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Looking forward

by David B. Hoyt, MD, FACS

This year’s Clinical Congress, October 6–10, in Washington, DC, promises to be extraordinary. As always, the Program Committee, chaired by Valerie W. Rusch, MD, FACS, and staff in the American College of Surgeons (ACS) Division of Education, led by Ajit K. Sachdeva, MD, FACS, FRCS(C), have put together a diverse program that should appeal to surgeons, surgical trainees, and allied health care professionals in all specialties. The program includes an array of Panel Sessions, Named Lectures, Postgraduate Courses, Scientific Paper and Surgical Forum Sessions, Scientific Poster Presentations, Video-Based Education Presentations, Meet-the-Expert Luncheons, and interactive Town Hall Meetings.

However, what will really set this year’s Clinical Congress apart are the programs that spotlight the organization’s 100 years of Inspiring Quality. I’d like to take this opportunity to highlight some of the key events that may be of interest to ACS members.

Historian David McCullough

We are thrilled to have renowned historian David McCullough deliver this year’s Martin Memorial Lecture, sponsored by the American Urological Association. The title of Mr. McCullough’s presentation is Something New, Something Old, With Renewed Force: The Role of History and Innovation in Medicine, and the College’s leadership anticipates that he will bring his gift for storytelling and for vividly recounting historical events to the podium.

Mr. McCullough has received numerous writing awards as well as the 2006 Presidential Medal of Freedom, the highest civilian honor accorded in the U.S. His first book, *The Johnstown Flood*, was published in 1968 to critical acclaim. His third book, *The Path Between the Seas: The Creation of the Panama Canal, 1870–1914*, published in 1977, won the National Book Award in History, the Francis Parkman Prize, the Samuel Eliot Morison Award, and the Cornelius Ryan Award. *Mornings on Horseback*, a 1981 biography of the early part of President Theodore Roosevelt’s life, also won the National Book Award, and biographies of two other U.S. Presidents—Harry Truman and John Adams—were awarded the Pulitzer Prize in 1993 and 2002, respectively. Mr. McCullough also has narrated several documentaries and the film *Seabiscuit*. He hosted the PBS television show *American Experience* for 12 years. I can’t think of a better way to honor the College’s Centennial than to have this distinguished historian offer his perspectives on the developments that have occurred in our profession.

The Martin Memorial Lecture will be presented immediately after the Clinical Congress Opening Ceremony at 8:30 am, Monday, October 7, at the Walter E. Washington Convention Center. The Opening Ceremony will include a number of special features to commemorate this occasion, and our new President, Carlos Pellegrini, MD, FACS, FRCS(C)(Hon), will serve as the Presiding Officer. Dr. Pellegrini, The Henry N. Harkins Professor and Chair, department of surgery, University of Washington, Seattle, will be installed as President during the Convocation ceremonies at 6:00 pm, Sunday, October 6. Dr. Pellegrini’s theme for the coming year is “The Surgeon of the Future: Anchoring Innovation and Science with Moral Values.”

Other sessions of interest

Several other Centennial-related educational sessions will take place throughout the Clinical Congress, including:

Monday, October 7

• Advances to the Care of Surgical Patients through Contributions of *JACS* and the *BJS* Centennial Report: *JACS* Editor-in-Chief Timothy J. Eberlein, MD, FACS, will moderate this session featuring several distinguished speakers from the U.S. and the U.K., who will discuss the role of the journals in improving patient care and the importance of international collaboration in surgery.

• Symposium on the Legacy of Frank H. Netter, MD: Francine Mary Netter will offer personal reflections on her father’s life and career as a surgeon and medical illustrator; and William C. DeVries, MD, FACS, the cardiothoracic surgeon known for implanting the first total artificial heart, and Basil A. Pruitt, Jr., MD, FACS, FCCM, a critical care and burn surgeon, will reflect on their experiences working with Dr. Netter.
[W]hat will really set this year’s Clinical Congress apart are the programs that spotlight the organization’s 100 years of Inspiring Quality. I’d like to take this opportunity to highlight some of the key events that may be of interest to ACS members.

**Tuesday, October 8**

- **100 Years of Rural Surgery: Past Accomplishments, Future Challenges:** Sponsored by the ACS Advisory Council for Rural Surgery, this panel will explore the past, present, and future of rural surgery, as well as the College’s recent initiatives to support and improve rural surgical care.

- **Subject-Oriented Symposium II: 100 Years of Surgery:** This Video-Based Education program will focus on some of the giants in surgery, including Franklin H. Martin, Edward Martin, Alfred Blalock, Robert Zollinger, H. William Scott, James D. Hardy, G. Thomas Shires, W. Dean Warren, and LaSalle D. Lefall, Jr.—all Fellows of the College.

- **Advances in Periocular and Orbital Surgery: The Past 25 Years:** Sponsored by the Advisory Council for Ophthalmic Surgery, this panel will review the progress that has occurred in the management of conditions of the periocular adnexa and orbit.

- **Surgical Heroes of the Next 100 Years: Will They Be Different?:** This session will focus on contemporary challenges in surgery, some of which may be best addressed by surgeons who have skills that extend to global communication, advocacy, technology, business, and mentorship.

**Wednesday, October 9**

- **A Century of Canadian Contributions to the ACS and Surgical Science:** This panel will highlight selected areas of surgery in which Canadian surgeons have made significant advances.

- **Looking Back and Moving Forward: 100 Years of Surgical Research: Building on 100 years of contributions in the field, panelists will envision the next century of surgical research in transplantation and tissue engineering, trauma, and cancer treatment.

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**A toast**

To further commemorate this historic occasion, an interactive exhibit featuring a timeline of milestones in surgery and the history of the ACS will be set up in the registration area once again this year, and various custom-designed items featuring the ACS seal, including an iridescent glass and crystal decorative object and pen-and-ink drawings, will be available for purchase.

Finally, I would like to invite you to join the College’s leadership for a champagne toast celebrating the College’s past and looking forward to the next 100 years. This event will take place Tuesday at 8:30 pm at the Marriott Wardman Park Hotel, Salon 1. I look forward to observing the College’s 100th birthday with you.

If you have comments or suggestions about this or other issues, please send them to Dr. Hoyt at lookingforward@facs.org.
Surgeons put planning, preparation, past experience to work in efforts to save Boston Marathon bombing victims

by Diane Schneidman
What started as a typical “Marathon Monday” in Boston, MA, quickly turned into a rigorous test of the city’s disaster preparedness when two bombs exploded at approximately 2:50 pm April 15 near the finish line of the 117th running of the storied footrace. The explosions sent pellets, small BBs, headless nails, and other pieces of shrapnel flying upwards, ripping through the lower extremities of runners and spectators.*† Within seconds, Boylston Street looked like a bloody battlefield.

Three people died at the scene, but the patients‡ who were transported to the city’s six American College of Surgeons (ACS)-verified Level I trauma centers and multiple emergency departments (EDs) all survived. The surgeons who treated many of the most severely wounded patients that day attribute this positive outcome to several factors: a remarkable level of dedication and cooperation among the city’s emergency care providers, their past experiences, careful preparation, the indomitable spirit of the victims, and, frankly, a little luck. They also say that this incident provided some valuable lessons in how to better handle these situations in the future.

Getting word, marshaling resources

Like most Americans, the surgeons who provided life-sustaining care to the victims were shocked when they first learned of the marathon bombing. George Velmahos, MD, FACS, chief of trauma surgery at Massachusetts General Hospital, was just finishing 32 hours on call. “I was planning to wrap up the day when I received notification that there was a mass-casualty event. Initially, I thought it would be a big car crash or something, but the second phone call immediately followed, and that’s when I learned it was a bombing event. I ran into the emergency room [ER], and within minutes I heard the sirens of the ambulances arriving.”

The thought that it was a terrorist attack “didn’t even connect,” Dr. Velmahos said. “I mean Boston was the last place in the world anyone would have thought something like that could happen—a peaceful city, an intellectual city, a civilized city. Even when they said ‘bombing,’ I was thinking a gas tank explosion or something. It never occurred to me that it was a terrorist attack until I arrived in the emergency room, and a few minutes later, people with blown-off legs and the police arrived.”

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‡Initially estimated to be 140 patients, but now believed to be a total of more than 250, including those who came forward in the days following the attack.
“In the case of this particular event, which happened in broad daylight with so many people watching, a lot of the things we normally would have to assemble self-assembled because the entire medical community all throughout the city all knew almost instantaneously.”

—Dr. Hauser

Like Dr. Velmahos, Jonathan D. Gates, MD, FACS, medical director of trauma services, department of trauma, burns, and surgical critical care at Brigham and Women’s Hospital, was completing some paperwork when he learned of the incident. He received a phone call from the Brigham’s trauma manager, a spectator at the race. She reported that an explosion had occurred near the finish line. That phone call was followed by another from an orthopaedic trauma surgeon who also had heard of the bombing. “We agreed that we would make our way to the emergency department to find out what was going on,” Dr. Gates explained. “When we got up there, there were actually three or four patients who had already been brought in. We did a quick read on our resources, and having just been in the office minutes before, I was able to have a pretty good sense of who we had available in terms of trauma personnel. I went back to the office and said, ‘All hands on deck. It’s time to bring everybody up.’”

David P. Mooney, MD, MPH, FACS, director, trauma program, department of surgery, Boston Children’s Hospital, was on call when his wife phoned to inform him of the bombing. “So I thought I’d walk down to the emergency room and see what going on. When I got to the ER, our emergency alert radios started going off, indicating that patients were coming our way. We had no idea what was going on, just that there was a bombing and an as yet unknown number of kids heading our way,” Dr. Mooney said. “We started to organize into our teams, and then in about 10 or 15 minutes patients started to arrive.”

“My secretary, whose desk is just outside my office, was listening to coverage of the marathon on the radio, and all of the sudden I heard her exclaim, ‘Oh my God. There’s been an explosion,’” said William Mackey, MD, FACS, chair, department of surgery, Tufts Medical Center. “It was just a few minutes later that we got EMS [emergency medical services] notification of a mass-casualty event, so our trauma team was mobilized. By the time we got our first casualties, which was probably 20–30 minutes after the first explosion, we had three trauma teams and four or five orthopaedic teams in the ER waiting.”

Carl J. Hauser, MD, FACS, a trauma surgeon, division of trauma and surgical critical care, the Roberta and Stephen R. Weiner Department of Surgery, Beth Israel Deaconess Medical Center, learned of the explosions first via text message and then through a hospital alert. He then walked to the trauma center and started assembling the necessary resources. “In the case of this particular event, which happened in broad daylight with so many people watching, a lot of the things we normally would have to assemble self-assembled because the entire medical community all throughout the city all knew almost instantaneously. They were coming in the door faster than we were calling them.”

Much to his frustration, Peter A. Burke, MD, FACS, chief of trauma services, Boston Medical Center, was dealing with an entirely different set of problems. He was in Nevada at a meeting of the Surgical Infection Society when he learned what was happening back in Boston. “I went to the concierge and said, ‘I really have to get back to Boston.’ They were able to get me on a flight in about an hour-and-a-half. I got back to the hospital at about midnight, and I was able to help with a couple of operations and for the duration of our efforts. I wasn’t here for the initial incident, but our team did a great job,” Dr. Burke said.

**Pre-hospital care**

As the trauma teams were assembling, EMS, police, and bystanders were cutting through the chaos surrounding them at the scene of the bombing. The surgeons who treated the bombing patients agreed that the first responders should be commended for getting patients to the trauma centers expeditiously and for providing life-sustaining emergency care.

According to Dr. Gates, “They had the first patient here at the Brigham I would say about 12 or 15 minutes after the bombs went off. That rapid transport of patients to definitive care made a tremendous difference in the patient survival rate.”
Furthermore, EMS took measures to ensure that patients were evenly distributed across the city’s six (five adult, one pediatric) Level I trauma centers. “There was remarkable equanimity in the way that the EMTs spread the patients out,” Dr. Hauser said. “Although we got a lot of patients all at once and had to use a lot of resources all at once, we weren’t really overwhelmed.”

Dr. Burke agreed, noting, “In a way, we never had to go to true mass-casualty procedures where you find yourself having to triage people and say, ‘Well, we’ve run out of resources. I can’t help this patient so I’m going to triage him to comfort care.’ Everyone got what they needed, and that’s why, in my opinion, nobody died except for the people who were killed at the scene.”

Dr. Burke added, “Another thing that went well was the early use of tourniquets by first responders and by civilians, and that, with extremity injuries, was lifesaving in many respects.”

Procedures performed
The patients arrived at the hospitals in waves. The first surge came within minutes of the explosions and included the most severely injured people—the ones with mangled limbs, severed arteries, and so on. The second ripple came within the first hour or so, followed about half an hour later by the less severely injured. By the time the patients reached the hospitals, the trauma teams were fully assembled and ready to start delivering care.

“We treated 32 patients of whom 12 were more severely injured, and eight of them went immediately to the operating room,” Dr. Velmahos said. The most commonly performed operations at Mass General that day were amputations, wound management and damage-control procedures, shrapnel extractions, laparotomy, and orthopaedic operations to treat fractures. “There were other injuries, such as eardrum rupture, that we left to manage on another day,” added Dr. Velmahos.

The Brigham and Women’s Hospital received 35 patients on the day of the bombing; 15 of them were bodily injured, and 10 went directly to the OR for management of their injuries. Two amputations were completed, but most patients had major open wounds combined with bone and vascular injuries or just bone and soft tissue injuries, Dr. Gates said.

Boston Medical Center evaluated 28 patients and admitted 19, of whom 16 underwent operations within the first eight hours or so. “Most patients had soft tissues injuries to the lower extremities. We did seven amputations on five patients,” Dr. Burke said. Surgeons also performed three vascular procedures and operated on one abdominal injury.

Children’s treated a total of 10 patients—nine children and one parent, Dr. Mooney said. “Three of the kids were immediately admitted to the [intensive care unit]. The other kids had shrapnel injuries that we were able to treat in the ER. One kid had a laceration on his scalp, and that was just closed,” explained Dr. Mooney. “We had two kids with pretty bad injuries to their legs that were sent right upstairs to the OR. Both had tourniquets on when they arrived at the hospital.”

The 18 cases seen at Tufts included blast injuries with open fractures, shrapnel wounds, and soft tissue injuries between the knee and the ankle. “There was a very significant knee injury where the knee was totally blown out, and that was just a wash out with an external fixator application,” Dr. Mackey said. No amputations were performed at Tufts.

On the other hand, of the 21 patients Beth Israel received, “we had three people within the first three minutes who clearly were not going to have limb survival. They had injuries that we would call ‘mangled extremities’ where the chances of successfully saving them were extremely remote,” Dr. Hauser said.

All of the surgeons at institutions where amputations were performed said they had no alternative. “Amputations were done on patients with legs that were already 75 percent or 90 percent severed by the bomb,
so we didn’t do much more than complete the work that the bomb had done,” Dr. Velmahos said. “There was no question about amputating these legs. They were hanging by a thread.”

Many patients, including those who had amputations or partial amputations, underwent multiple operations. According to Dr. Burke, staging of procedures is a technique that originated with military surgeons who are all-too familiar with blast injuries. “You do what we call ‘damage-control’ operations initially, where you just take care of the immediate threat to life, and then develop a plan to bring these patients back to do staged operations,” Dr. Burke explained. “A key concept of damage control is one of prioritizing time, with the initial focus being on the physiology and not the anatomy.”

Experience
The surgeons emphasized that their past experiences in treating patients with advanced trauma were of enormous help in delivering the care that these patients needed.

“Unfortunately, the gruesomeness and the gore of this situation were no different than what we see on a daily basis because trauma is trauma, and car crashes, falls from heights, terrible gunshot wounds produce the same type of gruesome injuries,” said Dr. Velmahos. “Before Boston, I worked in one of the largest trauma centers in the United States in Los Angeles, CA, and before that at one of the largest trauma centers in the world in South Africa. Back then, a typical Saturday night seemed like a mass-casualty event because of the tremendous volume of patients we were receiving.”

Dr. Hauser has been a trauma surgeon for nearly 30 years. “I was in Newark when 9/11 went down. I’ve seen a lot of Saturday nights in L.A. County and places like that where we’d see a lot of injuries all at once. This was about what you expect and what you prepare for,” he said.

“Every day in our ER we see 30 to 40 injured kids, and that day turned out to be a slow day because once the bombing happened, no one left their house,” Dr. Mooney said, noting that the morning of the attack, a young man had run through a plate glass window in his house and nearly cut off his arm.

COLLEGE PRESENTS SESSION ON MARATHON BOMBING AT THE 2013 CLINICAL CONGRESS

The ACS will present a panel session titled Lessons Learned from the Boston Marathon Bombing during the 2013 Clinical Congress, October 6–10, in Washington, DC. The session will focus on the Boston Marathon bombing as an example of a civilian mass-casualty event. The exercises leading up to the event and the Committee on Trauma’s certification of Level I trauma centers in Boston helped save the lives of every victim who made it to the hospitals. Details are as follows:

PS331: Lessons Learned from the Boston Marathon Bombing

Time: 8:00-9:30 a.m.
Date: Wednesday, October 9
Location: Walter E. Washington Convention Center, 144
Moderator: Michael J. Zinner, MD, FACS, Boston
Co-Moderator: Michael F. Rotondo, MD, FACS, Greenville, NC
Preparation for the Unexpected
Alok Gupta, MD, FACS, Boston
In-Hospital Triage and Initial Evaluation
Reuven Rabinovici, MD, FACS, Boston
In-Hospital Response and Operations
George C. Velmahos, MD, FACS, Boston
Postoperative Care Challenges and Successes
Tracey A. Dechert, MD, Boston
Rehabilitation and Long-Term Outcomes
Jonathan D. Gates, MD, FACS, Boston
Department of Defense Experience
COL Jonathan Woodson, MD, Washington, DC
Surgeons and the Boston Marathon Bombing

“Tt think [this situation] reinforces again that the best care we deliver is clearly as a team and that includes the pre-hospital element, which was critical in this situation, to the emergency department, to every one of the surgical services,” added Dr. Gates. “It truly was a hospital-wide effort.”

Dr. Mooney added that involvement in efforts to assist the victims of the 2010 earthquake in Haiti provided him with experience that was helpful in this situation. “I’m on one of the DMATs [Disaster Medical Assistance Teams], and I deployed to Haiti. I was on one of the first U.S. teams to arrive after the earthquake, and we saw a lot of really awful injuries down there. They’d come in big numbers and then there’d be sort of a pause. There was a little bit of a correlation with that,” he said.

Dr. Gates also was involved in Haiti relief initiatives. “Our group at the Brigham was located at the university hospital in Haiti, and at that time, we had over 1,000 patients at the hospital at one time,” Dr. Gates said. “There we didn’t have the resources or teams that we had available here. We realized in Haiti that it’s very important to get down to basics. Haiti was more amputations, wound care, stabilization, and evacuation, and I found in this situation, too, it was very important to make sure we were following the same standards for all patients.”

**Remarkable dedication**

All of the surgeons emphasized that every successful operation performed that day was carried out by teams of dedicated health care professionals and said they were impressed with how quickly and determinedly the hospital staff responded to this dangerous and emotionally jarring event.

Dr. Hauser said that when he was preparing for the arrival of the patients, he called the OR supervisor to check on the availability of surgical resources and personnel. “The OR supervisor said they had nursing, anesthesia, tech staff pouring in. They all heard about it, and they wanted to know when they would get someone to operate on,” he said. “When they heard about it, they all poured in, so we were able to get patients into eight or 10 operating rooms in no time flat.”

“We had a remarkable number of hospital employees hear about the bombings and just come in.” Dr. Mooney said. “I had seven of my surgeon colleagues here. We just had so much help from people who literally had to walk the last few blocks to the hospital because [the police] had shut down streets around the hospital. When we told them we needed them, they helped, and when we told them we didn’t need them, they got out of the way,” Dr. Mooney said.

“[At Boston Medical Center] all the surgeons from multiple specialties came to help. All the residents who were off-duty came in. So, there was a great availability of people to help, and we used all of them. We used plastic surgeons to help with acute trauma cases. We used orthopaedic surgeons, vascular surgeons—all of them were intimately involved in the immediate surgical response. It was really a group effort, and it really went quite well,” Dr. Burke said.

“I think [this situation] reinforces again that the best care we deliver is clearly as a team and that includes the pre-hospital element, which was critical in this situation, to the emergency department, to every one of the surgical services,” added Dr. Gates. “It truly was a hospital-wide effort.”

**Patients react**

The surgeons involved in this incident were impressed not only with their colleagues’ performance and dedication, but also with their patients’ determination and strength.

“I took care of the parent of a kid that was injured. I was removing shrapnel from his leg, and he’s just a guy—a regular guy—and refused any pain medicine because he didn’t want his head to be clouded at all so that he could be there for his kid. He just didn’t care [about his own pain] as long as he could take care of his child. I was very moved by that—what he was willing to put himself through for his child,” Dr. Mooney, who is a father as well, said.

Other patients were resolute that their injuries were just a temporary setback. “The kind of people that participate in a marathon or that go to cheer on people in a marathon are pretty high-spirited, and boy, I don’t think they anticipated what they were in for, but they recovered well,” Dr. Mackey observed. “These are otherwise mostly young, healthy, energetic people who were just
determined that this wasn’t going to slow them down. We had one woman with a lower-leg injury who said, ‘You know, I’m going to run the marathon next year just to show ‘em.’”

“The patients and their families remained as defiant and as optimistic as the rest of Boston’s population was,” Dr. Velmahos added. “These patients woke up from general anesthesia only to realize that a leg was missing or that they were on the brink of death and had survived. It was amazing to see how quickly they regained their optimism and their love for life and started planning for the future rather than whining and feeling sorry for themselves. I call them the true heroes.”

To encourage the patients on the road to what was likely to be a long and painful recovery, several public figures paid them a visit. During his visit to Mass General, President Barack Obama thanked the trauma team and “went into each room of each patient and spent meaningful time with each patient, and, in a very humble and truthful way, he related to the patients,” Dr. Burke said.

Visits from celebrities and professional athletes proved to have a positive effect on the patients. “The reality is that famous people are special in people’s eyes for whatever reason, and when they came to see the patients, those patients felt special, too, and that was good for people. It was good for the patients. It was good for the staff to feel like they were a little bit special,” Dr. Burke said. “And, so, they made this very difficult situation a little bit easier.”

Members of the U.S. military who have undergone amputations due to wartime injuries also visited the patients, showing them that there is life after the loss of a limb. “It was inspiring and did so much good for patients,” Dr. Burke added.

Planning and “providence” The fact that so many patients survived captured the attention of health care professionals and health care policymakers throughout the nation, and, indeed, around the world, all wanting to know how Boston was able to accomplish this feat.

