The Surgeon as a Role Model

CHICAGO, IL • OCTOBER 11-15, 2009

AMERICAN COLLEGE OF SURGEONS 95TH ANNUAL

Clinical Congress
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Richard J. Fantus, MD, FACS
The need to address disparities in care—especially ethnic and racial divides—is growing increasingly urgent.

From my perspective

The Chair of the American College of Surgeons’ Board of Regents, L.D. Britt, MD, MPH, FACS, classifies the geographic, economic, and ethnic disparities in the U.S. health care delivery system as the civil rights issue of this era. I agree wholeheartedly. Too often patients receive lower-quality care, have greater difficulty accessing medical services, or have to pay more for treatment simply because of demographics. These variances have no place in a humane and just society and are ethically and morally antithetical to the medical and surgical professions, which are grounded in the principle that all patients deserve to be treated with compassion and respect, regardless of race, location, or income.

Persistent problems

Whereas the U.S. has made some significant strides in eliminating disparities in access to mammograms, smoking cessation counseling, and appropriately timed antibiotics, many of the most significant disparities persist. For example, African-Americans are more likely than are Caucasians to be admitted to the hospital for lower extremity amputations due to diabetes and are less likely to receive appropriate prenatal care during the first trimester of pregnancy. Native Americans also are less likely to receive prenatal care, and they are less likely to undergo colon-rectal cancer screening. Meanwhile, Asian-Americans are less likely than whites to receive timely care for an illness or injury, and Hispanics are three times more likely to contract AIDS.

Under our current system, access to health care is largely determined by whether an individual has health insurance, and minority populations are far more likely to lack coverage. Among nonelderly adults, at least 36 percent of Hispanics and 33 percent of Native Americans are uninsured. In addition, 22 percent of African-American, 17 percent of Asian, and 13 percent of white adults are uninsured. Adults in all racial/ethnic groups who lack insurance coverage are at least twice as unlikely to visit a physician as insured patients. Furthermore, Hispanics and African-Americans have differential access to a primary care physician or specific source of care, with Hispanics at particular risk.

Regardless of race or ethnicity, low-income people receive less patient-centered, continuous care. For example, the percentage of patients who have their blood under control is significantly lower for poor than for high-income people, and low-income individuals are much less likely to receive recommended care for colon cancer. Low-income Americans also are two to three times as likely as high-income individuals to report problems receiving timely treatment. Furthermore, poor Americans are less likely to have a specific source of ongoing care.

Geographic variances also are notable. For example, there was nearly a 20 percent gap in the proportion of nonelderly Minnesotans and Texans who were uninsured in 2004–2005. There also is wide variability across state lines in the odds of a patient undergoing certain common Medicare procedures, such as carotid endarterectomy, cholecystectomy, colectomy, aortic aneurysm repair, and back surgery.

In addition, rural patients have less access to appropriate care than their counterparts in met-
ropolitan areas. Indeed, more than 25 percent of Americans live in communities with fewer than 50,000 residents, but only nine to 12 percent of surgeons practice in nonmetropolitan areas.‡

**Possible solutions**

The need to address disparities in care—especially ethnic and racial divides—is growing increasingly urgent. If these variances in care continue unchecked, many more Americans will be at needless risk of requiring costly emergency and acute or end-of-life care, thereby threatening our nation’s economic and moral fabric. So, what can the surgical profession do to help close these divides?

Some experts claim that one mechanism that may be useful is the development of patient-centered medical homes, where services are aligned to care for the whole patient. Indeed, evidence already exists to show that racial and ethnic differences in getting needed medical care are eliminated when patients are part of a medical home.

To address the challenges facing rural populations, we should foster training programs that provide surgeons of the future with the skills they need to treat the full range of conditions they are likely to encounter in this environment. We also need to develop a more regionalized health care system and encourage the federal government to provide incentives to surgeons who opt to practice outside of urban areas.

We need to attract more people of all races and creeds to medicine. Diversity within the physician population leads to improved access to services, increased patient satisfaction, and the delivery of culturally competent care. Minority physicians are more likely to treat minority and medically indigent patients and to practice in underserved communities. When given the option, minority patients are more likely to choose a health care professional of their own racial/ethnic heritage, and relationships between patients and physicians with similar backgrounds are characterized by higher levels of trust and mutual respect.

To encourage more minority students to enter the health care professions, medical schools need to provide opportunities for positive interaction among individuals from a range of backgrounds. A multicultural environment forces people to challenge their assumptions about individuals from different backgrounds and broadens their worldview.

Most importantly, however, we need to change our professional culture. We need to place greater emphasis on the tenets of our noble calling: to provide the best possible, ethical, and compassionate care to all who entrust us with their health care. We need to produce physicians and other health care professionals who are more culturally aware and better able to communicate with the broad section of people needing our services.

The ACS logo indicates that this organization calls upon its members to “serve all with skill and fidelity.” We must remain true to this ideal and work to overcome disparities in care.

Thomas R. Russell, MD, FACS

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If you have comments or suggestions about this or other issues, please send them to Dr. Russell at fmp@facs.org.
What surgeons should know about...

The surgical CAHPS® survey

by Elizabeth W. Hoy, MHA, Assistant Director, Regulatory Affairs and Quality Improvement Programs, Division of Advocacy and Health Policy

A n article in the April Bulletin focused on the American College of Surgeons’ efforts to develop a survey to measure patient experiences of surgical care. This development process, which was carried out on behalf of the Surgical Quality Alliance, took more than a year to complete and followed the most stringent protocols for questionnaire development. This survey instrument and its supporting documentation were submitted to the Agency for Healthcare Research and Quality (AHRQ) in May for review and inclusion in the Consumer Assessment of Healthcare Providers and Systems (CAHPS) family of survey instruments and reporting tools. CAHPS develops and supports the use of a comprehensive and evolving family of standardized surveys that ask consumers and patients to report on and evaluate their experiences with health care. These surveys cover topics that are important to consumers, such as their health care professionals’ communication skills and the accessibility of services.

Why should surgery have a CAHPS survey instrument?

There are significant advantages to having the surgical experience of care survey adopted into the CAHPS portfolio. Medicare, Medicaid, private health plans, large multi-specialty group practices, and other stakeholders recognize CAHPS as the national standard for measuring patient experience of care. Making a reliable, valid measure of surgical patient experiences—one that has been developed by surgical societies for surgical patients and surgical quality improvement—available to the health care marketplace assures that surgeons stay in control of how the quality of surgical care is evaluated and reported.

A second advantage is that, once the survey has been branded as a CAHPS instrument, users have full access to the free resources available through the CAHPS Survey Users Network (https://www.cahps.ahrq.gov/default.asp). This network is responsible for making the survey products available, providing technical assistance and education, and facilitating networking among users.

I’m in a large, multispecialty faculty practice. Can you give me an example of how physician-level CAHPS survey data are being used in this type of practice?

The University of California–Los Angeles (UCLA) Faculty Practice Group manages 1.8 million patient encounters a year across 18 clinical departments in more than 65 ambulatory locations. Patient feedback is an important component of the service and quality metrics they collect throughout the system. They currently use the Clinician & Group CAHPS survey instrument to collect information about patient experiences, but have expressed interest in also using the surgical survey when it becomes available.

UCLA incorporates the CAHPS data into their ambulatory scorecard, which is distributed to each ambulatory care location throughout the clinical departments. CAHPS data also are incorporated into standard-setting discussions with departmental and practice leadership and into staff training on customer service.

Practices in the lower third of CAHPS scores, based on a simple rank order summary score across the major domains measured by the survey, receive targeted practice consultations to help everyone in the group gain a better understanding of the root causes of lower performance scores and to develop targeted interventions for improvement. Some interventions that UCLA has implemented to date include the following: training for office staff; physician communication training; quality improvement collaboratives, where practices share what works and what doesn’t work with...
each other; and the development of standards and guidelines where appropriate (for example, communication of diagnostic test results).

**How would a small group practice use the CAHPS information?**

Greenhouse Internists in Philadelphia, PA, tested the assertion that the CAHPS Clinician & Group Survey would meet the needs of both small and large practices. With five internists, they needed to administer the survey to meet the requirements of the National Committee for Quality Assurance physician recognition program with a limited practice budget. They arranged for an administrative staff person to generate and mail the questionnaires and notification letters (available free through the CAHPS Survey Users Network) as recommended by the CAHPS data collection protocol. They also followed up with respondents by phone in order to reach the needed 45 completed surveys per physician.

To generate scores for the individual physicians, Greenhouse Internists received assistance from a health care researcher at the CAHPS User Network, which recommends that practices contact local universities for help with the statistical analysis. Because the CAHPS Analysis Programs and instructions are available in the Survey and Reporting Kit, analyzing CAHPS data doesn’t require advanced statistical knowledge—just the ability to run statistical analysis software programs.

The results were used to assess how their physicians were performing in comparison to one another, to confirm problem areas of which they were already aware, and to identify opportunities for improvement. As a result, the practice has hired a health educator to improve the way they handle patient education functions within the practice and expects to see improved scores when they conduct another evaluation in a year or two.

**What are some potential problems my practice may encounter if we conduct CAHPS studies in the future?**

It is worth noting that surveys conducted by practices may raise certain issues. Potential survey respondents may question the confidentiality of the survey when it is administered directly by the physician’s office, especially by telephone. Patients may also be concerned that their responses will affect the care that they receive. These concerns have the potential to reduce response rates and bias responses.

**Who should I contact if I have questions about the surgical CAHPS?**

If you have questions about the surgical experience of care survey developed by the ACS and the Surgical Quality Alliance, please contact Caitlin Burley, Quality Associate, at cburley@facs.org.
or many years, it was widely believed that the U.S. had the best health care system in the world. Although this assumption had been questioned from time to time, it wasn’t until the World Health Organization (WHO) report of 2000 that this belief was seriously challenged.

In this discussion, “best health care in the world” will be defined as having the highest quality of care available anywhere in the world, and the “best health care system in the world” will be defined as including not only the highest quality of care in the world but also access to this care as well as having the underlying infrastructure of education and research.

Unfortunately, there are no agreed upon or established criteria for measuring the quality of national health care systems. National health care systems are extremely complex and involved. Perhaps looking at a somewhat simpler and unrelated question such as, “What country had the best Olympic record in 2008?” might help illustrate some of the problems in measuring complex systems. Is it the country that won the most Olympic medals? This would be the U.S., followed by China. Is it the country that won the most gold Olympic medals? In which case, China would be the best, followed by the U.S. Or, is it the country that won the most Olympic medals per person? In which case, the winner would be the Bahamas, followed by Jamaica. Or, would it be the country that won the most medals per square mile? In which case, the winner would be Bahrain, followed by Singapore.1

Does the U.S. have the best health care system in the world?

by Ronald D. Wenger, MD, FACS
Why do many people believe that the U.S. has the best health care system in the world? First of all, the U.S. spends a higher percentage of its gross domestic product (GDP) and more per capita on health care than any other country in the world. Secondly, the best health care institutions in the world are in the U.S.; these include Johns Hopkins, Mayo Clinic, and Massachusetts General Hospital. Thirdly, physicians from all over the world come to the U.S. for advanced training. Finally, patients from all over the world come to the U.S. for quality care.

Evaluating national health care systems

In reviewing the health economics literature, there are three measures that have been frequently applied to national health care systems:

- The WHO’s World Health Report of 20002
- National life expectancy data
- National infant mortality data

On close examination, however, all three of these measures have significant flaws.

The WHO is a division of the United Nations (UN). In 2000, the WHO published its first report comparing the health care systems of 191 countries. These rankings have been widely cited in the public debate over the quality of health care in the U.S. Although these rankings are typically presented as objective measures of the relative performance of national health care systems, the WHO rankings depend on underlying assumptions which actually predetermine the ranking of the health care systems being measured. These assumptions are thoroughly vetted in the recent article, “WHO’s fooling who?” by G. Whitman.3

What is not commonly known is that there is more than one WHO ranking. In the World Health Report of 2000, two rankings were actually reported.2 The first ranking was called Overall Attainment (OA), and in this ranking the U.S. was internationally ranked as 15th. The second ranking was called Overall Performance (OP) in which the U.S. was ranked 37th. Interestingly, in an extensive review of the English language literature on this subject, the first ranking (OA) is rarely, if ever, quoted. Both of these rankings are based on the same underlying data, but the OP index is adjusted to reflect a country’s performance relative to how well it theoretically could have performed. Essentially a country’s ranking was raised or lowered by the UN officials depending on whether it was believed that, based on the country’s resources, the country actually performed better than anticipated or worse than anticipated. By any measure this action unto itself was highly subjective.

Table 1 on page 10 shows the OA ranking from the WHO study. Note that Japan is ranked as number 1 and that France is number 6, Italy is 11, Germany is 14, and the U.S. is number 15. Table 2 on page 10 shows the OP ranking, in which France and Italy are promoted to number 1 and number 2 because UN experts believed that they performed better than anticipated; Japan, Germany, and the U.S. are demoted to numbers 10, 25, and 37 respectively, because they performed less well than UN experts believed that they should have.

The WHO in their report of 2000 used five criteria for measuring the quality of health care:3

- Health level: 25 percent
- Health distribution: 25 percent
- Health responsiveness: 12.5 percent
- Responsiveness distribution: 12.5 percent
- Financial fairness: 25 percent

Only criteria 1 and 3 are clinical measures of health care systems. The remaining criteria (accounting for 62.5 percent of the health systems grade) are nonmedical, socioeconomic criteria, which are pseudo-objective measures that look at inequality of the distribution of health care services within a country. It would have been more valuable to have examined the quality of care received by each country’s poorest citizens.

Other measures comparing systems

There are two other measures of health care systems that have been used: life expectancy and infant mortality.

For each of these statistics to be meaningful, there needs to be an actual relationship between the health care system and the item being measured. Changes in the health care system must be reflected in changes in the measure. Furthermore, it is very important that the measure be uniformly used by all nations involved.4
Life expectancy

Review of recent literature suggests that life expectancy is a poor statistic for determining the quality of a health care system because many people actually die with minimal interaction with the health care system (in auto accidents, homicide, and sudden death). Recent research shows that the health care systems have minimal impact on longevity in the industrialized world. Studies from multiple countries have found that there is no relationship between: life expectancy and the number of physicians in the country, life expectancy and the number of hospital beds per 100,000 people in a country, and life expectancy and health care expenditures as a percent of national GDP.

According to a 2007 article in the New England Journal of Medicine, only 10 percent of premature deaths in the U.S. are related to the health care system. The great majority (85 percent) of premature deaths are related to human behavior, genetic predisposition, and social circumstance.

Table 3 on page 11 shows recent life expectancy data in different countries, along with health care expenditures per capita in the respective countries. It is noted that the Japanese have the longest life expectancy at 80.6 years, but do not spend the most money on their health care. The U.S. has shorter life expectancy and spends more on health care.

It is interesting, however, to note that Japanese-Americans living in the U.S. have an average life expectancy similar to Japanese living in Japan. This again confirms recent studies that show that life expectancy in the industrial world is for the most part independent of a nation’s health care system. It is also noted that the U.S. spends a significant percentage of its health care dollars on screening and treating cancer, which is certainly a laudable endeavor. But it has been calculated that even if all cancer deaths were eliminated in the U.S., the life expectancy of the average American citizen would only increase by 2.4–3.0 years and this would still be short of the Japanese life expectancy.

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**Table 1:**

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<th>Overall health system attainment in all member states, WHO index estimates for 1997 (rank top 40)</th>
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**Table 2:**

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<th>Overall performance (rank top 40)</th>
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Table 3: Life expectancy and health expenditures

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<thead>
<tr>
<th></th>
<th>Life expectancy at birth</th>
<th>Per capita health expenditure</th>
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<tr>
<td>Australia</td>
<td>79.0</td>
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<td>78.1</td>
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<tr>
<td>Belgium</td>
<td>77.6</td>
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<td>Canada</td>
<td>79.0</td>
<td>2,792</td>
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<td>Denmark</td>
<td>76.6</td>
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<tr>
<td>Finland</td>
<td>77.4</td>
<td>1,841</td>
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<tr>
<td>France</td>
<td>78.8</td>
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<td>Germany</td>
<td>77.7</td>
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<tr>
<td>Iceland</td>
<td>79.6</td>
<td>2,643</td>
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<tr>
<td>Italy</td>
<td>79.0</td>
<td>2,212</td>
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<tr>
<td>Japan</td>
<td>80.6</td>
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<tr>
<td>Netherlands</td>
<td>77.9</td>
<td>2,626</td>
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<tr>
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<td>78.3</td>
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<tr>
<td>Norway</td>
<td>78.4</td>
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<tr>
<td>Spain</td>
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<td>Sweden</td>
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<td>United Kingdom</td>
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<tr>
<td>Non-U.S. average</td>
<td>78.4</td>
<td>2,295</td>
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<tr>
<td>United States</td>
<td>76.7</td>
<td>4,887</td>
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Infant mortality

Theoretically, infant mortality should be a good measure of a health care system. But in spite of strict UN definitions of what a live birth is, many countries do not follow them. Switzerland, Finland, France, Norway, Belgium, and Canada all have idiosyncrasies in their reporting techniques about live births that significantly affect their infant mortality rate. It is not known, for instance, how many countries report babies born at 25 weeks gestation or babies weighing 1.5 pounds as live births.

Table 4 on page 12 shows a recent international report of infant mortality rates. Again, note that the U.S. does not have an outstanding record when compared with other industrialized countries. Japan and Sweden have the lowest infant mortality rate. It should be noted, however, that overall the industrialized world does far better in this category than the developing world.

In a number of outcome studies in which the U.S. trails the industrialized world, the U.S. data for whites is similar to that of Western Europe, suggesting perhaps the problem in the U.S. may not be quality of health care but distribution of health care. It is also noted that countries in the industrialized world that frequently have the best outcomes are for the most part quite ethnically homogeneous. Sweden, Norway, Iceland, France, Italy, and Japan generally rank very well but all are much more homogeneous than the U.S., which is quite ethnically and culturally diverse. Currently, whites constitute 66 percent of the U.S. population. This number is projected to drop below 50 percent in the next several decades.

Also of significance is the fact that the high school dropout rate in the U.S. is well above 20 percent, which is one of the highest dropout rates in the industrialized world. Students who drop out are more likely to be unemployed, unable to obtain health insurance, skip prenatal care when pregnant, and have poor personal health habits (for example, diet and exercise). Although this is an extremely important problem, it is not a problem created by the U.S. health care system, but nevertheless places tremendous stress on the health care system.

In essence, many observers do not believe that the modest ranking of the U.S. in life expectancy and infant mortality statistics is attributable to the performance of the U.S. health care system but to a variety of other factors.

