The journey:
Becoming a neurosurgeon and back again
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The Bulletin of the American College of Surgeons

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Looking forward

by David B. Hoyt, MD, FACS

In his 2012 American College of Surgeons (ACS) Presidential Address, A. Brent Eastman, MD, FACS, FRCSEd(Hon), noted that the College’s founder, Franklin H. Martin, MD, FACS, had always envisioned this organization as a world fellowship of surgeons. In his address, Dr. Eastman called upon the College to revitalize its efforts to collaborate with the international surgical community and to become more involved in efforts to relieve the global disease burden, adding, “I believe that international collaboration is essential to the future of our profession.”*

To initiate a dialogue on expanding the College’s role and presence internationally, Dr. Eastman participated in two International Surgical Leaders Forums, one at the 2012 Clinical Congress, during which he conferred with the presidents of international surgical associations, and one in July 2013 at the ACS Washington, DC, office. Representatives from Australia, Canada, France, Hong Kong, Ireland, Japan, Latin America, Lebanon, Malaysia, Mexico, the Philippines, the U.K., and the U.S. gathered at this second meeting to discuss best practices in global surgery.

More recently, the ACS Board of Regents (B/R) formed four workgroups under the leadership of then-Chair of the B/R Valerie W. Rusch, MD, FACS, with the overall goal of developing strategic plans for expanding the College’s international activities. These panels are focused on Membership, Education, Quality Programs, and Surgical Capacity Building and are now working under the umbrella of an ad hoc Regental Committee on Global Engagement. In this column, I identify some of the activities that have already occurred within each of these domains, as well as plans for the future.

Membership

A key purpose of the International Surgical Leaders Forums that Dr. Eastman convened was to revitalize the International Relations Committee (IRC). Managed by the ACS Division of Member Services under the direction of Patricia L. Turner, MD, FACS, and chaired by George Velmahos, MD, FACS, the IRC is the gateway to international activity and outreach for the College. It is charged with developing partnerships between the ACS, international surgeons, and international surgical and other health care organizations to address issues pertaining to surgical practice, education, research, advocacy, and leadership. The aim is to achieve and safeguard standards of clinical care, access, safety, professionalism, and quality improvement for surgery worldwide. Specific responsibilities include the following:

• Provide guidance on the College’s international engagement activities

• Coordinate the provision of international scholarships and traveling fellowships, including the recent addition of the Dr. Pon Satitpunwaycha Fund, which will allow international chapters to create a local educational course that includes faculty from the ACS

• Present panel sessions on topics of international interest and welcome international surgeons to Clinical Congress

• Manage and maintain the College’s connection to international surgical societies and leaders

Importantly, to enable surgeons in low- and middle-income countries (LMICs) to become members of the College, the B/R in 2016 approved a recommendation from the International Fellowship Subcommittee of the IRC that the ACS accept World Bank-based tiered dues payments.

Another ACS body that promotes international activity and falls under the aegis of Member Services is the Board of Governors (B/G) Chapter Activities International Workgroup. This panel was established to increase collaboration between the ACS and international colleagues and to serve as an advocate for ACS international chapters. At present, the workgroup is organized into four international regions based on

More recently, the ACS B/R formed four workgroups under the leadership of then-Chair of the B/R Valerie W. Rusch, MD, FACS, with the overall goal of developing strategic plans for expanding the College’s international activities. These panels are focused on Membership, Education, Quality Programs, and Surgical Capacity Building and are now working under the umbrella of an ad hoc Regental Committee on Global Engagement.

the existing Committee on Trauma (COT) Regions—Latin America, the Middle East, Europe, and Asia. Region Chiefs are responsible for facilitating interaction between Governors and ACS chapters within their territory and for assisting in the development of new chapters. Clearly, chapters in other areas of the world would benefit from this type of leadership, and expansion efforts are under consideration.

To improve communication between the international chapters and the ACS leadership, each of the four regions now participates in the online ACS Communities. Topics of discussion in these communities have run the gamut from questions about specialty surgery to notices about upcoming international regional meetings, including a recent meeting of the European chapters, which took place in Lisbon, Portugal.

Among its other achievements, the Chapter Activities International Workgroup has collaborated with the Chapter Activities Domestic Workgroup to launch the Chapter Partner Program. This program allows surgeons around the world to meet, collaborate, and strengthen their relationships under the ACS banner.

