On April 18, the National Institutes of Health (NIH) announced the newly appointed members of the National Commission on Digestive Diseases. One of the appointees is a Regent of the American College of Surgeons, Barbara L. Bass, MD, FACS, professor of surgery at Methodist Hospital in Houston, TX.

Dr. Bass was nominated by the College and will serve on the 16-member commission. The committee is charged with conducting an overview of research in digestive diseases and...
developing a strategic plan for the NIH’s next 10 years of related study. Commissioners are appointed by the director of the NIH and have broad research, clinical, or academic expertise in or personal experience with digestive diseases.


Trauma paper competition named as memorial to surgeon

The Army (State) Resident Trauma Paper Competition award has been named in honor of Lt. Col. Mark D. Taylor, MC (deceased), the first surgeon killed in Iraq when his unit, the 782nd Forward Surgical Team from Ft. Bragg, NC, came under a mortar attack near the end of his tour on March 20, 2004. Lt. Col. Taylor’s parents, Doug and Roberta Taylor, from Stockton, CA, attended the Army Surgical Symposium in El Paso, TX, as the inaugural Lt. Col. Mark D. Taylor award was presented to Capt. Lisa Coviello, Tripler AMC, HI.

Pictured, left to right: Lt. Col(P). John Armstrong, FACS, Chair, Army (State) Committee on Trauma; Capt. Lisa Coviello; Mrs. and Mr. Taylor; and Lt. Col. John Schriver, Symposium Program Director.
The American College of Surgeons Committee on Trauma (COT) announced the winners of the 2006 Residents Trauma Papers Competition at its annual meeting in Chicago, IL, held March 15-18, 2006.

Winning papers from 13 regions were presented at the scientific session at the COT meeting, and the final four winners were announced at the banquet.

The 2006 final winners were as follows:

**First Place, Basic Laboratory Research:** Preya Ananthakrishnan, MD, Neutrophil Activation Is Modulated by Sex Hormones after Trauma-Hemorrhagic Shock in a Calcium-Entry Dependent Fashion.

**First Place, Clinical Investigation:** Alexander L. Eastman, MD, Computed Tomographic Angiography for the Screening and Diagnosis of Blunt Cervical Vascular Injury: It’s Ready for Prime Time.

**Second Place, Basic Laboratory Research:** Jessica Deree, MD, From Intracellular Signaling to Acute Lung Injury after Shock: The Clear Advantage of HSPTX Over Ringer’s Lactate on End-Organ Injury.

**Second Place, Clinical Investigation:** David O. Francis, MD, Air Bags Increase the Risk of Facial Injuries in Low-Speed Motor Vehicle Crashes.

Gregory J. Jurkovich, MD, FACS, Immediate-Past-Chair of the Regional COTs, served as moderator.

This competition is open to surgical residents and trauma fellows in the U.S., Canada, and Latin America. Papers are submitted to the individual state or provincial chair. Winning papers are selected and sent to each region chief so they can conduct a regional competition.

Papers describe original research in the area of trauma care and/or prevention categorized in either basic laboratory research or clinical investigation.

The winners received prize money of $1,500 for first place and $1,000 for second place.

The Residents Trauma Papers Competition is funded by the Eastern and Western States COTs, Region 7 (Iowa, Kansas, Missouri, and Nebraska) COTs, Wyeth Pharmaceuticals, and the American College of Surgeons.

Papers are now being accepted for the 2007 Residents Trauma Paper Competition. See page 64 of this issue of the *Bulletin* for further information.
Contributions sought for 2007 Residents Trauma Papers Competition

Papers are being accepted by the ACS Committee on Trauma (COT) for the 2007 Residents Trauma Papers Competition, which will be held during the COT Annual Meeting, March 15–17, 2007, in Denver, CO.

The papers competition has been funded by the Eastern and Western States COTs, Region 7 COTs, Wyeth Pharmaceuticals, and the American College of Surgeons.

Deadline for submission of papers to the region chief is November 15, 2006. Further information can be obtained on the ACS Web site at: http://www.facs.org/trauma/traumpapers.html or by contacting the ACS Trauma Office by phone at 312/202-5380, or via e-mail at cmorris@facs.org.