Uninsured

According to the recently published U.S. Census Report 2007, there are 45.7 million uninsured Americans. Interestingly, this number has been stable at 14 to 15 percent of the population under age 65 over the last 20 years. Many of the uninsured are only uninsured for a few months as they change jobs, 9.7 million of the uninsured are illegal immigrants, and 14 million of the uninsured are poor people who are actually eligible for Medicaid but for one reason or another have not
applied for it. Of the uninsured, 18 million have a household income of more than $50,000/year and 9 million have household incomes of more than $75,000/year. Of the uninsured, 11 million have been offered insurance through their employer but have declined. These individuals are typically healthy young people who choose to spend their money on things they want rather than on insurance they believe they will never need. All in all, 70 percent of the uninsured actually have access to health insurance but have not taken advantage of it.  

What happens to the uninsured in America? Most of them—when they get sick enough—go to emergency rooms, where by law they must be appropriately evaluated and treated. In 2001, $98.9 billion were spent from public and private sources in providing health care to the uninsured.

Who has the best health care system?

In many ways the U.S. health care system is the best in the world. Cardiac deaths have fallen by two-thirds over the past 50 years. Polio has been virtually eradicated from the U.S. Childhood leukemia has a high cure rate. Eight of the top 10 medical advances of the past 20 years were developed in or had roots in the U.S. The Nobel Prizes in Medicine and Physiology have been awarded to more Americans than to researchers in all other countries combined. Eight of the 10 top-selling drugs in the world are made by U.S. companies. The U.S. has some of the highest breast, colon, and prostate cancer survival rates in the world.  

The Figure on page 13 shows that, among a select group of top economic powers in the world, the U.S. is responsible for more than 53 percent of drug research dollars.  

The U.S. ranks first or second in the world in kidney transplants, liver transplants, heart transplants, total knee replacements, coronary artery bypass, and percutaneous coronary interventions per capita. In addition, the U.S. ranks third in bone marrow transplants per capita. According to a Commonwealth Fund report from 2002, the U.S. has the shortest waiting time for nonemergency surgery among a select group of industrialized countries, with England having the longest waiting time. A report this past year showed that in a recent period of time there were 750,000 English citizens for whom hospital admission had been requested but for whom no beds were available.  

As widely reported, the U.S. spends more per capita for health care and a higher percentage of its GDP for health care than any other country. Currently, 15.2 percent of America’s GDP goes to health care. Although this is widely criticized, some researchers feel this expenditure is simply a reflection of the high value American citizens place on their health care.

Interestingly, if one looks at health care expenditures as a percentage of GDP in a select group of nations, in the year 1980 the U.S. spent 8.7 percent of its GDP on health care, which was the same percentage as Germany. Twenty-two years later, however, the U.S. health care expenditure as a percent of GDP went from 8.7 percent to 14.6 percent, whereas Germany went from 8.7 percent to 10.9 percent. Other industrialized countries showed increases as well, but to a lesser extent.  

One possible explanation for the more rapid increase in health care expenditures in the U.S.

<table>
<thead>
<tr>
<th>Table 4: Infant mortality rates</th>
<th>Infant mortality per 1,000 births</th>
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<tr>
<td>Australia</td>
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versus other industrialized countries is that in the U.S., health care is funded through both private as well as public avenues and for the most part does not need to compete with national defense, education, roads, and many other social programs for tax dollars.

Where does the money go?

People often ask the question, “Where does the money go that the U.S. spends on health care that other countries don’t?” A small percentage may go for inefficiencies and to insurance company profits and executive salaries, but the majority of the excess money pays for a long list of things that American citizens seem to have come to expect:

• Easy access to sophisticated diagnostic tests, including MRIs and CT scans
• Shortest waiting time for elective surgery in the world
• Widest choice of physicians and hospitals
• Easy accessibility to joint replacement
• High access to renal dialysis, particularly in older patients and in patients with co-morbidities
• Easy access to cancer screening and treatment (although a 50 percent reduction in all cancer cases would only increase life expectancy in the average American by 1.4 years)
• Greater access to health care provided to elderly Americans and Americans at the end of their lives who may have poor prognoses

Furthermore, the U.S. by custom and law has permitted a litigious climate to develop that has significantly increased the cost of medical care due to the practice of defensive medicine by physicians and the payment of high malpractice premiums.

Many health experts believe that health care in the U.S. is expensive because most Americans are isolated from the direct purchase of health care and even the knowledge of many health care costs. Because of this, most Americans seem to consume health care as if it were free. Many health experts believe Americans would have a more realistic approach to health care spending if they were actually aware of how expensive specific health care services were, or if they were responsible for paying a greater portion of their own health care.

International role models for the U.S.?

In reviewing the health care systems of a number of nations, what can one learn? First, the wide variety of systems is surprising. It seems no two systems are alike. Each of the major industrialized countries’ national health care systems is truly unique, with major differences from country to country reflecting the history, conditions, politics, and national character of each country. Careful evaluation of health care systems of the industrialized world reveals that there may in fact be no perfect system. All the major health care systems seem to have their own problems.

In exploring the wide variety of health care systems on the international scene, the only system one cannot seem to find is the type described by Michael Moore in his 2007 movie, Sicko—a system that provides unlimited care with no premiums, no deductibles, no co-pays, no waiting lists, no rationing, and from the physician of one’s choice. This system does not exist.

Lessons learned from other systems

In reviewing multiple national health care systems, it becomes apparent that universal health insurance does not mean universal health care. In most countries with universal health insurance, 1 to 2 percent of the population falls through the cracks. Furthermore, because of evolving technology and increasing demand for services, most countries do not have enough money to truly
provide universal care. Most countries in the industrialized world are having problems providing enough money to pay for the national health care demands of their populations. Most countries are beginning to face problems with de facto rationing, waiting lines, and lack of enough hospital beds and CT and MRI scanners.12

As one might suspect, rising health care costs and spending is not uniquely an American phenomena. In 2004, the average annual per capita increase in health care spending was 6.2 percent in the U.S., followed closely behind by 5.55 percent in Europe.

Single-payor national health care systems (such as England, Canada, and Norway) are systems in which the government essentially pays all the health care bills. Multiple-payor national systems (such as France, The Netherlands, and Switzerland) are systems in which employers, insurance companies, and government pay the health care bills. Review of recent literature shows that patients in a single-payor system seem more likely to face waiting lists and rationing than in multiple-payor national health care systems that have incorporated market reforms, such as co-pays and deductibles. Surveys of the industrialized world show widespread dissatisfaction and discontent with both single and multiple payor systems.

Although no country with universal health care is contemplating abandoning their universal health care system, the growing trend in countries with national health care systems is to move away from central government control and to introduce market-oriented features. Thus, even as Americans debate adopting a government-run system, countries with those systems are now debating how to make their systems look more like that of the U.S.11

U.S. system very good, but could be better

In reviewing the pertinent literature on the topic, it becomes apparent that many authors critical of the U.S. health care system have carefully chosen to use only data that support their point of view. If, however, one looks at the literature as a whole, one cannot avoid the impression that the U.S. has one of the finest (if not the best) health care systems in the world. The U.S. system certainly does have its problems (such as access, cost control, and patient safety), but so does every other health care system in the world.

Observations

The unintended consequences of a handful of public policies (both legislative and regulatory) are partly responsible for many of our problems today.

Although employers can deduct health care insurance cost, workers cannot deduct the cost of the same insurance if they purchase it individually, and they cannot deduct out-of-pocket expenses such as co-pays and deductibles. This tax policy encourages consumers to seek out low co-pay, low deductible insurance that is the most expensive.11

State health insurance regulations increase the cost of basic health care insurance by requiring insurance companies to cover certain types of care (chiropractic, autism, psychiatric, acupuncture, and so on). This means that in most states it is not possible to buy a basic catastrophic policy. Many state governments have mandated that basic policies not only include basic insurance but a long list of other services. Although one cannot question the value of any one of these add-ons individually, the end result is that the cost of buying basic health care insurance in many states has become prohibitive for the average American.11

There are both federal and state laws that prohibit selling the same health care insurance policy across state lines. Such governmental restrictions tend to inhibit competition and result in more expensive health care insurance policies.

Many health care reformers favor a government-run system, but it is not at all clear that the problems of centralized control are any less significant than the problems of our current system. Competition does spur innovation and lower cost.

Suggestions for reform

- Health care tax reform should be passed allowing total deductibility of all health care expenses. Tax credit or vouchers should be provided for low-income individuals and families.11
- Health insurance reform needs to be passed to reduce the cost of health insurance by creating
a national market. The laws that limit the sale of health care insurance between states should be eliminated. Health insurance should be individual and portable. The government should subsidize private insurance for the chronically ill and for those individuals who are uninsurable or have pre-existing conditions.\textsuperscript{15}

- Tort reform should become a high priority, establishing a reasonable national cap on non-economic damages in medical malpractice suits. This action would lower the cost of malpractice insurance and decrease the expensive practice of defensive medicine. One researcher estimates such change would reduce the total cost of medical expenditure in the U.S. by 5 to 9 percent annually.\textsuperscript{15}

It should be noted that health care reform cannot occur in a vacuum. It must occur in concert with the addressing of social and economic issues. The problem of 10 million illegal immigrants without health care insurance cannot be ignored. The U.S. high school dropout rate is unacceptable and must be dealt with. Unhealthy behaviors such as smoking and obesity must be addressed.

Final thoughts

We must be careful that coverage for all does not come at the price of substandard quality, rationing of care, a demoralized health care workforce, and inadequate investment in research, education, public health, and health promotion. The U.S. has a high-quality health care system. We should do all we can to protect it as well as improve it.

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ACS promotes

THE SIX COMPETENCIES

OF THE ACCREDITATION COUNCIL FOR GRADUATE MEDICAL EDUCATION

by B. J. Palmer, MD;
Victor Stams, MD;
Thomas R. Russell, MD, FACS;
Alden H. Harken, MD, FACS;
and L. D. Britt, MD, FACS
A s a boy, Charles Darwin had everything. His wealthy, accomplished, and aristocratic parents not only provided him with superb genes but also bathed him in every conceivable educational opportunity. Yet Charles famously failed sequentially at medicine, the law, and at religious ministry. By age 19, he was floundering. He and his prodigiously provident parents were incapable of matching his abilities to any constructively respectable profession or vocation. In 1831, the Electronic Residency Application Service did not exist. The assessment strategies available to channel promising youth into productive professions were in their infancy.

But in the fall of 1831 Captain Robert FitzRoy received a commission from the Royal Navy to chart the coastal shoals of South American in the HMS Beagle. He was offered the option of recruiting an intellectually stimulating companion. Captain FitzRoy interviewed several applicants. The captain was an enthusiastic phrenologist. Charles Darwin was not his first choice. Ultimately, he did select Darwin because he approved of the pattern of the bumps on Charles’ head. In retrospect, who among us could or would challenge FitzRoy’s decision? In the rich panoply of fortuitous scientific events ultimately shaping the intellectual fabric of our times, FitzRoy’s decision was a successful lunar landing and a World Series grand slam home run all rolled into one. So, as surgical residency program directors, are we doing it wrong?

The purposes of this article are to examine the competencies essential to the successful maturation of a surgical resident, to examine the tools available in assessing these competencies, and to review potential strategies for enhancing a resident’s and established surgeon’s (such as FACS) abilities within these competencies.

The Accreditation Council For Graduate Medical Education (ACGME) has identified six essential competencies and we are comfortable working within this constructive framework.

I. Basic knowledge

As students, we all typically begin with the assumption that medicine and surgery exist as a body of knowledge. Acquire that knowledge and you are done. Daniel Boorstin, in his book, The Seekers, notes that we will always live in that dynamic interval between the authoritative past and the unknowable future. 1 Historically, we have accepted knowledge as derived from a higher authority—the Old Testament, Holy Writ, a prophet, the department chair, the residency program director, or the omniscient chief resident. We can, and should, seek our bearing from the vanished past. The static construct of the surgery textbook capably sets a descriptive stage delineating how things are; but Boorstin distinguishes man—and certainly the surgeon and surgical resident—as an “asking animal.” We want to know why. We encourage a surgical resident as residing intellectually within, not an Old, but a New, Testament of “good news” incorporating healthy protest, inquiry, and reform.

We live in an age of molecular medicine. We accept that the genetic recipe within our patients’ cells obligates the assembly of proteins that dictatorily conspire to create cellular life. We comfortably ignore the idea that purchasing exactly the same trillions of atoms from an internet chemistry catalog would result in a desultory and frustratingly lifeless mound of chemicals. The lipoproteins that critically establish our cellular membranes probably don’t care that we exist. So, as physicians and surgeons, we are looking at patterns. And the truly miniscule differences in the biochemical patterns of happy, healthy cells versus diseased patients are often too small to measure.

Additionally, the parameters that we have traditionally chosen to measure may not be reflective of cellular health. For instance, 99.9 percent of the genes that encode Mrs. O’Flaherty with pancreatic cancer are not just similar—they are identical—to the molecular make-up of Mrs. Wilson with the ankle fracture. It is easy to conclude that genes don’t count. 2 This is where the natural science of surgery morphs into an art. It is undeniable, however, that the patterns presented in a surgical textbook, like the American College of Surgeons’ textbook of surgery, 3 fundamentally form the foundation of surgical judgment.

Strategies to enhance textbook knowledge of surgery are appropriately diverse. We all learn differently. The admonition to “read more” is
comparably instructive as mom’s hapless homilies to “get rest,” “eat right,” and “be careful.” Similarly, we have all read a chapter or attended a lecture and come away unscathed. Alternatively, it is hard to author a manuscript or give a lecture without learning something. A “cyber journal club” encourages residents to critique a selected surgical study on their own time and online. Surgical residents are sufficiently competitive that they rise to the challenge of presenting a five-minute “basic science” introduction to surgical grand rounds.

Assessment of basic knowledge is harder. The components of the MEN II Syndrome can be tested—there are correct answers—but the information is frequently not relevant. Conversely, management of everyday breast lump is too controversial to divulge its intricacies following an attack by a multiple-choice examination. Several assessment strategies gratifyingly combine acquisition and assessment of knowledge.

The American Board of Thoracic Surgery re-certification examination presents multiple-choice questions online. After selecting one, the examinee is referred to a page of instructive text and then offered the opportunity to answer the initial question again. A correct answer permits you to proceed. Most thoracic surgeons require 70 to 100 hours to complete the recertification process. But everyone learns—and wins. The American College of Surgeons SESAP (Surgical Education and Self-Assessment Program) learning tour successfully accomplishes a similar knowledge acquisition/assessment process.

Finally, the American Board of Surgery (ABS) In-Training Examination (ABSITE) serves as a formidable stimulus to study. Some surgical residency programs mandate ABSITE success as a condition of resident progression through the training program. The correlation between ABSITE performance and success on the ABS qualifying examination is frighteningly close.

II. Clinical competence

Just as the trillions of elemental atoms that together precisely conspire to create Mrs. O’Flaherty are nothing but a chaos of chemicals when acquired from a chemistry catalog, a rich assemblage of textbook data does not guarantee clinically successful and compassionate patient care. Surgical therapy, when applied at the right time for the right patient by a skillful practitioner, can be gratifyingly effective. Unfortunately, the converse is also true. To no one’s surprise, a really sick patient tolerates surgical stress less well than a world-class triathlete. To everyone’s surprise, the surgical community never thought to factor this into preoperative assessment until the American Society of Anesthesiologists (ASA) developed their practical ASA classification system 50 years ago.

As surgeons, our procedural morbidities and mortalities are now being tracked and as “pay for performance” evolves, the significance of these data will soon assume formidable proportions. Surgical residents must not only catalog all of their operative cases, but must learn to risk-stratify their procedures such that a 5 percent mortality suffered in a series of Supreme Court justices may compare favorably to a 2 percent mortality with the rugby team who present with identical injury severity scores. Thus, surgical residents must accept the dictum espoused in St. Augustine’s City of God (Civitas Terrena or the empirical, risk-stratified, results of direct patient care). In other words, the textbook must always be related to the uniqueness of the patient—and it never precisely fits.

III. Interpersonal skills

There may be some disciplines within medicine that do not obligate teamwork, but surgery is emphatically not one of them. A surgeon is absolutely dependent upon everyone from the telephone operators and ward secretary to the anesthesiologist and the scrub nurse. It is surprisingly easy to encourage these people to work together because everyone wants to play on a winning team. Unlike the law, or even business, where there are necessarily both winners and losers, with surgery, either everyone—most of all, the patient—wins, or everyone loses. A mature surgeon, almost instinctively, knows that wins must be shared, while the surgeon himself or herself must personally shoulder defeat. This
policy is most effective when the surgeon accepts full responsibility for a misadventure that was clearly not his or her fault. Perhaps paradoxically, acceptance of blame will enhance the surgeon’s stature, and will never be forgotten.

Teaching and monitoring interpersonal skills is more difficult. The province of Alberta, Canada, formally practices a 360-degree review process in which patients, secretaries, nurses, and colleagues are encouraged to comment on the personal manner of all physicians. More than 1 million encounters have now been catalogued. Compassionate and sensitive outliers are visited to assess strategies for success. Less competent outliers are also approached with the offer of remediation. In similar fashion, the airlines encourage pilots and first officers to identify colleagues with whom they would like to work or like to avoid in the cockpit. Again, both ends of the spectrum are constructively reviewed.

As a junior resident, your primary responsibilities are data gathering on individual patients. The big jump to senior residency encompasses responsibility for the whole team. These are very different skills. And, with disturbing frequency, residents thrive at the former and stumble as seniors. Surgical residency programs that raise team building and interpersonal skills to the level of senior resident consciousness will more likely succeed. The American College of Surgeons runs both an Interpersonal Skills and Surgeon Leadership Course and a Surgeons As Educators course. Both courses have proven to be popular and effective.

On August 9, 1941, U.S. President Franklin Delano Roosevelt arrived off Newfoundland aboard a large Navy cruiser. He met British Prime Minister Winston Churchill, who approached aboard the HMS Prince of Wales. The purpose of this risky venture was to meet personally (for only the second time) and establish a friendship. They did. The construct of the Second World War and ultimately the democratic visions and future of the world hung in the balance. Churchill would later observe: “Friendship among nations, as among individuals, calls for constructive efforts to muster the forces of humanity in order that an atmosphere of close understanding and cooperation may be cultivated.”

The “mustering of the forces of humanity” in order to establish a cohesive team is pivotal to the success of a surgeon. An ability to communicate must be actively nurtured during surgical residency. Opportunities to present ideas persuasively at conferences and grand rounds can be organized and amplified. The ability to establish “an atmosphere of close understanding and cooperation” routinely trumps basic knowledge and is completely subsumed within clinical care.

For a surgeon, interpersonal skills are not simply a matter of life or death, success or failure, nor just the salvation of your country and world—they are much more important than that.