**Education**

With leadership from Ajit K. Sachdeva, MD, FACS, Director, the ACS Division of Education encourages International Fellows to participate in the Clinical Congress, and, as noted earlier, the IRC offers a number of scholarships to this end. For those international surgeons who can devote neither the time nor money to the annual journey, we offer a variety of webcast packages.

In addition, International Fellows are eligible for discounted subscriptions to *Selected Readings in General Surgery (SRGS®)*. Published eight times a year, SRGS comprises summaries of articles published in the world’s most prominent medical journals and pertaining to the most relevant topics in general surgery, including breast, colorectal, and biliary tract diseases. SRGS can be accessed on any mobile device.

Likewise, surgeons everywhere can use their digital devices to access the *Surgical Education and Self-Assessment Program (SESAP®)*. Now in its 16th edition, SESAP uses a robust process of self-evaluation in a supportive environment to help surgeons evaluate and maintain their clinical competence and expand their knowledge.

I recently had the privilege of participating in another educational program that has taken on an international presence: the ACS Surgery Review Course in Thessaloniki, Greece, which the Greek Chapter of the ACS presented with leadership from Dimitrios Linos, MD, PhD, FACS, ACS Governor. The Lebanon Chapter also has presented the course with leadership from ACS Governor Jamal J. Hoballah, MD, MBA, FACS, and it was offered at a joint meeting of the Australasian chapters.

**Quality Programs**

Quality improvement is of utmost concern to health care professionals in every nation. The ACS leadership has been spreading the word about how ACS Quality Programs, led by Clifford Y. Ko, MD, MS, MSHS, FACS, have been successfully implemented in the U.S. to reduce complications and health care spending through its Inspiring Quality initiative. This message has been warmly received outside of the U.S. as well, with many international surgeons expressing interest in participating in the ACS National Surgical Quality Improvement Program (ACS NSQIP®). The College is working to adapt the programs to their needs.

International ACS NSQIP participants have access to the ACS NSQIP Surgical Risk Calculator to assist in medical decision making and to track their cases.
Clearly, the ACS is committed to fulfilling Dr. Martin’s and Dr. Eastman’s vision of being an international organization—one which meets the needs of surgeons and surgical patients in all four corners of the world.

and outcomes using the ACS Surgeon Specific Registry. They also may access practice guideline recommendations at the point-of-care using Evidence-Based Decisions in Surgery modules.

International Fellows also may enroll in one of the College’s highly regarded Trauma Programs, including the Advanced Trauma Life Support® (ATLS®) program, which has been taught in more than 60 countries worldwide. In fact, more than half of all ATLS activity is conducted outside of the U.S. Other Trauma Programs that are available to international surgeons and allied health care professionals include the Trauma Quality Improvement Program and the Advanced Trauma Operative Management® program, which the Japan Board of Surgery now recognizes as part of its credentialing process.

Furthermore, institutions have sought verification from our Cancer Programs, including the Commission on Cancer and the National Accreditation Program for Breast Centers.

Surgical capacity building
With the establishment of the Operation Giving Back (OGB) program in 2004, the ACS recommitted to global surgical outreach. Today, under the leadership of Medical Director Girma Tefera, MD, FACS, OGB is a comprehensive resource center where Fellows can investigate and participate in domestic and international surgical volunteer opportunities through a network of high-impact partner organizations. Surgeons who have devoted much of their careers to outreach are acknowledged annually at the Clinical Congress with the presentation of the B/G Humanitarian and Volunteerism Awards.

OGB is committed to helping LMICs to develop a sustainable infrastructure for the delivery of surgical care. For example, we are working with organizations in sub-Saharan and West Africa to determine how to consistently deliver accessible, quality care to underserved populations in these regions.

The Young Fellows Association (YFA) of the ACS also is an important advocate for global surgery, and members of the YFA offer suggestions on how to get involved in related programs in the article on page 33 of this issue. In addition, the YFA Member Services Committee is working to establish a program to maintain contact with international Fellows ages 45 and younger who express interest in participating in the activities of the ACS.

Furthermore, a Fellow of the ACS, John G. Meara, MD, DMD, FACS, chairs The Lancet Commission on Global Surgery. This group, which comprises several other prominent Fellows, serves to spotlight the essential role of surgery in improving global health care, to define the current state of surgical care delivery around the world, and to develop recommendations to improve the status of global surgical care.