Call for abstracts for the Residents Trauma Papers Competition

Eligibility

The competition is open to general surgery residents, surgical specialty residents, and trauma fellows in the U.S., Canada, and Latin America. To be eligible for competition at the national level, papers submitted may have been previously presented but not published (including any peer-reviewed journals, except the Surgical Forum) before March 15, 2007.

Submission of military-civilian papers

If the resident or fellow is in the military, the paper must be submitted through the military region, regardless of whether the work was performed in a military or civilian institution. If the resident or fellow is a civilian, the paper must be submitted through the resident/fellow’s geographic region, regardless of whether the work was performed in a military or civilian institution. Exceptions may be made only through discussion and agreement between region chiefs.

Scope

The papers should describe original research in the area of trauma care and/or injury prevention categorized as basic laboratory research or clinical investigation. The national competition requires two papers to be submitted from each region. Preferably one paper should represent the clinical category and another paper the basic category, but only one paper will be selected for the national competition.

Time schedule for submission of papers

Residents or trauma fellows should submit a three-page abstract to the appropriate state/provincial chair. For information regarding the name of the local state/provincial chair, contact the Trauma Office at 312/202-5380 or visit http://www.facs.org/trauma/regional.html.

The dates for local competitions vary, but state/provincial chairs must submit papers from local competitions to the appropriate region chief by November 15, 2006. Each region chief will establish a regional competition to select the winning abstracts to represent that region, one in basic laboratory research and one in clinical investigation.

The region chief will submit two copies of these abstracts (one blind copy with title only for judging and one with the principal author’s name, institution, phone, fax, and e-mail) to the Trauma Office by December 15, 2006. A pre-selected panel of judges from the COT will rank these abstracts and select a balance of basic and clinical abstracts representing each of 14 regions by early January 2007. Each regional winner will be notified shortly thereafter.

Specifications for preparation and submission of abstracts

• The abstract should be no more than 3 pages and provide adequate information and objective data to evaluate the abstract properly.
• The abstract may be submitted electroni-
cally, but a hard copy must also be sent on white paper (8½ x 11”) with a left margin of 1”. It is permissible to single-space the abstract.

• At the top of the first page, the full title of the abstract and full name of principal author, with academic degrees, are to be stated.

• At the bottom of the first page, a footnote should be included to provide the principal author’s mailing address, telephone, fax, and e-mail address. This contact information is very important.

Awards and presentation of papers
Winning residents and spouses will have their hotel (three days) and coach airfare paid to the Annual Meeting of the COT.
Papers will be presented during the Scientific Session on Thursday, March 15, 2007. All 14 regional winners are also expected to attend the COT Banquet on Friday, March 17, 2007, where the winners of the national competition will be announced after being chosen by the Awards Committee.

Fellows in the news

The American Board of Surgery (ABS) has announced its hiring of Richard H. Bell, Jr., MD, FACS, as assistant executive director. In this role, a newly created position, Dr. Bell will help the ABS to define and implement future directions. Dr. Bell is the Loyal and Edith Davis Professor and chair in the Northwestern University Feinberg School of Medicine, department of surgery, and surgeon-in-chief at Northwestern Memorial Hospital, Chicago, IL. He is also a Governor of the College.

A compilation of the letters to family and friends written by Christopher Coppola, MD, FACS, while he was stationed in Iraq as a pediatric surgeon, has been published. Made a Difference for That One: A Surgeon’s Letters Home from Iraq (New York, NY: iUniverse; 2005. ISBN 0595366244), was compiled by Dr. Coppola’s wife, Meredith. The book was named the 2006 winner of EPIC’s EPPIE award for electronic books for best nonfiction. Dr. Coppola’s book is available from most online bookstores.

Charles Drueck III, MD, FACS, of Wilmette, IL, was reelected speaker of the Illinois State Medical Society’s house of delegates. Dr. Drueck specializes in wound care at Swedish Covenant Hospital.

Patrick J. Gullane, MB, FACS, FRCSC, otolaryngologist-in-chief of University Health Network and professor and chair in the department of otolaryngology–head and neck surgery at the University of Toronto, has been nominated for honorary fellowship in the Royal Australasian College of Surgeons (RACS). This honor was to be conferred at the RACS convocation May 14 in Sydney.

E. Anthony Rankin, MD, FACS, an orthopaedic surgeon from Washington, DC, has been elected second vice-president of the American Academy of Orthopaedic Surgeons’ (AAOS) board of directors. Dr. Rankin is the first African-American physician in the presidential line at AAOS.