IV. Professionalism

As professionals, society permits us a monopoly on a body of knowledge. In return, our community logically mandates that we use our skills altruistically and charges us with the responsibility of self-regulation. The imprint of altruism within the confines of professionalism appropriately instills an anthropomorphic ring to our activities. Yet, during the 17th and 18th centuries, we ceased our focus on salvation from God and began seeking sovereignty over nature. We continue to worry that we might not grasp the whole picture, however. Hamlet warned his skeptical friend: “There are more things in heaven and earth, Horatio; than are dreamt of in your philosophy.” But, by the mid-eighteenth century, Alexander Pope was sufficiently comfortable with this domination of the natural sciences that he codified it in verse:

Know then thyself, presume not God to scan; The proper study of mankind is man.

In addition, Dr. Martin Luther King, Jr., fortunately and famously refocused the spirit of altruism within professionalism when he observed, “An individual has not started living until he can rise above the narrow confines of his individualistic concerns to the broader concerns of all humanity.” There is huge overlap between “interpersonal skills” and “professionalism.” For the surgeon, the synergy of these competencies is paramount.

For example, F. Dean Griffen, MD, FACS, re-
recently reviewed “closed claims” or nonfrivolous malpractice lawsuits in which there probably really was a surgeon-related problem. Dr. Griffen empaneled six clinically active general surgeons who meticulously reviewed the charts and records of 490 cases decided against the surgeon. Over and over again, the panel concluded that neither “basic knowledge” nor “clinical practice” were wanting in the surgeon. In almost 70 percent of instances, “professionalism” was the competency that was breached. So, if you want to stay out of trouble—stay professional.

Almost all surgeons cherish their professionalism. It is the rewarding and gratifying glue that links us to our patients and their families. Transgressions are rare. There are predictable speed bumps, however. When we are tired, most of us get grumpy, and when we are grumpy we sometimes act in ways that we wish we hadn’t. As a response, the Professionalism Task Force within the Division of Education of the American College of Surgeons has produced a professionalism CD (Professionalism in Surgery: Challenges and Choices, 2nd Edition). The CD presents clinically relevant vignettes that exhibit 24 painfully frequent ways to ambush professionalism. These are common hurdles encountered by all surgeons. The goal is not to identify and weed out the less than 1 percent of surgeons who fundamentally lack professionalism. The purpose of the exercise is to red-flag predictable pressure points and raise them as warnings to the level of consciousness. Individual or group review of these vignettes invariably generates vigorous and constructive discussion. The Surgery Residency Review Committee now mandates a curriculum in professionalism. Formal review of the ACS CD qualifies as a curriculum.

Perhaps the most compellingly successful strategy for enhancing surgical professionalism, however, was devised by one of our colleagues. In an unpublished study, residents at the University of California-San Francisco, East Bay, were encouraged to record and present instances of positive professionalism. During the first week, two instances were identified. By the fourth week we were up to 25. We are convinced that asking the question constructively amplified the answer.

V. Patient-based learning

Surgeons are not very patient. We chose surgery because we want something to happen. Surgery is not specific to a skin incision. The distinguishing attribute of a surgeon is that we are capable of proceeding with therapy before we are absolutely certain of what is going on. We have all encountered the hypotensive trauma victim who might have a liver laceration, or the septic and dwindling intensive care unit patient who might have an occult intra-abdominal abscess. In these instances, the only strategy that is wrong is to do nothing. Surgery is a discipline of commission—not omission. As surgeons, we are viscerally capable of proceeding with therapy before we have all the facts. We understand that waiting is not an alternative. So, we make errors. Mature and appropriately compassionate analysis of error is “patient-based learning.”

The morbidity and mortality conference is a formidable opportunity to learn. The clinical experiences examined are not sterile and impersonal stuff from a textbook—they have familiar faces, names, and families. We all like to think that we practice evidence-based medicine, but the educational impact of a recent clinical misadventure, when analyzed and reviewed thoughtfully, can burn its way into our memory banks forever. And this personally painful process is predictably more instructive than a Cochrane analysis.

The morbidity and mortality process is, in itself, a high-risk exercise. Fear and intimidation can be formidably undermining of the educational opportunity. Nelson Mandela quotes Marianne Williamson because he knows that she captured the concept:

It is our light not our darkness that most frightens us.
Our deepest fear is not that we are inadequate.
Our greatest fear is that we are powerful beyond measure.18

We all make errors. Careful analysis of an error is the most effective antidote to a repeat performance. Conversely, misallocation of responsibility almost guarantees future trouble. It is instructive for a senior surgeon—preferably the residency program director or department
Chair—to present a personal error with regular frequency. Making an error is acceptable; repeating that error is not. Senior surgeons still make errors. By analyzing these errors we continue to learn, and we learn how to learn. As surgeons, when we stop learning, we become progressively dangerous. Recurrent themes are that communication can always be enhanced, and “calling for help” is a sign of maturity, not weakness. Again, Marianne Williamson recognizes this capacity of the senior surgeon:

As we let our light shine
We unconsciously give other people
Permission to do the same

VI. Systems-based learning

At 30,000 feet, when you respond to the request, “Is there a doctor on this plane?” you rapidly realize and appreciate extraordinary support systems that typically surround us in our hospitals. In the absence of those familiar high-tech aids, you abruptly feel technologically nude. Conversely, when you visit a clinically busy surgical team, everyone knows their role and the procedure flows with grace and elegance, almost like a ballet. It is quiet. The resuscitative success of a Code Blue-CPR event is, for instance, always inversely related to the decibels and to the number of participants in the room. Each of these are “systems” issues. With frightening frequency we tolerate even dangerous systems problems because we fail to recognize them. When the bottles of succinyl choline and Vancomycin have the same blue labels and look alike, that is a systems problem. When the surgeon marks the operative site with a water-soluble pen that is easily erased with the surgical prep, that is a systems problem. And when the anesthesiologist who “pre-ops” the patient is different from the anesthesiologist who conducts the case, that is a systems problem. Some of these hurdles have been solved ingeniously. But these systems issues pop up all the time. It is easy to blame the trauma surgeon or the surgical resident for giving succinyl choline instead of Vancomycin. Blame is rarely a productive educational strategy. A culture of blame promotes the generation of self-preservational defensive strategies, not patient care solutions. Again, the senior surgeon can, and must, take the lead in visibly seeking systems solutions as opposed to individual blame.

Dr. Palmer is a surgical resident, University of California–San Francisco–East Bay, Oakland, CA.

Dr. Stams is a surgical resident, University of California–San Francisco–East Bay, Oakland, CA.

Dr. Russell is Executive Director of the College.
With the previously mentioned strategies of encouraging, stimulating, and assessing the maturation of surgical residents, it might be easy to assume an ease of homogeneous surgical resident production incorporating cookie-cutter technology and efficiency. But diversity is paramount.\textsuperscript{19} Like species, disciplines evolve. Whatever we do and however we practice surgery today, it is a certainty that the discipline of surgery 10 and 20 years from today will build on similar aptitudes, but very different skills.\textsuperscript{99.99} percent of all the species that have existed since life in this world began are now extinct.\textsuperscript{20} An emerging surgical resident must be educationally agile. The most valuable asset a resident can acquire, or faculty can teach, is the capacity to learn how to learn.

References

Almost four decades ago, the Committee on Trauma (COT) of the American College of Surgeons (ACS) developed a list of standardized equipment for ambulances. Beginning in 1988, the American College of Emergency Physicians (ACEP) published a similar list. The two organizations collaborated on a joint document published in 2000, and the National Association of EMS Physicians (NAEMSP) participated in the 2005 revision. The 2005 revision included resources needed on ambulances for appropriate homeland security. All three organizations adhere to the principle that Emergency Medical Services (EMS) providers at all levels must have the appropriate equipment and supplies to optimize prehospital delivery of care. The document was written to serve as a standard for the equipment needs of emergency ambulance services both in the United States and Canada.

EMS providers care for patients of all ages, who have a wide variety of medical and traumatic conditions. With permission from the ACS COT, ACEP, and NAEMSP, the current revision includes updated pediatric recommendations developed by members of the federal Emergency Medical Services for Children (EMSC) Stakeholder Group. The EMSC Program has developed several performance measures for the Program’s State Partnership grantees. One of the performance measures evaluates the availability of essential pediatric equipment and supplies for Basic Life Support and Advanced Life Support patient care units. This document will be used as the standard for this performance measure. The American Academy of Pediatrics (AAP) has also officially endorsed this list.

For purposes of this document, the following definitions have been used: a neonate is 0–28 days old, an infant is 29 days to 1 year old, and a child is >1 year through 11 years old with delineation into the following developmental stages:

- Toddlers (1–3 years old)
- Preschoolers (3–5 years old)
- Middle Childhood (6–11 years old)
- Adolescents (12–18 years old)

These standard definitions are age based. Length-based systems have been developed to more accurately estimate the weight of children and predict appropriate equipment sizes, medication doses, and guidelines for fluid volume administration.

**Principles of Prehospital Care**

The goal of prehospital care is to minimize further systemic insult or injury and manage life-threatening conditions through a series of well defined and appropriate interventions, and to embrace principles that ensure patient safety. High-quality, consistent emergency care demands continuous quality improvement and is directly dependent on the effective monitoring, integration, and evaluation of all components of the patient’s care.

Integral to this process is medical oversight of prehospital care by using preexisting protocols (indirect medical oversight), which are evidence-based when possible, or by medical control via voice and/or video communication (direct medical oversight). The protocols that guide patient care should be established collaboratively by medical directors.
for ambulance services, adult and pediatric emergency medicine physicians, adult and pediatric trauma surgeons, and appropriately trained basic and advanced emergency medical personnel. Current Institute of Medicine (IOM) recommendations encourage each EMS agency to have a pediatric coordinator to specifically coordinate the capability of the service to care for nonadult patients.

Equipment and Supplies

The guidelines list the supplies and equipment that should be stocked on ambulances to provide the accepted standards of patient care. Previous documents regarding ambulance equipment referred to essential or minimal equipment necessary to adequately equip an ambulance. Equipment requirements will vary, depending on the certification levels of the providers, population densities, geographic and economic conditions of the region, and other factors.

The following list is divided into equipment for basic life support (BLS) and advanced life support (ALS) ambulances. ALS ambulances must have all of the equipment on the required BLS list as well as equipment on the required ALS list. This list represents a consensus of recommendations for equipment and supplies that will facilitate patient care in the out-of-hospital setting.

Required Equipment: Basic Life Support (BLS) Ambulances

A. Ventilation and Airway Equipment

1. Portable and fixed suction apparatus with a regulator (per Federal specifications; see Federal Specification KKK-A-1822F reference)
   - Wide-bore tubing, rigid pharyngeal curved suction tip; tonsillar and flexible suction catheters, 6F–16F are commercially available (have one between 6F and 10F and one between 12F and 16F)

2. Portable oxygen apparatus, capable of metered flow with adequate tubing

3. Portable and fixed oxygen supply equipment
   - Variable flow regulator

4. Oxygen administration equipment
   - Adequate length tubing; transparent mask (adult and child sizes), both non-rebreathing and valveless; nasal cannulas (adult, child)

5. Bag-valve mask (manual resuscitator)
   - Hand-operated, self-reexpanding bag; adult (>1000 ml) and child (450–750 ml) sizes, with oxygen reservoir/accumulator; valve (clear, disposable, operable in cold weather); and mask (adult, child, infant, and neonate sizes)

6. Airways
   - Nasopharyngeal (16F–34F; adult and child sizes)
   - Oropharyngeal (sizes 0–5; adult, child, and infant sizes)

7. Pulse oximeter with pediatric and adult probes

8. Saline drops and bulb suction for infants

B. Monitoring and Defibrillation

All ambulances should be equipped with an automated external defibrillator (AED) unless staffed by advanced life support personnel who are carrying a monitor/defibrillator. The AED should have pediatric capabilities, including child-sized pads and cables.

C. Immobilization Devices

1. Cervical collars
   - Rigid for children ages 2 years or older; child and adult sizes (small, medium, large, and other available sizes)

2. Head immobilization device (not sandbags)
   - Firm padding or commercial device

3. Lower extremity (femur) traction devices
   - Lower extremity, limb-support slings, padded ankle hitch, padded pelvic support, traction strap (adult and child sizes)
4. Upper and lower extremity immobilization devices
   - Joint-above and joint-below fracture (sizes appropriate for adults and children), rigid-support constructed with appropriate material (cardboard, metal, pneumatic, vacuum, wood, or plastic)

5. Impervious backboards (long, short; radiolucent preferred) and extrication device
   - Short (extrication, head-to-pelvis length) and long (transport, head-to-feet length) with at least three appropriate restraint straps (chin strap alone should not be used for head immobilization) and with padding for children and handholds for moving patients

D. Bandages
1. Commercially-packaged or sterile burn sheets
2. Triangular bandages
   - Minimum two safety pins each
3. Dressings
   - Sterile multitrauma dressings (various large and small sizes)
   - ABDs, 10”x12” or larger
   - 4”x4” gauze sponges or suitable size
4. Gauze rolls
   - Various sizes
5. Occlusive dressing or equivalent
   - Sterile, 3”x8” or larger

6. Adhesive tape
   - Various sizes (including 1” and 2”) hypoallergenic
   - Various sizes (including 1” and 2”) adhesive

7. Arterial tourniquet (commercial preferred)

E. Communication
   Two-way communication device between EMS provider, dispatcher, and medical control

F. Obstetrical Kit (commercially packaged is available)
1. Kit (separate sterile kit)
   - Towels, 4”x4” dressing, umbilical tape, sterile scissors or other cutting utensil, bulb suction, clamps for cord, sterile gloves, blanket
2. Thermal absorbent blanket and head cover, aluminum foil roll, or appropriate heat-reflective material (enough to cover newborn)

G. Miscellaneous
1. Sphygmomanometer (pediatric and adult regular and large size cuffs)
2. Adult stethoscope
3. Length/weight-based tape or appropriate reference material for pediatric equipment sizing and drug dosing based on estimated or known weight
4. Thermometer with low temperature capability
5. Heavy bandage or paramedic scissors for cutting clothing, belts, and boots
6. Cold packs
7. Sterile saline solution for irrigation (1-liter bottles or bags)
8. Flashlights (2) with extra batteries and bulbs
9. Blankets
10. Sheets (minimum 4), linen or paper, and pillows
11. Towels
12. Triage tags
13. Disposable emesis bags or basins
14. Disposable bedpan
15. Disposable urinal
16. Wheeled cot (conforming to national standard at the time of manufacture)
17. Folding stretcher
18. Stair chair or carry chair
19. Patient care charts/forms
20. Lubricating jelly (water soluble)

H. Infection Control*
   - Latex-free equipment should be available
1. Eye protection (full peripheral glasses or goggles, face shield)
2. Face protection (for example, surgical masks per applicable local or state guidance)
3. Gloves, nonsterile (must meet NFPA 1999 requirements found at http://www.nfpa.org/)
4. Coveralls or gowns
5. Shoe covers
6. Waterless hand cleanser, commercial antimicrobial (towelette, spray, liquid)
7. Disinfectant solution for cleaning equipment
8. Standard sharps containers, fixed and portable
EQUIPMENT FOR AMBULANCES

I. Injury Prevention Equipment

1. All individuals in an ambulance need to be restrained (there is currently no national standard for transport of uninjured children)

2. Protective helmet

3. Fire extinguisher

4. Hazardous material reference guide

5. Traffic signaling devices (reflective material triangles or other reflective, nonigniting devices)

6. Reflective safety wear for each crewmember (must meet or exceed ANSI/ISEA performance class II or III if working within the right of way of any federal-aid highway. Visit http://www.reflectivevest.com/federalhighwayruling.html for more information.)

II. Required Equipment: Advanced Life Support (ALS) Ambulances

For EMT-Paramedic services, include all of the required equipment listed for the basic level provider, plus the following additional equipment and supplies. For EMT-Intermediate services (and other nonparamedic advanced levels), include all of the equipment for the basic level provider and selected equipment and supplies from the following list, based on local need and consideration of prehospital characteristics and budget.

A. Airway and Ventilation Equipment

1. Laryngoscope handle with extra batteries and bulbs

2. Laryngoscope blades, sizes 0–4, straight (Miller); sizes 2–4, curved, (MacIntosh)

3. Endotracheal tubes, sizes 2.5–5.5 mm uncuffed and 6–8 mm cuffed (2 each), other sizes optional

4. Meconium aspirator adaptor

5. 10-mL non-Luerlock syringes

6. Stylettes for endotracheal tubes, adult and pediatric

7. Magill (Rovenstein) forceps, adult and pediatric

8. Lubricating jelly (water soluble)

9. End-tidal CO₂ detection capability
   - Colorimetric (adult and pediatric) or quantitative capnometry

B. Vascular Access

1. Crystalloid solutions, such as Ringer’s lactate or normal saline solution (1,000-mL bags x 4); fluid must be in bags, not bottles; type of fluid may vary depending on state and local requirements

2. Antiseptic solution (alcohol wipes and povidone-iodine wipes preferred)

3. IV pole or roof hook

4. Intravenous catheters 14G–24G

5. Intravenous needles or devices appropriate for children and adults

6. Venous tourniquet, rubber bands

7. Syringes of various sizes, including tuberculin

8. Needles, various sizes (one at least 1 ½” for IM injections)

9. Intravenous administration sets (microdrip and macrodrip)

10. Intravenous arm boards, adult and pediatric

C. Cardiac

1. Portable, battery-operated monitor/defibrillator
   - With tape write-out/record, defibrillator pads, quick-look paddles or electrode, or hands-free patches, ECG leads, adult and pediatric chest attachment electrodes, adult and pediatric paddles

2. Transcutaneous cardiac pacemaker, including pediatric pads and cables
   - Either stand-alone unit or integrated into monitor/defibrillator
D. Other Advanced Equipment
1. Nebulizer
2. Glucometer or blood glucose measuring device
   - With reagent strips
3. Large bore needle (should be at least 3.25” in length for needle chest decompression in large adults)

E. Medications (pre-loaded syringes when available)
Medications used on advanced level ambulances should be compatible with current guidelines as published by the American Heart Association’s Committee on Emergency Cardiovascular Care, as reflected in the Advanced Cardiac Life Support and Pediatric Advanced Life Support Courses, or other such organizations and publications (ACEP, ACS, NAEMSP, and so on). Medications may vary depending on state requirements. Drug dosing in children should use processes minimizing the need for calculations, preferably a length-based system. In general, medications may include:

- Cardiovascular medication, such as 1:10,000 epinephrine, atropine, antidysrhythmics (for example, adenosine and amiodarone), calcium channel blockers, beta-blockers, nitroglycerin tablets, aspirin, vasopressor for infusion
- Cardiopulmonary/respiratory medications, such as albuterol (or other inhaled beta agonist) and ipratropium bromide, 1:1,000 epinephrine, furosemide
- 50% dextrose solution (and sterile diluent or 25% dextrose solution for pediatrics)
- Analgesics, narcotic and nonnarcotic
- Antiepileptic medications, such as diazepam or midazolam
- Sodium bicarbonate, magnesium sulfate, glucagon, naloxone hydrochloride, calcium chloride
- Bacteriostatic water and sodium chloride for injection
- Additional medications as per local medical director

Optional Basic Equipment
This section is intended to assist EMS providers in choosing equipment that can be used to ensure delivery of quality prehospital care. Use should be based on local resources. The equipment in this section is not mandated or required.