“This astoundingly high survival rate, despite the nature and severity of the injuries, is a tribute to the courageous and rapid response of bystanders and first responders, expert field triage, rapid transportation of injured persons, and the skills and coordination of the receiving hospital trauma team. It is also, however, the product of a confluence of deliberate actions stretching back to September 11, 2001, augmented by a series of providential but not random events,” wrote ACS Regent Michael J. Zinner, MD, FACS, chair, department of surgery, and Ron M. Walls, MD, chair, department of emergency medicine, Brigham and Women’s Hospital, in a Journal of the American Medical Association blog.§

Approximately 14 months after 9/11, the city of Boston, local EMS providers, and the 14 institutions that comprise the Conference of Boston Teaching Hospitals participated in a large-scale disaster drill called Operation Prometheus, which simulated the explosion of a dirty bomb on an inbound airplane, according to Drs. Zinner and Walls.

Since then, Boston-area trauma centers have been refining their plan for handling mass-casualty events. “For example, from 2006 to 2012, Brigham and Women’s Hospital conducted or participated in 73 separate exercises, events, and disaster activations,” wrote Drs. Zinner and Walls. “In 2010, Operation Falcon, coordinated by Metro Boston Homeland Security, tested system-wide response to a mass casualty bombing, complementing previous exercises in 2007 and 2008.”

Boston hospitals also took note of how the University of Colorado Health Sciences Center managed the arrival of 23 critically injured patients within approximately one hour of the mass shooting of 70 moviegoers on July 20, 2012, in Aurora, CO. “Although the Boston hospitals had prepared, trained, and drilled for mass-casualty events, the challenge of receiving so many critically ill patients so rapidly at a single hospital had not been specifically addressed,” wrote Drs. Zinner and Walls. To ensure that Boston hospitals would be ready for an onslaught of patients in the event of a mass-casualty event, “additional incident command training, particularly for senior leaders, was identified, and efforts were initiated to move preparedness to a higher level.”§

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In addition, over the last two years, trauma surgery, emergency medicine, and emergency nursing staff at area hospitals have worked together to provide team training for trauma team members using simulated disaster situations. These combined actions—the drills, the analysis of other mass-casualty events, the team training—were waypoints along the path to readiness,” according to Drs. Zinner and Walls.

The plan that emerged from all of these initiatives “involves multiple levels, and we have practiced it incessantly, and this is exactly why when the real deal happened, we were totally prepared to do the right thing. We really saved a lot of lives because we were prepared—because the pre-hospital system was prepared, because EMS personnel were prepared, because the trauma teams were prepared and responded immediately, the operating room, the ICUs, the orthopaedic teams—everyone was prepared,” Dr. Velmahos said.

The surgeons at other Boston-area trauma centers concurred. “I really think that the drilling, the training, the practice, the whole crisis management control system that Boston hospitals have put in place for these kind of events works terrifically well, and out of the chaos of the moment, when 12 or 14 patients arrive in your emergency room with injuries really of unknown severity and have to be cared for within a matter of minutes, organization and practice really do make a difference,” Dr. Mackey said.

Based on what the hospital staff learned during the drills, “we were able to assemble what were essentially full-service teams for each of the badly injured patients,” Dr. Gates said. “So the emergency department would be working on the patients who were perhaps not badly injured and then we would have an emergency department individual—resident or staff—who would be an airway person. We’d have a general trauma surgeon with them and an orthopaedic surgeon, as well as a complement of residents to take care of each patient. So essentially we were able to take care of each patient as we would on a normal day of taking care of trauma patients.”

Several surgeons noted that ACS programs provided the foundation for much of the city’s disaster planning. “I cannot underscore enough that in these preparations a major role has been played by the Committee on Trauma (COT) of the American College of Surgeons,” Dr. Velmahos said. “We all talked about the hospitals. We all talked about the trauma teams. But we tended to forget that the reason why trauma centers exist, the reason why trauma teams are assembled, the reason why we have verification of Level I, II, and III for trauma centers, the reason why we have guidelines, and the reason why we perform so well in trauma is because the Committee on Trauma of the ACS has created all of these systems. So I think a lot of the credit should go to the COT.”

Dr. Hauser also believes that this incident demonstrates the value of the College’s trauma center verification and educational programs. “Most governments use ACS verification as their benchmarks, and especially in areas where there are not these kinds of dedicated resources, it’s very important to have people in place who have the ability to use these well-tried-and-true methods of stabilizing patients and moving them on to other, higher levels of care,” he said.

Although preparation clearly was a deciding factor in the successful efforts carried out by these institutions, “we shouldn’t forget that within this tragedy, we got a little bit lucky because, if it had to happen, it happened in the optimal location, at the optimal time,” Dr. Velmahos said. First, the bombs were detonated near the finish line of the marathon where EMS has traditionally set up a fully staffed emergency care center for runners who might experience injury, dehydration, chest pains, or heat stroke. Ambulances are on standby to transport the more serious of these cases to area hospitals, and ERs increase their staffing to ensure that runners who are ill or injured can be treated promptly. Furthermore, Marathon Monday is also Patriots’ Day—a holiday in the Commonwealth of Massachusetts—so all of the hospitals are open, but their ORs tend to have a light schedule. In addition, 

“These patients woke up from general anesthesia only to realize that a leg was missing or that they were on the brink of death and had survived. It was amazing to see how quickly they regained their optimism and their love for life and started planning for the future rather than whining and feeling sorry for themselves. I call them the true heroes.”

—Dr. Velmahos
the blasts occurred right at change of shift at most of the hospitals, so the day shift was still on-site, while the evening shift was starting to check in, and happened in the afternoon when the ORs tend to less full.

Furthermore, the bombs were only volatile enough to damage people’s legs, in most cases. “If these had been more powerful bombs that created trunk and head injuries, the situation would have been more challenging,” Dr. Mackey noted. “But, as tragic as the event was, we were very fortunate in terms of the readiness because it was Marathon Monday, because of the time of day it happened, because it was change of shift—all those things and the nature of the injuries conspired to create very good outcomes.”

Lessons learned
In the aftermath of the bombings, Boston hospitals reviewed the situation and used it as an opportunity to think about what new initiatives might need to be put in place to ensure that they are prepared in the event of another mass-casualty incident.

First, they said a better means of tracking patients should be instituted. “In a lot of cases in this situation we had patients who were unidentified initially,” Dr. Gates said. As a result, hospitals had trouble getting them into the tracking system and monitoring their care.

Dr. Burke agreed, noting, “The usual systems of tracking patients and keeping them identified break down pretty quickly when you have an influx of critical patients simultaneously. Everyone has a disaster form that they use, and we need to perhaps make that a little more efficient.”

It is also important to track the “walking wounded,” Dr. Burke said. “I think it’s very important to recognize all of the patients who are injured, even those who might have minor injuries, to make sure they are still treated within the hospital’s care even after they are allowed to leave the hospital because their wounds aren’t serious.”

Likewise, patients’ families need to be able to find out where their loved ones have been taken. Dr. Burke said that the trauma community is working to develop a central area for identifying patients, which possibly would be run through EMS, so that patients’ families would have a single, reliable starting point in their search.

The trauma community also is evaluating what steps can be taken to ensure optimal outcomes when a mass-casualty event occurs under less favorable conditions than this one did. “The biggest thing we’ve talked about is what would have happened if this had happened on a Sunday evening or at 1:00 in the morning. How would our response have been different? What would we have done to make sure our response was adequate? As a result, we’ve developed a much more robust telephone tree to notify people—to get people in that are necessary—to get our disaster response really sort of revved up,” Dr. Mackey said.

Dr. Hauser also suggested that the use of tourniquets be further evaluated. “There were clearly situations here where the tourniquets did help and there were situations where either they didn’t work or made things worse. We need to get that data out and figure out why they worked or didn’t work in that patient with that kind of injury in that location,” he said.

Finally, surgeons expressed concern with respect to the long-term psychological effects of this incident on victims and their families. “Patients and their families need a lot of support through an experience like [this], and the thing to remember is that they’re going to keep needing it,” Dr. Burke said. “Now that all of the dust has settled and everyone who was admitted to a hospital has survived, patients and their families have to try to figure out how to deal with the consequences,” Dr. Burke said. ♦
Active Shooter and Intentional Mass-Casualty Events:  
The Hartford Consensus II

Joint Committee to Create a National Policy to Enhance Survivability From Mass-Casualty Shooting Events

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Editor’s note: The Joint Committee to Create a National Policy to Enhance Survivability From Mass-Casualty Shooting Events issued the following call to action on July 11, 2013. It is the second report from the committee, which the American College of Surgeons (ACS) played a leadership role in forming. The committee has representation from the ACS Board of Regents, the ACS Committee on Trauma, the PreHospital Trauma Life Support program, the Federal Bureau of Investigation, the Major Cities Chiefs Association, the emergency medical services (EMS) section of International Association of Fire Chiefs, and the Committee on Tactical Combat Casualty Care. The group’s first report was published in the June issue of the Bulletin." Both consensus documents are published with the permission of the Chair of the Hartford Consensus, ACS Regent Lenworth M. Jacobs, MD, MPH, FACS.

*Joint Committee to Create a National Policy to Enhance Survivability From Mass-Casualty Shooting Events. Improving Survival from Active Shooter Events: The Hartford Consensus.  
Preventable death after an active shooter or an intentional mass-casualty event should be eliminated through the use of a seamless, integrated response system.

**Concept to action**
On April 2, representatives from a select group of public safety organizations including law enforcement, fire, pre-hospital care, trauma care, and the military convened in Hartford, CT, to develop consensus regarding strategies to increase survivability in mass-casualty shootings. A concept document resulted and became known as the Hartford Consensus. It includes an acronym to describe the needed response to active shooter and intentional mass-casualty events. The acronym is THREAT:

- Threat suppression
- Hemorrhage control
- Rapid Extrication to safety
- Assessment by medical providers
- Transport to definitive care

Within the framework of THREAT, there exists the opportunity to improve survival outcomes for the victims of active shooter and intentional mass-casualty events through mutual collaboration and reinforcing responses. The Hartford Consensus stipulates that medical training for external hemorrhage control techniques is essential for all law enforcement officers. They should play a key role as the bridge between the law enforcement phase of the operation and the integrated rescue response. The interval from wounding to effective hemorrhage control can be minimized by law enforcement officers trained in hemorrhage control. This principle is central to the findings of the first Hartford Consensus. The purpose of the Hartford Consensus Conference II, which took place July 11 in Hartford, was to develop strategies for focused actions to achieve the objectives of the first Hartford Consensus.

**Fundamental concepts**
To maximize survival from an active shooter or an intentional mass-casualty event there must be a continuum of care from the initial response to definitive care. The essence of this continuum involves the seamless integration of hemorrhage control interventions. This process starts with the actions of the uninjured public or minimally injured victims and extends to the first responding law enforcement officers, then to EMS/fire/rescue personnel, and ultimately to definitive trauma care. These concepts must be scalable to facilitate implementation in communities of all sizes.

The law enforcement response has evolved from the original concepts of “surround and contain” to a more modern and aggressive response. EMS/fire/rescue must be involved earlier in the care of these victims. They should have direct contact with the law enforcement personnel on the scene.

**Call to action**
No one should die from uncontrolled bleeding. Preventable death after an active shooter or an intentional mass-casualty event should be eliminated through the use of a seamless, integrated response system. Each group in the following categories should perform the actions necessary to accomplish this goal:

**Public:**
Uninjured or minimally injured victims can act as rescuers. Everyone can save a life.

- Recognize that the initial response to an intentional mass-casualty event will be from uninjured bystanders and minimally injured victims
- Design education programs and implement training for a public response to an active shooter or intentional mass-casualty event
- Pre-position necessary equipment in appropriate locations
- Recognize that in an active shooter event the education message should include the concept of “Run, Hide, Fight”

**Law enforcement:**
External hemorrhage control is a core law enforcement skill.

- Identify appropriate external hemorrhage control training for law enforcement officers
• Ensure appropriate equipment, such as tourniquets and hemostatic dressings, is available to every law enforcement officer

• Ensure assessment and triage of victims with possible internal hemorrhage for immediate evacuation to a dedicated trauma hospital

• Train all law enforcement officers to assist EMS/fire/rescue in the evacuation of the injured

EMS/fire/rescue: The response must be more fully integrated and traditional role limitations revised.

• Train to increase awareness and operational knowledge about the initial response to an active shooter or intentional mass-casualty event

  – It is no longer acceptable to stage and wait for casualties to be brought out to the perimeter.

  – Training must include hemorrhage control techniques, including the use of tourniquets, pressure dressings, and hemostatic agents.

  – Training must include assessment, triage, and transport of victims with potentially lethal internal hemorrhage and torso trauma to definitive trauma care.

• Incorporate Tactical Combat Casualty Care and Tactical Emergency Casualty Care concepts into EMS/fire/rescue training

• Modify the response doctrine to improve the interface between EMS/fire/rescue and law enforcement in order to optimize patient care

• Establish a common language for responders, permitting each community to improve coordination, develop concurrent response, and establish mutually acceptable levels of operational risk between all public safety professionals to enhance the defense, rescue, treatment, extrication, and definitive care of survivors

Definitive trauma care: Existing trauma systems should be used to optimize seamless care.

• Provide trauma care to victims of an active shooter or an intentional mass-casualty event based on available resources and the establishment of mitigation strategies that acknowledge community limitations

• Design, implement, and practice plans to handle a surge in patient care demand from an active shooter or an intentional mass-casualty event

Education

To achieve the goals of this call for action, education of all groups is required. The core Hartford Consensus concepts should not be limited to traditional public safety responders. Everyone can and should be an initial responder. Education should be tailored to the level of the responder. Everyone should be taught hemorrhage control. Professional first responders should also be taught airway management. Education for the patient care process should focus on THREAT and include:

• Rapid access to hemorrhage control
  – External hemorrhage control
    o Direct pressure
    o Tourniquet application
    o Hemostatic agents
To achieve the goals of this call for action, education of all groups is required.

- Internal hemorrhage control
  - Rapid transportation and access to a trauma center
  - Prompt access to the operating room
  - Incorporation of new concepts in hemostatic resuscitation and damage control surgery that have been used successfully in recent military conflicts

- Integration of operational doctrine through policy development and enabling legislation across the country relevant to law enforcement, EMS/fire/rescue

- Compliance and efficacy of the after action report process

- Effectiveness of THREAT education
  - Effectiveness of THREAT implementation
  - Effectiveness of threat suppression
  - Timelines and appropriateness of initial hemorrhage control
  - Timeliness and effectiveness of rapid extrication
  - Transportation to and interface with definitive care facilities
  - Readiness of definitive care facilities for control of internal hemorrhage

- Reduction of preventable death

- Local, regional, and national performance to identify opportunities for improvement and gaps in funding for research and development

Evaluation
With this significant change in approach to an active shooter or an intentional mass-casualty event, a carefully conceived evaluative process to determine the efficacy of THREAT is warranted. Scientific evaluation of the implementation of Hartford Consensus concepts must ensure that future efforts are focused on ideas that are effective.

The evaluation process should include measurement of the following:

- Accessibility of field hemorrhage control equipment for law enforcement, EMS/fire/rescue, and the general public

- Documentation of the use of hemorrhage control equipment by law enforcement, EMS/fire/rescue, and the general public

- Submission of relevant data to a national registry

- Analysis of the quantitative and qualitative aspects of the data submission process to a national registry

- Use of THREAT training guidelines by all relevant providers

- Coalition of stakeholders
To achieve the goals of this call to action, a coalition of stakeholders must be established. To do so, the following must be accomplished:

- Identify core national leaders

- Establish a communication plan for the widespread dissemination of THREAT
The Hartford Consensus II has generated a call to action in order to enhance survival from active shooter or intentional mass-casualty events.

**HARTFORD CONSENSUS POTENTIAL PARTNER ORGANIZATIONS FOR MASS-CASUALTY EVENTS**

- American College of Surgeons
- American College of Emergency Physicians
- American Trauma Society
- American Red Cross
- U.S. Department of Defense Joint Trauma System
- U.S. Department of Defense Committee on Tactical Combat Casualty Care
- Committee for Tactical Emergency Combat Casualty Care
- Federal Bureau of Investigation
- U.S. Fire Administration
- National Highway Traffic Safety Administration Office of Emergency Medical Services
- U.S. Department of Homeland Security Office of Health Affairs
- International Association of Fire Chiefs
- International Association of Firefighters
- International Association of Chiefs of Police
- International Association of EMS Chiefs
- National Volunteer Fire Council
- National Emergency Medical Service Advisory Committee
- National Association of State Emergency Medical Services Officials
- National Association of Emergency Medical Services Physicians
- National Association of Emergency Medical Technicians
- National Association of EMS Educators
- National Tactical Officers Association
- National Sheriffs’ Association
- American Association for the Surgery of Trauma
- Eastern Association for the Surgery of Trauma
- PreHospital Trauma Life Support
- Emergency Nurses Association
- Society of Trauma Nurses
- University law enforcement and health care organizations
- Hospital accreditation organizations
- Automobile manufacturers
- Faith-based organizations

**Conclusion**

The Hartford Consensus II has generated a call to action in order to enhance survival from active shooter or intentional mass-casualty events. The call to action engages the public, law enforcement, EMS/fire, and definitive care facilities. It embodies the principles of THREAT and calls for modification of the initial responses to these events. A broad educational strategy and a robust evaluation of the implementation of THREAT are needed to quantify the benefits of this approach to the management of active shooter and mass-casualty events. ◆
For the past several years, the ongoing ability of patients to have access to high-quality surgical care has been of increasing concern to the American College of Surgeons (ACS) Board of Governors (B/G). The Governors and their constituents have noted dual problems: (1) a relative deficiency in generalist surgeons, and (2) questions about the preparedness of newly trained surgeons and their ability to embrace practice immediately. Although a lack of generalist surgeons is a problem in several surgical specialties due to increasing subspecialization, these issues have been particularly acute in general surgery. With the clear recognition that the problem was broader than general surgery alone, the ACS Board of Regents initiated a program designed to address both the shortage of general surgeons entering practice and their preparedness for such an undertaking.

By J. David Richardson, MD, FACS

HIGHLIGHTS

- Addresses concerns regarding whether enough residents who are transitioning into practice are adequately prepared to work independently
- Describes how the College is responding to these issues with the establishment of the ACS TTP program
- Explains the process the ACS will use in approving training programs to serve as sites for the TTP program
- Provides information on applying to participate in the program
Concerns about residents’ preparedness for general surgery practice have been present for several years and range from anecdotal conversations among senior surgeons hiring young partners to statistical evidence suggesting a fundamental lack of experience with managing common general surgical problems.

**Preparedness issues**

Concerns about residents’ preparedness for general surgery practice have been present for several years and range from anecdotal conversations among senior surgeons hiring young partners to statistical evidence suggesting a fundamental lack of experience with managing common general surgical problems. The annual survey of the B/G has noted problems with residency training and issues with some recent graduates for the past several years. Concurrently, while the American Board of Surgery (ABS) qualifying examination (written) pass rate has remained consistent over time, the certifying examination (oral) failure rate has increased from 15 percent in 2003 to more than 25 percent at the present time. The latter examination traditionally has been viewed as a better test of a trainee’s judgment, operative experience, and ability to ensure patient safety.

Several recent papers have surveyed the operative experience of recent surgical trainees and noted worrisome trends. Bell presented an excellent presidential address to the Central Surgical Association titled Why Johnny Can’t Operate, in which he outlined the problems and root causes underlying the lack of preparedness for a surgical career. The main finding was the widespread disparity in operative experience among residents. Indeed, surgeons entering practice reported performing only 20 operations more than 10 times in their residency (n=114).

Additionally, many trainees note that they do not feel prepared for broad-based general surgical practice. Bucholz and colleagues reported on a survey of a large cohort of general surgery residents, noting that 25 percent of senior residents felt unprepared for independent practice. Data from a more recent survey presented at the 2012 Southern Surgical Association meeting demonstrated similar concerns. Finally, a recent paper presented at the American Surgical Association reported on a survey of fellowship program directors, which noted that 30 percent of fellows were not prepared for operative cases and nearly two-thirds could not work unsupervised for a significant period of time (n=91/145). The fact that 80 percent of general surgery graduates pursue fellowships likely stems, at least in part, from a feeling of inadequacy to pursue broad-based practice.

A 2012 survey of practicing surgeons that the Southeastern Surgical Congress (SESC) conducted revealed that 37 percent disagreed or strongly disagreed with the statement, “Graduates of surgery residencies today are prepared to enter into the clinical practice of surgery,” compared with 40 percent who agreed with the statement (n=177/1,008). Only 20 percent of surgeons who had not hired a recently trained surgeon felt the same way.

Program directors who follow the careers of their former trainees know that the surgeons who are most successful in their first jobs out of residency are chief residents who enter practices with senior surgeons who are generous with his or her time and experience and willing to actively mentor young surgeons. In the SESC survey, three-fourths of surgeons adding a recently trained surgeon gave their new associate first assistant help during their first year in practice, and more than 80 percent came in and helped out on a case that came in on one of their new associate’s nights on call. Far from being an indictment of the inadequacy of today’s surgical training, these data reflect the fact that surgical training continues after residency. The best situations for surgeons who are new to active practice have always been those in which senior surgeons act as their mentors, often for years after graduation.

The potential reasons for the perceived lack of preparedness are myriad and have been well articulated in multiple venues. Duty-hour restrictions have effectively taken one year out of surgical training, and the micromanagement of the hours worked within the 80-hour limit has further complicated the pro-
gression of graded operative responsibility. The nature of surgical residencies has changed from one in which general surgery role models were the norm to one in which specialty services have primacy. Most academic centers have few, if any, broad-based surgeons for mentors, and experiences with community surgeons were often jettisoned as a reaction to the duty-hour restrictions. Chief residents once had significant autonomy and actually ran services. In many institutions today their autonomy is limited and the first truly independent decisions chief residents make may occur after they enter practice. A combination of factors likely have contributed to this loss of autonomy, including hospital concerns, the medico-legal environment, billing pressures regarding supervision, legitimate ethical issues, and the patient safety movement.

Multiple attempts have been made to address current issues in general surgery training. Efforts to allow increased chief resident autonomy have been made with little positive effect. Multiple new training paradigms have been proposed, most touting the benefits of earlier specialization. The ABS has an initiative to “fix the five,” referring to the general surgery training length, while other stakeholders have espoused adding a sixth year of training. Although these efforts are well-intentioned, none has been completely successful.

Currently, 80 percent of general surgery trainees pursue fellowships. Unfortunately, many trainees who pursue narrow, high-end specialties within general surgery now have difficulty finding a job. One could reach the seemingly irrefutable conclusion that the current U.S. training system is not producing the type of surgeon the country needs. We are producing too few general surgeons, and many of the general surgeons now embarking on their careers feel unprepared for practice. It also appears that market forces have had little impact in correcting this perceived imbalance between “generalist” general surgeons and specialties under the umbrella of “general surgery.”

### TTP program

The ACS leadership believes the College can play a part in achieving surgical preparedness for general surgeons without posing any conflict to the programs and requirements of the ABS, the Accreditation Council for Graduate Medical Education (ACGME), or the Residency Review Committee for Surgery. After discussing the issues with the leaders of these bodies, the ACS embarked on an endeavor designated as the Transition to Practice (TTP) in General Surgery program. A steering committee was formed consisting of a number of surgical educators, many of whom also hold leadership positions within the College (see sidebar, page 26).