Devendra S. Sakseja, MBBS, FACS, of Mumbia, India, was honored with the Commander of the Order of the Star and Key of the Indian Ocean award.

Resident Member awards
Susan Skaff Hagen, a medical student member from the University of South Carolina School of Medicine in Columbia, has been named among the 55 recipients of the 2006 Leadership Award from the American Medical Association (AMA). This award provides training to medical students, residents/fellows, young physicians, and international medical graduate physicians for skills development as future leaders in organized medicine.
ACS resident research scholarships available

The American College of Surgeons is offering two-year resident research scholarships for July 2007 through June 2009. Eligibility for these scholarships is limited to the research projects of residents in surgery or a surgical specialty.

American College of Surgeons resident research scholarships are supported by the generosity of Fellows, chapters, and friends of the College, to encourage residents to pursue careers in academic surgery.

The Ethicon Scholarship of the American College of Surgeons for the Study of Surgical Wound Healing is funded by a grant from Ethicon, Inc., to encourage residents to pursue careers in academic surgery. The scholarship is intended primarily to stimulate interest in the healing of soft tissue and minimally invasive surgery. Proposals may include the biology of wound repair, complications of wound repair, or the application of new technologies to clinical problems.

General policies
The policies for granting of the American College of Surgeons Resident Research Scholarships are as follows:

• The applicant must be a Resident Member of the College who has completed two postdoctoral years in an accredited surgical training program in the U.S. or Canada at the time the scholarship is awarded (July 1, 2007) and shall not complete formal residency training before June 2009. Scholarships do not support research after completion of the chief residency year.
• The scholarship is awarded for two years, and acceptance of it requires commitment for the two-year period. The award is to support a research plan for the two years of the scholarship, July 2007 through June 2009. Priority will be given to the projects of residents involved in full-time laboratory investigation. Study outside the U.S. or Canada is permissible. Renewal of the scholarship for the second year is required and is contingent on the acceptance of a progress report and research study protocol for the second year, as submitted to the Scholarships Section of the College by May 1, 2008.
• Application for these scholarships may be submitted even if comparable application to other organizations has been made. If the recipient accepts a scholarship/fellowship from another agency or organization, the ACS resident research scholarship will be withdrawn. It is the responsibility of the applicant to notify the Scholarships Section of the College of competing awards.
  • The scholarship is $30,000 per year; the total amount is to support the research of the recipient and is not to diminish or replace the usual or expected compensation or benefits of the recipient. Indirect costs are not paid to the recipient or to the recipient’s institution.
  • The scholar is expected to attend the Clinical Congress of the American College of Surgeons in 2009 to present a report on the research as part of the Surgical Forum and to receive a certificate at the Annual Business Meeting of Members.
  • Approval of the application is required from the administration (dean or fiscal officer) of the institution. Supporting letters from the head of the department of surgery (or the surgical specialty) and from the mentor who will be supervising the applicant’s research should be submitted. Only in exceptional circumstances will more than one scholarship be granted in a single year to applicants from the same institution.

The closing date for receipt of completed applications is September 1, 2006.

Application forms may be obtained upon request from: Scholarships Section, American College of Surgeons, 633 N. Saint Clair St., Chicago, IL 60611-3211 or by visiting http://www.facs.org/memberservices/acsresident.html.
The following comments were received in the mail or via e-mail regarding recent articles published in the Bulletin and the “From my perspective” columns written by Executive Director Thomas R. Russell, MD, FACS.

Dr. Oliver Beahrs

I read with sorrow the very thoughtful and heartfelt tribute that you composed in honor of Oliver Beahrs (Russell TR. In memoriam: Remembering Oliver H. Beahrs. Bull Am Coll Surg. 2006;91(3):43-45). As a Fellow of the College, I would like to share with you a few reflections regarding Dr. Beahrs, whom I consider to be the most skilled surgeon and complete professional I have ever encountered.