A. Optional Equipment
1. Glucometer (per state protocol)
2. Elastic bandages
   - Nonsterile (various sizes)
3. Cellular phone
4. Infant oxygen mask
5. Infant self-inflating resuscitation bag
6. Airways
   - Nasopharyngeal (12, 14 Fr)
   - Oropharyngeal (size 00)
7. Alternative airway devices (for example, a rescue airway device such as the ETDLA [esophageal-tracheal double lumen airway], laryngeal tube, or laryngeal mask airway) as approved by local medical direction.
8. Alternative airway devices for children (few alternative airway devices that are FDA approved have been studied in children. Those that have been studied, such as the LMA, have not been adequately evaluated in the prehospital setting).

B. Optional Advanced Equipment
1. Respirator
   - Volume-cycled, on/off operation, 100% oxygen, 40–50 psi pressure (child/infant capabilities)
2. Blood sample tubes, adult and pediatric
3. Automatic blood pressure device
4. Nasogastric tubes, pediatric feeding tube sizes 5F and 8F, sump tube sizes 8F–16F
5. Pediatric laryngoscope handle
6. Size 1 curved (MacIntosh) laryngoscope blade
7. 3.5–5.5 mm cuffed endotracheal tubes
8. Needle cricothyrotomy capability and/or cricothyrotomy capability (surgical cricothyrotomy can be performed in older children in whom the cricothyroid membrane is easily palpable, usually by the age of 12 years)

Optional Medications
A. Optional Basic Life Support Medications
   1. Albuterol
   2. Epi pens
   3. Oral glucose
   4. Nitroglycerin (sublingual tablet or paste)
B. Optional Advanced Life Support Medications
   1. Anxiolytics
   2. Intubation adjuncts including neuromuscular blockers

Interfacility Transport
Additional equipment may be needed by ALS and BLS prehospital care providers who transport patients between facilities. Transfers may be done to a lower or higher level of care, depending on the specific need. Specialty transport teams, including pediatric and neonatal teams, may include other personnel such as respiratory therapists, nurses, and physicians. Training and equipment needs may be different depending on the skills needed during transport of these patients. There are excellent resources available that provide detailed lists of equipment needed for interfacility transfer such as the American Academy of Pediatrics Guidelines for Air and Ground Transport of Neonatal and Pediatric Patients.

Appendix
Extrication Equipment
Adequate extrication equipment must be readily available to the emergency medical services responders, but is more often found on heavy rescue vehicles than on the primary responding ambulance.

In general, the devices or tools used for extrication fall into several broad categories: disassembly, spreading, cutting, pulling, protective, and patient-related.

The following is necessary equipment that should be available either on the primary response vehicle or on a heavy rescue vehicle.

Disassembly Tools
- Wrenches (adjustable)
- Screwdrivers (flat and Phillips head)
- Pliers
- Bolt cutter
- Tin snips
- Hammer
- Spring-loaded center punch
- Axes (pry, fire)
- Bars (wrecking, crow)
- Ram (4 ton)

Spreading Tools
- Hydraulic jack/spreader/cutter combination

Cutting Tools
- Saws (hacksaw, fire, windshield, pruning, reciprocating)
- Air-cutting gun kit

Pulling Tools/Devices
- Ropes/chains
- Come-along
- Hydraulic truck jack
- Air bags

Protective Devices
- Reflectors/flares
- Hard hats
- Safety goggles
- Fireproof blanket
- Leather gloves
- Jackets/coats/boots

Patient-Related Devices
- Stokes basket

Miscellaneous
- Shovel
- Lubricating oil
- Wood/wedges
- Generator
- Floodlights

Local extrication needs may necessitate additional equipment for water, aerial, or mountain rescue.
Selected References


Equipment for Ambulances


Future of EMS in the US Health Care System
Institute of Medicine, May 17, 2007 Available at: www.iom.edu.


Resources for Optimal Care of the Injured Patient
American College of Surgeons Committee on Trauma


FOOTNOTE: The evidence in children for selected prehospital care interventions or topics was reviewed in preparation for finalizing this ambulance equipment list. These topics included: (a) child safety and booster seats approved for EMS use; (b) alternative airway devices; (c) spinal immobilization devices including collars; and (d) prehospital use of cuffed endotracheal tubes. The results of this evidence evaluation including full citations will be provided in a companion article authored by the primary reviewers of the topics and the EMSC Stakeholders Group. The evidence in all ages for use of arterial tourniquets and hemostatic agents was also reviewed and will be provided in separate consensus review articles.
The Board of Governors’ Committee on Chapter Activities (GCCA) serves as an advocate for the chapters of the American College of Surgeons. There are 65 U.S. chapters, two in Canada, and 33 international. The College staff who work with the GCCA are in the Division of Member Services.

The GCCA has been very interested in bringing forward the concerns of the Governors of the chapters to the Board of Regents in order to assist the leadership in setting policy for the American College of Surgeons. An electronic survey instrument was developed and distributed to all Governors of the College. The areas that were of greatest concern to the Governors were identified and an agenda for discussion, with an open forum with both the Governors and the Regents, was established.

At the College’s 2008 Clinical Congress in San Francisco, CA, a discussion that allowed the Governors to present their views and have specific questions answered by the Board of Regents was presented. This forum generated numerous questions from the Governors, allowing for a broad discussion of several topics that were included in the Statement on Health Care Reform generated by the College.

The Statement on Health Care Reform generated three critical and interrelated goals for health care. They included recommendations on quality and safety (the first goal). The specific recommendations that the American College of Surgeons urged the Congress and Administration to support, and a series of statements that the American College of Surgeons committed itself to deliver, are listed in the document. The second goal was ensuring universal access to affordable, high-quality, safe surgical care. Similar to the first goal, the College urged the Congress and Administration to support a number of items and committed to pro-
viding education programs, focusing research and advocacy efforts and developing systems to eliminate disparities in the availability and delivery of surgical care.

The final goal was that of a reduction of health care costs. This objective generated an important series of discussion items, resulting in a strong statement that encourages involvement with enhanced participation of patients in their own health care decision making and the development of payment mechanisms that promote quality and value. The statement also spoke to the appropriate and compassionate palliative care for patients with life-limiting illnesses. The College also recognized that payment for a sustainable workforce needed to be accomplished in conjunction with overall health care reforms.

The discussion between the Governors and Regents was then reviewed by the Regents and the final document was widely disseminated to surgeons, health policy administrators, governmental entities, and professional colleagues.

Another major item that has been of significant concern for the College and has been discussed extensively by the committee is the fact that the Fellows of the College are getting older and there needs to be a major initiative to attract younger surgeons to join the American College of Surgeons.

The GCCA’s Membership and Diversity Subcommittee has worked closely with the Division of Member Services. There are a number of initiatives that will be promulgated throughout the upcoming year to attract surgeons-in-training to join the College before completion of their residency. It is thought that exposing young surgeons to the full range of services that the College provides and engaging them in the committees of the College, including governance, is a fine way to attract the best and brightest young surgeons to join the American College of Surgeons.

The GCCA’s electronic survey has shown that there is a need for more effective communication with the Fellows of the College. This survey finding has led to a series of live Web-based seminars in which topics are presented by the leadership of the College, and Fellows are encouraged to use real-time Web services to have their questions asked and answered. Participation in these seminars has been steadily increasing. The most recent webinar included questions from Fellows from other continents.

The GCCA has a robust International Activi-
Residents salute their mentors

The following articles are the final installment in a series of brief essays the Bulletin is publishing under the theme “My mentor.” These essays are the result of efforts made by the Resident and Associate Society (RAS) of the American College of Surgeons in launching its first essay contest asking residents, fellows, and new faculty to describe in 500 words or less the role that a mentor has played in their development.

In this series, you will read what several outstanding surgical trainees who responded to the contest have to say about the individuals who have mentored them. Through this series, members of the College and other Bulletin readers will learn about 10 extraordinary mentors who have provided both personal and professional guidance for their mentees at various stages of their training.

The leadership of the RAS believes that these mentors are more than just role models—they are pillars of strength and good examples for future generations of surgeons who are attaining technical and clinical skills, while also advancing their interest in research, education, and outreach in an increasingly challenging health care environment. The winner of this year’s essay contest will be announced at the 2009 Clinical Congress in Chicago, IL.
My mentor

The persistent calm:
Anthony Stallion, MD, FACS

by Kaine C. Onwuzulike, MD, PhD

I first met Anthony Stallion, MD, FACS, as a first-year medical student at Case Western Reserve University, and I was instinctively drawn to him as one of the few in an elite subset of minority academic pediatric surgeons in the greater Cleveland area. As an aspiring surgeon, I found great solace in his wisdom, character, and alacrity toward mentorship. Our continued interaction throughout my medical training was immeasurable, and his commitment to surgical academia was a propelling force in my own pursuit of a doctoral degree in genetic epidemiology and biostatistics.

Dr. Stallion embodies the key essentials of any successful mentor, as he is extremely well learned, poised, and equally skilled in his craft. He is an effective communicator, exceptional teacher, and powerful motivator. As with most great mentors, Dr. Stallion has become a role model to emulate as I learn and practice the “surgical way of life” as described by Edward M. Copeland III, MD, FACS, the Edward R. Woodward Distinguished Professor of Surgery at the University of Florida, Gainesville, and 87th President of the American College of Surgeons.* Incumbent in this role illustrated by Dr. Copeland and practiced by Dr. Stallion and great mentors alike is the seamless integration of “sound judgment with both influence and patience.” In my junior career, I have seen no one do it better than Dr. Stallion.

Perhaps most telling of his influence is his participation and leadership in national academic organizations such as the American College of Surgeons and the American Association of Pediatric Surgery. He stresses to his mentees the importance of doing the same. His selflessness and sincere mentorship have been reflected in his unwavering support during my transition from pursuit of a career in pediatric general surgery, for which he himself is renowned, to that of my current application of neurological surgery. His cogent plea to me during this transformation was to remain sedulous in pursuit and equally diligent in the application of the widely accepted core surgical values of honesty, respect for patients and colleagues, contribution to the scientific fund of knowledge, and respect for tradition.

Dr. Stallion routinely urges his mentees to be punctilious in preoperative and postoperative care of our patients. He has never been hubristic in our interactions, and in contradistinction, has remained humble and honored to serve the greater role of surgical educator. I take great pride in our relationship and aspire to provide the same leadership and direction to subsequent generations.

In closing, as described by Dr. Copeland in his magnificent Presidential Address, “The role of a mentor in creating a surgical way of life,” Dr. Stallion has helped establish for me the very core of professional ethics and patient care that are indispensable to a successful and enriching career in academic surgery. He continually strives to make those around him successful, sharing in our triumphs and achievements, and in doing so solidifies his very own legacy. I remain sanguine that I too will instill these very principles into those mentees who seek to learn and practice the surgical way of life.


Dr. Onwuzulike is a first-year postgraduate neurological surgery resident, Neurological Institute, University Hospitals of Cleveland (OH), Case Western Reserve University Medical Center.
I have the greatest mentor a surgical resident can have: R. Anthony Perez-Tamayo, MD, FACS.

I was introduced to Dr. Perez-Tamayo early in my internship year while rotating on the cardiothoracic service at Cook County Hospital, Chicago, IL. It was immediately obvious to me that he is one of the rare individuals who excel at all three aspects of an academic surgeon: clinical, research, and teaching skills. I am extremely privileged to have had the opportunity to learn from and work with Dr. Perez-Tamayo throughout my entire general surgery residency.

Dr. Perez-Tamayo is a graduate of the Duke University general surgery program, where he also completed a critical care fellowship. He simultaneously obtained a doctorate of philosophy degree from the engineering department for his work on a novel cardiac assist device, research that he continues to conduct currently. He was granted multiple teaching awards during his training and has won the outstanding teacher award from the current cardiothoracic fellows. He truly is a master teacher, making the complex appear simple.

There are several unique aspects of the mentorship Dr. Perez-Tamayo provides. Besides the requisite supervision in the laboratory, operating room, and wards, Dr. Perez-Tamayo constantly is looking for ways to promote me and my work. His priority in mentoring me is always how he can advance my career before thinking of any personal gain. He ensures that I am introduced to leaders in the field of thoracic surgery and has approached contacts on my behalf as I interviewed for fellowship positions. He continually pushes me to become a better physician and person by preaching the virtues of loyalty, integrity, and respect.

Dr. Perez-Tamayo is an exceptional physician and surgeon as well as close friend. Our relationship extends far beyond the walls of the laboratory and hospital, and I value his guidance and friendship in my personal life as much as his surgical mentorship. He cares deeply for the welfare of my family and has shared his family with me. He truly is the ideal surgical mentor. He is the surgeon you want to take care of your friends and family, the teacher you want to educate your children, the researcher you want writing your grants and manuscripts, and the loyal friend you want in times of need.
Clinical Congress

Chicago, IL • October 11–15, 2009

The Surgeon as a Role Model

Preliminary Program
Dear Colleagues,

The Clinical Congress of the American College of Surgeons continues to remain the premier annual surgical meeting that provides a vast array of educational and networking opportunities. Under the leadership of the Program Committee, chaired by Dr. Barbara Bass and the Division of Education, the Clinical Congress program has been significantly enhanced over the last several years. This year’s program is especially designed to enhance the care of surgical patients through state-of-the-art education. The broad-ranging Panel Presentations, which include experts from across the surgical specialties and nonsurgical disciplines, will focus on key clinical and nonclinical topics in surgery and related fields. The Named Lectures will be delivered by renowned experts. The Didactic and Skills-Oriented Postgraduate Courses will especially focus on important domains and help attendees advance their knowledge and acquire new skills. Experiential, hands-on learning will be used to achieve the course objectives.

The Scientific Program for the Clinical Congress will include a large number of high-quality Scientific Papers, strong Surgical Forum Sessions, timely Video-Based Education Presentations, and excellent Posters. These sessions will be complemented by Meet the Expert Luncheons and Town Hall Meetings. Attendees will be able to obtain certificates of verification following their participation in Postgraduate Courses, and additional certificates will be offered to address a variety of requirements for Maintenance of Certification, Maintenance of Licensure, privileging, and credentialing. The Clinical Congress Program has been arranged in thematic tracks that address content of interest to all surgical specialties, as well as specialty-based tracks that address the learning needs of different specialty groups. The outstanding educational program, which includes special opportunities to address various regulatory requirements and interact with experts as well as the ability to reconnect with professional colleagues, makes the 2009 Clinical Congress an essential meeting for all practicing surgeons, surgical residents, and members of the surgical team. On behalf of the American College of Surgeons, I would like to extend to you our warmest invitation to join us in Chicago October 11–15, 2009, for the 95th Clinical Congress, which will have as its theme The Surgeon as a Role Model. I will look forward to seeing you at the meeting.

With best wishes,

L. D. Britt, MD, MPH, FACS
Chair, Board of Regents
American College of Surgeons

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VOLUME 94, NUMBER 7, BULLETIN OF THE AMERICAN COLLEGE OF SURGEONS
What’s New in 2009?

- Program arranged in thematic and specialty-specific tracks
- Enhanced scientific programs
- A range of postgraduate (PG) and skills-oriented (SC) courses addressing contemporary topics in surgery
- Special certificates including verification levels achieved through PG/SC courses and sessions in ethics, patient safety, and trauma
- Additional Meet the Expert Luncheons and morning Town Hall Meetings scheduled

Cancellation of Sessions

The American College of Surgeons reserves the right to cancel any of the scientific sessions listed in this Program Planner. The information presented here is preliminary. Check the College's Web site at www.facs.org for updates.

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 47.5* AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

* A maximum of 35.5 AMA PRA Category 1 Credits™ for nonticketed sessions only, including evening video sessions.

CME Certificates

On-site claiming of CME Certificates will be issued at the My CME Connection located in the ACS Registration Area at McCormick Place Convention Center, October 12–15, 2009.

Physicians are responsible for claiming CME credit for Congress. Claims for CME credit for this event will be accepted until March 31, 2010.

Scientific and Technical Exhibitions

The Scientific Exhibition is a forum of more than 350 exhibits presenting completed research, research in progress, and case reviews. Innovative surgical practices and teaching methods will also be presented. The Scientific Exhibits will be located in the West Building of McCormick Place and the hours are Monday through Wednesday, 9:00 am–4:30 pm.

The Technical Exhibition comprises more than 200 companies displaying their products and services. The exhibition provides an excellent opportunity to explore the surgical marketplace by comparing products firsthand and planning purchases. The Technical Exhibits will be located in the West Building of McCormick Place and the hours are Monday through Wednesday, 9:00 am–4:30 pm.

Convocation

Sunday, October 11, 6:00–8:00 pm
McCormick Place West Convention Center

Conferral of Fellowship and Response on Behalf of New Fellows, Granting of Honorary Fellowships, Installation of Officers, and Presidential Address

All Initiates of ACS will be automatically registered for the Clinical Congress and need only return the registration form if postgraduate course or social program event tickets are desired. Confirmed ACS Initiates will be bestowed with Fellowship in the College during the ceremony regardless of their attendance at the event and may begin using the FACS designation upon the conclusion of the ceremony.

Family members of Initiates are not required to register for the Clinical Congress program to attend the Convocation Ceremony.