Next steps
At the October 2016 B/R meeting, the workgroups of the ad hoc Regental Committee on Global Engagement shared summaries of their strategic plans for both the next five years and the next 10 years. In addition, plans to add workgroups on advocacy and communications were discussed.

Clearly, the ACS is committed to fulfilling Dr. Martin’s and Dr. Eastman’s vision of being an international organization—one that meets the needs of surgeons and surgical patients in all four corners of the world. As the world becomes a little smaller and more interdependent, this goal is increasingly relevant.

If you have comments or suggestions about this or other issues, please send them to Dr. Hoyt at lookingforward@facs.org.
Introduction:

Olga M. Jonasson, MD, Lecture

by Rosemary Kozar, MD, PhD, FACS, and Susan Pories, MD, FACS
In 2007, the American College of Surgeons (ACS) Women in Surgery Committee (WiSC) established the Olga M. Jonasson, MD, Lecture, one of several Named Lectures delivered at the annual Clinical Congress. Dr. Jonasson (1934–2006) was a transplant surgeon who paved the way for the women surgeons of today. She was the first woman to chair a department of surgery and the first woman member of the American Surgical Association, the Society of University Surgeons, and the American Board of Surgery. Dr. Jonasson also served as the Director of Education for the ACS for more than a decade.

The WiSC is proud to have had a distinguished panel of speakers (see Table 1, this page) present the Olga Jonasson, MD, Lecture. The speaker for the 10th lectureship was Alexa Canady, MD, FACS, the first African-American neurosurgeon in the U.S. Dr. Canady graduated from the University of Michigan Medical School, Ann Arbor, in 1975. Against all odds, she rose to the role of chief of neurosurgery at the Children’s Hospital of Michigan in 1987 and served in that position until her retirement in June 2001. She has received many honors, including the Children’s Hospital of Michigan’s Teacher of the Year award in 1984, and was inducted into the Michigan Women’s Hall of Fame in 1989. In 1993 she received the American Medical Women’s Association President’s Award, and in 1994 she was honored with the Distinguished Service Award from Wayne State University Medical School, Detroit. In 2002, the Detroit News named Dr. Canady Michigander of the Year.*

After her lecture at Clinical Congress 2016, in Washington, DC, the audience was invited to come forward with questions or comments. A surgical resident, Estell Williams, MD, rose to thank Dr. Canady for serving as a role model and to tell her own story. Both Dr. Canady’s lecture and Dr. Williams’ story are shared here as inspiration to us all. ♦

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The journey: Becoming a neurosurgeon and back again

by Alexa Canady, MD, FACS
In preparation for delivering the 10th annual Olga M. Jonasson, MD, Lecture, I reviewed previous Jonasson lecturers and immediately noticed that my career intersected with the first three presenters: Nancy L. Ascher, MD, PhD, FACS; Anna M. Ledgerwood, MD, FACS; and Karin M. Muraszko, MD, FACS.1

Dr. Ascher is chief of surgery, University of California, San Francisco (UCSF), and a major contributor to organ transplantation research. Nancy and I shared time together at the University of Minnesota, Minneapolis, where she was senior to me by a few years. Due to the fact there were only six women in all the programs, I got to know her and recognized, even as a resident, that she would go on to a distinguished career.

Dr. Ledgerwood was a legend at Wayne State University, Detroit, MI, where I spent most of my career. Everyone knew that Dr. Ledgerwood and her long-time colleague Charles E. Lucas, MD, FACS, were the heart and soul of DMC [Detroit Medical Center] Detroit Receiving Hospital.

The third Jonasson lecturer, Dr. Muraszko, is chairman of neurosurgery, University of Michigan, Ann Arbor, 45 miles down the road from the Children’s Hospital of Michigan where I practiced, and we have been friends and colleagues for years.

So, now, I would like to talk about my journey in neurosurgery. I am going to talk about neurosurgery because that is what I know, but it applies to journeys in general surgery, orthopaedics, and other surgical specialties, as well.

The journey to neurosurgery

How does one decide to become a neurosurgeon? I went to medical school expecting to become a family practice physician or an internist, but I didn’t enjoy studying the physiology of the gastrointestinal tract and the lungs, so that pretty much eliminated the medical specialties. Fortunately, the University of Michigan had started a new two-year course, neurobehavioral science, with a combination of neuroanatomy, psychiatry, neurology, and neurosurgery. This mix of clinical and basic sciences was well-taught and exciting, and it was something I found I could study for fun.