Although 80 percent of current general surgery trainees pursue fellowships, we have refrained from referring to our program as a “fellowship” and have used the term “associate” to describe the participant because the young surgeons may already be in practice.

The elements of the TTP program are simple and may remind older surgeons of their own chief residency, which provided opportunities for autonomy with appropriate mentorship. Leadership by senior or more experienced surgeons who will mentor these younger associates is crucial to the viability of this program. If the junior associates emanate from a general surgery program other than the TTP program, a period of intake assessment to determine the skill set, judgment, and maturity of the new associate is vital. Ideally, the junior associate should progress and be given the graded responsibility that is key to developing safe, competent surgeons. While graded responsibility is a widely espoused tenet in residency training, its execution has become increasingly difficult.

In addition to having autonomy with appropriate mentoring available, some significant interaction with broad-based general surgeons is a mandatory component of the TTP program. Hopefully, this experience can be gained, at least in part, in a community practice. The clinical focus should be on problems encountered in a general surgical practice—not necessarily with involvement in high-end tertiary problems or operations. The ACS TTP Steering Committee
Duty-hour restrictions have effectively taken one year out of surgical training, and the micromanagement of the hours worked within the 80-hour limit has further complicated the progression of graded operative responsibility.

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would prefer that the institutions offering TTP programs be diverse and flexible in meeting the associates’ perceived needs. Some programs will undoubtedly prepare surgeons for a more rural or small community practice, while others might offer an urban or suburban experience. The committee believes associates also should have some experience with practice management responsibilities, such as coding, billing, contract negotiation, and so on.

It is essential that the director of the TTP program or a responsible surgeon in the program conduct an ongoing evaluation of junior associates to ensure that their educational needs are met.

Defining the TTP program

Clearly, the TTP program must not interfere with the current training of general surgery residents. If that occurs, current residents may find their training and autonomy even further impeded. Therefore, if an ACGME-accredited general surgery residency program intends to implement a TTP program, it should use community resources or opportunities to practice that are not competitive with those of senior residents. To that end, the committee also encourages TTP opportunities at institutions that do not offer residencies. Institutions that would like to design a TTP program should have as strong a commitment to mentoring young associates as they would a new partner in their practice.

Although some programs will use rural surgeons in the TTP experience, rural surgery is not exclusively the focus. There is a need for general surgeons in many urban and suburban areas of the country, and the committee anticipates that programs can be developed in disparate geographic areas with diverse population densities.

The committee stresses that the TTP program is not envisioned as a requirement for general surgical practice. Certainly many trainees are well-prepared after their residency and do not need this experience. Likewise, TTP programs are not intended to be remediation for subpar general surgical residents. In fact, many residents who have excellent fundamental training would benefit from an additional year of mentoring to increase both their competence and confidence. The ACGME process must, by necessity, be heavily rules-oriented. The application and review process for TTP programs is meant to be the opposite, with a focus on practical experience rather than on rules and checklists.
Challenges and hurdles

Developing such a program is a daunting task, but the College has an excellent track record of promulgating and verifying a variety of endeavors that have enhanced surgical care in the U.S. One only has to review the history of the Committee on Trauma’s Trauma Center Verification Program and the enormous growth of the Advanced Trauma Life Support® course to imagine the possible success of the TTP initiative. The College’s leadership has committed major financial resources to the development of this program and the infrastructure for establishing the initiative is well under way.

A few pilot programs will begin in 2013, and it is anticipated that more programs will be developed in 2014 and beyond. Financing is an issue as these positions do not have ACGME accreditation, but the services that associates provide should be billable. Credentialing and licensing timelines are problematic and potential associates should ideally make an early decision in the year preceding the onset of the TTP year to allow for appropriate documentation of the ability to practice.

The steering committee has been encouraged by the interest surgical educators have shown in developing such programs and believe there is an unmet need on the part of general surgery trainees for additional experience. Clearly, enormous practice opportunities in general surgery are available throughout the country.

Despite the challenges, if successful, the ACS TTP program will offer a structured experience for the first critical year after graduation from residency. More than doing additional cases, the new associate will take the necessary steps of autonomy and independence under a formal mentorship with his or her senior associate—a relationship that characterizes the best practice situations for any surgeon entering the practice of surgery.

Application process and site visits

Applications for initiating a TTP program will be available through the ACS website. (For more information visit http://www.facs.org/ttp/) The application process consists of a few pages in which a narrative describing the program can be entered online. The ACS will then conduct a site visit to ensure that those individuals who are sponsoring the program are committed to the effort. For more information, contact the ACS Division of Education at ttp@facs.org or 312-202-5491. ◆

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Mandating the use of motorcycle helmets:

What are the issues?

by Valerie Satkoske, PhD; Claire Horner, JD; E. Phillips Polack, MD, FACS; David A. Kappel, MD, FACS; and Marifran Mattson, PhD

HIGHLIGHTS

• Presents data on the effects of motorcycle helmet laws and on compliance
• Explains the ethical reasons why surgeons should play a role in the debate surrounding legislation mandating the use of motorcycle helmets
• Looks at the arguments proponents and opponents of the laws use to support their position
• Calls on the federal government to provide incentives for states to enact and enforce motorcycle helmet laws
Not only have helmet laws affected injury and fatality rates, but also health care costs both for riders and for the general public, because injured riders use shared health care and insurance resources and uninsured riders often rely on public assistance programs to pay their hospital and rehabilitative care bills.

In West Virginia, a predictable annual tradition occurs as the legislature wraps up its session: the state trauma providers receive an e-mail from the their state representatives and senators asking that we weigh in on whether to continue or repeal the state’s mandatory helmet law.

As medical professionals, surgeons need to play a role in public policy decisions that relate to health care, including the debate over helmet laws. In 2002, a Consortium of the American Board of Internal Medicine, The American College of Physicians, and The American Society of Internal Medicine partnered with the European Federation of Internal Medicine and developed a new Charter for Professionalism. And, while they emphasized the three fundamental principles—patient welfare, autonomy, and social justice—the authors noted that in any contract between medicine and society, physicians should provide expert advice to society on matters of health and public safety.

West Virginia certainly has not been alone in considering whether to overturn its helmet legislation. Since the first universal helmet laws were enacted in 1967, 31 states have repealed their related laws, most recently Michigan in 2012. Each decision to repeal a helmet law sparks political, legal, medical, and ethical debate. This article examines the data regarding the effectiveness of mandatory motorcycle helmet laws and looks at the legal and ethical concerns surrounding them.

Effects of helmet laws
In a meta-analysis of the evidence-based literature, Maclcod, DiGiacomo, and Tinkoff reviewed 45 articles and noted that from a public safety perspective, helmet use in motorcycle riders reduces overall death rates, the incidence of lethal head injury, and the number of non-lethal head injuries. The risk of morbidity and mortality of helmetless motorcycle riding provides persuasive evidence for helmet use, and the Centers for Disease Control and Prevention data concerning the cost to the general public provides support for mandatory helmet laws. The economic cost to society is dramatic. “In 2010, approximately $3 billion was saved as a result of helmet use in the U.S.; however, another $1.4 billion could have been saved if all motorcyclists had worn helmets.”

The National Highway Transportation Safety Authority (NHTSA) and private institutions have conducted studies that examine crash statistics from several states demonstrating a direct correlation between a lack of helmet laws and increased incidence of traumatic brain injury (TBI) and death.

Other reports from the NHTSA indicate that in states where universal helmet laws have been partially or entirely repealed, the rate of helmet use drops significantly. For example, the helmet use compliance rate in Arkansas was 97 percent under the state’s universal helmet law; it dropped to 52 percent when the universal law was repealed and replaced with a partial law. Similarly, when universal laws were repealed in favor of partial laws, Florida saw its compliance drop from 99 percent to 53 percent, and in Louisiana compliance went from 100 percent down to 52 percent. Furthermore, the NHTSA found that in states with laws requiring only minors to wear helmets, less than 40 percent of underage riders who were fatally injured wore a helmet, indicating that despite a law requiring helmet use it is difficult to determine whether a rider is underage, thereby hampering enforcement.

The drop in helmet use compliance rates has, in turn, corresponded with an increase in traumatic brain injury and death following the repeal of universal helmet laws. In the year after the repeal of universal helmet laws, Arkansas and Texas fatalities increased by 21 percent and 31 percent, respectively, Kentucky saw a 50 percent increase in motorcyclist fatalities, and Louisiana’s fatality rate increased by more than 100 percent, prompting the Louisiana legislature to reenact its universal helmet law in 2004. According to estimates from the NHTSA, between 1984 and 2006, helmets saved the lives of 19,230 motorcycle riders, and if everyone killed in a motorcycle crash had worn a helmet, an additional 12,320 lives would have been saved.

Not only have helmet laws affected injury and fatality rates, but also health care costs both for riders and for the general public, because injured riders use shared health care and insurance resources and uninsured riders often rely on public assistance programs to pay their hospital and rehabilitative care bills.
riders often rely on public assistance programs to pay their hospital and rehabilitative care bills. Illustrative of such shared insurance burdens is the reported 34 percent increase in the average insurance payment on motorcycle injury claims in Michigan since the 2012 repeal of the state’s helmet law. Similarly, data from the U.S. Department of Transportation Crash Outcome Data Evaluation System suggest that in three states that have universal helmet laws, inpatient charges for patients with brain injury due to motorcycle crashes would have increased from $2,325,000 to $4,095,000 if no helmet law had existed.

These statistics demonstrate not only the efficacy of helmet use in mitigating damages in the event of a crash, but also the direct link between the repeal of universal helmet laws and an increase in TBI, death, and use of scarce health care resources.

**Ethical/philosophical questions**

Groups such as the American Motorcycle Association argue that “mandatory helmet laws do nothing to prevent crashes,” and are an inappropriate method of increasing safety and public awareness. Although the prevention and reduction of injury are a primary focus of helmet use, the motorcycle helmet law debate typically raises ethical issues that extend beyond the more immediate and intended purpose of protecting the head of the rider. This section looks at the ethical and philosophical rationales that both sides in the helmet debate offer to support their positions.

**Autonomy**

Autonomy is generally understood to mean the freedom and ability to be self-governing or to make personal decisions without undue influence or interference from others. Those individuals who act autonomously base their actions on their own values and plans. The right to act autonomously finds support and protection in both U.S. law and basic principles of Western bioethics, and is manifest in Justice Benjamin Cardozo’s statement that “every human being of adult years and sound mind has a right to determine what shall be done with his own body; and a surgeon who performs an operation without his patient’s consent commits an assault, for which he is liable.” It is important to note that Justice Cardozo did not comment on the quality of the decision itself—that is, whether it is a “good” decision or a “bad” decision—but on the individual’s right to make it for him or herself.

This type of “my body, my choice” language, which is recognized and protected in the law, is most commonly associated with the abortion debate, and is not dissimilar to the arguments put forth by those who support efforts to repeal mandatory motorcycle helmet laws. Those individuals who oppose helmet laws often claim such legislation interferes with their right to choose and argue that individuals should decide what level of risk they are willing to expose themselves to while riding a motorcycle. For example, commenting on the mandatory helmet law debate, A Brotherhood Against Totalitarian Enactments (ABATE) has said it does not “advocate that you ride without a helmet when the law is repealed, only that you have the right to decide.” Of course, these autonomous decision-making rights are not absolute, and may be limited when the choice of an individual unfairly burdens others or puts them at significant risk.

**Public health issue**

The Institute of Medicine defines public health as “what we, as a society, do collectively to assure the conditions in which people live can be healthy.” In making claims such as “my body, my choice,” helmet law opponents imply that their actions affect no one else. Public health advocates focus on education and raising awareness, and, in general, only attempt to regulate behaviors that place other people at risk or that unfairly burden another group of individuals. Considerations of how one’s actions may affect others, justice claims, are often analyzed within a public health framework. However, when the “others” are those with whom the rider is in a primary relationship, it may be more compelling to consider an “ethics of care framework,” in which motorcycle riders would have a duty to consider how their behaviors affect their loved ones and may even require riders to suppress their own desires in order to reduce harm.
to others, especially dependents, such as children and elderly parents.

Many proponents of mandatory motorcycle helmet laws claim that the devastating injuries helmetless riders often sustain place undue burdens on others in the form of increased insurance premiums, avoidable drains on the health care system, and the potential costs of long-term care that may entail state-supported health care services. However, in 2009, a group out of Michigan State University, East Lansing, published a study that suggests that the repeal of mandatory helmet laws may result in societal benefits. The researchers claim that when states repeal helmet laws “organ donations due to motor vehicle accidents increase by 10 percent,” and because helmetless motorcyclists tend to be young and healthy, their organs may be more viable for transplantation.

If the study’s findings are sound and replicable, they may provide a compelling counterargument to the unfair societal burden justice claim that is so often used to support mandatory helmet laws. For patients on donor recipient waiting lists, there would be decreased wait times, decreased emotional and physical suffering for recipients and their loved ones, and decreased use of expensive life-sustaining technologies and health care resources over time. And, although the number of organs recovered from motor vehicle accidents each year is fairly small and would increase nationwide organ donation numbers by less than 1 percent, opponents of mandatory helmet laws could claim that the autonomous decision to ride without a helmet may provide a societal benefit that offsets the associated societal burdens. However, such an argument would do little to justify the imposition of unnecessary burdens on the cyclist’s loved ones.

Paternalism

Without a compelling justice claim, pro-helmet law arguments often strike a not-so-subtle paternalistic tone. Paternalism is the “intentional limitation of the autonomy of one person by another, where the person who limits autonomy justifies the action exclusively by the goal of helping the person whose autonomy is limited.” The claim of Jones and Bayer that “adults and adolescents need to be protected from their own poor judgment about motorcycle helmet use” is an example of a pro-helmet argument based in paternalism. This type of “father knows best” position, when divorced from justice claims, constitutes the interference with free and autonomous choice that helmet pro-choicers rally against. Nineteenth Century philosopher John Stuart Mill argued against this type of government intrusion into personal decision making in “On Liberty”:

The only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others. His own good, either physical or moral, is not a sufficient warrant. He cannot rightfully be compelled to do or forebear because it will be better for him to do so, because it will make him happier, because in the opinions of others, to do so would be wise, or even right. These are good reasons for remonstrating with him. Or reasoning with him, or persuading him, or entreating him, but not for compelling him. In the part which merely concerns his independence is, of right, absolute.

This philosopher’s timeless commentary on paternalism appears to support the “carrot” rather than the “stick” approach to matters of promoting individual health and well-being. It may be a noble endeavor to educate motorcycle riders about the dangers of riding without a helmet and to persuade or incentivize them to wear helmets through increased or decreased insurance premiums, but Mr. Mill would likely stop short of telling these riders the amount of individual risk they can choose to assume.

In a similar vein, the concept of personal responsibility is increasingly being discussed in matters involving an individual’s health choices and cost to families, communities, employers, and the health care system as a whole. Employees who don’t have regular physicals may pay higher insurance rates than those who do not. Some companies are now screening employees and potential employees for tobacco use, and those individuals who test positive may be offered smoking cessation therapy or face employment termination, while job seekers may be elimi-
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Conclusion

Although the issue of helmet safety is philosophically challenging from an ethical perspective, law-based solutions appear to be less ambiguous. Despite the seemingly constant cycle of enactment and repeal in many states, universal motorcycle helmet laws can become as stable and well-accepted across the states as seat belt laws. The most critical step needed to establish and support such legislation is the reinstatement of federal funding incentives that would provide grants and/or deny federal highway funding to states that refused to enact universal helmet laws. Although the federal government does not have the authority to enact certain laws because these are powers reserved for the states, the federal government can heavily influence state-level legislation through financial “carrots.” Often, this is the only tactic that the federal government can use to influence legislation among the states. Hence, and given its overwhelming success with other regulations such as a national speed limit, mandatory vaccination requirements, and child safety seat laws, reestablishing federal funding contingencies for universal helmet laws would ensure much higher rates of enactment of comprehensive helmet laws, as witnessed with the passage of the Highway Safety Act (funding) of 1966, and would also serve to support state legislators against powerful motorcycle rights lobbies.

Although it is impossible to prevent every motorcycle crash, it is clear that universal helmet laws have a profound impact on individual safety as well as health care costs that are absorbed not only by the motorcyclist, but also the general public. Like seat belt laws, motorcycle helmet laws aim to make the roads safer for both the motorcycle rider and automobile drivers and to lower health care costs and other economic burdens that may rest on the rider, his or her family, and the state.
Like seat belt laws, motorcycle helmet laws aim to make the roads safer for both the motorcycle rider and automobile drivers and to lower health care costs and other economic burdens that may rest on the rider, his or her family, and the state.

The second legal component needed to make helmet laws and helmet use more prevalent is a more universal acceptance (or “stick”) by the courts of the helmet defense in tort cases. A tort is a wrongful act committed by one person against another for which the victim may obtain money damages or other civil law remedies. Even in states without helmet laws for adults, motorcycle riders should be encouraged to take responsibility for their choice to ride without a helmet. Because much of the public concern regarding a motorcyclist’s failure to wear a helmet stems from the fact that public funds are often used in the rescue, care, and treatment of injured riders, it makes sense and seems fair that those who choose to ride without a helmet should be required to pay more for their health care and motor vehicle insurance, and other accident victims and their insurance companies should not be held responsible for injuries that would most likely not have occurred had the motorcyclist been wearing a helmet.

The helmet defense protects riders from being barred from the litigation, allowing a jury to find liability for the accident without considering whether the rider was wearing a helmet. However, in the determination of damages, the opposing party is protected from being required to pay increased damages to a helmetless rider whose injuries were more severe solely because he or she failed to wear a helmet. Motorcyclists should take reasonable steps to mitigate their injuries in the event of a crash. Those who oppose helmet laws imply that only the individual is penalized for failing to wear a helmet. If this is the case, then these individuals should be ordered by the court not to expect others to pay the bill for the consequences of that choice, regardless of fault in the accident.

If these two steps (the federal legislative “carrot” and a judicial “stick”) are taken to encourage helmet use among motorcyclists, state legislators will be better prepared to resist powerful lobbies and may more strongly support universal helmet laws with the same success as seat belt laws. Despite statistics that have indicated that the majority of citizens (81 percent) support universal helmet laws, legislatures still have caved under pressure from groups like ABATE. The authors of this article predict that with better federal and judicial support, motorcycle-rights lobbyists will no longer be as powerful as they have been since the 1970s, and the helmet laws will not only be more common among the states, but will result in greater compliance by motorcyclists.

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The good, the bad, and the ugly

by Chandy Ellimoottil, MD; Stefan W. Leichtle, MD; Corey J. Wright, MD; Abdulla Fakhro, MD; Amanda K. Arrington, MD; Thomas J. Chirichella, MD; and William H. Ward, MD

In an era of increasing access to electronic information, online reviews have become a modernized viva voce. Websites such as Yelp, Angie’s List, and TripAdvisor offer information and reviews on nearly every aspect of life, including finding the perfect Italian restaurant, locating au pair services, booking a vacation, and perhaps of greatest concern to surgeons and residents, selecting a reliable health care provider. Physician review websites (PRWs) permit patients and third-party reviewers to grade both physicians and hospitals in popular online forums. Examples of PRWs include Healthgrades.com, Vitals.com, RateMDs.com, and a host of smaller, less-organized websites.

Although traffic on physician and health care–centered websites has yet to equal that of the hospitality and service industry, recent data suggest that the popularity of PRWs is rising steadily. In 2011, a survey of health care consumers found that 28 percent of respondents had searched for information about physician quality online, up from 24 percent in 2010 (n=4,000).1 Not unexpectedly, this percentage was higher (34 percent) for younger patients identified as Generation Y or as the Millennial Generation.1 The growing demand for PRWs is illustrated by the sharp increase in the number of physicians rated. Even more impressively, the number of reviews on RateMDs.com,
Unfortunately, most information on PRW sites is derived from other databases (for example, Healthgrades.com, Vitals.com, Doctor.com), and may be inaccurate or outdated.

one of the first PRWs, has grown from 2,475 reviews in 2005 to 112,024 in 2010.2 Although substantial evidence regarding the widespread use of PRWs is available, it is unclear how this consumer-derived information is obtained and what influence the data have on patient decision making. Over the past decade, PRWs have been heavily criticized, with many industry experts questioning the sometimes cryptic or confidential methodology used to develop consumer-driven physician and hospital evaluations.

The role of PRWs for physicians is similarly ill-defined. Could positive reviews increase a physician’s patient base? Could negative reviews seriously damage a surgeon’s reputation? Will patient reviews affect physician reimbursements? In a recent proposal, it was suggested that New York City’s public hospital ratings and other measures of their care should be reflected in the health care professionals’ earnings. Given the increasing visibility of PRWs, surgeons need to have a clearer understanding of why patients are turning to online review tools and how they are using them to make health care decisions.

Who is being rated?
Unfortunately, most information on PRW sites is derived from other databases (for example, Healthgrades.com, Vitals.com, Doctor.com), and may be inaccurate or outdated. For example, one of the authors of this article, a fourth-year urology resident, is listed on most PRWs as a general surgeon who could be contacted for bariatric procedures. Other studies, including one evaluating 250 physicians and another surveying 500 physicians, indicate that up to 80 percent of physicians are reviewed on at least one PRW.1,4 There is some variation among the specialties, with obstetrician/gynecologists rated most frequently, while physicians with less direct patient contact (such as radiologists, pathologists, and anesthesiologists) are rated least frequently.2

What is being rated?
Most PRWs provide users with basic information about the physician, such as specialty, years in practice, education, board certification, and liability claims. Normally, this information is available for free or as part of a “freemium” model, where users have unlimited access to basic information but must purchase a subscription for more in-depth material. PRWs typically allow users to enter numerical ratings for various dimensions of care, and some allow free narrative-form reviews. Dimensions of care vary among PRWs. One study identified 35 different dimensions evaluated by 10 popular PRWs and then organized those areas into five major categories:5

- Overall rating
- Communication skills (explanation of medical care/treatment, follow-up, attentiveness, listening skills, and bedside manner)
- Access (availability of appointments, ease of scheduling, punctuality)
- Facilities (office cleanliness, lab services, waiting room accommodations)
- Staff (courtesy, friendliness, professionalism)

Although these categories capture some relevant information, they are lacking with respect to clinical relevancy. In a survey of 660 healthy patient volunteers, de Groot and colleagues determined physician expertise, wait time for outpatient appointment, and wait time for surgery to be the most important factors cited by patients.6 A study of patients in the United Kingdom demonstrated a poor correlation between perceived and actual quality of care measured with objective parameters, such as hypertension control and appropriate vaccinations.7 In a separate study, perceived quality of care again did not correlate well with objective quality markers.8

Popular PRWs
Exact and validated information regarding PRWs is limited, and readers are encouraged to visit these websites directly to learn more about the specific content they offer. Following are capsule summaries of three of the most popular ratings websites:
An increasing number of websites blend reviews along with the company’s marketing and business strategies.