Annual Business Meeting of Members

Wednesday, October 14, 4:15–5:15 pm
McCormick Place West Convention Center

- Reports from the Chair of the Board of Regents, the Chair of the Board of Governors, and the Executive Director
- Presentation of the Distinguished Service Award, the Resident Award for Exemplary Teaching, and the Joan L. and Julius H. Jacobson II Promising Investigator Award
- Reports of the Nominating Committee of the Fellows and the Nominating Committee of the Board of Governors, and introduction of the President-Elect

Key to Session/ Course Codes

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>ME</td>
<td>Meet the Expert Luncheon</td>
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<tr>
<td>NL</td>
<td>Named Lecture</td>
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<td>PG</td>
<td>Postgraduate Course</td>
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<td>PS</td>
<td>Panel Session</td>
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<td>SC</td>
<td>Skills Course</td>
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<td>SE</td>
<td>Scientific Exhibit</td>
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<td>SF</td>
<td>Surgical Forum</td>
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<td>Scientific Paper</td>
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<td>Town Hall Meeting</td>
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<td>VE</td>
<td>Video-Based Session</td>
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### SATURDAY, OCTOBER 10

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<tr>
<td>9:00–4:30</td>
<td>SC01 Surgical Education: Principles and Practices (SEPA)</td>
<td>EDU, GEN, CRS</td>
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<tr>
<td>9:00–4:30</td>
<td>PG15 Challenging Surgical Emergencies: What to Do in the Middle of the Night</td>
<td>GEN, TRA, CRSS</td>
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<tr>
<td>9:30–4:30</td>
<td>PG16 The Business of Health Care: Understanding the Surgeon’s Role</td>
<td>HP, GEN, CRS</td>
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<td>7:30–11:45</td>
<td>SC02 Fundamentals of Breast Imaging for the General Surgeon</td>
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<tr>
<td>7:30–1:00</td>
<td>SC03 Ultrasound Course for Residents</td>
<td>RES/MED, GEN, HP, URO</td>
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<tr>
<td>8:00–12:30</td>
<td>SC04-A Fundamentals of Laparoscopic Surgery (Lectures Only)</td>
<td>GEN, EDU, CRS</td>
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<tr>
<td>8:00–6:30</td>
<td>SC04-B Fundamentals of Laparoscopic Surgery (Lecture, Hands-On Workshop, and Test)</td>
<td>GEN, EDU, CRS</td>
</tr>
<tr>
<td>9:00–4:30</td>
<td>PG17 Acute Orthopaedic and Neurotrauma Care for General Surgeons</td>
<td>GEN, NEU, ORL, TRA</td>
</tr>
<tr>
<td>9:00–4:30</td>
<td>PG18 Robotic Pelvic Surgery</td>
<td>OBG, URO, TRA</td>
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<tr>
<td>12:30–5:45</td>
<td>SC05 Mammography for the General Surgeon</td>
<td>GEN, EDU, CRS</td>
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### MONDAY, OCTOBER 12

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<tr>
<th>Time</th>
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<td>NL01 Opening Ceremony/Martin Memorial Lecture sponsored by the American Urological Association</td>
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<td>PG19 2009 Introduction to CPT, ICD-9-CM, and Evaluation and Management Coding</td>
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<td>PS08 Carcinoma of the Bladder: Advances in Management</td>
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<td>PS10 Inflammatory Bowel Disease in Children</td>
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<td>PS11 New Technologies in Thyroid and Parathyroid Surgery</td>
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<td>PS12 Surgical Forum Redux: Old Tricks for Young Dogs</td>
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<td>SC10 Breast Ductoscopy for the General Surgeon</td>
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<td>NL03 Charles G. Drake History of Surgery Lecture</td>
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<td>PS19 Management of the Axilla in Breast Cancer</td>
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<td>PS21 Pregnancy During a Surgical Career: Strategies for Making It Work in Residency, Academics, and Private Practice</td>
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<td>PS22 What’s New in Imaging for General Surgeons</td>
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<td>PS24 Current Interventional Treatment for Heart Valve Disease</td>
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<td>PS29 Errors and Near Misses in the Operating Room</td>
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<td>PS30 What Is the Evidence for Antibiotic Prophylaxis in Mesh Inguinal Hernia Repair: Let’s Do Journal Club</td>
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<td>PS32 Surgical Outcomes and the Aging Surgeon: Navigating the Transition into Retirement</td>
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For registration and more information, go to [www.facs.org](http://www.facs.org)
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<td>PS80 Multidisciplinary Approach to Chest Wall Recurrence of Breast Cancer</td>
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<td>PS81 Specialization in the Allied Health Professions</td>
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<td>PS82 A Step-by-Step Guide to Maintenance of ABS Certification</td>
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<td>PS83 Future and Futuristic Trauma and Critical Care Surgery: Techniques, Devices, Systems that Will Change Our Practice</td>
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<td>VE18 Cine Clinic: Liver Surgery</td>
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<td>VE19 Movie Classics from the Past</td>
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<td>8:00–12:15</td>
<td>$ PG24 Medicare Compliance: Audit-Proof Documentation</td>
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<td>8:00–3:30</td>
<td>$ PG25 Review Course in the Essentials of Vascular Surgery for General and Vascular Surgeons</td>
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<td>9:00–5:30</td>
<td>$ SC14 Thyroid and Parathyroid Ultrasound</td>
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<td>9:45–10:45</td>
<td>NL07 Ethics and Philosophy Lecture</td>
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<td>9:45–11:15</td>
<td>PS86 Cancer Survivor Follow-Up: Is Your Clinical Practice Evidence-Based?</td>
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<td>9:45–11:15</td>
<td>PS87 Coding and Reimbursement Issues for Catheter-Based Vascular Procedures</td>
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<td>9:45–11:15</td>
<td>PS88 Pressure Sores: What You and Your Institution Can Do to Comply with the New Regulations</td>
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<td>9:45–11:15</td>
<td>PS89 The Surgical Management of Sleep Apnea</td>
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<td>9:45–11:15</td>
<td>SP12 Transplantation</td>
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<tr>
<td>11:30–12:30</td>
<td>NL08 Commission on Cancer Oncology Lecture</td>
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<td>11:30–1:00</td>
<td>PS90 Carotid Stenosis Management: Current Practices and Trends for the Future</td>
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<td>PS91 Effective Patient Education to Improve Quality and Enhance Patient Safety</td>
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<td>11:30–1:00</td>
<td>PS92 Hand Transplantation: Lessons, Advances, and Future</td>
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<td>PS93 Operative Management of Complex Trauma of the Trunk</td>
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<td>PS94 Practicing Medicine in the Information Age: Are You Prepared for What’s on the Internet?</td>
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<td>PS95 Preparing the Cardiac Patient for Noncardiac Surgery</td>
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<td>PS96 Stress and Burn-Out Among Surgeons: Understanding and Managing the Syndrome</td>
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<td>SP13 The Surgical Workforce</td>
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<td>SP14 Colon and Rectal Surgery</td>
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<tr>
<td>1:00–5:15</td>
<td>$ PG26 Practice Management for the General Surgeor</td>
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<tr>
<td>1:15–2:15</td>
<td>$ ME Meet the Expert Luncheons</td>
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<td>2:30–3:15</td>
<td>NL09 I. S. Ravdin Lecture in Basic Sciences</td>
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<td>2:30–3:30</td>
<td>NL10 Heran Abcarian Lecture</td>
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<td>PS97 Controversies in the Management of Peripheral Arterial Anemours</td>
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<td>2:30–4:00</td>
<td>PS98 Early Hepatocellular Carcinoma: What Is the Optimal Treatment?</td>
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<td>2:30–4:00</td>
<td>PS99 Learning from Bad Outcomes</td>
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<td>2:30–4:00</td>
<td>PS100 New Techniques in Interventional Esophagscopy</td>
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<td>2:30–4:00</td>
<td>PS101 Surgery for Type II Diabetes</td>
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<tr>
<td>2:30–4:00</td>
<td>PS102 Professionalism, Communication, and Lessons Learned</td>
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<td>2:30–4:00</td>
<td>PS103 Treatment of Locally Advanced Rectal Cancer</td>
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<tr>
<td>2:30–4:00</td>
<td>SP15 Cardiac and Thoracic Surgery</td>
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<tr>
<td>2:30–5:45</td>
<td>VE20 Subject-Oriented Symposium II: Breast Reconstruction</td>
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<td>2:30–5:45</td>
<td>PS104 Future Directions in Minimal Access Surgery: NOTES, Intraabdominal Surgery, Hybrid Procedures, and Single-Port Laparoscopy</td>
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<tr>
<td>2:30–5:45</td>
<td>PS105 Update on Management of the War-Wounded</td>
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<td>2:30–5:45</td>
<td>SF21 Quality, Outcomes, and Costs II</td>
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<tr>
<td>2:30–5:45</td>
<td>SF22 Genetic Determinants of Disease and Outcomes</td>
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<tr>
<td>2:30–5:45</td>
<td>SF23 Surgical Education II</td>
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<tr>
<td>2:30–5:45</td>
<td>SF24 Immunity, Transplantation, and Tissue Engineering</td>
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<tr>
<td>2:30–5:45</td>
<td>VE21 Trauma</td>
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<td>3:00–4:00</td>
<td>NL11 Distinguished Lecture of the International Society of Surgery</td>
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<td>4:15–5:45</td>
<td>SP16 Plastic and Maxillofacial Surgery</td>
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<td>4:15–5:45</td>
<td>PS107 Getting Your Manuscript Published</td>
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<td>4:15–5:45</td>
<td>PS108 Improving Surgical Outcomes with ACS NSQIP</td>
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<td>6:30–9:30</td>
<td>VE22 Film and Video Festival</td>
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**THURSDAY, OCTOBER 15**

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<tr>
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<tr>
<td>7:00–7:45</td>
<td>TH Town Hall Meetings</td>
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<tr>
<td>8:00–9:30</td>
<td>PS109 Minimizing Risk in Bedside Surgical Procedures</td>
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<tr>
<td>8:00–9:30</td>
<td>PS110 New Procedures for Anal Fistulas: Does Fistulotomy Still Have a Role?</td>
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<td>8:00–9:30</td>
<td>SP17 Surgical Oncology II</td>
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<tr>
<td>8:00–9:30</td>
<td>VE23 Subject-Oriented Symposium III: NOTES and Single-Port Access</td>
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<td>8:00–11:15</td>
<td>PS111 How to Succeed in the Highly Competitive World of Grant Funding</td>
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<tr>
<td>8:00–11:15</td>
<td>PS112 Surgeons’ Role in Cancer Diagnostics and Novel Procedures</td>
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<td>8:00–11:15</td>
<td>SF25 Critical Care III</td>
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<td>8:00–11:15</td>
<td>SF26 Alimentary Tract III</td>
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<tr>
<td>8:00–11:15</td>
<td>SF27 Quality, Outcomes, and Costs III</td>
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<tr>
<td>8:00–11:15</td>
<td>SF28 Plastic Surgery III</td>
</tr>
<tr>
<td>8:00–11:15</td>
<td>SF29 Vascular Surgery II</td>
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<tr>
<td>9:45–11:15</td>
<td>PS113 Bugs Are Winning the Resistance Battle: The Surgeon’s Responsibility</td>
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<tr>
<td>9:45–10:00</td>
<td>VE24 Colon and Rectal Surgery</td>
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<tr>
<td>11:30–1:00</td>
<td>PS114 Breast Imaging: Do We Need It?</td>
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<tr>
<td>11:30–1:00</td>
<td>PS115 State-of-the-Art Reconstruction of Traumatic and Acquired Chest Wall Defects</td>
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<tr>
<td>11:30–1:00</td>
<td>PS116 Update on Venous Disease</td>
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$ indicates that additional course fees and registration apply
The scientific program, scheduled in discipline- and theme-based tracks, will focus specifically on the needs of various surgical specialties and learner groups.

<table>
<thead>
<tr>
<th>SATURDAY</th>
<th>SUNDAY</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
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<td>Basic / Translational Research (BTR)</td>
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<td>Colon and Rectal Surgery (CRS)</td>
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<td>Education / Outcomes &amp; Safety (EDU)</td>
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<td>Ethics (ETH)</td>
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**General Surgery (GEN)**

| (HP) |        |        | Health Policy : Practice Management / Reimbursement / Liability Issues (HP) |           |
|      |        |        | International (INT) |           |          |

**Neurosurgery (NEU)**

|        |        |        | Neurosurgery (NEU) |           |          |

**Obstetrics and Gynecology (OBG)**

|        |        | (ORT)  | Orthopaedic Surgery (ORT) |           |
|        |        |        | Otolaryngology–Head & Neck Surgery (OTO) |           |
|        |        |        | Pediatric Surgery (PED) |           |

**Plastic and Maxillofacial Surgery (PLA)**

|        |        |        | Plastic and Maxillofacial Surgery (PLA) |           |

**Residents / Medical Students (RES / MED)**

|        |        |        | Residents / Medical Students (RES / MED) |           |

**Surgical Oncology (ONC)**

|        |        |        | Surgical Oncology (ONC) |           |

**Trauma / Critical Care (TRA)**

| Urology (URO) | Vascular Surgery (VAS) | Volunteerism (VOL) |
Named Lectures

MONDAY, OCTOBER 12

NL01 8:30–9:30 AM
The Opening Ceremony followed by the Martin Memorial Lecture: Re-engineering Systems of Care—Surgical Leadership
PRESIDING OFFICER: LaMar S. McGinnis, Jr., MD, FACS, ACS President, Atlanta, GA
INTRODUCER: (TBD)
LECTURER: Glenn D. Steele, Jr., MD, FACS, Danville, PA
Sponsored by the American Urological Association
Introduction of Honorary Fellows, recipient of the Distinguished Philanthropist Award, officers, Regents, Past-Presidents, and special invited guests.
Martin Memorial Lecture, established in 1946 to honor Franklin H. Martin, MD, FACS, founder of the College

NL02 9:45–10:45 AM
John H. Gibbon, Jr. Lecture: Intraoperative Myocardial Protection: Still Important?
PRESIDING OFFICER AND INTRODUCER: Frank W. Sellke, MD, FACS, Providence, RI
LECTURER: William A. Gay, Jr., MD, FACS, St. Louis, MO
Sponsored by the Advisory Council for Cardiothoracic Surgery

NL03 2:30–3:30 PM
Charles G. Drake History of Surgery Lecture: Surgery for Congenital Heart Disease: Past and Present
PRESIDING OFFICER AND INTRODUCER: Clarence B. Watridge, MD, FACS, Memphis, TN
LECTURER: Denton A. Cooley, MD, FACS, Houston, TX
Sponsored by the Advisory Council for Neurological Surgery

TUESDAY, OCTOBER 13

NL04 10:00–11:00 AM
Excelsior Surgical Society Edward D. Churchill Lecture: The Surgeon Shortage: Constructive Participation during Health Reform
PRESIDING OFFICER AND INTRODUCER: David V. Feliciano, MD, FACS, Atlanta, GA
LECTURER: George F. Sheldon, MD, FACS, Chapel Hill, NC
Sponsored by the Advisory Council for General Surgery

NL05 11:30 AM–12:15 PM
Scudder Oration on Trauma: Wherever the Dart Lands: Toward the Ideal Trauma System
PRESIDING OFFICER AND INTRODUCER: John Fildes, MD, FACS, Las Vegas, NV
LECTURER: A. Brent Eastman, MD, FACS, San Diego, CA
Sponsored by the Committee on Trauma

NL06 2:45–3:45 PM
Olga M. Jonasson Lecture: Leadership Development and Mentoring in the Age of Restricted Work Hours
PRESIDING OFFICER AND INTRODUCER: M. Margaret Kemeny, MD, FACS, Jamaica, NY
LECTURER: Karin M. Muraszko, MD, FACS, Ann Arbor, MI
Sponsored by the Women in Surgery Committee

WEDNESDAY, OCTOBER 14

NL07 9:45–10:45 AM
Ethics and Philosophy Lecture: Can General Surgeons and Transplant Surgeons Work Together to Improve the Supply and Ethical Standards of Living Organ Donations?
PRESIDING OFFICER AND INTRODUCER: John T. Preskitt, MD, FACS, Dallas, TX
LECTURER: Mark Siegler, MD, FACP, Chicago, IL
Sponsored by the Committee on Ethics

NL08 11:30 AM–12:30 PM
Commission on Cancer Oncology Lecture: A Community Cancer Center Program: Getting to the Next Level
PRESIDING OFFICER AND INTRODUCER: Stephen B. Edge, MD, FACS, Buffalo, NY
LECTURER: Nicholas Petrelli, MD, FACS, Newark, DE
Sponsored by the Commission on Cancer

NL09 2:30–3:15 PM
I. S. Ravdin Lecture in Basic Sciences: Reparative, Replacement, and Regenerative Medicine
PRESIDING OFFICER AND INTRODUCER: William P. Schecter, MD, FACS, San Francisco, CA
LECTURER: Michael T. Longaker, MD, MBA, FACS, Stanford, CA
Sponsored by the Committee on Perioperative Care

NL10 2:30–3:30 PM
Herand Abcarian Lecture: The Little Engine that Did
PRESIDING OFFICER AND INTRODUCER: Clifford L. Simmang, MD, FACS, Coppell, TX
LECTURER: David J. Schoetz, Jr., MD, FACS, Burlington, MA
Sponsored by the Advisory Council for Colon and Rectal Surgery

NL11 3:00–4:00 PM
Distinguished Lecture of the International Society of Surgery: Health Care Reform in the United Kingdom
PRESIDING OFFICER AND INTRODUCER: Ronald V. Maier, MD, FACS, Seattle, WA
LECTURER: Ara W. Darzi, MB, BCH, FACS, London, UK
Sponsored by the International Society of Surgery
Postgraduate 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 materials will be distributed on site in Chicago.

Best Value Package Available Only with Postgraduate Course Registration
Best Value Package (BVP) is a discounted subscription to the 2009 webcast Package (includes 2008/2007 webcasts of select Panel Sessions)—for only $89–Member/$104–Nonmember. See the Web site for further information. The BVP is available only for PG/SC paid registrants.

Description of Fee Categories
FELLOW: A surgeon who is a Fellow of the College
NON-FELLOW: A practicing physician who is not currently a member of the College
RAS: Associate Fellows and Resident Members Medical Student Members, and Affiliate Members of the College
NON-RAS: A physician-in-training 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

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 educational courses, based on principles of contemporary surgical education, and permits provision of appropriate documentation to the attendees.

The postgraduate didactic and skills courses offered at the Clinical Congress have been assigned verification levels based on the requirement of each level.

LEVEL I Verification of attendance
LEVEL II Verification of satisfactory completion of course objectives
LEVEL III Verification of knowledge and skills
LEVEL IV Verification of preceptorial experience
LEVEL V Verification of demonstration of satisfactory patient outcomes
Please register online for any of these Postgraduate Didactic or Skills-Oriented Courses. You are then eligible to purchase the 2009 Webcast Package (which includes 2008/2007 webcasts) for only $89—Member/$104—Nonmember. See the Web site to register and for further information.