The summer after my second year in medical school, I shadowed a pediatric neurologist as well as a neurosurgeon. Needless to say, I liked neurosurgery better. It has an inherent honesty. You make a diagnosis, and at the end of the day, you are right or wrong. The possibility of being wrong sometimes brings fear.

When I was in practice, an eight-year-old boy was transferred to us for what appeared to be a stroke. But as I looked at the images, something did not seem right, so I asked for an angiogram, which also was equivocal. I talked with my associate and asked him to keep me from doing something crazy. When I told him about the clinical history that wasn’t quite right and the imaging that wasn’t quite right, he said, “You may be wrong, but not crazy.” So, I took the boy to the operating room (OR). As I stood there making the brain incision I was extremely anxious but relieved when a small, discrete, dark burgundy mass was exposed, which turned out to be lymphoma. These are the moments for which we read and study. We are right, or we are wrong, but in surgery there is a final answer.

After my preceptorships, I essentially became a neurosurgery groupie. I was at every neurosurgery conference my schedule allowed, including those on Saturday mornings. I soon knew most of the faculty and all the residents; occasionally, I even got called on during the conference. I was all in for neurosurgery.

Surprisingly, my parents, who had supported me in all my ventures, for the first time actively discouraged me from neurosurgery. They thought I wouldn’t get in
a program, and if I did, patients wouldn’t come see me. There comes a time, however, when you realize your parents no longer know what is best for you. The world they grew up in is not your world, and you must have the courage to hope your world will be different.

Finding a community
It is estimated that there are only 5,000 neurosurgeons for a patient population of 60,000, and that they comprise only 1.7 percent of all practicing physicians. Of these neurosurgeons, 7 percent are women. In addition, more than 40 percent of all practicing neurosurgeons are age 55 or older. These statistics suggest that there is a need to attract students with both the technical and cognitive skill to handle a demanding profession. The pool of interested students is small, and neurosurgery may not appear attractive to medical students, who are the lifeblood of this profession. As a result, a number of surgical specialties, including neurosurgery, have created programs that provide early exposure and mentoring for medical students. One Canadian study found that early exposure to a neurosurgery program increased interest in neurosurgery. The main drawbacks that students may associate with neurosurgery include lack of time to devote to outside interests, residency competition, and busy workload. On the other end of the spectrum, neurosurgery offers great opportunities to have a meaningful impact on patients and the promise of intellectual stimulation for the practitioner.

The sense of community is very important in ensuring the success of women and minorities in health care professions. A community of supportive peers ensures that you don’t have to fight all the time to prove you belong when you are already exhausted trying to learn the specialty. It has been my experience that women residents in general surgery do better when more women are present in their training program. I was lucky that, when choosing my residency at the University of Michigan, I was exposed to a practicing woman neurosurgeon. She made the dream seem possible.

When I went on to Yale University, New Haven, CT, for my internship, I met another successful woman neurosurgeon. But in the end, her career was a cautionary tale of the cost to the individual who takes on a pioneering role. Years later, at a Women in Neurosurgery Annual Meeting, a colleague said that she had met this distinguished neurosurgeon from Yale but that she was so bitter it was unpleasant to speak with her. I tried to explain to my colleague what had happened. The Yale surgeon had been a nurse who wanted to be a neurosurgeon. She was offered a position at Yale but was forced to wait a year or so to see “if she was really interested.” Finally, she was allowed to finish her residency and stayed on as faculty for many years. Despite the fact that she was a full professor in neurosurgery and a past-president of the American Association of Neurological Surgeons section on Neurological Surgery, the OR staff asked her to share a locker rather than give her one of her own. It was the last straw and she left. Later as other people interviewed for her job, we learned that she was grossly underpaid, and it took multiples of her old salary to attract a replacement.

She moved to Dallas, TX, where she was again isolated, then on to the University of Michigan where something that is, in my experience, unprecedented occurred. When the chairman sent her credentials to the tenure committee asking for an associate professorship, they sent them back, asking if it wouldn’t make sense to make her a full professor. He said no. Just before her retirement, she was finally made a full professor, which irritated more than pleased her because it was an exit gesture. So when this woman, who persevered through all this, is blamed for her temperament, I suggest that she was the victim, and when we encounter people who have experienced tremendous struggles, we should recognize that any bitterness is the cost of that struggle.