**Healthgrades.com.** This website is a for-profit site that allows patients to anonymously complete surveys about physicians after registering with a valid e-mail address or phone number. Patients are unable to provide written reviews on this website. The company encourages physicians to register and establish a profile. The website also publishes national hospital rankings based on Medicare data and acts as a “consulting firm” for some hospital systems, working with hospital systems to interpret and alter their rankings. There has been some debate as to whether rankings by Healthgrades.com truly captures all aspects of the quality of medical care, including outcomes, whether relevant screens/tests were ordered, and accuracy of diagnoses rendered.9

**Vitals.com.** This online review website provides free information on physician’s educational backgrounds and liability claims using state-based public and private insurance data sources. Patients can anonymously rate physicians and post comments. The website encourages physicians to create a profile and to participate in the review process. The emphasis of Vitals.com is largely on patient reviews of individual physicians rather than hospital rankings and consulting.

**RateMDs.com.** This Web-based tool allows anyone to anonymously post comments about a physician. There is minimal oversight, and postings and categories can be rather aggressive (for example, a physician “Wall of Shame”). Physicians may register and respond to comments.

An increasing number of websites blend reviews along with the company’s marketing and business strategies. These multifaceted sites include www.vimo.com, an online insurance comparison shopping website, which publishes anonymous physician comments and ratings and provides health insurance quotes, or www.zocdoc.com, which offers patient reviews and the option to book appointments with participating physicians.

The good

It is encouraging to those of us in the medical professions to see that physicians are often reviewed favorably. In a 2011 study of 4,999 individual online ratings, the average rating was 77/100 on a 100-point scale, 3.8 on a 5-point scale, and 3.1 on a 4-point scale.9 Using a standardized scale, 500 physicians examined across 10 PRWs were shown to have 86 percent positive ratings.4 Another study found that 50 percent of physicians reviewed received a perfect 5/5 rating, and that only 12 percent were below 2 percent.2 Patient narratives typically have been positive.4,10,11

Another benefit of online ratings is that they may be a good measure of patient satisfaction. In a British study published in 2012, the authors found a correlation between unsolicited Web-based patient ratings and conventional paper surveys, particularly with respect to questions related to “patient experience,” and concluded that Web-based patient ratings may be a useful tool for health care providers.12 A German study compared 13 dimensions of health care with a systematic review of scientific articles that used standardized instruments to measure patient experience and satisfaction.13 This study revealed that no PRW captured all 13 dimensions but that the top English-language sites captured five to six dimensions.13

Finally, although the data on the correlation between physician rankings and quality of care are limited, some evidence indicates that positive patient-generated reviews of hospitals may be associated with better clinical quality. Using data from the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey, Jha and colleagues found that hospitals with a high-level of patient satisfaction provided clinical care that was higher in quality. Hospitals in the top quartile of HCAHPS ratings provided better care for acute myocardial infarction and for pneumonia than hospitals in the bottom quartile.14

Again, it is unclear whether a similar association exists for individual physicians and PRWs.

The bad

Although PRWs have some favorable characteristics, they also have their deficiencies. In particular, many patients may browse physician ratings and reviews, but very few actually take the time to write one. A Pew Research Center study showed that 37 percent of Internet users have rated products and services online, but only 3 to 4 percent have rated a physician or hosp-
tal. This low rate of participation results in few ratings/reviews per physician, which means these reports are less representative of the physician spectrum and more prone to volatility. On RateMDs.com, the average number of ratings per physician is 3.2, and approximately 50 percent of all physicians had only one rating. The implications of a single unfavorable rating on overall score can decrease the average score and make an otherwise high-performing physician appear mediocre.

Citing patient privacy concerns, PRWs do not verify the authenticity of the reviews; a valid e-mail address is often the only requirement for rating a physician. In their assessment of 33 PRWs, Lagu and colleagues found that 61 percent of these sites required patients to register with a valid e-mail address in order to leave a review, one site required credit card information, and one site even offered a $250 gift card certificate for reviewing multiple physicians. Without the ability to confirm whether ratings/reviews are actually issued by valid patients, the opportunity for abuse or fraud is clear, quite often at the hands of patients harboring a grudge or competing practices. On the other hand, office staff or specific physicians may write positive reviews to boost their online reputation.

Another concern centers on the accuracy of online reviews. Some physicians are inaccurately classified, while others may have moved their practices, and may not have their new information updated on PRWs. Physicians also are concerned that factors beyond their control (a grumpy receptionist or a parking problem, for example) may affect a physician’s composite score.

Response rates and ratings appear to be influenced by the patient population served. For example, there is evidence that physicians caring for patients from lower socioeconomic backgrounds may receive lower rankings. These issues create a general concern that physicians may be inappropriately rewarded or punished for serving specific patient groups, leading to a deterioration of care for vulnerable patient populations.

The ugly
The anonymity of online reviews (and their potential for abuse) has resulted in several physician-filed lawsuits against PRWs. A Minnesota neurologist sued one of his patients for $50,000 after the patient’s son posted allegedly false remarks on a PRW. The neurologist then faced a
Physicians also are concerned that factors beyond their control (a grumpy receptionist or a parking problem, for example) may affect a physician’s composite score.

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The future
Most physicians, patients, and policymakers would probably agree that transparency leads to improved quality of care. However, are PRWs the best means for achieving greater accountability? The Centers for Medicare & Medicaid Services (CMS) and the American College of Surgeons (ACS) have promoted reporting of quality measures through initiatives such as value-based purchasing and the National Surgical Quality Improvement Program (NSQIP®). Concerns raised about the validity of such measures are even more critical when an individual physician’s reputation is at risk.

There is an active move toward physician quality reporting. The Physician Quality Reporting System (PQRS), administered by CMS, collects data on 144 individual quality measures. Currently, CMS provides payment incentives to physicians who participate in the system in 2015, and it will penalize those who do not comply. CMS has started adopting patient satisfaction scores from its popular HCAHPS initiative, and hospitals with low scores are penalized.

As mentioned previously, whether patient experience translates to physician quality is unclear. Using volume as a proxy for quality, Segal and colleagues sampled 600 surgeons and compared numerical ratings between high-volume and low-volume surgeons who perform lum-
bar operations, total knee replacement, or bariatric procedures. Researchers found no statistical difference in the scores. With respect to narrative or text comments, they found that high-volume surgeons had more “glowing comments” to the ratio of total comments. Greaves and colleagues evaluated 16,952 ratings on primary care physicians and found a weak association between clinical process and outcome measures. Some studies have shown a correlation between the HCAHPS and clinical quality. Additionally, hospitals with higher HCAHPS scores had few readmissions and lower inpatient mortality rates. Whether these results, which focus on the patient’s hospital experience, can be generalized to individual physician patient satisfaction scores is yet to be determined.

Conclusion
The public’s increasing demand for online health care provider information, the emerging role of PRWs, and the influence of patient ratings and rankings on physician practice and reimbursement can no longer be ignored. Whether current PRWs are valid tools to assess physicians’ quality of care, or a platform for these online entities and their marketing initiatives, is debatable. However, it is clear that patients, insurers, for-profit organizations, and the government will continue to rank and rate surgeons. The consequences of these ratings will be increasingly profound, and it is imperative that surgeons become more proactive in understanding and participating in these new online resources.

Disclaimer
The views expressed in this article include those of Dr. Ward and do not necessarily reflect the official policy or position of the U.S. Department of the Navy, U.S. Department of Defense, or the U.S. government.

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To help commemorate the American College of Surgeons’ (ACS) Centennial, the Bulletin is reprinting articles centered on the issues and developments that have defined the character of the organization and the surgical profession for the last 100 years. This month’s reprint from January 1989 looks at the development and implications of what was then known as the Harvard RBRVS. Perhaps no initiative has so profoundly affected the way physicians are compensated for the services they provide than the creation of the resource-based relative value scale (RBRVS).

The RBRVS was first proposed in September 1988 by William Hsiao, PhD, a Harvard University economist, and his colleagues at the Boston, MA, institution. It was implemented in 1992 under the Omnibus Budget Reconciliation Act of 1989. Since then, the RBRVS has served as the basis for the Medicare physician fee schedule.

This month’s reprint reviews initial stakeholder reactions to the report, including those of members of Congress; explores the key issues that were unresolved at the time of the report’s release; and considers how the study might have been used to develop payment policies in the future. The author concludes the article by stating, “In the end, however, it will be political and budgetary pressures that will help shape a revised Medicare physician payment policy.” These words hold true today, as policymakers debate how best to reform the Medicare physician payment system.
On September 29, 1988, following a multi-million dollar, multi-year project, William Hsiao, PhD, and his Harvard colleagues submitted a report entitled A National Study of Resource-Based Relative Value Scales for Physician Services to the Health Care Financing Administration (HCFA). This controversial report has received considerable attention in the lay press and the medical literature. The September 29, 1988 issue of the New England Journal of Medicine and the October 28, 1988 issue of the Journal of the American Medical Association devoted considerable space to articles about the project's methodology and results. These matters were also addressed in the July and November 1988 issues of the Bulletin of the American College of Surgeons.

This article reviews early reactions to the report from a variety of interested parties and the processes that are now in place to examine the project's methodology and results. It also takes note of the many physician payment issues confronting policymakers that are not addressed by the Harvard research effort. Finally, it examines the ways in which government policymakers could decide to make use of the Harvard report's findings.

Early reactions

Officials from HCFA—the principal sponsor of the Harvard resource-based relative value scale (RBRVS)—have been less than enthusiastic about the project. HCFA Administrator William Roper, MD, has emphasized the fact that "...multiple layers of assumptions, statistical estimates, and extrapolations" underlie the RBRVS. Dr. Roper has also noted that the RBRVS does not address the volume and intensity of physician services—which are responsible for about half of the increase in Medicare physician payments—and has warned that "a relative value scale could worsen the volume and intensity problem..."

HCFA has begun a detailed examination of the Harvard study's methodology and findings, and it is mandated by Congress to submit a report on the RBRVS, including recommendations relating to the use of a relative value scale for Medicare payment purposes, by July 1, 1989. To facilitate its review of the Harvard research effort, the agency is also requesting additional information from the principal investigator and his colleagues to supplement the material that is included in the report.

The Physician Payment Review Commission (PPRC)—a 13-member body charged with providing advice to Congress about physician payment matters—supports the concept of a fee schedule based on resource costs. However, individual commissioners have been critical of various aspects of the Harvard methodology, and the Commission has not formally endorsed the Harvard RBRVS. The Commission's staff is now reviewing the Harvard project and is working on potential improvements.

On November 2, 1988, the PPRC held a public hearing to receive preliminary views about the Harvard RBRVS, during which it received oral testimony from approximately 24 groups, including the American College of Surgeons. (The text of the College's statement was published in the December 1988 issue of the Bulletin. See: "Medicare fee schedules: Issues and options" on pages 5-7 of that issue.)

At the hearing, individuals representing specialties that would likely "win" under the Harvard RBRVS generally indicated that they considered the project good enough for early implementation, and welcomed the fact that the RBRVS would correct what they view as historic underpayment of physician visit services. Other groups, including surgical specialty societies, identified numerous flaws in the...
Harvard work and concluded that this project cannot be used for Medicare payment purposes without significant improvements in the methodology. Even proponents of the RBRVS expressed the view that its implementation probably could not occur before 1991, although they urged Congress to adopt enabling legislation in 1989.

In addition to numerous technical and methodological concerns, some of the testimony also expressed doubts about the basic premise underlying the Harvard RBRVS, namely that resource inputs alone—time, intensity, practice costs, and income foregone by a physician while pursuing a residency program—are a better reflection of the worth of a physician service than are physician charges or other factors.

The resource-based approach ignores the value of a service to patients, although the Harvard report itself notes (on page 722) that a “national payment system should recognize social benefits in the relative value.” A resource-based methodology also ignores the qualifications of the physician or the quality of the service provided to the patient. The methodology can also have surprising consequences. For example, it could result in Medicare payment levels for some services—notably, physician visit services—that would be higher than the amounts physicians currently charge for them. Proponents of a competitive marketplace would have serious concerns about such an outcome. In effect, the resource-based approach ignores a number of factors that play a large role in determining the value of goods and services in the general economy.

During the November PPRC hearing, the American Medical Association (AMA), a subcontractor of the Harvard study, took no formal position on the RBRVS. However, at its December House of Delegates meeting in Dallas, the AMA reaffirmed its support for an indemnity payment system under which payments for physician services would be established using an appropriate RVS based on the resource costs of providing physician services. Furthermore, the AMA concluded that the current Harvard RBRVS study and data, “when sufficiently expanded, corrected and refined, would provide an acceptable basis for a Medicare indemnity payment system.” [Emphasis in original.]

**Congress’ next move?**

Meanwhile, Congress appears to be taking a “wait and see” attitude toward the RBRVS. Congressional hearings on the matter are likely to be held later this year. The spring report of the PPRC will undoubtedly contain a number of recommendations relating to the RBRVS and will likely have an important bearing on future policy developments. Given budget pressures and Congressional concerns about the rate of increase in Medicare spending for physician services, it is likely that 1989 will bring new efforts to restrain program growth.

In this context, it is possible that, despite its flaws, policymakers could choose to use the RBRVS to identify “overpriced” physician services or classes of services, rather than approve a more substantial revision in Medicare’s physician payment methodology based on the Harvard work to date. Payment cuts in such “overpriced” services would, of course, produce some of the budget savings needed by Congress as it attempts to meet existing deficit reduction targets. However, there are a number of other options available to Congress that could be used to reduce Medicare spending, and some of them would have a far greater impact on hospitals and beneficiaries than on physicians.

In addition, there are a number of other options for short- and long-term action on Medicare physician payment. Congress could choose to mandate a fee schedule based on some blend of charge-based and resource-based relative values, or one based on some variant of the Harvard RBRVS.

**Key issues needing resolution**

Of course, any revision in Medicare’s physician payment system must also grapple with a number of important issues not definitively addressed by the Harvard RBRVS. As noted earlier, the Harvard work does not address the issues of volume and intensity, but only proposes different prices for physician services. Increasing and decreasing payment levels flowing from an RBRVS would produce different incentives for physicians and patients, but the aggregate effect on the volume and intensity of services is difficult to predict. In any event, it is now clear to most policymakers that the RBRVS by itself is not specifically designed to produce spending reductions for physicians’ services.

The Harvard project also does not address problems involving the definition of services, although the principal investigator notes repeatedly that imprecise service definitions—especially for physician
Visit services—compromised his ability to generate resource-based relative values. In particular, there are no standard definitions of what is included in a global fee for procedural services, with individual Medicare carriers having different policies with respect to how much preoperative and postoperative care is considered an integral part of the procedure. Obviously, a single set of relative values should apply to services in which definitions are standardized and well understood. Otherwise, the same relative value would be applied to different service bundles.

A fee schedule also requires the use of one or more conversion factors or multipliers to convert the relative values into dollar amounts, and to take into account geographic differences in cost of practice and, perhaps, cost of living. While the Harvard RBRVS considers practice costs as one of four resource inputs, the researchers use an estimate of average practice costs for each specialty, rather than adjusting for geographic differences in practice costs within the same specialty.

Thus, a method must be devised to allow for appropriate payment to physicians who face different practice costs. In this context, there is likely to be considerable debate about whether rural physicians should be paid more or less than their urban counterparts, and, if so, under what circumstances. In addition, action on conversion factors has enormous potential for redistributing Medicare payments from one part of the country to another, since any method that is devised to adjust Medicare payment levels for geographic differences in cost of practice or other factors is unlikely to perfectly mirror the current system's payment patterns.

This kind of geographic redistribution will pose enormous problems for politicians, since it raises the possibility that the geopolitical area represented by one Congressman or Senator could "lose out" to other areas, depending upon the payment formula used. In a way, this issue would not be unlike other Congressional debates about the best formula to be used in distributing federal highway funds or emergency energy assistance monies.

Decisions must also be reached about whether, and how, payment levels should be adjusted for physician specialty status. Current policy in this area varies from place to place, with some Medicare carriers not recognizing a specialty payment differential at all. Finally, policymakers will be faced with the difficult issue of assignment policy—whether and when to allow physicians to bill Medicare beneficiaries for charges above Medicare's allowed amounts. In its November testimony before the PPRC, the American Association of Retired Persons, which represents in excess of 31 million citizens, indicated its strong view that mandatory assignment should accompany the adoption of a RBRVS.

While work is currently under way at PPRC and at HCFA on many of these issues, this work is far from completed. Moreover, each of these issues has important implications for payment levels, and some of them may have a more significant impact than the RBRVS ultimately may have.

The principal investigator and his colleagues are also beginning phase two of this research, which will focus on 16 additional specialties, including neurosurgery and plastic surgery. A report on this Congressionally mandated work is due to Congress by October 1, 1989.

At this writing, the PPRC plans another public hearing in February to allow more detailed scrutiny of the Harvard RBRVS. This hearing will give a variety of groups another opportunity to state their views on this study. In light of the fact that the Commission's early November hearing came so soon following the public release of the massive Harvard report, it is anticipated that the February testimony will be more substantive and complete.

In short, the Harvard RBRVS will be one—but only one—of the important physician payment matters receiving policymaker attention during the next few years. The project's flaws and omissions will receive careful scrutiny. In the end, however, it will be political and budgetary pressures that will help to shape a revised Medicare physician payment policy.

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Dr. Desmarais is a principal with the Washington, DC-based firm, Health Policy Alternatives, Inc.
The Medicare EHR Incentive Program deadlines

by Sana Gokak, MPH

By now, many surgeons are aware of the Health Information Technology for Economic and Clinical Health (HITECH) Act. HITECH is part of the American Recovery and Reinvestment Act of 2009 (ARRA), which authorizes the U.S. Department of Health and Human Services to provide financial incentives to eligible professionals (EPs) and hospitals that “meaningfully use” electronic health record (EHR) technology.

In 2010, the Centers for Medicare & Medicaid Services (CMS) published the final rule establishing the criteria physicians must meet in Stage 1 to receive financial incentives. Stage 2 was introduced in a subsequent final rule published in 2012, along with additional modifications to Stage 1. Since implementation of the EHR program, the Bulletin of the American College of Surgeons (ACS) has published columns such as this one to assist surgeons and administrative staff in differentiating the two phases of implementation, to inform surgeons of important deadlines, and to make them aware of the penalties associated with noncompliance and nonparticipation.

What are the EHR incentive payments and penalty amounts?
The Medicare EHR Incentive Program payments began in calendar year 2011. Those EPs who began meeting the Stage 1 meaningful use requirement in 2011 or 2012 are eligible to receive the maximum incentive payment amount of $44,000 over a period of five years.

- If EPs begin in 2013, they may earn a total incentive payment of $39,000 over a period of four years.
- If EPs begin in 2014, they may receive a total incentive payment of $24,000 over a period of three years. No incentives are scheduled for EPs who become meaningful users in 2015 and beyond.

It is important to note that although the Medicare EHR Incentive Program penalties are not applied until calendar year 2015, the performance period for this penalty will occur before the payment penalty year. In other words, surgeons will need to be able to achieve Stage 1 of meaningful use before 2015 to avoid the payment penalty in 2015. Although the incentive payments are set to end by 2016 for those EPs who participate in the program by 2014, the penalties will begin in 2015 and will continue indefinitely. Table 1 on page 45 describes the incentives and penalties from 2011 to 2015 and beyond.

What steps should surgeons be taking in 2013 to begin reporting for Stage 1?
In order to begin Stage 1, EPs must first sign up on the CMS registration and attestation system site, https://ehrincentives.cms.gov/hitech/login.action. EPs may register in this system even before they have certified EHR technology. To meet the meaningful use objectives, EPs must use certified EHR technology that has been approved by the Office of the National Coordinator (ONC). A list of the ONC-certified EHR systems is available at http://oncchip.force.com/ehrcert.

To begin reporting, an EP must meet the 14 core set measures, as well as select and meet at least five out of 10 menu set measures. EPs must choose at least one of the population and public health measures from the menu set.
EPs also are required to report on three core clinical quality measures to demonstrate meaningful use—blood pressure level, tobacco status, and adult weight screening and follow-up—or three alternate core measures if these three are inapplicable. EPs who are unable to report on the core clinical quality measures may instead report the alternate core measures, which are influenza immunization for patients older than age 50, weight assessment and counseling for children and adolescents, and childhood immunizations. If none of the six core and alternate core measures are applicable, EPs may report zeros for all six denominators.

In addition to the three core measures and alternate core measures, EPs must select and report on three additional measures from a subset of clinical measures most appropriate to an area of practice. If the three additional selected measures have a value of zero in the denominator, the EP will have to attest that the other clinical quality measures, if calculated by the certified EHR technology, have a value of zero in order to be exempt from reporting on additional measures.

For 2013, EPs may choose between two options to report on the EHR program measures:

- EPs may report on all of the EHR measures allowable in 2012 along with the mandatory changes to some measures in 2013.
- EPs may report on all of the measures required in 2012 along with both the mandatory changes for 2013 and the voluntary changes for 2013. The voluntary changes for 2013 will become mandatory in 2014.

Refer to Table 2 on page 46 for additional information, and visit the following ACS Web page to view a list of allowable measures to complete either option: http://www.facs.org/ahp/ehr/ehr_reporting.html.

In the first year of participation, EPs will need to report for a consecutive 90-day reporting period during any point in a calendar year until October 1 of a respective year. EPs also must report for a full calendar year in subsequent years of participation. There will be an exception to this in calendar year 2014, and we will publish more information on this in another EHR program update.

**When will Stage 2 begin?**
Stage 2 of the program is scheduled to begin in calendar year 2014. Hence, if an EP decides to wait until 2014 to participate in the Medicare EHR Incentive Program, Stage 1 requirements must be completed before beginning Stage 2 (that is, surgeons should report their Stage 1 90-day reporting in 2014; Stage 1 full calendar year reporting should be done in 2015, and then begin Stage 2 requirements in 2016). Updates to 2014 deadlines will be provided as they become available.

**I am an EP. I plan to begin reporting immediately. What are the important deadlines for first-time users in 2013 or 2014, and how can I avoid penalties?**
See Table 3 on page 46 for a list of the deadlines and instructions for avoiding penalties.

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**Table 1. Maximum Total Amount of EHR Incentive Payments for a Medicare EP**

<table>
<thead>
<tr>
<th>Calendar year*</th>
<th>First calendar year in which the EP receives an incentive payment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011</td>
</tr>
<tr>
<td>2011</td>
<td>$18,000</td>
</tr>
<tr>
<td>2012</td>
<td>12,000</td>
</tr>
<tr>
<td>2013</td>
<td>8,000</td>
</tr>
<tr>
<td>2014</td>
<td>4,000</td>
</tr>
<tr>
<td>2015</td>
<td>2,000</td>
</tr>
<tr>
<td>2016</td>
<td>2,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$44,000</td>
</tr>
</tbody>
</table>

*A calendar year equals a payment year.*
**What resources are available to begin reporting?**
Surgeons may avail themselves of the following resources:

- The College has partnered with AmericanEHR Partners. ACS Members may register with the AmericanEHR Partners to receive additional information on EHR vendor ratings, listen to podcasts, request proposals from vendors, receive e-newsletters, and more: [http://www.americanehr.com/Home.aspx](http://www.americanehr.com/Home.aspx).