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<td>Surgical Education: Principles and Practice</td>
<td>$340</td>
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<td>Fundamentals of Laparoscopic Surgery (Lectures Only)</td>
<td>$350</td>
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<td>Fundamentals of Laparoscopic Surgery (Lectures, Hands-On Workshop, and Test)</td>
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<td>Flexible GI Endoscopy for General Surgeons (Lectures Only)</td>
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<td>Flexible GI Endoscopy for General Surgeons (Lectures and Hands-On Workshop)</td>
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<td>Laparoscopic Colon and Rectal Surgery (Lectures and Hands-On Lab)*</td>
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<td>Surgeons as Effective Communicators: Sharpening Skills for Critical Moments</td>
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<td>Challenging Surgical Emergencies: What to Do in the Middle of the Night</td>
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<td>Acute Orthopaedic and Neurotrauma Care for General Surgeons</td>
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<td>2009 Introduction to CPT, ICD-9-CM, and Evaluation and Management Coding</td>
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<td>2009 Advanced Surgical and Office-Based Coding and Reimbursement</td>
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<td>Practice Management for the General Surgeon</td>
<td>$260</td>
<td>$300</td>
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* Requires prerequisite for registration
Postgraduate Skills-Oriented Courses

**SC01 SURGICAL EDUCATION: PRINCIPLES AND PRACTICE**
6 credits, Verification Level I
**TRACK:** EDU
Saturday, October 10, 2009
9:00 am–4:30 pm
**CHAIR:** Mary E. Maniscalco-Theberge, MD, FACS, Reston, VA
**CO-CHAIR:** Anne T. Mancino, MD, FACS, Little Rock, AR
Sponsored by the Committee on Continuous Professional Development
**FEE**
- **FELLOW $340**
- **NON-FELLOW $395**
- **RAS $105**
- **NON-RAS $135**

**SC02 FUNDAMENTALS OF BREAST IMAGING FOR THE GENERAL SURGEON**
4 credits, Verification Level I
**TRACK:** GEN
Sunday, October 11, 2009
7:30–11:45 am
**CHAIR:** Darius S. Francescatti, MD, FACS, Chicago, IL
Sponsored by the Program Committee
**FEE**
- **FELLOW $290**
- **NON-FELLOW $335**
- **RAS $90**
- **NON-RAS $115**

**SC03 ULTRASOUND COURSE FOR RESIDENTS**
5 credits, Verification Level II
**TRACK:** RES/MED
Sunday, October 11, 2009
7:30 am–1:00 pm
**CO-CHAIRS:** Andrew W. Kirkpatrick, MD, FACS, Calgary, AB
Amy C. Sisley, MD, FACS, Baltimore, MD
Sponsored by the National Ultrasound Faculty and the Program Committee
**FEE**
- **RAS $275**
- **NON-RAS $300**

**SC04 FUNDAMENTALS OF LAPAROSCOPIC SURGERY**
**LECTURES ONLY:** 4 credits, Verification Level I
Sunday, October 11, 2009; 8:00 am–12:30 pm
**LECTURES, HANDS-ON WORKSHOP, AND FLS EXAMINATION:** 6 credits, Verification Level III
Sunday, October 11, 2009
8:00 am–6:30 pm
**TRACK:** GEN
**CO-CHAIRS:** Brent D. Matthews, MD, FACS, St. Louis, MO
Daniel J. Scott, MD, FACS, Dallas, TX
Sponsored by the Committee on Emerging Surgical Technology
**FEE**
- **FELLOW $350**
- **NON-FELLOW $390**
- **RAS $105**
- **NON-RAS $140**

**SC05 MAMMOGRAPHY FOR THE GENERAL SURGEON**
5 credits, Verification Level I
**TRACK:** GEN
Sunday, October 11, 2009
12:30–5:45 pm
**CHAIR:** Edward J. Donahue, MD, FACS, Phoenix, AZ
Sponsored by the Program Committee
**FEE**
- **FELLOW $390**
- **NON-FELLOW $450**
- **RAS $120**
- **NON-RAS $155**

**SC06 FLEXIBLE GI ENDOSCOPY FOR GENERAL SURGEONS**
**LECTURES ONLY:** 2.5 credits, Verification Level I
Monday, October 12, 2009
10:00 am–12:30 pm
**LECTURES AND HANDS-ON WORKSHOP:** 6 credits, Verification Level II
Monday, October 12, 2009
10:00 am–5:30 pm
**TRACK:** GEN
**CO-CHAIRS:** Gerald M. Fried, MD, FACS, FRCSC, Montreal, QC
Jeffrey M. Marks, MD, FACS, Cleveland, OH
Sponsored by the Committee on Emerging Surgical Technology and Education
**FEE**
- **FELLOW $260**
- **NON-FELLOW $300**
- **RAS $80**
- **NON-RAS $105**

**SC07 LAPAROSCOPIC COLON AND RECTAL SURGERY**
**LECTURES ONLY:** 6 credits, Verification Level I
Monday, October 12, 2009
10:00 am–5:30 pm
**LECTURES AND HANDS-ON LAB:** 12 credits, Verification Level II
Monday, October 12, 2009; 10:00 am–5:30 pm
Tuesday, October 13, 2009; 9:00 am–4:30 pm (Lab)
**TRACK:** CRS
**CHAIR:** Alan J. Herline, MD, FACS, Nashville, TN
**CO-CHAIR:** Mark H. Whiteford, MD, FACS, Portland, OR
Sponsored by the Committee on Emerging Surgical Technology and Education and the Advisory Council for Colon and Rectal Surgery
**PREREQUISITE FOR HANDS-ON LAB:** E-mail skillscourses@facs.org for more information and an application to register for both the lectures and hands-on lab.
**FEE**
- **FELLOW $490**
- **NON-FELLOW $565**
- **RAS $150**
- **NON-RAS $195**

**SC08 SURGEONS AS EFFECTIVE COMMUNICATORS: SHARPENING SKILLS FOR CRITICAL MOMENTS**
6 credits, Verification Level I
**TRACK:** EDU
Monday, October 12, 2009
10:00 am–5:00 pm
**CO-CHAIRS:** L. D. Britt, MD, MPH, FACS, Norfolk, VA
Thomas R. Gadacz, MD, FACS, St. Petersburg, FL
Sponsored by the Task Force on Interpersonal and Communication Skills
**FEE**
- **FELLOW $340**
- **NON-FELLOW $395**
- **RAS $105**
- **NON-RAS $135**

**SC09 BASIC BREAST ULTRASOUND**
7.5 credits, Verification Level II
**TRACK:** GEN
Monday, October 12, 2009
10:00 am–6:15 pm
**CO-CHAIR:** Shawna C. Willey, MD, FACS, St. Petersburg, FL
**CO-CHAIR:** Kristin R. Corgan, MD, FACS, Marietta, GA
Sponsored by the National Ultrasound Faculty and Program Committee
**FEE**
- **FELLOW $1250**
- **NON-FELLOW $1435**
- **RAS $375**
- **NON-RAS $500**
SC10 BREAST DUCTOSCOPY FOR THE GENERAL SURGEON
4 credits, Verification Level III
TRACK: GEN
Monday, October 12, 2009
1:00–5:15 pm
CHAIR: William C. Dooley, MD, FACS, Oklahoma City, OK
Sponsored by the Program Committee
FEE: FELLOW $900  NON-FELLOW $1,000
  RAS $270  NON-RAS $360

SC11 THE MINIMALLY INVASIVE APPROACH TO BREAST BIOPSY: BASIC STEREOTACTIC TECHNIQUE AND APPLICATION
8 credits, Verification Level II
TRACK: GEN  ONC
Tuesday, October 13, 2009
8:00 am–5:30 pm
CHAIR: Arthur G. Lerner, MD, FACS, White Plains, NY
It is highly recommended that the skills-oriented postgraduate course, SC02, Fundamentals of Breast Imaging for the General Surgeon, be taken prior to this course.
Sponsored by the Program Committee
FEE: FELLOW $1500  NON-FELLOW $1725
  RAS $450  NON-RAS $600

SC12 ESSENTIAL ISSUES IN THE MANAGEMENT OF LOWER EXTREMITY ISCHEMIA
6 credits, Verification Level I
TRACK: VAS
Tuesday, October 13, 2009
9:00 am–4:30 pm
CHAIR: Kim J. Hodgson, MD, FACS, Springfield, IL
Sponsored by the Advisory Council for Vascular Surgery
FEE: FELLOW $550  NON-FELLOW $635
  RAS $165  NON-RAS $220

SC13 SINGLE-PORT LAPAROSCOPIC SURGERY
LECTURES ONLY: 3 credits, Verification Level I
Tuesday, October 13, 2009, 9:00 am–12:00 noon
LECTURES AND HANDS-ON LAB: 6 credits, Verification Level II
Tuesday, October 13, 2009, 9:00 am–5:00 pm
TRACK: GEN
CHAIR: Deborah A. Nagle, MD, FACS, Boston, MA
CO-CHAIR: Paul G. Curcillo II, MD, FACS, Philadelphia, PA
Sponsored by the Program Committee
FEE: FELLOW $350  NON-FELLOW $390  RAS $105  NON-RAS $140
LECTURES ONLY
FEE: FELLOW $1,200  NON-FELLOW $1,350
  RAS $360  NON-RAS $480

SC14 THYROID AND PARATHYROID ULTRASOUND
7 credits, Verification Level II
_TRACK: OTO
Wednesday, October 14, 2009
9:00 am–5:30 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.
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.
Sponsored by the National Ultrasound Faculty and Program Committee
FEE: FELLOW $1250  NON-FELLOW $1440
  RAS $375  NON-RAS $500
Postgraduate Didactic Courses

**PG15 CHALLENGING SURGICAL EMERGENCIES: WHAT TO DO IN THE MIDDLE OF THE NIGHT**
6 credits, Verification Level I
Saturday, October 10, 2009
9:00 am–4:30 pm
TRACK: GEN • TRA
CHAIR: Michael J. Sise, MD, FACS
CO-CHAIR: Charles M. Ferguson, MD, FACS
Sponsored by the Committee on Trauma and the Advisory Council for General Surgery
FEE • FELLOW $340 • NON-FELLOW $395
• RAS $105 • NON-RAS $135

**PG16 THE BUSINESS OF HEALTH CARE: UNDERSTANDING THE SURGEON’S ROLE**
5.5 credits, Verification Level I
Saturday, October 10, 2009
9:30 am–5:30 pm
TRACK: HP
CHAIR: Paul A. Taheri, MD, MBA, FACS
Sponsored by the Committee on Perioperative Care
FEE • FELLOW $340 • NON-FELLOW $395
• RAS $105 • NON-RAS $135

**PG17 ACUTE ORTHOPAEDIC AND NEUROTRAUMA CARE FOR GENERAL SURGEONS**
6 credits, Verification Level I
Sunday, October 11, 2009
9:00 am–4:30 pm
TRACK: GEN • NEU • ORT • TRA
CHAIR: Jeffrey O. Anglen, MD, FACS
CO-CHAIR: Domenic P. Esposito, MD, FACS
Sponsored by the Committee on Trauma
FEE • FELLOW $340 • NON-FELLOW $395
• RAS $105 • NON-RAS $135

**PG18 ROBOTIC PELVIC SURGERY**
6 credits, Verification Level I
Sunday, October 11, 2009
9:00 am–4:30 pm
TRACK: OBG • URO
CHAIR: Jeffery L. Cornella, MD, FACS
CO-CHAIR: Erik P. Castle, MD
Sponsored by the Advisory Council for Gynecology and Obstetrics and the Advisory Council for Urology
FEE • FELLOW $340 • NON-FELLOW $395
• RAS $105 • NON-RAS $135

**PG21 SURGICAL SAFETY COURSE**
6 credits, Verification Level I
Monday, October 12, 2009
10:00 am–5:30 pm
TRACK: DU • GEN
CHAIR: John R. Clarke, MD, FACS
CO-CHAIRS: Donald W. Moorman, MD, FACS
FEE • FELLOW $340 • NON-FELLOW $395
• RAS $105 • NON-RAS $135
PG20 GENERAL SURGERY REVIEW COURSE
12 credits, Verification Level II
Part I: Monday, October 12, 2009
Part II: Tuesday, October 13, 2009
10:00 am–5:30 pm
TRACK: GEN
CHAIR: John A. Weigelt, MD, FACS
VICE-CHAIRS: Eugene F. Foley, MD, FACS
Robert C. McIntyre, Jr., MD, FACS
Sponsored by the American College of Surgeons’ Division of Education in collaboration with the Southwestern Surgical Congress and Southwestern Surgical Congress
FEE • FELLOW $675 • NON-FELLOW $775
• RAS $205 • NON-RAS $270

**PG22 COLON AND RECTAL CANCER**
6 credits, Verification Level I
Tuesday, October 13, 2009
8:00 am–3:30 pm
TRACK: CRS
CHAIR: Thomas E. Read, MD, FACS
CO-CHAIR: Howard M. Ross, MD, FACS
Sponsored by the Advisory Council for Colon and Rectal Surgery
FEE • FELLOW $340 • NON-FELLOW $395
• RAS $105 • NON-RAS $135

**PG23 2009 ADVANCED SURGICAL AND OFFICE-BASED CODING AND REIMBURSEMENT**
7 credits, Verification Level I
Tuesday, October 13, 2009
8:00 am–4:30 pm
TRACK: HP
CHAIR: Albert Bothe, Jr., MD, FACS
Sponsored by the General Surgery Coding and Reimbursement Committee
FEE • FELLOW $405 • NON-FELLOW $470
• RAS $125 • NON-RAS $165

**PG24 MEDICARE COMPLIANCE: AUDIT-PROOF DOCUMENTATION**
4 credits, Verification Level I
Wednesday, October 14, 2009
8:00 am–12:15 pm
TRACK: VAS
CO-CHAIRS: Guy R. Orangio, MD, FACS
Paresh C. Shah, MD, FACS
Sponsored by the General Surgery Coding and Reimbursement Committee
FEE • FELLOW $260 • NON-FELLOW $300
• RAS $80 • NON-RAS $105

**PG25 REVIEW COURSE IN THE ESSENTIALS OF VASCULAR SURGERY FOR GENERAL AND VASCULAR SURGEONS**
6 credits, Verification Level II
Wednesday, October 14, 2009
8:00 am–3:30 pm
TRACK: GEN • VAS
CHAIR: Gilbert R. Upchurch, Jr., MD, FACS
Sponsored by the Advisory Council for Vascular Surgery
FEE • FELLOW $390 • NON-FELLOW $450
• RAS $120 • NON-RAS $155

**PG26 PRACTICE MANAGEMENT FOR THE GENERAL SURGEON**
4 credits, Verification Level I
Wednesday, October 14, 2009
1:00–5:15 pm
TRACK: GEN • HP
CO-CHAIRS: Jay A. Gregory, MD, FACS
Charles T. McHugh, MD, FACS
Sponsored by General Surgery Coding and Reimbursement Committee
FEE • FELLOW $260 • NON-FELLOW $300
• RAS $80 • NON-RAS $105

For registration and more information, go to www.facs.org
Meet the Expert Luncheons

Discuss selected topics with the experts over an informal lunch. Cost for each luncheon is $45. The luncheons will be from 1:15–2:15 pm.

<table>
<thead>
<tr>
<th>TITLE AND FACILITATOR</th>
<th>Monday, October 12</th>
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<tbody>
<tr>
<td>Changing Paradigms in the Treatment of Diverticulitis with Neil H. Hyman, MD, FACS</td>
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<tr>
<td>General Neurosurgery with Particular Emphasis on Brain Tumors with John L. D. Atkinson, MD, FACS</td>
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<td>Salivary Gland Surgery with David W. Eisele, MD, FACS</td>
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<td>Thyroid Cancer with Martha A. Zeiger, MD, FACS</td>
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<td>Treatment of Severe Liver Injuries with Rao R. Ivatury, MD, FACS</td>
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<td>Current Recommendations for Blood in Trauma Resuscitation with Ernest E. Moore, MD, FACS</td>
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<td>Prostate Cancer with William J. Catalona, MD, FACS</td>
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<td>Endograft Repair in the Thoracic Aorta: Current Status</td>
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<td>Laparoscopic Colectomy with Anthony Senagore, MD, FACS</td>
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<td>Pilonidal Disease with John U. Bascom, MD, FACS; and Thomas H. Bascom, MD</td>
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<td>Bariatric Surgery in Children and Adults with Thomas H. Inge, MD, FACS</td>
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<th>TITLE AND FACILITATOR</th>
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<tr>
<td>What Is Involved in an Acute Care Surgery Practice? with Gregory J. Jurkovich, MD, FACS</td>
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<td>Advances in the Surgical Management of Crohn’s Disease with Walter A. Kolts, MD, FACS</td>
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<td>Anorectal Disease/Abcess/Fistula with Herand Abcarian, MD, FACS</td>
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<td>Treatment of Pancreatoduodenal Injuries with Andrew B. Peitzman, MD, FACS</td>
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<td>Training the Next Generation of Neurosurgeons with A. John Popp, MD, FACS</td>
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<td>Critical Care Management for the Traumatic Brain Injury Patient with Alex B. Valadka, MD, FACS</td>
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<td>Workforce Issues in Otolaryngology with Harold C. Pillsbury, MD, FACS</td>
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<td>Breast Reconstruction with Robert L. Walton, MD, FACS</td>
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<td>Management of Thoracic Injuries for the General Surgeon with David V. Feliciano, MD, FACS</td>
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<td>Thoracic Outlet Syndrome — Venous Thrombosis with Julie A. Freischlag, MD, FACS</td>
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<td>Aortic Graft Infection with G. Patrick Clagett, MD, FACS</td>
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<tr>
<td>Chest Wall Deformities in Children and Adults: Results with New Approaches with Donald Nuss, MD, FACS</td>
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<th>TITLE AND FACILITATOR</th>
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<tr>
<td>Goiter Surgery — When and How with Christopher R. McHenry, MD, FACS</td>
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<td>Diverticulitis with Richard P. Billingham, MD, FACS</td>
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<td>Damage Control Abdominal Procedures with Frederick A. Moore, MD, FACS</td>
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<td>Management of Hemorrhagic Cerebrovascular Disease with Charles J. Prestigiacomo, MD, FACS</td>
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<td>Minimally Invasive Thyroidectomy with David J. Terris, MD, FACS</td>
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<tr>
<td>Endovascular Options for Complex Aortic Disease with Gregorio A. Sicard, MD, FACS</td>
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<tr>
<td>New Hemostatic Agents to Control Bleeding with Martin A. Schreiber, MD, FACS</td>
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Keep checking the ACS Web site at www.facs.org to register and for additional Meet the Expert Luncheons.
**Special Interest Sessions**

Please note, these are non-CME designated sessions, unless otherwise indicated.

**SUNDAY, OCTOBER 11**

**Medical Student Program**

Session I: 12:00 noon–6:00 pm

The Division of Education invites students from all four years of medical school to attend the Clinical Congress and to participate in a program designed specifically for medical students who may be interested in pursuing surgery as a career.

Additional sessions are scheduled on Monday and Tuesday.