In 1973, I had the honor of spending a one-month externship with Dr. Beahrs at Rochester Methodist Hospital as a fourth-year medical student. During that brief time, I witnessed the most exceptional display of surgical skills, which remains unmatched in my experience to this day. Combined with his utmost respect for patients, students, staff, and residents, Dr. Beahrs evidenced a degree of humility that is uncommon among the ranks of surgeons. Over the ensuing years, my respect for Dr. Beahrs’ unparalleled surgical skills and professional productivity has continued to grow. He will remain for those who were fortunate to have met him the embodiment of the consummate surgeon and complete gentleman.

A few years following that one-month experience, I was sitting with fellow surgical residents at Barnes Hospital, discussing the “best” surgeons whom we had observed. When it came my turn to cast a vote, I respectfully declined to choose from among the several remarkable surgeons at our medical center and instead mentioned Dr. Beahrs. Before I could further make my case, Richard Karl, my chief resident, interrupted and said he wanted to relate a story about Dr. Beahrs that he had heard from his father. Dr. Karl’s father, a New England surgeon, had served on a committee of the ACS that was charged with reviewing the most recent year’s operating experience of Fellows in order to verify, on a three-year cycle, practice in compliance with active membership requirements. When the senior Dr. Karl received the list submitted by Dr. Beahrs, he returned it to Dr. Beahrs with the observation that although the list appeared to be an extremely impressive log of a three-year operating experience—perhaps more than any other surgeon he knew performed in three years—the committee needed only to see his most recent one-year log of cases and he asked Dr. Beahrs to pare the list down.

Dr. Karl was surprised to receive the same list in return, with a cover letter from Dr. Beahrs stating that the list was, as requested, a one-year list. The senior Dr. Karl then enlisted the assistance of two colleagues to review the case list and they all came to the same conclusion: based on numbers and intensity, one surgeon operating seven days a week for an entire year could not possibly have performed all the cases that were listed in Dr. Beahrs’ operating log. Subsequently, they drafted a letter to Dr. Beahrs, suggesting that he need not try to impress them unduly and should only report a one-year operating experience. They received a reply from Dr. Beahrs, politely stating that the list was in fact a one-year log and that if the committee had further questions, they were welcome to come to Rochester and observe him in the operating theater. Dr. Karl’s father took him up on the offer, went to the Mayo Clinic, observed Dr. Beahrs, and was made a believer in the incredible surgical talents of Dr. Beahrs. It was not unusual for Dr. Beahrs to perform between 1,200 and 1,400 major cases a year during that period in his career.

As you suggest in your tribute, it would be almost impossible to overestimate the salutary effects that Dr. Beahrs has had on others, both patients and those in the profession.

Surely several hundred, if not more, students and residents had the honor of serving on rotation with Dr. Beahrs. None of those so fortunate could fail to see the unwavering standards of excellence and unparalleled productivity of this paragon of surgical expertise. The skills that he brought to the operating theater were matched by his respect and concern for his patients and hospital staff. For those of us who went on to become surgeons, he taught by example that arrogance based on one’s station as a surgeon has no place among professionals. His personal and professional demeanor was one of understatement, and his level of excellence and productivity was unequalled.

To this day, I can clearly recall one of the 10 to 12 cases he performed on the first day I was on his service. (When the senior resident handed us the list for that day’s procedures, I thought that it was a list for the week.) A young girl presenting with a softball-sized ganglioneuroma of the neck underwent an extensive neck dissection, one of the most lengthy cases that day, lasting less than 45 minutes skin to skin, without complication or neurologic residual. When that child returned to see Dr. Beahrs the following week, he enthralled her with a magic show, and among the tricks he performed was to make a quarter appear and disappear before finally pulling it out of her ear and presenting it to her as a gift. She was so delighted that she did not realize she had been undergoing an examination in a
physician’s office. Dr. Beahrs was a master at putting his patients at ease. He never raised his voice, and he never evidenced impatience. He listened carefully and responded respectfully to the questions of his patients, students, and residents.

As you so appropriately summarized, Dr. Beahrs was a wonderful man who matched unparalleled surgical expertise with equally impressive gentleness and humility. I’m sure that I speak for many others in thanking you for the exceptional tribute you paid to this giant of clinical and scientific surgery.

Dan F. Kopen, MD, FACS
Forty Fort, PA

Your words about Ollie Beahrs were very eloquent, touching, and obviously done with a great deal of affection.

He was a remarkable man and we are all the better because he was among us for so many years. Thank you for such a superb job!