The role of a diverse neurosurgical community cannot be overstated in attracting the best students to our specialty. I did not appreciate how important
The role of a diverse neurosurgical community cannot be overstated in attracting the best students to our specialty. I did not appreciate how important community was until after I finished my residency and would speak to student groups. Women and black students now see neurosurgery as a world that they can enter.

This same sense of community is important at the attending level. The Neurosurgical Society of America had difficulty with relatively poor engagement among the women membership and wanted to understand why. The reason was clear to the women members, however: the society was run like a men’s club, complete with bonding at late-night poker games. Neurosurgery is, by its very nature, attractive to a small number of students, and we better pay attention to and court all who express interest.

Residency
After choosing neurosurgery, I was terrified I wouldn’t get a residency position. There are about 102 neurosurgery programs with 1,600 residents.4 I tried to present myself as a risk-free candidate who fit in and could handle the work, so I did clinical rotations at Yale, UCSF, and Columbia, and I completed surgical sub-specialty rotations in neurosurgery at Michigan—one at the university hospital and one at St. Joseph’s. My interviews went unremarkably, except for two. The one at Duke University, Durham, NC, was complicated by my having acute tonsillitis with a fever of 103 degrees. When the professor invited me to make rounds and I declined, I assumed Duke would not select me. Michigan, my medical school, was also problematic. They asked me to interview twice. The second time I had to come back on Christmas Eve for an interview that consisted of a recitation of how many people had been fired from the program. I think the chair was getting some pressure to take me since everybody knew I wanted to be a neurosurgeon, and I was a member of Alpha Omega Alpha. Nonetheless, he succeeded in making me feel that I would not be welcome at Michigan, and I put them fourth on my list.

My first day at Minnesota was even more interesting. I was the floor resident. The provost of the medical school, who was the previous chair of neurosurgery, ran into me on the floor that day and said, “You must be our new equal opportunity package.” I said, “Yes, I am,” and went back to work. Minnesota was a new world to me but one that still has a place in my heart.

As I approached the end of my residency I realized that I had not really left behind that girl who wondered if she could be a neurosurgeon. When I met with the chairman to plan my future, my parents’ voice echoed inside me, and I decided to go to Henry Ford Hospital, Detroit, where the patients came to the institution, not the physician. I was shocked that despite how much I had accomplished, those feelings of not being good enough were still there. But first, I took a fellowship at Children’s Hospital of Philadelphia in July 1981. My world contracted to just pediatric neurosurgery, but the joy expanded. The experience there was magical, with Luis Schut,
MD, dispensing philosophy and career management advice at the morning meeting, along with a world of interesting surgical cases that came to us during my tenure there. The year passed quickly, and then I was off to Henry Ford Hospital. Unfortunately, there simply was not enough pediatric neurosurgery there, and I moved to the Children’s Hospital of Michigan. Within the first month at Children’s Hospital of Michigan, I did more operations than I had done in the entire eight months at the Henry Ford Hospital. I had, again, found my home.

The journey back
I practiced at Children’s Hospital of Michigan for 20 years and absolutely loved it. It was a wonderful place. I had a supportive partner who would get up in the middle of the night to see a patient no matter the circumstances. I could not have asked for a better collaboration. We also viewed each patient as our patient, and whoever was on call advanced the patient’s care. It was a dream practice.

The most important decision I made early in my career was to adopt a comfortable, but not extravagant, standard of living. If I got raises, I would live a little bit better and bank most of it. I bought a very nice house but not a showplace, and I drove nice cars but not head-turning cars. So when the day came that I began to think I might one day not be a neurosurgeon, I had the financial resources to make those choices. When we talk about burned-out physicians, and we all know them, their problem is sometimes related to the fact that they cannot afford to do what they want to do.

Neurosurgery can demand more and more of your energies. At first, you are the new guy with patients gifted from the other surgeons, as well as a lot of time to contemplate your navel and study for your boards. But slowly your reputation builds, and you care for your own patients. The committee assignments come along with teaching responsibilities, and if you are an academic, the need to develop a research program and/or studies. You begin to drop some of the other interests you had due to a lack of time. Ultimately, more and more of your life is only neurosurgery and, if you are lucky, your family. The more insidious change is your attitude at work.

We had an almost insufferable surgeon on our staff. One day while I was waiting for a result with the intensivist, he remembered that when this particular surgeon first came to the hospital he was as nice as he could be—accommodating and positive in his interactions with the staff. As he became busier, he got less tolerant and acted as if every question or phone call was an intrusion.