Students must be enrolled in a LCME-accredited medical school in order to participate. For additional information, please contact Ms. Laura Meyer at 312-202-5335 or laurameyer@facs.org. Please register online at www.facs.org.

**Resident and Associate Society Symposium**

1:00–4:00 pm

RAS to debate "Is the Generalist Surgeon Obsolete?"

The debate will focus on the impact that increasing interest in specialist practice has on the role of the generalist practitioner.

For additional information, please contact Ms. Peg Haar at 312-202-5312 or phaar@facs.org.

**MONDAY, OCTOBER 12**

**Estate Planning & Estate Tax Issues for Surgeons and Their Spouses**

S205 (405)

9:00–10:30 am / $25

This seminar will be presented by Richard Campbell, Attorney, Mayer Brown Rowe & Maw, and will cover all of the basic topics and principles of estate planning. Topics that will be covered include use of trusts in estate planning, disability planning, creditor and asset protection planning, charitable planning ideas, and Top 10 Estate Tax Planning Ideas. As part of the presentation you will receive reference material concerning estate planning. Find out all you need to know about your own personal estate planning from one of the top estate planning attorneys in the country.

**TUESDAY, OCTOBER 13**

**Town Hall Meetings**

7:00–7:45 am

**Residency Program Interviews: The Keys to Success**

8:00–9:45 am

This workshop will provide third- and fourth-year medical students an overview of the residency program interview process. This session will be moderated by Kim Agretto, C-TAGME, ARCS President, Easton, PA.

**Surgery Resident Program**

9:45 am–4:00 pm

**Essential Skills for Surgical Practice: A Primer for Residents**

Surgery residents from all postgraduate year levels are invited by the Division of Education to participate in a special program designed to assist surgery residents with essential nonclinical issues they face during residency training and the transitional period to their posttraining career.

For additional information, please contact Ms. Cheryllyn Sherman at 312-202-5424 or csherma@facs.org.

**Medical Student Program**

Session II: 1:00–6:00 pm

For a full description of this program, please refer to the Sunday schedule.

**Meet the Expert Luncheons**

1:15–2:15 pm

**Cardiothoracic Surgery in the Future: Technology Overview for Residents and Medical Students**

5:30–9:00 pm  Fee: $25 (includes dinner)

**COURSE DIRECTORS:** Daniel L. Miller, MD, FACS, Atlanta, GA

John D. Puskas, MD, FACS, Atlanta, GA

This course will introduce surgery residents and medical students to minimally invasive procedures that are available to cardiothoracic surgeons today and will address what new technologies will be available in the future. Sponsoring by the American College of Surgeons, The Society of Thoracic Surgeons, and the American Association for Thoracic Surgery. Please refer to the registration section of the ACS Web site at www.facs.org.

**2009 Excellence in Research Award Distribution/Surgical Forum Dedication**

11:30 am–1:00 pm

Science of Obesity Surgery

The Committee for the Forum on Fundamental Surgical Problems will distribute 12 awards for excellence in research and the 60th volume of the Owen H. Wangensteen Surgical Forum will be dedicated to Hiram C. Polk, Jr., MD, FACS.

**Medical Student Program**

Session III: 1:00–6:00 pm

For a full description of this program, please refer to the Sunday schedule.

**Meet the Expert Luncheons**

1:15–2:15 pm

**Posters of Exceptional Merit Presentation**

1:15–2:15 pm

All attendees are invited to join in a lunchtime tour and discussion of the Posters of Exceptional Merit, facilitated by Barbara L. Bass, MD, FACS, Chair of the Program Committee. More than 350 posters will be on display at Congress, but only a select few are designated Posters of Exceptional Merit. Come hear the authors of these distinguished works present their research and answer questions, prior to the judges awarding one poster the title of Best Scientific Exhibit.

This session carries 1 CME credit.

**Sixth Annual Rural Surgeons Meeting and Oweida Scholarship Presentation**

4:00–5:30 pm

The presentation of the 2009 Nizar N. Oweida, MD, FACS Scholarship to Nathan C. Kanning, MD, Sandpoint, ID, will open the session.

**Science of Obesity Surgery**

7:00–7:45 am

The presentation of the 2009 Nizar N. Oweida, MD, FACS Scholarship to Nathan C. Kanning, MD, Sandpoint, ID, will open the session. Sponsored by the ACGS Rural Surgery Subcommittee.

**WEDNESDAY, OCTOBER 14**

**Town Hall Meetings**

7:00–7:45 am

**Meet the Expert Luncheons**

1:15–2:15 pm

**THURSDAY, OCTOBER 15**

**Town Hall Meetings**

7:00–7:45 am
REGISTRATION
Registration is open to all physicians and individuals in the health care field and includes a name badge, program, and entrance to the exhibits and all sessions other than postgraduate courses. Please refer to page 49 for information on registration location, hours, and fees. To review the full registration policies and submit your 2009 Clinical Congress registration, please visit our Web site at http://www.facs.org/clincon2009/registration/index.html.

AIR TRANSPORTATION
ACS has arranged special meeting discounts on United Airlines. These special discounts are available by booking with United directly (independently or through a travel agent). Be sure to reference the ACS file number to obtain the special fares. Area/Zone fares based on geographic location are also available with no Saturday night stay required. Minimum stay (two nights); seven-day advance purchase required. Zone fares are not available through online ticket purchase; please call:

United Airlines
800-521-4041
8:00 am–10:00 pm ET
ACS File: 501CR
www.united.com
Purchase your ticket online and receive a discount off the lowest applicable fares.

CAR RENTAL
Avis is designated as the official car rental company for the 2009 Clinical Congress. Special meeting rates and discounts are available on a wide selection of GM and other fine cars. To receive these special rates, be sure to mention your Avis Worldwide Discount (AWD) number when you call.

Avis Reservations
800-331-1600
www.avis.com
AWD Number: B169699

GENERAL INFORMATION
Printable registration forms are available on the Web site, but register online to receive instant confirmation.

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 feel this will be helpful by contacting the International Liaison via e-mail at: international@facs.org or by fax at: 312-202-5021.

AFFILIATE GROUP FUNCTIONS
Groups planning a social function or business meeting to be held in conjunction with the Clinical Congress will need to make arrangements through ACS. For more information and to request function space, please contact Carrie Balzer, ACS Convention and Meetings, at cbalzer@facs.org.
For registration and more information, go to www.facs.org

Registration Information

Registration is open to all physicians and individuals in the health care field and includes a name badge, program, and entrance to the exhibits and all sessions other than postgraduate courses. To review the full registration policies and submit your 2009 Clinical Congress registration, please visit our Web site at http://www.facs.org/clincon2009/registration/index.html.

REGISTRATION LOCATION AND HOURS
McCormick Place – West Building – 3rd Floor
Sunday, October 11 7:00 am–5:00 pm
Monday, October 12 7:30 am–5:00 pm
Tuesday, October 13 6:30 am–4:30 pm
Wednesday, October 14 6:30 am–4:30 pm
Thursday, October 15 7:00 am–12:00 noon

REGISTRATION FEES AND CREDENTIALS

<table>
<thead>
<tr>
<th>Category</th>
<th>On or Before 9/14</th>
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<td>Surgical Technician Nonmember*</td>
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<tr>
<td>PhD Nonmember*</td>
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<tr>
<td>Commercial Press COMPANY NAME</td>
<td>$475</td>
<td>$525</td>
<td>$600</td>
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</tbody>
</table>

Commercial Representatives may obtain the commercial registration form by faxing a request to 312-202-5003.

*Nonmembers who pay the applicable registration fees will have their membership application fees waived if they apply for membership by December 31, 2009. The American College of Surgeons is pleased to offer discounted registration fees for residents and medical students. Please submit a letter verifying your educational status with the completed registration form to expedite processing. Residents should obtain a letter from their program director; students should contact their department chairs.

†Resident and Medical Student Membership
The College has membership opportunities for medical students and residents. Medical students must be attending a U.S., Canadian, or international allopathic or osteopathic medical school. There is a one-time fee of $20, which covers all four years of medical school. Membership will expire upon graduation from medical school.

Residents enrolled in a program accredited by the Accreditation Council for Graduate Medical Education (ACGME) or surgeons in surgical research or fellowship programs acceptable to the American College of Surgeons are eligible for Resident Membership. The application fee of $20 is waived for first-year residents. Annual dues thereafter are also $20.

Nonmember medical students and residents that register for this meeting and meet the appropriate membership category requirements will be contacted to affirm their membership status.

Printable registration forms are available on the Web site.
This column presents questions recently posed to the American College of Surgeons Coding Hotline and their responses. ACS Fellows and their staff may consult the hotline five times annually without charge. If your office has coding questions, please contact the ACS Coding Hotline at 800-227-7911 between 7:00 am and 4:00 pm Mountain Time, Monday through Friday, holidays excluded.

Our surgeon had to bring a patient back to the operating room to perform a postoperative incision and drainage, complex, for a wound infection. We coded this procedure 10180, Incision and drainage, complex, postoperative wound infection. Can we bill for this service during the global period of the original surgery?

When a return to the operating room is necessary during a global surgery period for the incision and drainage of a complex postoperative wound infection, append modifier –78, Unplanned return to the operating/procedure room by the same physician following initial procedure for a related procedure during the postoperative period, to 10180.

The dictated operative report states that the following procedures were performed: (1) laparoscopic gastric bypass, Roux-en-Y; (2) laparoscopic tube gastrostomy; (3) insertion of percutaneous pain pump; and (4) upper gastrointestinal endoscopy with endoscopic retrieval of percutaneous placed pull wire. The entire operation was done with a voice-operated robotic arm to control the laparoscopic movement. What would be the appropriate codes for these procedures?

The correct coding is 43644, Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and Roux-en-Y gastroenterostomy (roux limb 150 cm or less). Diagnostic EGD (esophagogastroduodenoscopy) and 43653 (laparoscopic gastrostomy) are both included in the procedure according to Current Procedural Terminology (CPT) guidelines and National Correct Coding Initiative (NCCI) edits. Use of robotic equipment is inherent in the procedure.

The operative report indicates that the surgeon performed a direct laryngoscopy, an esophagoscopy, and a rigid bronchoscopy. Can all three of these procedures be coded separately or should they be bundled?

You can report all three as long as your documentation supports that each procedure was a distinct and separate procedure. CPT code 31525,

*All specific references to CPT (Current Procedural Terminology) terminology and phraseology are © 2008 American Medical Association. All rights reserved.
Laryngoscopy direct, with or without tracheoscopy; diagnostic, except newborn, is included in 31622, Bronchoscopy, rigid or flexible, with or without fluoroscopic guidance; diagnostic, with or without cell washing (separate procedure). 31525 may be unbundled from 31622 if you can justify the use of an appropriate modifier (–59—see below). If you are unable to justify the use of a modifier, you may only bill 31622. If you bill both, 31525 should receive the modifier.

CPT code 31525 is included in 43200, Esophagoscopy, rigid or flexible; diagnostic, with or without collection of specimen(s) by brushing or washing (separate procedure). 31525 may be unbundled from 43200 if you can justify the use of an appropriate modifier. If you are unable to justify the use of a modifier, you may only bill 43200. If you bill both, 31525 should receive the modifier. You would have to use the modifier –59, Distinct procedural service. CPT code 43200 and 31622 may be reported together using the modifier –51, Multiple procedures.

Our surgeon removed three breast masses from the patient’s left breast. The masses were excised from two separate sites. How should we code for this operation?

You would code 19120, Excision of cyst, fibroadenoma, or other benign or malignant tumor, aberrant breast tissue, duct lesion, nipple or areolar lesion (except 19300), open, male or female, one or more lesions. Report a second procedure 19120–59, because it required a separate incision through a different excision site. Modifier –59 is used to indicate a separate site was excised. It would be advisable to include either a clear operative dictation or a cover letter stating two distinct incisions were made.

The operative report indicates that the surgeon excised three nevi involving the right side of the neck, ranging from 0.75 to 2.5 cm in size. The surgeon also removed approximately 10 skin tags, ranging from 2 to 5 mm in size, from the neck. The three nevi were 0.75 cm, 2.0 cm, and 2.5 cm. How do you code for multiple excisions of different sizes? Pathology states that all of the specimens were benign.

Resources


Code as follows: 11423, Excision, benign lesion including margins, except skin tag (unless listed elsewhere), scalp, neck, hands, feet, genitalia; excised diameter 2.1 to 3.0 cm; 11422–51, Excision, benign lesion including margins, except skin tag (unless listed elsewhere), scalp, neck, hands, feet, genitalia; excised diameter 1.1 to 2.0 cm; 11421–51, Excision, benign lesion including margins, except skin tag (unless listed elsewhere), scalp, neck, hands, feet, genitalia; excised diameter 0.6 to 1.0 cm; and 11200–51, Removal of skin tags, multiple fibrocutaneous tags, any area; up to and including 15 lesions. The number of skin tags removed determines the code assignment. Code 11200 refers to 15 or fewer skin tags. When specimens are sent for pathological analysis, coders are advised to wait for pathology results before assigning codes.

If a laparoscopic procedure is performed, but no codes accurately describe the laparoscopic procedure, can the open procedure code be reported?

No, an open procedure code should never be reported to describe a procedure that was performed laparoscopically. If there is not an accurate code descriptor, use the unlisted code, for example, 44238, Unlisted laparoscopy procedure, intestine (except rectum).

Can we code for a laparoscopic lysis of adhesions when a laparoscopically assisted small bowel resection is performed?

Do not report laparoscopic lysis of adhesions in addition to the laparoscopically assisted small bowel resection, as this service is included.
College news

In memoriam:

Former ACS Director
Paul A. Ebert, MD, FACS

by Constantine Mavroudis, MD, FACS

Paul Allen Ebert, MD, FACS, the eighth Director of the American College of Surgeons, died in the early hours of April 21, 2009, in Sacramento, CA, quite unexpectedly of an acute myocardial infarction at 76 years of age. His entire life was filled with selfless, virtuous acts, befitting the hero that he was. He was the modest athlete of fairy tales, always eschewing the limelight and giving praise to his teammates. He displayed the equanimity of the thoughtful surgeon, and he always made an effort to relate to his patients. He lived the ethical life and became a beacon of light for those who knew him. He was a towering figure of a man, a virtual giant upon whose shoulders stood a generation of trainees, colleagues, admirers, sports fans, philosophers, friends, and family members. He could have done anything, it seemed, which made his premature passing all the more poignant and stark.

Academic and athletic excellence

Dr. Ebert was born August 11, 1932, in Columbus, OH. He was one of those gifted people who excelled in everything he did. As a student at The Ohio State University, he was a forward and center on the school’s basketball team and a pitcher on the baseball team. In basketball, he was first team All Big Ten and the team’s most valuable player every year that he played at Ohio State, a feat that culminated in All-America honors as a senior (see left photo, page 55). In baseball, he had a career 21–8 record leading his team in strikeouts and wins every year that he played, which earned him consensus All-America selection in his senior year (see center photo, page 55). Dr. Ebert was recruited by the New York Giants and Pittsburgh Pirates to play professional baseball, and for a few moments he entertained the idea, until it
became clear that he could not play professional baseball and attend medical school at the same time—although he was intrigued by the idea. Professional baseball was put aside for loftier goals.

Dr. Ebert enrolled at The Ohio State University Medical School, during which time he married his high school sweetheart, Louise Joyce Parks, on September 4, 1954. Together they were to share the next 55 years in constant companionship as parents, grandparents, and adopted family to their numerous trainees. Dr. Ebert graduated from The Ohio State University Medical School in 1958.

Robert Zollinger, MD, FACS, the chair of surgery at Ohio State and 42nd President of the American College of Surgeons, recommended Dr. Ebert to Alfred Blalock, MD, FACS, the 35th President of the American College of Surgeons, of Johns Hopkins University, where he excelled in a program that was to foster some of the great surgeons and educators of the twentieth century. After two years as a senior assistant surgeon at the National Heart Institute, he became associate professor of surgery at Duke University where David Sabiston, MD, FACS, the 66th President of the American College of Surgeons, was establishing his now-famous residency training program.

Dr. Ebert’s stature as a surgeon and virtuous individual grew rapidly. From 1971 to 1975, he served as chairman of the department of surgery at Cornell University Medical Center, New York, NY. He was 39 years old at the time; some of his residents were older than he was. Yet he was able to form a stellar training program, due in large part to his leadership qualities and his commitment to surgical education.

In 1975, Dr. Ebert was named chairman at the University of California–San Francisco, where he succeeded J. Englebert Dunphy, MD, FACS, the 44th President of the American College of Surgeons (see right photo, this page).

Service to the College

In November 1986, he assumed the Directorship of the American College of Surgeons and served in that role until his retirement at the end of June 1998. During his tenure as Director of the College, Dr.
Ebert oversaw an explosion of expanded member services, which served the growing interests of ACS members in education, new technology, and governance. New challenges in health care delivery necessitated greater representation in Washington, DC, and interaction with the U.S. Congress (see photo, this page). As a spokesman for the College, Dr. Ebert effectively advocated for our patients and our profession.

His vision for the future resulted in a new home for the American College of Surgeons. He led a team that negotiated the terms of a new building, which ensured a permanent home for the College and made possible the administrative offices for The Society of Thoracic Surgeons, The American Board of Thoracic Surgery, the Southern Thoracic Surgical Association, the Society for Vascular Surgery, the American Association for Thoracic Surgery Directors Association, and the Eastern Association for the Surgery of Trauma. His monthly “As I see it” columns for the Bulletin of the American College of Surgeons were, and continue to be, thoughtful analyses of current events and College activities, as well as models for future directions.

A teacher and leader

Dr. Ebert established surgical laboratories wherever he went. Some of his most important contributions to surgery include the initial experiments that introduced cardioplegia to clinical cardiothoracic surgery, neonatal and infant open heart surgery, development of clinical techniques that dramatically improved survival for patients with truncus arteriosus, and establishing the pioneering techniques that led to neonatal application of the arterial switch operation for transposition of the great arteries. He authored or co-authored 198 manuscripts in peer-reviewed journals, which are a record of achievement that speak for his genius and innovative talents.

He was a popular visiting professor, mostly for his modest style and the perspicacious manner in which he solved clinical problems. Everyone wanted to know how Paul would approach this clinical dilemma or that complex surgical challenge. He could give advice without criticism, he could understand the conditions underlying the patient’s problem, and he could express a solution in simple terms with clear goals. He was a masterful teacher whose efforts in the operating room were aimed at ensuring that the trainee could perform the operation without his help. The success of this teaching style has been demonstrated by the success of his trainees and subsequently by their trainees. There can be no greater testimony to his memory than the living manifestation of his teaching methods learned by present and future generations (see photo, page 57).