C. Barber Mueller, MD, FACS
Hamilton, ON

I just finished reading your wonderful comments about Ollie Beahrs. We were indeed saddened when Ollie died, and it’s been a difficult few weeks here getting over the fact that we won’t see him coming to work every day, which he pretty much did up until the very end.

He holds a special place in my life, in that he was my grandfather’s first assistant and I was the last person to be his first assistant. Thanks again for a great remembrance.

John H. Pemberton, MD
Rochester, MN

Web portal

I just want to congratulate you on the great achievement of putting together the greatest Web portal (www.e-facs.org) for surgeons since the invention of the Internet. I cannot believe how thorough, comprehensive, and useful the site is. For years, I have used the Web and have always tried to find sites to keep me current with medical and surgical advances, as well as current events, literature, books, history, and so forth.

The Web portal is just the site for which I have been searching.

It is a great accomplishment and the College should be congratulated. I am proud of being a member of this great organization, the American College of Surgeons.

William E. Deyden, MD, FACS

The last stitch


In 1989, I happened to have a similar experience with a 59-year-old woman who developed sudden massive hemoperitoneum with shock caused by an unexpected etiology. This patient’s hemoperitoneum was the result of a ruptured abdominal aortic aneurysm (AAA). It was an inflammatory infra-renal AAA, for which I had ligated the distal end of the abdominal aorta at both iliac arteries a week earlier and substituted with a left axillo-bifemoral extra-anatomical bypass.

The patient on the second celiotomy survived the direct repair of AAA without having to insert a retroperitoneal in situ graft. She died of a massive myocardial infarction nine years later.

I had provided a narrative of this most unusual unexpected experience to a publication of my alma mater, National Taiwan University College of Medicine (“Ni Jing Qiu Sheng: Surviving the Adversity.” Jing-fu Med Bull. 2002;19(5):15-18). In my article, at the end, I quote the famous words from the early 19th century English surgeon Astley Cooper, who was the first surgeon to ligate the abdominal aorta in 1817. He listed his colleagues’ necessary attributes as the “eye of an eagle, heart of a lion, and hand of a woman.”

I saw the same words listed at the beginning of Dr. Neely’s article, but they were attributed to Jessie Ternberg, MD (b. 1924). Perhaps Dr. Ternberg somehow had quoted Dr. Cooper’s words, I wonder. But according to Yale surgeon and medical historian Dr. Sherwin B. Nuland, these words were originally from Dr. Cooper. In his best-selling book, Doctors—The Biography of Medicine, Dr. Nuland thought Dr. Cooper diplomatically avoided the resentment of his medical colleagues by omitting what he knew to be his own most important attribute, “the mind of a scholar.”

H.C. John Chiang, MD, FACS
Phoenix, Arizona

Dr. Neely replies:

I’m sure Dr. Chiang and a lot of surgeons have felt exactly the way I did when I was confronted with the case I discuss in my article. The unique aspect of my case was that aortic aneurysm, and all other common causes of such intraperitoneal bleeding, had been ruled out. It was Nomans Land crash stuff.

If you search the Internet for the origins of the quote in question, you will find the attribution is to Jessie Ternberg. This seems to be confirmed by the Midwestern custom of often dropping “an” before a following vowel and saying “Eyes of a eagle,” the exact language attributed to Dr. Ternberg of St. Louis. The colophon (n) properly inserted in that line by the editor dignifies this observation.

James C. Neely, MD, FACS
ACOSOG news

To refer or not to refer: That is the question

by David M. Ota, MD, FACS, Durham, NC, and Heidi Nelson, MD, FACS, Rochester, MN

Many people are aware of Hamlet’s famous question, “To be, or not to be,” but is an adaptation of these words relevant to surgeons? Here is a common situation: You have great news for your postoperative patient, who is recovering from your uneventful colon resection. The pathology report shows stage II colon cancer, which has a high cure rate with surgery alone (80%) and the patient is very grateful to you. You explain to your patient that referral to a medical oncologist is the next step for consideration of postoperative chemotherapy. “I have heard about chemotherapy,” the patient might say. “But if surgery has a high cure rate, why do you recommend that I see a medical oncologist? What are the side effects?”