**TABLE 2.**
2013 EHR INCENTIVE PROGRAM CHECKLIST BY YEAR OF PARTICIPATION

<table>
<thead>
<tr>
<th>Calendar year 2013</th>
<th>First year of participation</th>
<th>Second year of participation</th>
<th>Third year of participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Begin Stage 1</td>
<td>□ Continue Stage 1</td>
<td>□ Continue Stage 1</td>
<td></td>
</tr>
<tr>
<td>□ Report for 90 consecutive days</td>
<td>□ Report for one full calendar year</td>
<td>□ Report for one full calendar year</td>
<td></td>
</tr>
<tr>
<td>□ Report on all measures as required. Choose one of the following:</td>
<td>□ Report on all measures as required. Choose one of the following:</td>
<td>□ Report on all measures as required. Choose one of the following:</td>
<td></td>
</tr>
<tr>
<td>1. Report on all measures as required in 2012 along with mandatory changes in 2013</td>
<td>1. Report on all measures as required in 2012 along with mandatory changes in 2013</td>
<td>1. Report on all measures as required in 2012 along with mandatory changes in 2013</td>
<td></td>
</tr>
<tr>
<td>-or-</td>
<td>-or-</td>
<td>-or-</td>
<td></td>
</tr>
<tr>
<td>2. Report on all measures required in 2012 along with mandatory and voluntary changes in 2013</td>
<td>2. Report on all measures required in 2012 along with mandatory and voluntary changes in 2013</td>
<td>2. Report on all measures required in 2012 along with mandatory and voluntary changes in 2013</td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 3.**
UPCOMING EHR INCENTIVE PROGRAM DEADLINES

<table>
<thead>
<tr>
<th>Due date*</th>
<th>EHR Incentive Program reporting specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 3, 2013</td>
<td>To earn the maximum incentive of $39,000 for 2013, EPs will need to begin their Stage 1 90-day reporting by this date.</td>
</tr>
<tr>
<td>February 28, 2014</td>
<td>This date is the last day EPs can attest that they reported on the required measures for a 90-day reporting period in 2013.</td>
</tr>
<tr>
<td>July 3, 2014*</td>
<td>EPs in their first year of reporting in 2014 must begin their 90-day reporting period no later than July 3, 2014, to avoid the 2015 EHR Incentive Program penalty. EPs who begin their first year of reporting in 2014 will be eligible to receive a maximum eligible incentive of $24,000.</td>
</tr>
<tr>
<td>October 1, 2014*</td>
<td>This is the last day EPs may attest that they reported on the required measures for a 90-day reporting period beginning no later than July 3, 2014. Meeting this deadline will allow EPs to qualify to receive the 2014 EHR incentive payment and avoid the 2015 EHR penalty.</td>
</tr>
<tr>
<td>October 3, 2014*</td>
<td>The last day that EPs may begin their 90-day reporting to qualify for the 2014 incentive payment. EPs who begin reporting for the first time on this day will not avoid the 2015 EHR penalty.</td>
</tr>
</tbody>
</table>

*Any updates to 2014 deadlines will be provided in future ACS publications.
the Centers for Medicare & Medicaid Services (CMS) has continued the Physician Quality Reporting System (PQRS) program into 2013 as required under the Medicare Improvements for Patients and Providers Act of 2008. PQRS is the first CMS-crafted national program to link the reporting of quality data to physician payment. Eligible professionals (EPs) who successfully participate in the PQRS program receive incentive payments.

The incentive payment for the 2013 and 2014 reporting years is 0.5 percent of the total allowed charges for Medicare Part B professional services covered in the physician fee schedule and furnished during the respective reporting period. There are penalties for nonparticipation, which are imposed two years following a calendar year of participation. For example, EPs who are unsuccessful PQRS participants in 2013 may be subject to a penalty in 2015. Table 1 on page 48 illustrates the incentive and penalties for 2013–2015.

EPs who previously reported to the PQRS program should note that 2013 PQRS now includes 259 individual quality measures and 22 that are part of a 2013 measures group. Although some 2012 PQRS quality measures and measures groups have been continued under the 2013 PQRS, measures specifications may have been updated for 2013. Surgeons who currently are reporting to the 2013 PQRS are encouraged to review the 2013 PQRS Measure Specifications Manual for Claims and Registry Reporting of Individual Measures for updates and changes to the individual measures. The manual is available at the following website: http://www.cms.gov/apps/ama/license.asp?file=/pqrs/downloads/2013_PQRS_MeasuresGroupsSpecs_ReleaseNotes_SupportingDocs_03042013.zip.

This column focuses on the perioperative care PQRS measures group because it is the one surgeons use most frequently. It is important to note that although the perioperative measures group includes individual quality measures, the denominator coding has been modified from the individual measures to allow for implementation as a group. The 2013 PQRS Measures Groups Specifications Manual serves as an essential resource when reporting a PQRS measures group, and the April issue of the Bulletin provides an overview of the changes in PQRS for 2013.* Measures in the perioperative care group may be reported using the claims or registry method. This column focuses on the claims-based method.

TABLE 1. PQRS PAYMENT INCENTIVES AND PENALTIES

<table>
<thead>
<tr>
<th>Reporting year</th>
<th>Incentive</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>0.50%</td>
<td>-</td>
</tr>
<tr>
<td>2014</td>
<td>0.50%</td>
<td>-</td>
</tr>
<tr>
<td>2015</td>
<td>-</td>
<td>1.50%</td>
</tr>
<tr>
<td>2016 and beyond</td>
<td>-</td>
<td>2.00%</td>
</tr>
</tbody>
</table>

First steps in reporting

The first step in reporting to PQRS is to identify applicable measures groups for professional services routinely provided using the 2013 PQRS Measures Groups Specifications Manual. Next, select the measures group that makes sense based on prevalence and volume, as well as individual or practice performance analysis and improvement priorities.

The perioperative measures group includes the following 2013 PQRS measures:\(^1\):

- **#20**—Perioperative Care: Timing of Prophylactic Parenteral Antibiotic – Ordering Physician
- **#21**—Perioperative Care: Selection of Prophylactic Antibiotic – First or Second Generation Cephalosporin
- **#22**—Perioperative Care: Discontinuation of Prophylactic Parenteral Antibiotics (Non-Cardiac Procedures)
- **#23**—Perioperative Care: Venous Thromboembolism (VTE)

Prophylaxis (When Indicated in All Patients)

The instructions in the 2013 PQRS Measures Groups Specifications Manual explain how, when, and who should report. CMS specifically requires that group code G8492 be reported to indicate the intention to report the perioperative measures group. The code should be reported at least once during the January 1–December 31, 2013, reporting period. However, this code is only used when billing a claim for the 20 Medicare patients claims-based option. It is recommended that surgeons report G8492 more than once during the reporting period in the event a claim with the intent code does not go through. The instructions also include the patient sample criteria. Table 2, page 49, lists the specific surgical procedure codes that can be reported for the perioperative measures group.\(^1\)

Denominator, frequency, and numerator

The Current Procedural Terminology (CPT)\(^2\) codes and patient demographics outlined in the patient sample criteria identify the patients who are included in the measures group, otherwise known as the “denominator.” The instructions further note that “CPT Category I procedure codes billed by surgeons performing surgery on the same patient, submitted with modifier 62 (indicating two surgeons, i.e., dual procedures), will be included in the denominator population. Both surgeons participating in PQRS will be fully accountable for the clinical action described in the measure.”\(^2\)

“Frequency” refers to how often the measure should be reported. To successfully report the perioperative measures group, quality data codes (QDCs) must be reported for all four measures, #20, #21, #22, and #23, for each patient each time a surgical procedure is performed during the reporting period. QDCs are CPT II codes that are used to report the clinical action required by the measure on the claims form, otherwise known as the “numerator.” The specifications include instructions for reporting each measure.

The specifications for the perioperative measures group indicate that QDCs must be reported on all measures within the group. The specifications include a description and numerator for all four measures. When encountering a patient in the denominator, a QDC for each measure should be reported. If all quality actions for the patient are performed for each measure, G8501 may be reported on the claim instead of the individual QDCs. G8501 may not be used when reporting on a patient with a G8631 or G8632 for measure #20, or an 8P or 1P modifier for measures #21,


\(^2\)All specific references to CPT (Current Procedural Terminology) codes and descriptions are © 2012 American Medical Association. All rights reserved.
TABLE 2. PERIOPERATIVE MEASURES GROUP SURGICAL PROCEDURAL CODES

<table>
<thead>
<tr>
<th>Measure Group</th>
<th>Perioperative Measures Group</th>
<th>CPT II Code(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>#20</td>
<td>0261, 0342, 0361, 0362, 0363, 0364</td>
<td>10030</td>
</tr>
<tr>
<td>#21</td>
<td>0261, 0342, 0361, 0362, 0363, 0364</td>
<td>10030</td>
</tr>
<tr>
<td>#22</td>
<td>0261, 0342, 0361, 0362, 0363, 0364</td>
<td>10030</td>
</tr>
<tr>
<td>#23</td>
<td>0261, 0342, 0361, 0362, 0363, 0364</td>
<td>10030</td>
</tr>
</tbody>
</table>

For claims-based reporting of measure groups, all measures within the group must be reported for each of the unique 20 Medicare Part B fee-for-service patients within the sample population seen by the EP from January 1 through December 31, 2013, reporting period. Likewise, measures groups containing a measure with a 0 percent performance rate will not be counted as satisfactorily reporting the measures group. A 0 percent performance rate can result if a single measure is reported with all 8P modifiers, for measures #21, #22, and #23, or all G8632, for #20, or a combination of 8P or G8632 with 1P or G8631 for a single measure for the 20 Medicare

patient sample. Beginning on page 64 of the 2013 PQRS Measures Groups Specifications Manual, the numerators are listed for measures #20, #21, #22, and #23. Refer to Table 3 on page 50 for QDCs associated with each measure.

Step-by-step guide to submitting a claim form

CPT II codes may be reported on claim form CMS 1500 or via electronic form ASC X 12N Health Care Claim Transaction, Version 5010.

• Step 1: If your Medicare patient is age 18 or older on the date of the encounter, look in the measure specifications for the

perioperative measures group to see if the CPT code is listed in the table of surgical procedures for which there are indications for a prophylactic antibiotic (including first or second generation cephalosporin) and VTE prophylaxis. If so, continue to step 2.

• Step 2: On the CMS 1500 claim form, list, for example, the CPT procedure code 44120 on line 1.

• Step 3: On lines 2 through 5, list the CPT II codes, or QDCs, based on the numerator actions.

• Step 4: On the following lines, list CPT II codes that correspond to PQRS measures #20, #21, #22, continued on page 51

CODING AND PRACTICE MANAGEMENT CORNER

SEPT 2013 BULLETIN American College of Surgeons
### TABLE 3. QDCS FOR #20, #21, #22, AND #23 PQRS PERIOPERATIVE MEASURES GROUPS

#### #20—Perioperative Care: Timing of Prophylactic Parenteral Antibiotic—Ordering Physician

- Report one code for timing of prophylactic parenteral antibiotic ordered or given, or report one code for not ordered within specified time frame.

<table>
<thead>
<tr>
<th>Documentation</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>of order for prophylactic parenteral antibiotic (written order, verbal order, or standing order/protocol)</td>
<td>G8629</td>
</tr>
<tr>
<td>that prophylactic parenteral antibiotic has been given within one hour prior to the surgical incision (or start of procedure when no incision is required)</td>
<td>G8630</td>
</tr>
<tr>
<td>for prophylactic parenteral antibiotic not given for documented reasons</td>
<td>G8631</td>
</tr>
<tr>
<td>administration of prophylactic parenteral antibiotic not given, reason not given</td>
<td>G8632</td>
</tr>
</tbody>
</table>

#### #21—Perioperative Care: Selection of Prophylactic Antibiotic—First or Second Generation Cephalosporin

- Report one code for selection of prophylactic antibiotic, or report one code for not ordered/given.

<table>
<thead>
<tr>
<th>Documentation</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>of order for cefazolin OR cefuroxime for antimicrobial prophylaxis (written order, verbal order, or standing order/protocol)</td>
<td>4041F</td>
</tr>
<tr>
<td>for first or second generation cephalosporin not ordered for medical reasons</td>
<td>4041F-1P</td>
</tr>
<tr>
<td>first or second generation cephalosporin not ordered, reason not otherwise specified</td>
<td>4041F-8P</td>
</tr>
</tbody>
</table>

#### #22—Perioperative Care: Discontinuation of Prophylactic Parenteral Antibiotics (Non-Cardiac Procedures)

- Report one code for timing of prophylactic parenteral antibiotic. If prophylactic parenteral antibiotic given intraoperatively or within four hours prior to surgical incision, report one code for discontinuation of prophylactic parenteral antibiotics or one code for not ordered to be discontinued.

<table>
<thead>
<tr>
<th>Documentation</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>that prophylactic antibiotics were given neither within four hours prior to surgical incision nor given intraoperatively</td>
<td>4042F</td>
</tr>
<tr>
<td>that prophylactic antibiotics were given within four hours prior to surgical incision or given intraoperatively and documentation that order was given to discontinue prophylactic antibiotics within 24 hours of surgical end time, noncardiac procedure</td>
<td>4046F and 4049F</td>
</tr>
<tr>
<td>that prophylactic antibiotics were given within four hours prior to surgical incision or given intraoperatively and documentation of medical reason(s) for not discontinuing prophylactic antibiotics within 24 hours of surgical end time</td>
<td>4046F and 4049F-1P</td>
</tr>
<tr>
<td>that prophylactic antibiotics were given within four hours prior to surgical incision or given intraoperatively and order was not given to discontinue prophylactic antibiotics within 24 hours of surgical end time, noncardiac procedure, reason not otherwise specified</td>
<td>4046F and 4049F-8P</td>
</tr>
</tbody>
</table>

#### #23—Perioperative Care: Venous Thromboembolism (VTE) Prophylaxis (When Indicated in All Patients)

- Report one code for VTE prophylaxis or one code for not ordered or given.

<table>
<thead>
<tr>
<th>Documentation</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate VTE prophylaxis ordered</td>
<td>4044F</td>
</tr>
<tr>
<td>VTE prophylaxis not ordered for medical reasons</td>
<td>4044F-1P</td>
</tr>
<tr>
<td>VTE prophylaxis not ordered, reason not otherwise specified</td>
<td>4044F-8P</td>
</tr>
</tbody>
</table>
### TABLE 4. PQRS 2013 REPORTING OPTIONS MATRIX

<table>
<thead>
<tr>
<th></th>
<th>Claims-based methods</th>
<th>Registry-based methods</th>
<th>Electronic health record (EHR)-based methods (via a qualified direct EHR product or data submission vendor)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full-year period</strong></td>
<td>1. At least three PQRS measures for 50% of applicable Medicare Part B fee-for-service (FFS) patients of each EP. Allowed to report one or two if less than three apply.</td>
<td>3. At least three PQRS measures for 80% of applicable Medicare Part B FFS patients of each EP.</td>
<td>6. (A) Report on all three PQRS EHR measures that are also Medicare EHR Incentive Program core measures. If the denominator for one or more of the Medicare EHR Incentive Program core measures is 0, report on up to three PQRS EHR measures that are also Medicare EHR Incentive Program alternate core measures; and Report on three additional PQRS EHR measures that are also measures available for the Medicare EHR Incentive Program (note that not all PQRS EHR measures are available in the EHR Incentive Program. To see a breakdown of the measures, visit: <a href="http://www.facs.org/ahp/pqri/2013/ehr-based-report.pdf">http://www.facs.org/ahp/pqri/2013/ehr-based-report.pdf</a>); or (B) At least three PQRS measures for 80% of applicable Medicare Part B FFS patients of each EP.</td>
</tr>
<tr>
<td>Individual measures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measures groups</td>
<td>2. One measures group for at least 20 Medicare Part B FFS patients.</td>
<td>4. One measures group for at least 20 Medicare Part B FFS patients, a majority of whom should be Medicare patients (at least 11 Medicare patients).</td>
<td>N/A</td>
</tr>
<tr>
<td>Individual measures</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Measures groups</td>
<td>N/A</td>
<td>5. One measures group for at least 20 Medicare Part B FFS patients, a majority of whom should be Medicare patients (at least 11 Medicare patients).</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Half-year period</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual measures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measures groups</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

and #23. (Refer to Table 3 on page 50.) Or, if all quality actions for the patient have been performed for each of the four measures, G8501 may be reported. However, G8501 may not be reported if any of the QDCs with the 8P modifier, 1P modifier, G8631, or G8632 have been selected.

- **Step 5:** Be sure billing software and clearinghouse can correctly submit PQRS CPT II codes or QDCs.

- **Step 6:** Regularly review the remittance advice notice from the carrier to ensure the denial remark code N365 is listed for each QDC submitted. This notification indicates that claims have made it to the CMS national claims history file. If a remittance advice does not display the N365 denial remark code, make sure to check to see that the QDC line items are listed.

Surgical practices that follow these steps should be able to successfully report to PQRS 2013 using the claims-based methodology and receive incentive payments. Along with this approach, there are six other options for reporting to PQRS 2013 (see Table 4 on this page).

American College of Surgeons
Commission on Cancer
Rapid Quality Reporting System:
From quality measurement
to quality improvement

by Daniel P. McKellar, MD, FACS, and Heidi Nelson, MD, FACS

More than ever, the federal government, payors, patient organizations, and other stakeholders are requiring health care providers to report quality measures. These data are being used for many purposes, including assisting patients in determining which institutions and physicians will provide their care, crafting a pay-for-performance methodology, and meeting regulatory requirements. So, quite often, measurement data are not applied directly to quality improvement. Systems like the American College of Surgeons (ACS) Commission on Cancer’s (CoC) Rapid Quality Reporting System (RQRS) not only measure quality, but also assist in immediate quality improvement. These are valuable tools for improving cancer care and should be the focus of future research efforts.

The CoC has been the leader in quality reporting in cancer care for many years. Since 2005, the CoC has provided its accredited cancer programs with an annual Cancer Program Practice Profile Report (CP3R). This report provides information on individual cancer program compliance with each of the CoC’s quality measures. The current five National Quality Forum-endorsed measures are process measures that report compliance with the provision of appropriate components of treatment in selected colon and breast cancer patients. The reports, provided to all CoC-accredited programs, allow cancer programs to understand their compliance in relation to comparison groups, such as all CoC-accredited programs in their state, region, or all CoC programs in the U.S.

**Purposes of RQRS**

One drawback of the current CP3R is the necessary delay in reporting back results to cancer programs because of the required processing of data. The RQRS was designed to provide cancer programs with expedited “real clinical time” results on compliance with the...
quality measures. Not only does RQRS provide more immediate feedback, it assists the cancer program in identifying cancer patients who have yet to receive required components of their therapy and allows cancer programs to intervene to provide the missing components. This system provides immediate quality improvement in addition to quality measurement. In many instances, cancer programs have reported that use of the RQRS system has been instrumental in assuring that their cancer patients do not “fall through the cracks.”

Participating RQRS cancer programs are expected to identify and report data on newly diagnosed and treated breast and colon cancer patients and submit the required data to the National Cancer Data Base. Although RQRS currently applies to breast and colon cancer cases only, the Quality Integration Committee of the CoC is in the process of developing and implementing quality measures in many other cancer sites, and, therefore, RQRS will apply to these additional sites as well.

Each month, participating cancer programs receive an e-mail alert of cases that have not yet shown compliance with one of the quality measures (see figure, this page). The alert is color-coded (yellow, orange, red) based on the length of time left to provide the necessary treatment and meet the requirements of the measure. Cancer programs may use the accession number on the alert to identify the patient and determine why the required component of care has not yet been provided and intervene to ensure the patient receives the appropriate treatment.

Currently, use of RQRS is voluntary and is available at no cost to cancer programs. The only requirements for participation are CoC accreditation and that the members of the cancer program agree to participate. The system does involve some training and requires some increased registrar participation beyond the usual abstracting requirements. Currently, more than one-third of CoC-accredited programs have implemented RQRS. Beginning in January 2014, a new CoC standard will provide a commendation to cancer programs that have implemented and are using RQRS. ◆
A new blog, JC Physician, has been launched to share information on Joint Commission initiatives designed to support physicians and health care institutions in their efforts to reach a common goal—keeping patients safe. Joint Commission physician leaders also will use the blog to learn what is working well and how improvements can be made. Written by and for physicians, the biweekly JC Physician blog discusses health care issues of interest to physicians as well as other topics, such as ethics, the environment, and current affairs. Regular physician contributors will include Daniel Castillo, MD; Ana McKee, MD; Paul Schyve, MD; Robert Wise, MD; and Ron Wyatt, MD, MHA.

Role of physicians in accreditation
Physicians are at the center of all efforts to improve patient outcomes, providing clinical leadership, and advocating for quality and safety in health care. By serving as a bridge between patients and staff and staff and management, physicians play a unique leadership role in fostering improvement in care. This role makes physician involvement in the accreditation process—with its focus on helping health care organizations improve the safety and quality of care—an imperative.

Although Joint Commission accreditation requirements are designed to provide a framework for carrying out necessary daily activities, physicians are needed as leaders in all quality and safety efforts. The Joint Commission understands that physicians have limited time for performance improvement and respects physician autonomy and time constraints. Accreditation, however, is relevant to physicians because its emphasis on safety and quality improvement can make a difference in the health and safety of their patients.

Leading the way
Not more than 10 years ago, operations often were performed without verifying the site, without the team affirming that the correct patient was on the operating room table, or without confirming that the correct procedure was about to be performed. Many hospitals also lacked a standardized process for reviewing a comprehensive list of medications and reconciling them for appropriateness on admission or discharge. These standardized processes are examples of the many innovations that The Joint Commission has introduced into the health care environment over the years—practices that are designed to help physicians keep patients safe. Despite these types of interventions, some physicians may not view The Joint Commission as the national driver for patient safety for a couple of reasons.
First, most physicians don’t know the extensive role that other physicians have played in the founding and continued leadership of The Joint Commission. Established in 1951 largely to expand the American College of Surgeons’ (ACS) Hospital Standards program, The Joint Commission is governed by commissioners representing the American Medical Association, the ACS, the American College of Physicians, and other corporate member organizations. Half of the members of the board of commissioners and the board chair, Rebecca Patchin, MD, are physicians.

Improving communication with physicians
Despite the significant physician leadership of The Joint Commission, communication with physicians in accredited institutions has been inadequate. This lack of communication partially contributes to the misperceptions physicians have about The Joint Commission. Furthermore, almost every physician at some point in his or her career has been told “because The Joint Commission says so” in response to a complex question that deserved a better explanation. Responses such as this one not only underestimate the intelligence of the individual, but deny the individual an understanding of the rationale behind why a particular process is in place.