Paul Ebert touched a generation of colleagues, students, and patients from all parts
of the world. One was struck immediately by his humanity, character, and stature. He was gentle, polite, and firm in his convictions. He could and did argue effectively, but in the end, no matter what the outcome, the experience was fruitful, engaging, and educational. It was amazing that one with so many strong ideas and committed visions could be loved by so many people. Perhaps his most noble of traits was that he could “get out of himself” to recognize the needs and concerns of others. He was a very unselfish man, and he led by example.

**Offices and awards**

Besides serving as president of the American Association for Thoracic Surgery, Dr. Ebert was elected president of the American College of Cardiology, the Association of Academic Surgery, the Society of University Surgeons, and the Western Thoracic Surgical Association.

In 1989, he was the recipient of the Theodore Roosevelt Award, the highest honor that the National Collegiate Athletic Association (NCAA) may confer on an individual, awarded to a distinguished citizen of national reputation based on outstanding life achievement. Other awardees include Dwight Eisenhower; Jesse Owens; George H.W. Bush; Ronald Reagan; Denton Cooley, MD, FACS; and Roger Staubach. Dr. Ebert wasn’t a wallflower. In his speech to the NCAA commemorating his coveted prize, he noted, “Certainly pressures today on our entire society have made many fantasize life with the use of drugs—and athletes have not been immune to these temptations. Stresses and strains on the college athlete may well be greater than on the ordinary student and the temptations greater and the feeling of indestructibility..."
by the athlete perpetuated. Combine this with the more recent and more common use of steroid compounds to increase performance and body size and the pressures upon this organization [NCAA] have further amplified. Yet through these unpleasant and certainly adverse types of events, the NCAA continues to strengthen the bonds between academia and athletics.” This speech took place in 1989, years before the drug problem became overt in professional and college sports.

A natural
Everyone loved to talk to Paul. It seemed like he had a solution for everything. Some people who knew him recommended that he run for the U.S. Senate or President of the U.S. These were not idle or groundless suggestions. He didn’t take these comments seriously, however, and in fact spurned the ideas until someone mentioned sports. He then became animated—almost as if he were playing again. One could see the excitement, subtle as it was, in his eyes. He was concentrating on striking out the batter. He was about to drive for a lay up. It was easy to see why he was such an accomplished surgeon—he had the hand-eye coordination of a two-sport All-American. He didn’t have a favorite pitch in baseball or a preferential shot in basketball. He could beat the opposing team with whatever pitch or shot that was necessary. It was like that in surgery. He was just a natural, the likes of which will not come again soon.

He is survived by Louise Joyce Parks, his spouse of 55 years; his children, Leslie Ebert Buhlman, Michael Ebert, and Julie Ebert-McQuillan; and his grandchildren, Holly, Rudy, Claire, and Paul Buhlman, and Danyon Ebert-McQuillan.

In the end, history will remember Paul Ebert for the Renaissance man that he was: scholar, quintessential surgeon, investigator, athlete of legendary proportions, and committed teacher. His legacy will be recreated every day by the scores of “Ebertisms” that have been propagated over the years. Anecdotes like, “If you don’t get into the right atrium at least once during a redo dissection, you are moving too slow (sic)” or “You could have done that better” never die. His family will remember him for his love, affection, candor, and unconditional devotion. Those individuals who worked with him will remember his virtues, humanity, humor, and sensitivity. We will all miss him.

Dr. Mavroudis is Ross Professor of Surgery and chairman, pediatric and congenital heart surgery, Cleveland Clinic/Lerner School of Medicine, Cleveland, OH.
Richard E. Anderson, MD, FACP
Chairman and CEO, The Doctors Company

We proudly announce our 2009 member dividend. We set a higher standard. We ensure that members benefit from our strength. We embrace opportunities to recognize and reward physicians. We exceed expectations. We offer tangible benefits to those who join us. We stand behind the promises we make. We are The Doctors Company.

We are on a mission to relentlessly defend, protect, and reward doctors who advance the practice of good medicine. We act with single-minded determination to reward our members and to ensure that they share in the company’s financial strength. In 2007 and 2008, our members received a dividend of between 5 and 7.5 percent. For 2009, eligible members will receive a dividend distribution at the same level. That’s approximately $60 million returned to members in three years. ACS has sponsored our medical professional liability program since 2002. To learn more about our program for ACS members, call (800) 352-0320 or visit us at www.thedoctors.com.
Fourteen surgeons attended the Leadership Program in Health Policy and Management that took place last month at Brandeis University, Waltham, MA. Each scholarship included participation in the weeklong intensive course, to be followed by a year’s service in a health policy-related capacity to the College and the surgical specialty society co-sponsoring the awardee.

**2009 Health Policy Scholars announced**

- ACS Health Policy Scholar for General Surgery: John Maa, MD, FACS, University of California San Francisco, San Francisco, CA.
- ACS Health Policy

Dr. Maa  
Dr. Wyrzykowski  
Dr. Moore

Dr. Ratliff  
Dr. Block  
Dr. Lund
Scholar for General Surgery: Amy Wyrzykowski, MD, FACS, Emory University, Atlanta, GA.

- ACS/American Academy of Otolaryngology–Head & Neck Surgery Health Policy Scholar: Brian A. Moore, MD, FACS, Eglin Air Force Base Regional Hospital, Pensacola, FL.

- ACS/American Academy of Neurological Surgeons Health Policy Scholar: John K. Ratliff, MD, FACS, Thomas Jefferson University, Philadelphia, PA.

- ACS/American Association for the Surgery of Trauma Health Policy Scholar: Ernest F.J. Block, MD, MBA, FACS, Orlando Regional Medical Center, Orlando, FL.

- ACS/American Pediatric Surgery Association Health Policy Scholar: Dennis P. Lund, MD, FACS, University of Wisconsin-Madison.

- ACS/American Surgical Association Health Policy Scholar: Dr. Tufaro, Dr. Kurtzman, Dr. Sentovich, Dr. Tufaro, Dr. Lazarou, Dr. Saigal.
Policy Scholar: David A. Spain, MD, FACS, Stanford University, Stanford, CA.

ACS/American Society of Breast Surgeons Health Policy Scholar: Scott H. Kurtzman, MD, FACS, Waterbury Hospital, Waterbury, CT.

ACS/American Society of Colon and Rectal Surgeons Health Policy Scholar: Stephen M. Sentovich, MD, FACS, Boston Medical Center, Boston, MA.

ACS/American Society of Plastic Surgeons Health Policy Scholar: Anthony P. Tufaro, MD, DDS, FACS, Johns Hopkins University, Baltimore, MD.

ACS/American Urogynecologic Society Health Policy Scholar: George Lazarou, MD, Albert Einstein College of Medicine, Bronx, NY.

ACS/American Urological Association Health Policy Scholar: Christopher S. Saigal, MD, FACS, University of California Los Angeles.

ACS/Society of Thoracic Surgeons Health Policy Scholar: Jennifer L. Ellis, MD, FACS, Washington Hospital Center, Washington, DC.

ACS/Society for Vascular Surgery Health Policy Scholar: Charles J. Shanley, MD, FACS, Beaumont Hospital, Royal Oak, MI.

Visit the ACS Web portal’s rural surgeons community

Are you a rural surgeon looking for an easier way to stay current on topics of interest? If so, look no further than the Rural Surgeons Community on e-FACS.org, the College’s members-only Web portal, where you will find many useful features and resources. For starters, the “Latest from PubMed” feature provides scrolling links to the most recent journal articles related to surgery in rural areas. See something you like but don’t have time to read it right away? Just click the “Add to Bookmarks” button to save the item to the portal’s “My Bookmarks” page for later reading.

The community also includes a link to the rural surgeons discussion forum, where members of the College can share ideas or ask questions—you can even subscribe to the forum to receive an e-mail when new postings are added. As an extension of this forum, Tyler G. Hughes, MD, FACS (co-community editor, Rural Surgeons), has created the rural surgeons’ network for those who wish to be alerted to postings and events on rural surgery. The alerts are noncommercial, brief, and transmitted only when a new subject of interest is posted.

For information on how to join the network or to submit material, photos, or ideas, visit the Rural Surgeons Community at http://efacs.org/rural.
A look at The Joint Commission

Improve hand hygiene with free monograph

Preventing infections is critical to patient safety. A monograph from The Joint Commission offers surgeons and their team members a new way to focus on an important aspect of infection prevention—compliance with recommended hand hygiene practices.

Effective hand hygiene practices have long been recognized as the most important way to reduce the transmission of potentially deadly germs in health care settings, including the surgical suite. The new monograph, Measuring Hand Hygiene Adherence: Overcoming the Challenges, is the result of a two-year collaboration with major infection prevention and control leadership organizations in the U.S. and abroad to identify effective approaches for measuring adherence to hand hygiene guidelines in health care organizations.

In addition to The Joint Commission, the participating organizations include the Association for Professionals in Infection Control and Epidemiology Inc., the Centers for Disease Control and Prevention, the Society for Healthcare Epidemiology of America, the World Health Organization World Alliance for Patient Safety, the Institute for Healthcare Improvement, and the National Foundation for Infectious Diseases.

Measuring hand hygiene performance has long been complicated because of the need to monitor the practices of many different care providers in numerous locations for sufficient periods of time. Without standardized approaches for measuring hand hygiene performance, it is impossible to determine whether overall performance is improving, deteriorating, or unchanged as new strategic interventions are introduced.

The Joint Commission’s National Patient Safety Goals require accredited organizations to follow recognized hand hygiene guidelines; however, studies continue to show that adherence to these guidelines is lacking. This finding is due, in part, to the variation in approaches to measurement, which makes rates of adherence difficult to compare.

The monograph provides a framework to help health care workers make necessary decisions about when, why, and how to measure compliance with hand hygiene. The monograph systematically reviews the strengths and weaknesses of commonly used approaches.

Examples of measurement methods and tools in the monograph, which also includes references to evidence-based guidelines and published literature, were submitted by organizations through the Consensus Measurement in Hand Hygiene Project. The project was supported by an unrestricted educational grant from GOJO Industries, Akron, OH.

Electronic copies of the monograph are available on The Joint Commission’s Web site at http://www.jointcommission.org/PatientSafety/InfectionControl/hh_monograph.htm. One free printed copy is available by calling The Joint Commission’s Customer Service Center at 630-792-5800, option 5, or sending an e-mail to customerservice@jointcommission.org.

Correction

In the memorial for David Coston Sabiston, Jr., MD, FACS, which appeared in the May Bulletin (page 39), it was stated that Dr. Sabiston accepted the James B. Duke Professorship of Surgery at Duke University in 1963. Dr. Sabiston accepted the professorship in 1964. The editors regret the error.
NEW! ACS MULTIMEDIA ATLAS OF SURGERY Colorectal Volume. This DVD and accompanying book provide an interactive demonstration of 26 colorectal surgery procedures, both laparoscopic and open. Especially designed to address the cognitive element of surgical procedures, each procedure is presented in a step-wise fashion, offering expert commentaries that highlight specific nuances and actions to be taken to prevent errors. Upcoming volumes include Pancreas Surgery and Hernia Surgery.

NEW! PROFESSIONALISM IN SURGERY, 2nd Edition: This DVD presents an additional 12 new vignettes that depict professionalism challenges faced by surgeons in everyday practice, as well as possible courses of action in the context of the core competency of professionalism. The vignettes are ideal for teaching purposes and CME credit is available.

NEW! ACS SURGERY RESIDENT OSCE: This program provides a tool to assess the entry-level knowledge and skills of PGY-1 surgery residents to deliver safe care to surgery patients with critical and life-threatening conditions. It includes a CD-ROM manual with all the materials needed to administer the OSCE, and a DVD that provides a gold standard performance of each clinical scenario. This project was supported by grant number U18 HS12021 from the Agency for Healthcare Research and Quality.

NEW! PATIENT SAFETY 2008 CD. This CD features patient safety sessions from the 2008 Clinical Congress.

BASIC ULTRASOUND COURSE CD: This CD provides a basic core of education and training in ultrasound imaging as a foundation for specific clinical applications and is available for CME credit.

PRACTICE MANAGEMENT for Residents and Young Surgeons: This series of three CDs covers important topics such as mechanics of setting up or running a private practice, essentials of an academic practice and career pathways, and basics of surgical coding. CME credit is available.

ADDITIONAL CDs, including the Bariatric Surgery Primer and Personal Financial Planning and Management for Residents and Young Surgeons.

DVDs AVAILABLE AT NO CHARGE, including Disclosing Surgical Errors: Vignettes for Discussion, and Communicating with Patients About Surgical Errors and Adverse Outcomes, each supported by a grant of the Agency for Healthcare Research and Quality.

VIDEO-BASED EDUCATION SESSIONS: Select video sessions from the Clinical Congress are available on CD/DVD. The ACS Video Library contains narrated videos, donated by the authors.

For purchase and pricing information, call ACS Customer Service at 312/202-5474 or visit our E-LEARNING RESOURCE CENTER at www.acs-resource.org

For more information, contact Olivier Petinaux, MS, at elearning@facs.org, or 866/475-4696.
Clinical congress sessions to present research in progress

More than 300 presentations will take place during the Owen H. Wangensteen Surgical Forum and the Scientific Exhibition forums at the 2009 American College of Surgeons Clinical Congress in Chicago this October. Awards will also be distributed during each forum.

More than 300 abstracts have been selected for presentation in the 29 sessions that make up the Owen H. Wangensteen Surgical Forum. Twelve authors have been selected for Excellence in Research Awards. Award distribution will take place at the beginning of the Surgical Forum-sponsored panel session, Science of Obesity Surgery, on Tuesday, October 13, from 11:30 am to 1:00 pm. Immediately following the award distribution, the 2009 Surgical Forum Volume will be dedicated to Hiram C. Polk, Jr., MD, FACS. Tien C. Ko, MD, FACS, will make the introductory remarks, with comments from Dr. Polk to follow. Medical students, surgical residents, and their mentors are encouraged to attend the award distribution and dedication, as well as the abstract sessions taking place throughout the duration of the Clinical Congress.

The Scientific Exhibition is a forum during which more than 350 posters are used to present completed research, research in progress, and case reviews. Each poster will be on display for one day only—Monday, Tuesday, or Wednesday—in the West Building of McCormick Place. Attendees are especially encouraged to visit the exhibits during the lunch break, when authors will be at their booths to discuss their work and answer questions. A lunchtime tour and discussion of the Posters of Exceptional Merit will be facilitated on Tuesday, October 13, by Barbara L. Bass, MD, FACS, a Regent of the College and Chair of the College’s Program Committee. The authors will present each distinguished work, and an award will be given to the best poster of the exhibition.

For more information, visit http://www.facs.org/clincon2009/.

New College Web site centers on E-prescribing Incentive Program

The American College of Surgeons has created a Web site to educate members about the Centers for Medicare & Medicaid Services’ 2009 E-prescribing Incentive Program. The Web site includes an introduction to the electronic prescribing program, a discussion of frequently asked questions, and resources for surgeons who want to participate.


Change your address online!
Go to the College’s “members only” Web portal at www.e-facs.org
With Group Savings Plus®, American College of Surgeons members can get more from their auto and home insurance.

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Over the millennia, Earth’s climate has changed many times, with periods ranging from the ice age all the way to long periods of heat. In the past, these climate changes occurred only from natural factors—including volcanic eruptions, alterations in the amount of energy released by the sun, and changes in the Earth’s orbit. It was not until the Industrial Revolution began in the late 18th century that human activities very likely started to affect the composition of the atmosphere and the Earth’s climate.

More than 200 years of deforestation and the burning of fossil fuels such as coal and oil have led to the increase of heat-trapping greenhouse gases. Acting somewhat like the panels of a greenhouse, these gases prevent heat from escaping into space (for more information on climate change, visit http://www.epa.gov/climatechange). Global warming is a well-known phenomenon that has achieved worldwide focus and attention.

Many initiatives to combat global warming are under way or in the planning process at the local, state, national, and international levels. A hot news item was reported earlier this year pointing out that along with the well-known rise in the average global temperature over the past 50 years comes a new finding that the hottest day of the year has shifted nearly two days earlier (Thomson DJ. Climate change: Shifts in season. Nature. 2009; 457:391-392).

Global warming may ultimately have an impact on trauma. Average temperatures tend to increase from winter to summer. This seasonal variation is more pronounced the farther one gets away from the equator or large bodies of water. As seasons change and the temperatures go up during the summer, there is an accompanying increase in the trauma volume seen at trauma centers. This seasonal trend held true for all four census regions and was reported in a September 2006 Bulletin article, “Trauma season” (2006; 91(9):58-59).

Increased trauma in the summer months is most likely due...
to a variety of factors that may include the temperature.

Many individuals can personally relate to the deterioration of their coping skills in challenging situations on the hottest day of the year, when the heat and humidity are rolling down one’s forehead, as dramatized in the 1993 movie *Falling Down*, starring Michael Douglas. Along with the warmer weather of summer, there are more recreational activities and family vacations with their related risks.

In order to examine the occurrence of summer-related trauma in the National Trauma Data Bank Research dataset 2007 admissions (formerly called research dataset 8.0), records were searched for admission dates occurring in the months of June, July, and August (representing the three-month peak seasonal increase demonstrated in the 2006 Bulletin analysis).

Of the 507,262 incidents, there were 140,888 occurring during the three summer months. Of these, 125,866 records had discharge status recorded, including 96,174 discharged to home, and 15,682 to acute care/rehabilitation; 8,511 were sent to nursing homes, and 5,499 died. These patients were 65.2 percent male and on average 38.4 years of age; they had an average length of stay of 5.6 days, and an average injury severity score of 9.2.

When comparing the summer group with the remaining nine-month group (non-summer months), there were statistically significant increases in penetrating trauma, alcohol confirmed by test positive, location of injury as recreation, and assaults (these data are displayed in the graph on page 67).

Summer should be a time to kick back and enjoy the outdoors. Spend time with family and friends. Take a vacation, enjoy time on fossil fuel-propelled boats, all-terrain vehicles, planes, and trains. However, while one is relaxing and trying to beat the heat, take time to reflect on the environment, on the generation of greenhouse gases, and on global warming and its impact on “falling down.”

The full NTDB Annual Report Version 8.0 is available on the ACS Web site as a PDF and a PowerPoint presentation at http://www.ntdb.org.

If you are interested in submitting your trauma center’s data, contact Melanie L. Neal, Manager, NTDB, at mneal@facs.org.

**Acknowledgment**

The author acknowledges the assistance of Sandra Goble, MS, in the preparation of this column.

**Dr. Fantus** is director, trauma services, and chief, section of surgical critical care, Advocate Illinois Masonic Medical Center, and clinical professor of surgery, University of Illinois College of Medicine, Chicago, IL. He is Chair of the ad hoc Trauma Registry Advisory Committee of the Committee on Trauma.