One of the more controversial issues in oncology is the role of postoperative adjuvant chemotherapy for stage II colon cancer. The source of this controversy is the relatively high survival rates following surgical resection for stage II disease and although well-controlled, randomized phase III trials have shown a benefit, the increase in survival is in the range of 5 percent. Surgeons are aware of the favorable results of operative therapy for stage II colon cancer and recommending postoperative adjuvant therapy to patients can be confusing. Giving postoperative chemotherapy to all stage II patients exposes the majority of patients to unnecessary treatment and benefits only a few. The patient has total trust in you because you have just completed a successful operation. You are the gatekeeper of the oncology world for your patient, who then asks, “Doctor, what should I do?”

For surgeons, there is an answer to this question of whether to refer or not to refer. Identifying stage II patients who are at high risk for recurrence and who would benefit from postoperative systemic adjuvant therapy would be a major advance. E5202 is a multi-institutional trial that has been endorsed by the American College of Surgeons Oncology Group (ACOSOG) to answer the question of postoperative adjuvant therapy in high-risk stage II colon cancer patients (www.med.wright.edu/dcop/schemas/E5202.pdf). This protocol will identify stage II patients who are at high risk for recurrence and are therefore eligible for postoperative adjuvant chemotherapy. Inclusion criteria are T3/4N0M0 colon cancer and ≥ 8 lymph nodes in the resected specimen. Patients who present with obstruction or perforation are excluded.

Initially patients are divided into groups based on high or low risk of recurrence as determined by laboratory assessment of the primary tumor. High risk is defined as microsatellite stability and loss of heterozygosity at 18q. Patients with stage II tumors who exhibit microsatellite stability or low-frequency instability have a significantly worse prognosis than those patients whose primary colon cancers have high microsatellite instability.† Allelic loss of chromosome 18q in the primary tumor decreases the survival of stage II patients.1

High-risk patients will be randomized into two groups: postoperatively, Group A will receive 5FU, Leucovorin, and oxaliplatin, and Group B will receive 5FU, Leucovorin, and oxaliplatin plus bevacizumab. Low-risk patients will not receive postoperative therapy.

py and will be monitored as Group C. It is estimated that 40 percent of all stage II colon cancers will be in the high-risk category (Groups A and B). This protocol satisfies the need to separate the stage II colon cancer patients by those who are more likely to benefit from treatment versus those who will not benefit from treatment.

As E5202 offers a rational approach to postoperative adjuvant therapy for stage II patients, surgeons play an essential role in screening and enrolling patients into the trial. As oncology gatekeepers and respected advisors to patients, surgeons play an important role in the success of this trial. A sample size of 3,438 patients with stage II colon cancer is needed to complete this study, and ACOSOG has stepped forward to engage the surgical community in this trial. The uniqueness of E5202 is that surgeons will receive credit for identifying patients with stage II disease and for explaining the importance of the trial to their patients. A simple one-page form was developed so that the data center can track the credits. This form, with instructions, can be found at www.acosog.org.

ACOSOG needs surgeons who understand the trial design and patient eligibility criteria and who can explain the trial to their patients. ACOSOG needs your participation in E5202 by screening patients for stage II and supporting the treatment described in the protocol.

Prospective trials will help us obtain new knowledge so that recommending postoperative adjuvant chemotherapy to our stage II colon cancer patients does not become an awkward moment when we explain referral to a medical oncologist.

For more information about becoming an ACOSOG member, contact Helen Harbett at harbett001@notes.duke.edu. For enrollment questions, contact Beth Martinez at marti025@surgerytrials.duke.edu, Dr. David Ota at david.ota@duke.edu, or Dr. Heidi Nelson at nelsonh@mayo.edu.

Dr. Ota and Dr. Nelson are Co-Chairs of ACOSOG.

In compliance..., from page 58

physicians’ medical records. For a consultation, simply retain a copy of the report that is sent to the requesting physician. If there is a common medical record, the required documentation may be maintained in it. In addition, the level of consultation code selected must be supported by the documentation in the medical record. Either the 1995 documentation guidelines or the 1997 documentation guidelines may be used.

E/M services, including consultations, remain a primary focus of program integrity efforts. Local Medicare carriers may audit a claim and request documentation to support the medical necessity of the service and the code level. Medicare providers have a responsibility to provide documentation when requested. If documentation is not provided, the claim will be denied. If the documentation does not support the claim, the claim will be denied or downcoded. Documentation requests may come from a physician’s local Medicare carrier or from AdvanceMed, the company charged with administering Medicare’s Comprehensive Error Rate Testing program.