The role physicians play in improving clinical outcomes and reducing risk is immeasurable. In growing numbers, physicians are working in teams that understand and work toward reducing variation, standardizing processes, and building a safety culture. How The Joint Commission supports this work and the tools it provides is a story that needs to be told. Physician leaders at The Joint Commission are keenly aware of the importance of sharing information and breaking down communication barriers and have made a commitment to make this happen. To submit a question or a comment in the JC Physician blog, visit: http://www.jointcommission.org/blogs/blogger.aspx?BloggerId=388.

SEPT 2013 BULLETIN American College of Surgeons
One of the most important developments of the U.S. Industrial Revolution was the creation of railroads. They brought economic, social, and political change to a country that was only 50 years old. Railroads were first developed in Great Britain after George Stephenson applied the steam technology of his time and created the first successful locomotive. Americans visiting England saw how using steam locomotives for rail transport could decrease shipping costs by almost 70 percent. Shortly thereafter, the U.S. began importing engines from the Stephenson Works along with track from England—a process that continued up until the Civil War.*

In 1827, because Baltimore, MD, was 200 miles closer to the frontier than New York, NY, it was viewed as a strong contender to serve as the hub city for a railroad that would transport goods and people to the West. Thus, the Baltimore and Ohio Railroad became the first registered railroad in the U.S. Next came the creation of the transcontinental railroad, considered one of the greatest feats of the 19th century. Concluding in May of 1869 in Promontory, UT, the Transcontinental Railroad was formed through the merger of the Central Pacific Railroad, which began in San Francisco, CA, with the Union Pacific, which originated in Omaha, NE. Merging these two railroads required an army of 20,000 workers, primarily immigrants, to cross mountains and dig tunnels.*

Accidents are rare
Nowadays we commonly hear on the news of a train crash that has occurred somewhere in the U.S. Just this past May, several high-profile crashes involving trains occurred outside of Baltimore, in southeastern Missouri, and just outside Bridgeport, CT.

Nonetheless, in general, railroad safety is actually improving. According to the Federal Railroad Administration, the number of train accidents declined by more than 43 percent during the past decade. In 2012, a total of 1,712 train accidents, with 284 injuries and nine deaths, occurred.†

To examine the occurrence of train derailment injuries in the National Trauma Data Bank® (NTDB®) research dataset for 2012, admissions medical records were searched using the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM). Specifically searched was

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external cause of injury code (E-code) E800 (railway accident involving collision with rolling stock) and the fourth digit value of either (0–railway employee, 1–passenger on railway, 2–pedestrian, 8–other specified person, 9–unspecified person). A total of 27 records were found, 23 of which contained a discharge status indicating that 15 patients were discharged to home, four to acute care/rehab, and two to skilled nursing facilities; two died. These patients were 89 percent male, on average 40.8 years of age, had an average hospital length of stay of 11.7 days, an intensive care unit (ICU) length of stay of 9.7 days, an average injury severity score of 18.1, and were on the ventilator for an average of eight days. A total of 21 percent went directly to the operating room, while another 37 percent went directly to the ICU from the emergency department (see figure, this page).

In 2012, more than 660 million passengers traveled nearly 21 billion miles with an extremely low risk of injury. Freight trains can safely carry a ton of ore and other minerals, scrap metals, grains, refrigerated goods, manufacturing parts, raw supplies, liquids, and even hazardous waste 450 miles on a single gallon of fuel. So the next time you contemplate train travel, don’t let the news of a highly publicized train crash derail your plans.

Throughout the year, we will be highlighting data through brief reports in the Bulletin. The NTDB Annual Report 2012 is available on the ACS website as a PDF file and as a PowerPoint presentation at www.ntdb.org. In addition, information regarding how to obtain NTDB data for more detailed study is available on the website. If you are interested in submitting your trauma center’s data, contact Melanie L. Neal, Manager, NTDB, at mneal@facs.org.

Acknowledgement
Statistical support for this article has been provided by Chrystal Caden-Price, data analyst, NTDB.
Barbara Lee Bass, MD, FACS, selected to receive 2013 Distinguished Service Award

In acknowledgement of her steadfast commitment to the initiatives and principles of the American College of Surgeons (ACS), Barbara Lee Bass, MD, FACS, is the recipient of this year’s Distinguished Service Award. An ACS Fellow since 1987, Dr. Bass is the John F. and Carolyn Bookout Distinguished Endowed Chair and chair of the department of surgery at Houston Methodist Hospital, in Houston, TX. The Distinguished Service Award (DSA) is the ACS’ highest honor and will be presented during the Convocation ceremonies at the 2013 Clinical Congress, 6:00–8:00 pm, Sunday, October 6, in Ballroom AB of the Walter E. Washington Convention Center, Washington, DC.

Leadership in the ACS

The DSA is given to Dr. Bass in appreciation of her exceptional service to the ACS “for more than 20 years in noteworthy leadership roles,” according to the award citation. Dr. Bass served as an ACS Regent (2001–2010) and on the Executive Committee of the Board of Regents (2005–2009). As a Regent, she was a member of the Finance Committee (2005–2010), the Member Services Liaison Committee (2004–2008), the Central Judiciary Committee (2002–2005), the Women in Surgery Committee (2000–present), and the Scholarship Committee. She is a Past-Chair of both the ACS Committee on Education (2003–2006) and the Clinical Congress Program Committee (2005–2011).


Dr. Bass is a surgeon champion of the ACS National Surgical Quality Improvement Program (ACS NSQIP®) and served on the Steering Committee for that program (2004–2010). In addition, she served on the ACS Health Policy Advisory Committee (2008–2010) and the Transition to Practice Workgroup (2012).

Dr. Bass has held leadership roles in many other professional organizations as well, including serving as chair of the American Board of Surgery, president of the Society for Surgery of the Alimentary Tract, and president of the Society of Surgical Chairs.

She has inspired other women in surgery and as a result has received the Nina Starr Braunwald Award and the Distinguished Member Award from the Association of Women Surgeons.

Dedicated surgical educator

The award also is presented “In acknowledgement of her outstanding clinical and academic contributions to the field of general surgery” and “her commitment to teaching the next generation of surgeons,” the citation states. In addition to her previously mentioned positions at Houston Methodist Hospital, Dr. Bass is the executive director of MITIE, the Methodist Institute for Technology, Innovation and Education, a state-of-the-art education and research facility developed to safely train practicing health care professionals in new technologies and procedures. She is professor of surgery at Weill Cornell Medical College,
Dr. Bass has mentored 27 pre- and postdoctoral fellows, presented and published more than 130 manuscripts, and delivered more than 70 named lectureships and invited talks. Dr. Bass’ research programs in gastrointestinal cell biology, computational surgery, surgical outcomes sciences and clinical research have been funded by the National Institutes of Health, the Veterans Affairs (VA) Research program, the National Science Foundation, and other groups. Her first grant was an ACS Faculty Research Award in 1987. Before taking on her roles at Houston Methodist Hospital in 2005, Dr. Bass was associate chair for research and academic affairs, general surgery residency program director, and professor of surgery at the University of Maryland, Baltimore. While at the University of Maryland, Dr. Bass also served as chief of surgery at the VA Medical Center in Baltimore. Earlier appointments included faculty positions at the George Washington University School of Medicine, Washington, DC; the Uniformed Services University of Health Sciences, Bethesda, MD; the VA Medical Center, Washington DC; and the Walter Reed Army Institute of Research, then in Washington, DC.

Dr. Bass graduated summa cum laude with a Bachelor of Science degree from Tufts University, Medford, MA. She earned her medical degree from the University of Virginia, Charlottesville, where she was elected to the Alpha Omega Alpha Honorary Society. She completed her surgical internship and general surgery residency at George Washington University and completed a gastrointestinal surgical research fellowship at Walter Reed, during which time she served as a Captain in the U.S. Army Medical Corps. ♦

**Official notice:**

**Annual Business Meeting of Members, American College of Surgeons**

In accordance with Article I, Section 6, of the Bylaws, the Annual Business Meeting of Members of the American College of Surgeons is called for 4:15 pm, the afternoon of Wednesday, October 9, 2013, at the Walter E. Washington Convention Center, Washington, DC.

This session constitutes the Annual Business Meeting of Members, at which time Officers and Governors will be elected, and reports from officials will be presented. Items of general interest to the Members will also be presented. Members are respectfully urged to be present. ♦

Courtney M. Townsend, Jr., MD, FACS
Secretary
American College of Surgeons
September 1, 2013
In memoriam:

George F. Sheldon, MD, FACS: A lifetime of achievement as a scholar, surgical educator

by A. Brent Eastman, MD, FACS, and Anthony A. Meyer, MD, PhD, FACS, FRCS

George F. Sheldon, MD, FACS, a great humanist and icon of American surgery at home and abroad, died of heart failure June 16 in Chapel Hill, NC. He was 78 years old. Dr. Sheldon was the Zack D. Owens Distinguished Professor of Surgery and Chairman of the department of surgery, chief of general surgery, and general surgery residency program director at the University of North Carolina (UNC), Chapel Hill.

Dr. Sheldon was a tireless advocate for the American College of Surgeons (ACS). He was elected the 79th President of the organization (1998–1999) after years of service as an ACS Governor and Secretary of the Board of Governors (1979–1982); as a member of the Board of Regents (1983–1992); and on key committees and task forces including the Committee on Trauma, Pre- and Post-Operative Care, and Communications. In 1985, he testified dramatically before Congress on behalf of the College to protect funding for graduate medical education (see photo, page 61). He was also first Editorial Advisor of the Bulletin of the American College of Surgeons.

A few years after his Presidency, Dr. Sheldon became founding Editor-in-Chief of the ACS Web portal, which now has hundreds of editors and millions of page views. As recently as a month before he died—and after his first hospitalization for heart failure—Dr. Sheldon sent the ACS leadership a formal request to renew his contract as Web portal Editor, dismissing his health issues as unimportant. ACS Executive Director David B. Hoyt, MD, FACS, renewed the contract immediately. Dr. Sheldon was also the driving force behind the ACS Health Policy Research Institute initially located at the Cecil G. Sheps Center for Health Services Research at UNC and now headquartered in the ACS Division of Advocacy and Health Policy’s Washington, DC, Office.

The ACS recognized the extraordinary service of Dr. Sheldon with a Lifetime Achievement Award during Convocation ceremonies at the 2012 Clinical Congress in Chicago, IL—only the second such award presented in the College’s 100-year history. The first recipient was C. Rollins Hanlon, MD, FACS, in 2010. The citation for Dr. Sheldon’s award was written by ACS Regent Howard M. Snyder, MD, FACS, who had the invaluable opportunity to interview Dr. Sheldon and verify details of his life and career. Rather than attempt to paraphrase further, we have asked that the citation be reprinted here, following our more personal remarks.

Dr. Eastman’s personal comments

The news of George’s grave illness and death reached me in Hampshire, England, while I was in the company of two past-presidents of the Royal College of Surgeons of England, Sir Barry T. Jackson, MB, BS, FACS(Hon), and Lord Bernard F. Ribeiro, MB, BS, FACS(Hon). As three long-time friends and admirers of Dr. Sheldon, we mourned his loss together, talking into the night about his enormous contributions to the world of surgery. The following day we were invited to...
the House of Lords. Lord Ribeiro wore his UNC tie in honor of his great friend (see photo, this page).

I first met Dr. Sheldon in the late 1960s at the University of California-San Francisco, where I was the newest surgical intern, and he was an outstanding resident among a stellar group assembled by our chiefs, J. Englebert Dunphy, MD, FACS, and F. William Blaisdell, MD, FACS. Dr. Dunphy had just finished his own term as ACS President, and Dr. Blaisdell had created one of the nation’s first trauma centers at San Francisco General Hospital (SFGH), setting us on our life’s course in the care of the injured patient. (George and I joked for years about Dr. Dunphy’s consternation when he saw our first joint case report on trauma—a “save” of a construction worker nearly cut in two by a backhoe loader—published in Reader’s Digest.)

If you begin with the students he taught at the University of Kansas, Lawrence, when he himself was an undergraduate, you realize that Dr. Sheldon supported and inspired at least three generations of colleagues of all kinds: readers of the classics, historians (including my wife Sarita, who referenced George as an authority on 19th century medicine in her first book), medical students, residents, younger faculty, women surgeons, rural surgeons. The list is endless. For me, George was a source of encouragement in every phase of my career, especially with respect to in my involvement with the ACS, and I know that no one was happier than George when Dr. Anthony Meyer succeeded him as chair of surgery at UNC.

**Dr. Meyer’s personal comments**

I also first met George in San Francisco, about 10 years after Brent, when I was an intern at SFGH in 1977. George was on the faculty with Drs. Blaisdell, Donald Trunkey, Arthur Thomas, Muriel Steele, Robert Lim, and Frank Lewis (all MD, FACS). George taught me most of what I know about surgical metabolism, hyperalimentation, and how to avoid getting into trouble. From the start, he was supportive of my career in academic surgery. We worked together as faculty at SFGH until he left in 1984 to become the Zack D. Owens Distinguished Professor and Chairman of the department of surgery at UNC, and I became his first faculty recruit. George gave me one great opportunity after another, and we worked closely together in different roles until his death.

As Dr. Eastman noted, Dr. Sheldon’s greatest legacy is perhaps the legion of younger surgeons he mentored—all the residents and fellows he trained and encouraged, all the young faculty whose careers he helped develop with crucial support, guidance, and introductions. Dr. Sheldon profoundly influenced the careers of many of the surgical leaders of today and was always available to offer advice.

As his health faltered, Dr. Sheldon made sure all of his academic responsibilities were covered, including moderating a panel at the 2013 Clinical Congress. He wanted to be involved as long as he could contribute.

**His legacy endures**

Dr. Sheldon is survived by his wife Ruth, for whom he cared devotedly during her
long illness, and was blessed to be surrounded in his final weeks by their three beloved daughters: Anne Sheldon Anderson, an English history teacher in Sacramento, CA; Elizabeth “Betsy” Sheldon Terao, with the California State Department of Social Services, Sacramento; and Julie Sheldon, a veterinarian in Carmichael, CA. He also is survived by two brothers, Richard Robert Sheldon, retired professor and dean of liberal arts at Dartmouth College, Hanover, NH; and William F. Sheldon, director emeritus of the German-American Institute in Nuremberg, Germany, who was also at his bedside in Chapel Hill.

We are honored to write this piece for George’s family and his multitude of friends and surgical colleagues around the world. His passing leaves a large void in all our lives, but we take solace in remembering his gifts to us and to our great profession. He was truly one of the giants of surgery of our time.

Citation for presentation of the 2012 ACS Lifetime Achievement Award to Dr. Sheldon*

The Lifetime Achievement Award of the ACS is presented for a lifetime contribution to the art of medicine, surgery, and service to the American College of Surgeons. This award, only the second in the history of the College, goes to a richly deserving individual, George Frank Sheldon, MD, FACS.

Born in Salina, KS, to a physician father, Dr. Sheldon became involved early with medicine. Because of a severe shortage of medical personnel in rural Kansas during World War II, he started helping out his father in the operating room in his hometown hospital and worked there throughout his high school years. He was also a three-sport athlete.

Attending Kansas University, he exhibited an uncommon aptitude for leadership, service, and scholarship. For three of his undergraduate years, he held the faculty rank of assistant instructor in the department of Western civilization, and he taught classic literature. He also was elected student body president.

At the Kansas University Medical School, from which he graduated in 1961, he co-authored The Doctor, 1861–1961: A Pictorial History of Kansas Medicine in the centennial year of the State of Kansas. He was awarded the L.L. Marcell Award for the highest academic standing in medicine on graduation.

After internship and his military service in the U.S. Public Health Service Commissioned Corps, the medical branch of the Coast Guard, he completed a year of fellowship in medicine at the Mayo Clinic, Rochester, MN, followed by surgical residency at the University of California-San Francisco, where he did a five-year residency in four years and in his third year received the Helmut Fresca Award for the best resident.

After residency, his training continued with a special postdoctoral fellowship from the National Heart Institute with a Research Fellowship in Surgical Biology at the Peter Bent Brigham Hospital of the

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*This citation was delivered in September 2012.
Harvard Medical School, Boston, MA. He then joined the faculty of the UCSF and achieved promotion to professor in 1980.

He participated in the founding of one of our nation’s first trauma centers and became the chief of the trauma service at San Francisco General Hospital which, in addition to UCSF residents, trained Army, Navy, and Air Force surgeons before deployment to Vietnam. He also served as director of the physiological research facility and was among the first physicians on the West Coast to feed patients by intravenous hyperalimentation.

In 1984, he was asked to be the chairman of surgery at the UNC, Chapel Hill, and structured the rapid expansion of department services and extensive recruitment of young surgeons. In 2001, Dr. Sheldon stepped down from that position but was named a professor of social medicine and surgery and continued to teach a very popular history of medicine course and to do health policy research. The UNC named two distinguished lectureships in his honor. The Surgical Interest Group at UNC, for medical students who are interested in surgery, was also established in recognition of Dr. Sheldon.

Continuing his scholarship and interest in history, he published the biography Hugh Williamson: Physician, Patriot, and Founding Father in 2010 and is working on a book on the life of Philip Syng Physick, long considered the father of American surgery. In 2011 he received the Thomas Jefferson Award, the highest award of all schools of the UNC, for the seven qualities that define the award: ecumenicity of spirit, intellectual distinction, professional superiority, interdisciplinary involvement in the humanities, scholarly productivity, service to the university, and service to the community with a Jeffersonian vision for higher education.

Dr. Sheldon’s career with the ACS paralleled his rise to national leadership. A Fellow since 1973, he gave the ACS Opening Lecture at the 1978 Clinical Congress titled Philip Syng Physick: The Father of American Surgery. It was the first Opening Lecture to use slides and was co-authored with his wife Ruth and published in the Bulletin.* From 1979 to 1982, he served on the Board of Governors, representing the Society of University Surgeons. He was the Secretary of the Board of Governors and served on its Executive Committee. In 1984, Dr. Sheldon became a Regent and Chairman of the Communications Committee and the first Editorial Advisor of the Bulletin.

In 1985, at the urging of Olga Jonasson, MD, FACS, he and C. Rollins Hanlon, Oliver H. Beahrs, and David C. Sabiston (all MD, FACS) worked with Sen. David Durenberger (R-MN) to protect graduate medical education funding, which was under attack. His testimony before Congress was shown on C-SPAN and was instrumental in ensuring continued GME funding for a five-year residency. Continuing an interest in trauma, he served on the Committee on Trauma and in 1992 gave the Scudder Oration on Trauma, titled

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Dr. Sheldon receives the Lifetime Achievement Award from then-ACS President Patricia J. Numann, MD, FACS, FRCS, October 2012.

In May of 2009, Dr. Sheldon interviewed Paul A. Ebert, MD, FACS, Past-Director of the College, for the ACS Centennial.

Trauma Manpower. Dr. Sheldon, during his years as a Regent, served on more than 10 ACS committees or task forces.

He served as President of the ACS in 1998–1999. During his presidency, the Residents and Associates Society was founded. In 2004, he was the founding editor of the ACS Web portal, now with 28 communities, 200 editors and associate editors, and almost 4 million page views. He gave the 2009 Edward D. Churchill-Excelsior Surgical Society Lecture on Surgical Workforce in the Era of Health Reform. In 2008, he was the founding Director of the ACS Health Policy Research Institute and enlisted the part-time support of 160 researchers at the UNC Cecil G. Sheps Center for Health Service Research. Their work has resulted in more than 70 publications.

Dr. Sheldon’s honors are too extensive to cite. He is one of the few surgeons in the last century to have been president of most of the major surgical organizations, including the American College of Surgeons, the American Surgical Association, the American Association for the Surgery of Trauma, the Society of Surgical Chairmen, the Uniformed Services University Surgical Service Visiting Board, and chair of the American Board of Surgery. He is the first surgeon, not a dean, to be Chairman of the Association of American Medical Colleges since 1879. He is a member of the Institute of Medicine of the National Academy of Sciences. He was a charter member of the Council on Graduate Medical Education when it was founded in 1985. Dr. Sheldon holds Honorary Fellowship in the Royal Colleges of Surgeons of England and Edinburgh, the Association of Surgeons of Great Britain and Ireland, the European Surgical Association, and the Colombian Surgical Association. He is an Honorary Fellow of the Society of Black Academic Surgeons. In 2003, he was named a Distinguished Service Member by the Association of American Medical Colleges.

Dr. Sheldon has been an author of more than 400 articles and book chapters on surgical biology, intravenous hyperalimentation, trauma, health policy, and workforce issues, as well as history. He has been co-author of eight books and serves on multiple editorial boards. Dr. Sheldon’s regional, national, and international preeminence in academic surgery and social medicine distinguishes him even among the elite handful of prodigious educators at the summit of the surgical profession.

Dr. George Sheldon has lived a life of remarkable achievement and service to his patients, scholarship, public policy, surgery, and the ACS. He richly deserves the American College of Surgeons’ Lifetime Achievement Award.

A “Celebration of Life” Service in honor of Dr. Sheldon will take place during the 2013 Clinical Congress at 6:15 pm Wednesday, October 9, at the Walter E. Washington Convention Center, room 146B, in Washington, DC. All Clinical Congress participants are invited to attend.
In memoriam:
John Mann Beal, MD, FACS, remembered as caring surgeon, educator, and advocate for the surgical profession

by David L. Nahrwold, MD, FACS

American College of Surgeons (ACS) Past-President John Mann Beal, MD, FACS, died June 3 in Valdosta, GA, at age 97. Dr. Beal retired in 1982 as the J. Roscoe Miller Distinguished Professor and Chairman, department of surgery, Northwestern University Medical School (now the Feinberg School of Medicine); and chairman, department of surgery, Northwestern Memorial Hospital, Chicago, IL. He was appointed professor emeritus in 1984.

Education
Born in Starkville, MS, he moved to Chicago at age 13, when his father was appointed professor of botany at the University of Chicago (U of C). He attended the U of C high school and completed his undergraduate and medical studies at the U of C, receiving his medical degree in 1941. It was there that he met his future wife, Mary Phemister, daughter of the chairman of the U of C department of surgery, Dallas Phemister, MD, FACS.

He was a surgical intern and resident at the New York Hospital-Cornell University Medical Center, NY, in the accelerated training program during World War II, entering the U.S. Army in 1943. He and Mary were married before he left for Europe to serve as a surgeon in several evacuation hospitals. He was discharged as a Major in 1946 and returned to the New York Hospital to continue his residency, finishing as chief resident in 1948 under the newly appointed chairman Frank Glenn, MD, FACS, an ACS Past-President.

Career as an academic surgeon
Soon thereafter, ACS Past-President William P. Longmire, Jr., MD, FACS, chairman of surgery at the new medical school of the University of California-Los Angeles, recruited Dr. Beal to his faculty and later appointed him chief of the surgical service at Wadsworth General Hospital Veterans Administration Center. He conducted basic research on essential nutrients for intravenous feeding and, with Dr. Longmire, studied the use of jejunal segments as a gastric substitute after total gastrectomy.

Dr. Glenn, an authority on gallbladder and biliary tract surgery, recruited him back to New York Hospital-Cornell University Medical Center in 1953, where he continued his research and developed a large practice, concentrating on gastrointestinal problems. His national reputation burgeoned, and in 1963, he was recruited to succeed the formidable Loyal Davis, MD, FACS, ACS Past-President, as professor and chairman of the department of surgery at Northwestern.