In addition to documentation requests, many carriers have offered local provider education and training programs. These programs often compare a physician’s use of services with that of other physicians in the same specialty. These programs are for educational purposes only and often request that the physician take some sort of coding training, which is often computer based. Providers are not required to respond to the letter or take the training, although carriers highly recommend the training. The recent OIG report will likely heighten interest in these activities.
The goal of the National Trauma Data Bank® (NTDB) is to collect data on every patient in every trauma center in the U.S. and inform the medical community, the public, and decision makers about a wide variety of issues that characterize the current state of care for injured persons in this country. This goal has not yet been met, but great strides have been made. One measure for the success of the NTDB is to track the number of participating trauma centers along with the states and U.S. territories in which they are located.

In keeping with the spirit of the Fourth of July holiday, it is only fitting to display a patriotic image in this month’s Bulletin. However, this map did not always bear “the red, white, and blue.” When we first started reporting on the NTDB in 2003, the representative map displayed a state or U.S. territory in color if at least one trauma center in that location had participated. At that time, there were 26 states/territories in color and the rest were blank. In the past several years, however, widespread acceptance of this national data bank has led to a substantial increase in the number and geographic distribution of participating trauma centers.

To determine the percentage of participation in the NTDB by a state or territory, the number of participating trauma centers (that is, a hospital that is so designated by a state or local authority or is verified by the American College of Surgeons) was divided by the number of hospitals in that state/territory identified as trauma centers by the Trauma Exchange Information Program. The red states represent participation of 67 percent or more; blue, 34 percent to 66 percent; and white, 0 percent to 33 percent (see figure, this page).

The goal remains 100 percent participation by all trauma centers and a map unified by the color red. However, until this goal has been achieved, the data do not allow for making national estimates of rates for clinical measures of trauma care. This has been the main impetus for the National Sample Project (NSP). The NSP will allow researchers to make statistically valid inferences about patients cared for in Level I and II trauma centers in the U.S. by improving the NTDB’s data quality based on a representative sample of 100 hospital trauma centers (NTDB® data points. Bull Am Coll Surg. 2006;91[2]:44).
A look at the Joint Commission

Performance measurement data

In 1910, Boston surgeon Ernest Amory Codman, MD, FACS, proposed the “end result system of hospital standardization” that called for monitoring, documenting, and publicly reporting surgical outcomes. Dr. Codman was a founding member of the American College of Surgeons and helped establish its Hospital Standardization Program, the precursor to the Joint Commission.

Nearly a century later, the Joint Commission integrates outcomes and other performance measurement data into its accreditation process. New performance measurement data help surgeons prevent surgical infections in blood vessel, colon/large intestine, coronary artery bypass graft, hip joint replacement, hysterectomy, knee replacement, and open heart surgeries. A study in the New England Journal of Medicine concludes the Joint Commission’s use of performance measurement data has helped hospitals significantly improve the care of patients suffering from heart attacks, heart failure, and pneumonia.

In addition to being essential to the credibility of any evaluation activity for health care organizations, performance measurement data accomplish the following:

• Allow organizations to continuously monitor their performance
• Guide and stimulate continuous improvement in health care organizations
• Are essential to the credibility of any evaluation activity for health care organizations
• Supplements and help guide the standards-based survey process by providing a more targeted basis for the regular accreditation survey

The Joint Commission honors Dr. Codman’s legacy with its Ernest Amory Codman Awards. These awards recognize outstanding achievement in the use of process and outcome measures to improve organization performance and quality of care.

Each month, this column will focus on activities of the Joint Commission that are relevant to surgeons. For more information on the Joint Commission, and to sign up for Joint Commission e-mail newsletters and announcements, visit www.jcaho.org.

Trauma meetings calendar

The following continuing medical education courses in trauma are cosponsored by the American College of Surgeons Committee on Trauma and Regional Committees:

• Advances in Trauma, December 8–9, Kansas City, MO.

• Trauma and Critical Care—2007, March 26–28, 2007, Las Vegas, NV.

Complete course information can be viewed online (as it becomes available) through the American College of Surgeons Web site at: http://www.facs.org/trauma/cme/traumtgs.html, or contact the Trauma Office at 312/202-5342.