As chair, Dr. Beal helped lead the consolidation of Passavant Memorial Hospital and Chicago Wesley Memorial Hospital into Northwestern Memorial Hospital and the consolidation of the separate surgical residency programs at Northwestern’s affiliated hospitals into a single program, two events that set the stage for academic and clinical growth. Another major contribution was his leadership in establishing Northwestern’s practice plan, which facilitated the growth of the full-time faculty and the recruitment of highly qualified chairmen and supported the medical school and its clinical departments financially.

Dr. Beal focused on teaching students and residents. As a surgeon he was meticulous,
gentle, and unflappable. He calmly led residents through difficult gastrointestinal cases while explaining the procedures to medical students. He and other surgical leaders established the Association of Program Directors in Surgery, an organization devoted to improving surgical residencies and the experiences of surgical residents. He served as a director and chairman of the American Board of Surgery, and was a member of the Residency Review Committee for Surgery from 1972 to 1978. From 1976 to 1978 he was chairman of the Surgery B Study Section of the National Institutes of Health.

He authored or co-authored 190 scientific publications.

Leadership in the profession
Dr. Beal was a member of many important surgical societies, including the American Surgical Association, the exclusive Society of Clinical Surgery, the Southern and Western Surgical Associations, and the Société Internationale de Chirurgie. Inevitably, his common sense and practical wisdom led to leadership positions in surgical organizations, including the presidencies of the Chicago Surgical Society and the Central Surgical Association, and the vice-presidencies of the Society for Surgery of the Alimentary Tract and the Council of Medical Specialty Societies. After six years as a Regent and a term as Chair of the Board of Regents (1980–1982), he was elected President of the American College of Surgeons in 1982, following in the footsteps of his exemplars, Drs. Glenn, Longmire, Phemister, and Davis.

Diplomat
A tall, handsome man, Dr. Beal had an elegant bearing. His soft, southern voice, gentle humor, and wide-ranging interests made him an interesting conversationalist. He played a good game of tennis and was an avid sports fan. While he was at Northwestern, season tickets to the Chicago Bears’ games were unavailable to the public, so he asked the Bears’ owner to help him obtain them. Dr. Beal recalled with a chuckle his delight on receiving season tickets in the mail and his chagrin when he attended his first game and found that they were standing-room-only.

He was a master at resolving disputes and bringing dissenting factions together, both as Northwestern’s chair of surgery and as a leader in surgical organizations. His passion for concord and harmony was reflected in his American College of Surgeons Presidential Address titled “Unity of Purpose,” which was published in the December 1982 Bulletin of the American College of Surgeons. He addressed the problems caused by fragmentation in surgery and advocated for conjoined certifying boards, improved communication among subspecialties, and efforts to agree on common purposes and agendas, mediated by the College.

He was principled and uncompromising in his beliefs. While serving as the College’s representative in the American Medical Association (AMA) House of Delegates in the early 1980s, he became convinced that the AMA Board of Trustees was ignoring the Delegates’ and the College’s recommendations, especially with regard to socioeconomic issues. He recommended that the College vacate its seat in the House of Delegates, which was tantamount to pulling out of the AMA—a stunning action implemented by the College’s then-Director, C. Rollins Hanlon, MD, FACS. As a result, the College increased its presence in Washington, DC, and developed its own positions on socioeconomic issues, rather than adopting those of the AMA. This strengthened the ability of the College to influence government agencies and Congress. Having established its presence in Washington, the College resumed its participation in the House of Delegates in 1992.

Dr. Beal is survived by his son and daughter-in-law, Bruce and Leslie Beal of Valdosta, GA; daughter and son-in-law, Margaret and Jeffrey Loeb of St. Louis, MO; his son John Beal III of Chicago, IL; and four grandchildren. His wife, Mary, died in 2005. One of the last of the notable surgeons of his generation, Dr. Beal taught us to value dignity, kindness, and humility, attributes of a splendid surgeon and human being.
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The Board of Governors’ (B/G) Surgical Volunteerism and Humanitarian Awards Workgroup has announced the recipients of the 2013 American College of Surgeons (ACS)/Pfizer Surgical Humanitarian Award and Surgical Volunteerism Awards. As in previous years, the Workgroup received exceptional nominations, reflecting the remarkable commitment of ACS Fellows to providing care to underserved populations.

The extraordinary contributions of the award recipients are summarized below and will be formally recognized at the annual B/G dinner Tuesday, October 8, during the 2013 Clinical Congress in Washington, DC. Clinical Congress attendees also are invited to hear the honorees speak at a Panel Session, Humanitarian Surgical Outreach at Home and Abroad: Reports of the 2013 Volunteerism and Humanitarian Award Winners, 9:45 am–1:00 pm, Monday, October 7, at the Walter E. Washington Convention Center. Attendees will also have the opportunity to meet them and others dedicated to surgical volunteerism at a networking reception that evening at the Carnegie Library.

**Surgical Humanitarian Award**
The ACS/Pfizer Surgical Humanitarian Award recognizes Fellows who have dedicated a substantial portion of their careers to ensuring that underserved populations receive surgical care, and although this work may constitute a large part of their career, they have done so without expectation of commensurate compensation.

**Donald R. Laub, Sr., MD, FACS,** of Redwood City, CA, has been selected to receive the 2013 Surgical Humanitarian Award for his lifetime of service to the underserved in developing nations and in recognition of the fact that individuals and organizations around the world have emulated his model of surgical humanitarian outreach (see photo, page 69).

Dr. Laub graduated from Marquette University School of Medicine (now the Medical College of Wisconsin), Milwaukee, WI, and completed his postdoctoral training at Yale School of Medicine, New Haven, CT, and Stanford University School of Medicine, CA. During his residency, Dr. Laub observed the impact that his mentor had on a 13-year-old boy who had traveled from Mexico for cleft lip and palate repair, thus sparking his passion for humanitarian reconstructive surgery. In 1969, as an assistant professor of surgery and chief of plastic and reconstructive surgery at Stanford, Dr. Laub founded Interplast—now ReSurge International—the first organization to take multidisciplinary teams to developing countries on short-term surgical trips. In so doing, Dr. Laub became a pioneer in the field of global humanitarian surgery.

Dr. Laub has completed 159 surgical trips and performed 1,500 cleft lip and palate operations. His legacy, however, extends far beyond the patients he has treated. With a mission dedicated to empowering local communities, ReSurge provides hands-on training for hundreds of local medical personnel each year through its surgical trips and visiting educator workshops. ReSurge has also partnered with local personnel to ensure year-round access to high-quality reconstructive surgery and now has 11 permanent surgical outreach programs in Africa, Asia, and Latin America. At these sites, 3,000 operations are performed annually, accounting for 80 percent of all ReSurge procedures. To date, ReSurge has performed 95,000 operations in 15 countries.

Since ReSurge’s founding, 58 independent university or foundation-based humanitarian surgical organizations worldwide have been established, including Interplast branches in France, Germany, Holland, Italy, Turkey, Australia, Florida, and West Virginia, as well as OneHeart World-Wide, IVUMed, the Cinterandes Foundation, and Operation Smile. At Stanford, Dr. Laub now teaches one of the few
university undergraduate courses on international humanitarian surgery, preparing the next generation of humanitarians.

Dr. Laub has received numerous awards for his humanitarian work, including the American Society of Aesthetic Plastic Surgeons’ 2002 Humanitarian of the Year Award, a 1986 Private Sector Initiatives award from President Ronald Reagan, the Medal of Merit from the President of Ecuador in 1987, Award of Honor from the President of Honduras in 1984, and recognition from the Dalai Lama and Mother Theresa.

**Surgical Volunteerism Award**
The ACS/Pfizer Surgical Volunteerism Award recognizes ACS Fellows and members committed to giving back to society through significant contributions to surgical care as volunteers. This year, three awards will be granted.

**Ingida Asfaw, MD, FACS**, of Grosse Pointe, MI, will receive the Surgical Volunteerism Award for international outreach for his commitment to improving health care in Ethiopia (see photo, page 70).

Dr. Asfaw grew up in Ethiopia and at age 16 traveled to the U.S. for school with the promise of returning home to provide state-of-the-art health care in his country. He attended Indiana University Medical School, Indianapolis, and completed general surgery and cardiothoracic surgery residencies at Wayne State University and Detroit Medical Center, MI, followed by a two-month fellowship in cardiovascular surgery at the Texas Heart Institute, Houston.

After he completed his training, the political climate in Ethiopia prevented his return home for 28 years. In the interim, Dr. Asfaw arranged for Ethiopian citizens needing complex medical/surgical care to travel to Michigan and other states for pro-bono care, which he helped to fund.

In 1999, Dr. Asfaw founded the Ethiopian North American Health Professionals Association (ENAHPA), a not-for-profit organization charged with improving access to quality surgical and medical care in Ethiopia. Under his leadership, ENAHPA has had a far-reaching and lasting impact on the Ethiopian health care system through initiatives dedicated to sustainable development and capacity building.

In 2003, during their first mission in Ethiopia, Dr. Asfaw and his team performed the country’s first open-heart surgery, cardiac pacemaker insertion, and laparoscopic cholecystectomy.

Since then, ENAHPA has conducted more than 40 missions to Ethiopia, performing nearly 3,000 procedures across all specialties. The organization has proved instrumental in improving Ethiopia’s medical and educational infrastructure, including the presentation of the first telemedicine conference in the nation, the establishment of surgical skills laboratories at Addis Ababa and Gondar Universities, development of an emergency medicine residency training program and first responder/allied health education at Addis Ababa University and St. Paul’s General Hospital, and the procurement of a rescue ambulance.

In 2004, ENAHPA, in collaboration with the Christian Children’s Fund of Canada, established community-centered holistic HIV care and implemented the first free major anti-retroviral drug treatment distribution in Ethiopia, which became a best practice. An outreach program for orphans with HIV was created in collaboration with an Ethiopian-based grassroots organization. ENAHPA partnered with the Clinton Foundation to create a pediatric HIV wing at ALERT Hospital in Addis Ababa and in 2006 broke ground on its Maternal Child Health Center (MCHC) in Hawassa. Inaugurated in 2011, this facility is now a
primary level hospital managing high-risk births and complex medical/surgical patients.

Numerous Ethiopian physicians, nurses, and allied health professionals have been trained through ENAHPA’s education programs, including trainees participating in its traveling fellowship and observership programs in North America and Europe. ENAHPA continues to provide oversight to its initiatives by collaborating with Ethiopian health care officials while transferring much of the programmatic control to the local workforce.

Dr. Asfaw has been recognized with the Volvo For Life Award of 2006, commendation from the city of Detroit, and myriad other awards from organizations in North America and Ethiopia. Dr. Asfaw is a practicing cardiothoracic surgeon and clinical associate professor of surgery at Wayne State University School of Medicine, and is chief of medical staff at St. Joseph Mercy Oakland-Trinity Health, Pontiac, MI.

Dr. Landström attributes his compassion to his turbulent childhood in the U.S. and Sweden. Born to Swedish parents, Dr. Landström was raised in Florida, New York, and Sweden in multiple foster homes often marked by profound abuse. He ran away from one such environment, and after graduating from high school, he set off on his own to work to pay for college. With remarkable fortitude and determination, Dr. Landström ultimately attended Mott Community College, Flint, MI, and later graduated summa cum laude from the University of Michigan, Ann Arbor. He earned his medical degree at Wayne State Medical School, Detroit, with the help of a full scholarship and stipend from the U.S. Public Health Service, which required service in a physician shortage area.

After a general surgery internship at St. John Hospital, Detroit, in 1982, Dr. Landström traveled to Chuuk State, a remote area in the Federated States of Micronesia, to fulfill his scholarship obligation. This four-year experience set the course for his career, as he provided primary care, general and gynecological surgery, anesthesia, and hand surgery as the sole surgeon. He later befriended a local semi-retired surgeon who would serve as his mentor. During this time, Dr. Landström founded the first civilian not-for-profit pharmacy on Weno Island, which provided antihelminthics and other medicines and wound care materials that were in short supply. After fulfilling his service, he returned to Michigan to complete general surgery residency at Providence Hospital and Medical Centers in Detroit and Southfield.

In 1990, Dr. Landström joined the U.S. Navy and served at the U.S. Naval Hospital Guam for three years while on active duty during Operation Desert Shield and Desert Storm. He volunteered for Operation Fiery Vigil to care for casualties of Mount Pinatubo’s eruption in the Philippines, receiving a Certificate of Commendation for his efforts. He also spent two weeks of duty as the sole surgeon at Pohnpei State Hospital in Micronesia during a typhoon.

Dr. Landström completed a fellowship in hand and microsurgery at the Hand Center of Texas and Baylor College of Medicine, Houston, and later returned to Guam to start private practice at the Pacific Hand Surgery Center. He remained a Navy reservist until 2010, when he volunteered for deployment to Operation Enduring Freedom in Afghanistan as the sole surgeon at the Afghan National Military Hospital. Daily trips to the
hospital required full body armor and an M4 rifle. He carried his 9mm pistol and a personal locator beacon in his pocket at all times, in case he was kidnapped—even as he performed and taught general, hand, and plastic surgery and intensive care to Afghan military physicians. Most notably, the reconstructive hand surgery training ensured sustainable care for patients with congenital and acquired pathology of the hand. After nine months, Dr. Landström was demobilized and returned to private practice on Guam as the only fellowship-trained, board-certified hand surgeon in the region.

Dr. Landström has also conducted multiple surgical missions to the Philippines: in 2004 to Pagansinan, and since 2008, yearly with Colorado-based International Surgical Missions to Northern Samar. In 2010, he co-founded the not-for-profit organization Pagasa (“hope” in Tagalog), which funds medical missions to impoverished areas of the Philippines.

Katrina B. Mitchell, MD, of New York, NY, will receive the Surgical Volunteerism Award for her outreach during residency and her contributions toward improving surgical care and education in Tanzania (see photo, page 72).

Dr. Mitchell is a general surgery resident at Weill Cornell Medical College, New York, NY. A native of Bakersfield, CA, she graduated Phi Beta Kappa with summa cum laude in history from Bowdoin College, Brunswick, ME, receiving an award for most outstanding honors thesis for her research on Native-American women’s health and the Indian Health Service. After graduation, she worked in a public health clinic in Philadelphia, PA, providing health care counseling to underserved women. She then completed her post-baccalaureate premedical studies at Bryn Mawr College, PA. At Dartmouth Medical School, Hanover, NH, she was honored as an Albert Schweitzer Fellow and C. Everett Koop Scholar for her dedication to community service and development of a court-alternative program for teenagers with substance abuse disorders. In addition, she assisted a Costa Rican physician in assessing the need for improved emergency medical care for indigenous populations in Panama and Costa Rica.

During her general surgery residency, Dr. Mitchell has spent two years as a Weill Cornell Global Health Fellow at the Weill Medical College of Weill Bugando Medical Centre in Mwanza, Tanzania. There, as a teaching assistant in the department of surgery, she helped create a surgical curriculum for medical students and ultimately raised funds and spearheaded the effort to establish at Weill Medical College the Canadian Network for International Surgery’s Essential Surgical Skills workshop.

While in Tanzania, Dr. Mitchell volunteered with the African Medical Education and Research Foundation (AMREF) Flying Doctors, traveling to remote villages with a Weill Bugando surgeon to provide surgical care to local patients. In addition, she served as a volunteer flight physician for AMREF’s continent-wide emergency air evacuation service. Outside of surgery, Dr. Mitchell collected data for a study on female urogenital schistosomiasis in the Lake Zone region, and worked with the Lutheran World Federation (LWF) to advocate for increased government funding to address nodding syndrome in northern Uganda. For these efforts, Dr. Mitchell was awarded the inaugural Pioneers in Diversity Award from Weill Cornell Medical College in 2011.

From 2011 to 2012, Dr. Mitchell collaborated with Weill Bugando surgical partners, the ELMA Foundation, and the Tanzania Ministry of Health to lay the groundwork for the establishment of a pediatric burn unit for the northwestern Tanzania Lake Zone region. Dr. Mitchell ultimately secured a $191,000
grant from the ELMA Foundation for her plan for burn unit development in a resource-limited environment. It will be the first and only multidisciplinary burn unit to serve the 15-million population Lake Zone region and represents a significant advancement in specialized surgical care for the location.

In New York, Dr. Mitchell has been active in the Park Avenue Christian Church’s outreach group and is collaborating with other members to establish a church partnership in Haiti and provide support to the Hôpital Albert Schweitzer. After graduation, Dr. Mitchell intends to practice surgery in an underserved area and continue her involvement with global surgery.

Details on the Clinical Congress events involving these award recipients will be published in the Program Book and on the Operation Giving Back website at http://www.operationgivingback.facs.org.

Dr. Mitchell teaching casting for an Essential Surgical Skills workshop in Mwanza, Tanzania, May 2011.

Using a systems approach to solve practice problems in surgery

Surgeons will increasingly want to assume leadership roles in directing the changes that are now inevitable in surgical practice. Understanding systems, their interactions, and strategies to make them more effective will be critical to optimize surgeons’ practices and patient care. Whether the issue is changing scheduling to optimize patient flow in the office, enhancing use of operating rooms at the hospital, or monitoring the rate of incomplete excision of breast lesions, surgeons need the skills to identify, measure, and track whatever is important to their practices and their patients. Fortunately, simple tools are available.

Measure Twice, Cut Once! Optimizing Surgical Systems of Care is a new course designed by surgeons, for surgeons, and it will be offered for the first time at the American College of Surgeons’ 2013 Clinical Congress in Washington, DC. Participants will learn how to identify areas of care they want to monitor, collect the relevant data needed to evaluate performance and outcomes, interpret the results of appropriate data analyses, identify opportunities for improvement, and implement timely and effective changes.

Peter J. Fabri, MD, PhD, FACS, will chair the course, which will be offered from 8:00 am to 4:30 pm, Tuesday, October 8, in Room 146B of the Walter E. Washington Convention Center. The activities will be practical, realistic, and timely. An overview of health systems engineering will be provided, plus hands-on experience with Advanced Excel, practical applications of easily understood statistics, process control methodology, and failure mode and effects analysis—all tools that are learnable, doable, and effective in real practice. Measure Twice, Cut Once! is designed for surgeons in clinical practice and requires no prior analytical experience. Only a comfort level with basic use of Microsoft Excel is needed. Acquire the skills to make your practice work better for you and your patients.
JACS announces speedy online publication of accepted manuscripts

The Journal of the American College of Surgeons (JACS) has initiated a new online feature: “In Press Accepted Manuscripts.” With this program, accepted manuscripts are now published online at www.journalacs.org approximately one-and-a-half weeks after acceptance. The accepted manuscript (in both full-text and PDF) is fully citable and searchable by title, author(s) name, and article text. Importantly, each article also carries a disclaimer noting that it is an unedited manuscript that has not yet been copyedited, typeset, or proofread. When the fully copyedited version is ready for publication, it will replace the author-accepted manuscript version online. This process will increase the speed of publication of JACS articles, adding to the potential for more citations and more visibility. ♦

ACS supports AMA resolution recognizing obesity as a disease

The American College of Surgeons (ACS) and 10 other medical/specialty societies cosponsored a resolution that the American Medical Association (AMA) House of Delegates passed during its June meeting, which recognizes obesity as a disease state that has multiple pathophysiological aspects that require a range of interventions to advance treatment and prevention. In offering its support for the resolution, the ACS acknowledged that many physicians already treat obesity as a disease state. In fact, bariatric surgeons are often on the front lines of treating this disease, with life-improving and lifesaving results.

The College’s testimony further noted that, through the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP), the ACS and the American Society of Metabolic and Bariatric Surgery have come together to develop accreditation standards for bariatric surgery centers. This accreditation symbolizes an institution’s commitment and accountability to safe, high-quality surgical care. Currently, 640 bariatric surgery centers throughout the country are accredited through the MBSAQIP, and these centers and their surgeons treat obesity as a disease.

For more information regarding the College’s support of AMA Resolution 420, contact jsutton@facs.org. For details regarding the MBSAQIP, go to http://www.mbsaqip.org. ♦

Plan to participate in Meet-the-Expert Luncheons at ACS Clinical Congress

The popular Meet-the-Expert Luncheons will take place Monday, October 7, through Wednesday, October 9, during the 2013 Clinical Congress in Washington, DC. The fee per luncheon is $45, which includes a boxed lunch and the opportunity to informally discuss a focused topic with an expert in the field. It is certainly possible to attend a different luncheon each day. Advance registration is required and tickets are limited.

Luncheon titles include Burning Issues in Surgical Ethics: Collaborations with Industry and Potential Conflicts of Interest; Non-Operative Management of Solid Organ Injuries; Anal Neoplasia; How to Mentor a Newly Trained Partner; Developing a Robotic Surgery Program in Urology; Pediatric Urologic Surgery; Radiological Workup and the Breast; How to Create Your Own Bundled Payment for Surgical Reimbursement; and The Role of Surgeons in Reducing Never Events. Attend luncheons prepared to discuss your surgical cases. For more information, contact Gay Lynn Dykman at gdykman@facs.org.

To register, go to www.facs.org/clincon2013/registration/index.html. ♦
Register now for Clinical Congress offerings in patient safety and disaster readiness

This year’s American College of Surgeons (ACS) Clinical Congress, October 6–10, in Washington, DC, will include new Skills-Oriented and Didactic Postgraduate Courses and Panel Sessions on patient safety and casualty preparation and response.

**Patient safety**

Attendees may receive continuing medical education credit in patient safety for attending multiple courses and sessions, including:

- **PS100**: Acute Cholecystitis: What to Do When the Patient Is Too Sick?
- **PS107**: Complicated Diverticulitis: To Resect or Not?
- **PS121**: Bleeding Ulcer: Endoscopy Suite, Interventional Radiology, or Operating Room?

**Correction**

The article “Improved communication techniques enable residents to provide better care now and in the future” published in the August Bulletin misidentified the location of Penn State College of Medicine (page 29). The medical school is located in Hershey, PA, not in Pittsburgh. The editors regret the error.

- **PS200**: Severe Acute Pancreatitis: Evolving Management Strategies
- **PS208**: A Wild Night on Acute Care Surgery Call: Challenging Cases, Great Lessons
- **PS215**: Acute Appendicitis: Operate Now, Wait until the Morning, or Treat with Antibiotics? Review of the Evidence
- **PS222**: Managing Emergencies in Crohn’s Disease
- **PS229**: Intestinal Stomas: Prevention and Management of Complications
- **PS231**: Quality Colorectal Cancer Care: What You Should Know
- **PS232**: Help! I Can’t Close the Abdomen: Now What?
- **PS400**: Ten Hot Topics in General Surgery
- **SC01**: Humanitarian Surgery: Surgical Skills Training for the International Volunteer Surgeon
- **SC10**: Measure Twice, Cut Once! Optimizing Surgical Systems of Care
- **SC13**: Emergency Airways
- **SC14**: Advanced Skills Training for Rural Surgeons: Laparoscopic Common Bile Duct Exploration and Anesthesia in Rural Practice
- **PG22**: Robotic Surgery for Gastrointestinal Operations: Program Planning, Approaches, and Applications
- **PG27**: Non-Technical Skills for Surgeons in the Operating Room: Behaviors in High-Performing Teams

Attendance at Postgraduate Didactic and Skills-Oriented courses requires additional enrollment to the standard Clinical Congress registration.

**Mass-casualty preparation and response**

Two new Panel Sessions at the 2013 ACS Clinical Congress will explore proper emergency responses that boost the possibility of human survival during mass-casualty events. Panel speakers at these sessions will share firsthand experiences and provide lessons learned, in addition to practical strategies on how to coordinate with federal and local agencies when responding to crisis situations.

- **PS331**: Lessons Learned from the Boston Marathon Bombing

Wednesday, October 9, 8:00–9:30 am
Participants will discuss the lessons learned from the April 15 Boston Marathon bombing, a civilian mass-casualty event. The exercises that preceded the event and the ACS Committee on Trauma’s certification of five adult and one pediatric Level 1 trauma centers in Boston helped save the lives of all the victims who were transported to hospitals.

• **PS310**: Mass-Casualty Shootings: Saving the Patients
  Wednesday, October 9, 9:45–11:15 am
  Moderator: Lenworth M. Jacobs, MD, FACS, ACS Regent
  Co-Moderator: Michael F. Rotondo, MD, FACS, Chair, ACS Committee on Trauma

The ACS has partnered with numerous organizations, including the FBI, local police and fire departments, and emergency prehospital management, to prepare a document that will encourage cooperation among all agencies involved in managing mass-casualty events. A panel of representatives from these groups will provide practical strategies for attendees to apply in their communities.

Admission to Panel Sessions is included with each paid Clinical Congress registration. For more information on the scientific sessions at the ACS 2013 Clinical Congress and to register, view the ACS Clinical Congress Web page at http://www.facs.org/clincon2013/.

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**Clinical Congress: Discuss the issues at Town Hall Meetings**

The 2013 American College of Surgeons (ACS) Annual Clinical Congress will feature Town Hall Meetings, which provide a forum for informal discussions of issues relevant to ACS members.

Town Hall Meetings do not qualify for continuing medical education credit. Clinical Congress registration is required to attend the Town Hall Meetings. To register for the 2013 Clinical Congress, visit http://www.facs.org/clincon2013/index.html. Town Hall Meetings scheduled at press time are as follows:

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**Tuesday, October 8, 7:00–7:45 am**

• **TH01**: Who Will Be Available to Take General Surgical Calls in 2015?
• **TH02**: What Are the Current Issues in Board Certification and Maintenance of Certification (MOC)?
• **TH03**: Surgeons as Health Policy Advocates
• **TH10**: Introspection: The New Surgical Time Out

**Wednesday, October 9, 7:00–7:45 am**

• **TH04**: Robotic Surgery: Does It Fit in Your General Surgical Practice?
• **TH05**: Rural Surgery: What Are the Challenges?

**Thursday, October 10, 7:00–7:45 am**

• **TH06**: Medical Liability Reform 2013: Thinking Outside of the Box to Achieve Tort Reform
• **TH11**: Transition to Independent Practice: New ACS Program for General Surgeons
• **TH07**: ACS-CRP: Defining Cancer Surgical Guidelines and Reporting
• **TH08**: Choosing a Surgical Discipline
• **TH09**: Ethics in Advertising: What Is the Surgeon’s Responsibility?
• **TH12**: The ACS Practice Guidelines Project
• **TH13**: Surgeon-Specific Registry and Maintenance of Certification: What Does It Mean for the Practicing Surgeon?  

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The American College of Surgeons designates this live activity for a maximum of 6.5 AMA PRA Category 1 Credits™ for each day. American Association of Professional Coders members can earn a maximum of 6.5 credits for each day.

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For additional dates, locations, registration fees, and to register, visit facs.org/ahp/practmanagement or call 312-642-8310.
Disciplinary actions taken

The Board of Regents of the American College of Surgeons (ACS) took the following disciplinary actions at its June 7, 2013, meeting:

• A plastic surgeon was censured following charges that this Fellow violated the ACS Bylaws after disciplinary action was taken against his state medical license.

• David A. Stalker, MD, FACS, a general surgeon from Clovis, NM, had his Fellowship placed on probation with conditions for reinstatement. This action was taken following disciplinary action by the New Mexico Medical Board placing his license on probation with terms and conditions including a requirement that he enter into a treatment contract with the Monitored Treatment Program.

• Peter J. Wilk, MD, a general surgeon from New York, NY, was expelled from the College. That action was taken following charges that he violated the ACS Bylaws when providing expert witness testimony in a medical liability lawsuit.

• A general surgeon from Kansas City, MO, had his full Fellowship privileges restored following a period of probation. That Fellow met all of the conditions for reinstatement imposed by the Board of Regents in 2002, including the restoration of his full and unrestricted license to practice medicine, full and unrestricted surgical privileges in an accredited hospital, and review and approval of his recent practice pattern.

• A plastic surgeon from Leawood, KS, had his full Fellowship privileges restored following a period of probation. That Fellow met all of the conditions for reinstatement imposed by the Board in 2002, including the restoration of his full and unrestricted license to practice medicine, full and unrestricted surgical privileges in an accredited hospital, and review and approval of his recent practice pattern. ♦

DEFINITION OF TERMS

Following are the disciplinary actions that may be imposed for violations of the principles of the College.

• **Admonition**: A written notification, warning, or serious rebuke.

• **Censure**: A written judgment, condemning the Fellow or Member’s actions as wrong. This is a firm reprimand.

• **Probation**: A punitive action for a stated period of time, during which the Member: (a) loses the rights to hold office and to participate as a leader in College programs; (b) retains other privileges and obligations of membership; (c) will be reconsidered by the Central Judiciary Committee periodically and at the end of the stated term.

• **Suspension**: A severe punitive action for a period of time, during which the Fellow or Member, according to the membership status: (a) loses the rights to attend and vote at College meetings, to hold office, and to participate as a leader, speaker, or panelist in College programs; (b) is subject to the removal of the Member’s name from the public listing and mailing list of the College; (c) surrenders his or her Fellowship certificate to the College, and no longer explicitly or implicitly claims to be a Fellow of the American College of Surgeons; (d) pays the visitor’s registration fee when attending College programs; (e) is not subject to the payment of annual dues. When the suspension is lifted, the Fellow or Member is returned to full privileges and obligations of Fellowship.

• **Expulsion**: The certificate of Fellowship and all other indicia of Fellowship or membership previously issued by the College must be forthwith returned to the College. The surgeon thereafter shall not explicitly or implicitly claim to be a Fellow or Member of the American College of Surgeons and may not participate as a leader, speaker, or panelist in College programs.
I am very grateful and humbled to have been selected as the 2013 American College of Surgeons (ACS) Japan Traveling Fellow. For me, Japan has always been a land of intrigue. My first exposure to its culture was at the age of 14 when I began karate lessons. As a lanky and awkward “geek” growing up at a time when Vietnamese-Americans were generally equated with the “boat people,” I had a hard time understanding and reconciling the differences between Eastern and Western cultures. The lessons of hard work, humility, and academic excellence, as inculcated by my parents, were more often than not challenged by friends, who thought I needed to be more athletic, outgoing, and “normal.” Karate was my solace; it instilled in me a sense of confidence, discipline, and focus. I dreamed of one day visiting this island nation to better understand its rich history and traditions.

Conversely, I was also exposed in my youth to another side of Japan—a darker side, the side that had once invaded my native land, Vietnam. My parents told me stories about the horrible acts that the Japanese soldiers committed against their Asian brethren. As a naturalized American citizen, I also had conflicting feelings over the bitter history that had inextricably bound Vietnam, Japan, and the U.S. together. Japan had fought Vietnam; Vietnam had fought the U.S.; and the U.S. had fought Japan. Adding to my perplexity was the fact that Vietnam was engaged in a civil war. My father had taken up arms against his own relatives and had battle scars to show for it—all because they had held a different political philosophy.

I spent most of my early adult life trying to reconcile these mixed feelings, although I knew deep down that they had to have some meaning. I once read a quote, “Pressure makes diamonds, friction makes pearls,” and wondered, “When will I see the pearls?” I have searched for meaning, for these pearls.

I recalled a mantra that a business professor once imparted, “For a leader to be successful, he or she must either hire his or her weaknesses or work on them.” I thought about my weaknesses and decided to work on them. Although I had confidence as a surgical oncologist in my ability to care for patients with myriad tumors, I also realized my limitations in managing patients with hepatocellular carcinoma and cirrhosis. Thus, I resolved to take advantage of the opportunity so that I could learn as much as possible about the Japanese approaches to hepatopancreato-biliary diseases, with the goal of incorporating the surgical pearls into my practice and improving care for my patients.
Preparation

In my ignorance, I thought that as a Vietnamese, it would be easy to learn Japanese. How wrong I was! After downloading an app onto my iPad, I spent an enormous amount of time trying to learn Japanese. Unfortunately, age must have played a factor as my retention rate was quite low. I resorted to learning just some basic phraseology.

Toru Ikegami, MD, PhD, an associate professor in the division of transplant service at Kyushu University, in Fukuoka, helped me organize my trip. He gave me a list of universities to consider visiting and then made the necessary arrangements.

Tokyo University Hospital

Having arrived early, I spent a day exploring the city before visiting Tokyo University Hospital. At first blush, Tokyo is really no different than any big U.S. city. It has skyscrapers, hotels, shopping malls, and major chain stores, such as McDonald’s and 7-Eleven. However, there are some noticeable differences: the cars and streets are much smaller; the driver’s seat is on the right, and people drive on the left side of the street. The Japanese people are very quiet, soft-spoken, and courteous. Public trash cans are sparsely available, yet the streets are very clean. Bowing is common, and repeated bowing is a sign of respect and sincerity.

Cell phones are prohibited on subways, and it is considered uncouth to eat and walk at the same time. The Japanese people are very accommodating. I must have stopped countless pedestrians to ask for directions, and they were eager to help. Some even walked me to my destination.

At Tokyo University Hospital, my hosts were assistant professors Yoshihiro Sakamoto, MD, PhD, and Takemura Nobuyuki, MD, PhD, both from the division of hepatobiiliary-pancreatic (HPB) surgery. That morning, I attended a division conference, during which a variety of HPB cases were presented and discussed.

I saw several interesting cases at Tokyo University. Because most international visitors are only allowed to observe but not scrub in on a case, I decided to go from room to room to see the different operations that were occurring concurrently.

I witnessed a nearly bloodless right posterior hepatectomy that was completed with only a Kelly clamp, 4-0 sutures, and the Covidien small jaw ligasure. I developed a greater appreciation of the Glissonian approach to liver resection so as to reduce bleeding and preserve as much liver parenchyma as possible. I also saw a distal pancreatectomy and a Whipple procedure. The surgeons were meticulous, and I found their surgical skills impressive.

I learned that Tokyo University was unique in that surgeons there occasionally perform two-stage Whipple operations. To avoid a pancreaticojejunostomy leak, the surgeons prefer to perform a delayed pancreaticojejunostomy anastomoses at a later operation for selected patients. I also learned that because Tokyo University is a public hospital, it has limited resources. For example, it uses sutures rather than stapling devices for most cases.

Drs. Sakamoto and Nobuyuki and I had an in-depth conversation on the role of adjuvant and neoadjuvant therapy for patients with pancreatic adenocarcinoma. The two surgeons told me about their successful use of S-1 in patients with pancreatic...
cancer. S-1 is a novel oral fluorouracil antitumor drug that inhibits dihydropyrimidine dehydrogenase (DPD) and has been used in Japan but not in the U.S. for patients with pancreatic cancer. An article on the success of S-1 was recently published in the *Journal of Clinical Oncology.*

Dr. Sakamoto, Dr. Nobuyuki, other surgical colleagues, and I ate a sushi lunch under a cherry tree. Drs. Sakamoto and Nobuyuki also treated me to a traditional Japanese dinner at a nearby restaurant. I gorged on the delicious food and drank plenty of sake and learned to say kanpai (pronounced kampai), or “cheers,” when toasting.

**Jikei University**

My hosts at Jikei University were Katsuhiko Yanaga, MD, PhD, FACS, professor of surgery; chief, division of digestive surgery; and President of the Japan Chapter of the ACS, and Takeyuki Misawa, MD, associate professor and vice-director of the hepato-biliary-pancreatic surgery service (see photos, page 79 and this page).

At 8:00 am, I was led into a room full of residents, students, and faculty for a conference. A table at the head of the room was reserved for the chair of surgery and division chiefs. Residents also had seats, but medical students, who had just begun their school year, were relegated to standing at the side of the room.

After the conference, we went to the operating room, where I observed a laparoscopic left lateral segmentectomy. Unlike Tokyo University, Jikei University Hospital is a private hospital and, as such, its surgeons have access to a broader range of equipment/instruments, including tissue links, CUSA, and endovascular staplers.

That evening, I gave a lecture, Should All Patients With Resectable Pancreatic Cancer Undergo Neoadjuvant Therapy? I also briefly discussed our laboratory work on oncolytic virus and was pleasantly surprised that Jikei University also has a surgical fellow who is researching this subject. We had a lively discussion and exchanged ideas during the meeting. After the lecture, Drs. Yanaga and Misawa took me to dinner where we were joined by Kazuhiro Yoshida, professor of surgery, vice-president, and chief of surgery at Jikei University School of Medicine; Hiroaki Shiba, MD, PhD, an assistant professor, and Koichiro Haruki, MD, a surgical fellow.

I discovered that Japanese and American surgeons have many things in common. Like many of us in the U.S., Japanese surgeons often do not leave their office before 9:00 pm and begrudge how little time they spend with their families.

During my visit to Jikei University, I saw Dr. Shiba perform a Whipple procedure on a 65-year-old woman. I was intrigued by how he performed a pancreatojejunostomy anastomoses. I was unfamiliar with the technique and later learned that Dr. Misawa developed it and taught it to Dr. Shiba. I encouraged Dr. Misawa to publish an article on this procedure for the benefit of the surgical world.

**Japan Surgical Society Congress**

The following day, I flew to Fukuoka to attend the 113th Annual Congress of the Japan Surgical Society. It was an incredible experience. At the meeting, I was joined by approximately 16 other traveling fellows from different corners of the world, including China, Germany, Spain,
Korea, and India. Yoshihiko Maehara, MD, PhD, professor and chairman, department of surgery, Kyushu University and Congress Chairman of the Society, and his colleagues were marvelous hosts. We attended an elaborate reception and each of us received a certificate to commemorate the occasion.

I attended a lecture by ACS President A. Brent Eastman, MD, FACS, on the American College of Surgeons: The Next Hundred Years. His thoughtful and insightful talk was well-attended and well-received.

I gave a presentation on adjuvant versus neoadjuvant therapy for pancreatic cancer. Similar to our annual meetings, the Japan Surgical Congress involved numerous concurrent sessions. Although most of the sessions were conducted in Japanese, I was able to learn something, especially at those programs that included a video segment. I saw an interesting video that showed how the ligamentum teres was harvested and used as a patch for a narrowed hepatic vein following a hepatectomy. Other equally fascinating videos showed the authors’ approaches to non-anatomic liver resection.

In the evening, we enjoyed dinner at a well-known local sushi restaurant, where we saw the owner prepare our meals from a large, freshly caught tuna. Later we had our pictures taken with two geishas, and I had my picture taken with Dr. Eastman, and his lovely wife, Sarita (see photo, this page).

By the end of the evening, the traveling fellows each received a traditional Japanese fan. On the way home, I felt an overwhelming sense of excitement that I was so fortunate to have had this opportunity of a lifetime.

Kyushu University

Kyushu University was my last stop. On my first day there, Satoshi Ida, MD, PhD, assistant professor, department of surgery and molecular targeting therapy, took me and other visiting fellows—Ulrich Bork, MD, a surgeon and research fellow at University Hospital of Heidelberg, Germany, and Sunil Kumar, MD, assistant professor at All India Institute of Medical Sciences, New Delhi—to the campus. At the university, Dr. Ida ushered us into a conference room, where I met Toru Ikegami, MD, PhD, associate professor of the liver transplant service, and Dr. Maehara (see photos, page 82). I attended the department’s morning conference with the medical students and residents.

At the morning conference, Dr. Maehara reviewed all of the surgical cases that were to be done that and the following day. I saw a variety of operations, such as minimally invasive esophagectomy, liver resection for cholangiocarcinoma, laparoscopic abdominoperineal resection, and living-related donor liver transplantation. I learned that most transplants in Japan involve living-related, rather than cadaveric, donors, largely due to cultural beliefs and the scarcity of cadaveric donors in Japan.

The night before I departed for the U.S., the faculty at Kyushu treated Dr. Bork, Dr. Kumar, and me to dinner at an exquisite traditional Japanese restaurant.

General observations

The Japanese surgical education system is organized in an interesting way. After graduating from high school, a student spends six years in medical school; two years are spent learning the liberal arts, and the remaining four years are focused on medicine. Surgeons undergo six years in residency, three of which are spent at a different hospital. The first two years are focused on internal medicine, the next
three are centered on surgery at a different hospital, and the last year is at one’s own institution. To pursue postgraduate studies, the student spends another four years pursuing a PhD. Once all of these stages are completed, the student may begin his or her faculty appointment.

There are four levels of faculty positions: (1) assistant professor, (2) lecturer, (3) associate professor, and (4) professor. Progressing to the next level is dependent almost entirely on the judgment of the surgeon’s professor(s) and chair.

Interestingly, a surgical mortality is handled by the local police and may entail an extensive investigation. Some surgeons met at the congress thought that such a system had hampered them from tackling some of the more complex cases.

The trip was not all work. I did find time for exploring and enjoying Japan’s breathtaking natural beauty. In Tokyo, I went to the famous Asakusa market. On the weekend, I took the Shinkansen (bullet train) from Tokyo to Kyoto and spent a day visiting the many different historic sites such as Nijo Castle, Kyoto Imperial Palace, Kiyomizudera Temple, and the Garden of Kinkakuji Temple (Golden Temple). I visited a friend, Atsushi Shimizu, MD, from Jichi Medical University, and spent a day at Nikko National Park.

I also went to Hiroshima, and visited the Peace Memorial Park, the resurrected Hiroshima Castle, Hiroshima Atomic Dome, Hiroshima National Peace Memorial Hall for the Atomic Bomb Victims, and Torii Gate at Miyajima Island or Shrine Island. The area was so peaceful, serene, and full of life that it is hard to fathom the devastation that occurred almost 70 years ago. The Peace Memorial Park is a sobering reminder of our species’ frailties.

Some final thoughts

In 2009, I had an opportunity to go to Vietnam to teach a surgical course to medical students. I learned a great deal about the complex relationship between Japan, Vietnam, and the U.S. Over the years, Vietnam has worked to modernize its society, and both the U.S. and Japan have become two of the country’s largest investors. I marveled at the gigantic bridge, built with the help of Japan and America, that connects the Vietnamese people, who previously had to travel by small river boat to go from one land mass to another.

I also admired my elderly father’s unrelenting effort to reconnect with his past as he painstakingly walked for miles, going door to door, searching for lost relatives. It was an emotional sight to witness the endless tears streaming down my father’s and relatives’ faces as they finally found and embraced each other. Such inspiring moments lifted my spirit and taught me that people of all stripes are generally good and that, as horrible as war is, nations and people do learn to work together to achieve a common goal. Today, America, Vietnam, and Japan have forged some of the strongest bonds in the world.

The ACS Traveling Fellowship to Japan was an opportunity of a lifetime for me to not only acquire more surgical knowledge that will translate to better care for my patients, but also to discover inner peace and tranquility. I have found the “diamonds” and “pearls” and gained a greater appreciation of the complex world in which we all live. For this, I am forever indebted to the International Relations Committee of the ACS for selecting me to represent our great and distinguished organization.
The American College of Surgeons (ACS) Foundation Board of Directors has launched the 1913 Legacy Campaign in honor of the ACS Centennial Celebration and to raise transformative gifts for the College’s second century. Philanthropic investments within three priority campaign initiatives will help shape the next 100 years of the American College of Surgeons.

THE SURGEON
Investments in learning opportunities and support for every career transition

THE PROFESSION
Emphasis on best practices and quality improvements to advance the surgical profession

THE SOCIETAL GOOD
Patient safety and education programs and public service through surgical volunteerism

Over the next year, Fellows and friends of the American College of Surgeons will have the opportunity to help guarantee a vital future for surgical quality and lifelong learning.

As of July 1, 2013, nearly 70 Fellows have made a campaign commitment.

For more information and a current donor listing, please visit www.facs.org/1913Campaign
### September

**Kansas Chapter**  
**September 7–8**  
Overland Park, KS  
Contact: Gary Caruthers, gcaruthers@kmsonline.org, http://www.kansaschapteracs.org/

**Kentucky Chapter**  
**September 10**  
Louisville, KY  
Contact: Linda Silvestri, lsilv2@email.uky.edu

**New Mexico Chapter**  
**September 13–14**  
Albuquerque, NM  
Contact: Gloria A. Chavez, GChavez@nmms.org

**Utah Chapter**  
**September 13–14**  
Little America Hotel  
Salt Lake City, UT  
Contact: Teresa Holdaway, email: teresa@utahmed.org

**Arkansas Chapter**  
**September 21**  
Little Rock, AR  
Contact: Linda Clayton, lindac92@comcast.net

### November

**Connecticut Chapter**  
**November 1**  
Farmington, CT  
Contact: Chris Tasik, info@CTACS.org, http://ctacs.org/

**Wisconsin Surgical Society—** a Chapter of the ACS  
**November 8**  
Kohler, WI  
Contact: Terry Estness, wisurgical@att.net, http://www.wisurgicalsociety.com/

**Keystone Chapter**  
**November 8**  
Danville, PA  
Contact: Lauren Ramsey, lramsey@pamedsoc.org, http://www.keystonesurgeons.org/

**Maryland Chapter**  
**November 9**  
Sheraton Inner Harbor  
Baltimore, MD  
Contact: Jennifer Starkey, maryland@marylandfacs.org

**Arizona Chapter**  
**November 9–10**  
Phoenix, AZ  
Contact: Joni L. Bowers, Jonib@azmed.org, http://www.azacs.org/

### December

**Brooklyn-Long Island Chapter**  
**December 4**  
Uniondale, NY  
Contact: Teresa Barzyk, acsteresa@aol.com, http://www.bliacs.org/

**Massachusetts Chapter**  
**December 7**  
Boston, MA  
Contact: Crystal Beatrice, cbeatrice@prri.com, http://www.mcacs.org/

**New Jersey Chapter**  
**December 7**  
Iselin, NJ  
Contact: Andrea Donelan, njsurgeons@aol.com, http://www.nj-acs.org/index.html

### Future Clinical Congresses

**2013**  
- **October 6–10**  
  Washington, DC

**2014**  
- **October 26–30**  
  San Francisco, CA