For me, the breaking point occurred one day when I had a monthly bridge game scheduled, and something came up at the last minute. The idea that I could not even plan something once a month and actually do it made me look at the arc of my career and see how one by one I had dropped all of my outside interests. My life was now limited to work and my husband, and for a number of years that had been enough. Slowly but surely, in crept the idea that I had once been a more interesting person and maybe I could be again.

Because we had been careful to save, I was financially able to choose what I did next. I promised my husband when he moved to Detroit that when I retired we would move wherever he wanted, so we began planning to move to Pensacola, FL, in a year, with time to make a smooth transition for the next surgeon who would take on this leadership role.

In Florida I just sat for a year and thought about what I wanted to do with the rest of my life. Slowly, I began to engage with my new town. Moving to a new town without a job makes it much more difficult to meet new people, but gradually I did, joining a couple of book clubs that introduced me to interesting people. I became involved in mentoring middle school girls and participated in the board for Belmont-Devilliers, the historic black entertainment district in Pensacola. Because I had always gone to the Tuesday pediatric conference at home, I continued to go to the similar conference at the Sacred Heart...
Children’s Hospital in town. When the pediatricians found out I was a pediatric neurosurgeon and they were sending their pediatric neurosurgery cases to either the University of Florida, Gainesville, or the University of Alabama, Birmingham—both located four to five hours away—they begged me to consider practicing again. And so, I did. But now I could set the conditions and I worked only Monday through Friday. Trauma patients were managed at night by the on-call neurosurgeon, and I took them over in the morning. This arrangement renewed my love of neurosurgery—no one to manage but myself, no committees, just pure pediatric neurosurgery. I loved it and practiced another eight years in a setting that allowed room for my new interest, competitive bridge, and my quest to become a Life Master bridge player—which I finally did in December 2015, the year after my second retirement.

Retirement takes different forms for different people. For me, I re-engaged with the community via mentoring opportunities, an appointment to the West Regional Library Board, and a lot of competitive bridge and book clubs. I closed the book on the neurosurgery portion of my life. Others wish to remain involved in medicine. Some move to medical administration, and others find entirely new careers in medical law or business.

Whatever you choose in the future depends on setting up your finances so when the day comes that you don’t want to practice neurosurgery, you can leave. You don’t have to be that curmudgeon darkening everybody’s day at the hospital because it wasn’t financially feasible to leave when the desire to practice was no longer there.

My neurosurgical career was a joy. I chose it freely and would choose it again. I was lucky to train in good places with supportive faculty and to practice at a dream children’s hospital with my best friends. I know I have been lucky professionally, and I hope you plan well enough to be lucky, too. ♦

REFERENCES

As a 14-year-old high school sophomore, I was selected as one of 23 students in northern California to participate in the Stanford Medical Youth Science Program (SMYSP) at Stanford University, CA. The goal of this program is to expose underserved youth to the health professions. As U.S. Supreme Court Justice Sonia Sotomayor, the first Hispanic on the high court, wrote in her autobiography, “When a young person, even a gifted one, grows up without proximate living examples of what she may aspire to become, her goal remains abstract. But a role model in the flesh provides more than inspiration; his or her very existence is confirmation of, ‘Yes, someone like me can do this.’”*

Before the SMYSP program, I did not know what it looked like to be a black physician. During this program, I was charged with completing a research project about a physician to whom I aspired to be, and so I drafted a paper on Alexa Canady, MD, FACS, the first African-American woman neurosurgeon in the U.S. I was moved by Dr. Canady’s story. She was my first example of a black woman surgeon. I studied her life and her legacy. The impact of her accomplishments stayed with me from that time on, encouraging me when self-doubt crept in as the youngest of my siblings and the first in my family to graduate from college. I distinctly remember that on my last day in the SMYSP I wished that one day I would grow up to be a surgeon about whom other young women wrote research papers. My dream from that summer on was to become a neurosurgeon just like Dr. Canady, and while I did not pursue neurosurgery, I am a general surgery resident today because of her example.

My dream of becoming like Dr. Canady had humble beginnings. Every morning, as a freshman in high school, my day would begin with a military-like wake-up call—my father pulling me out of bed at 5:15 am sharp. After dressing, preparing breakfast, and packing our lunches, the daily ritual began at the dining room table. Opening his Bible to the bookmark, he slowly read, occasionally pausing as a cue for me to help him sound out unfamiliar words like “d-e-l-i-v-e-r” and “t-r-a-n-s-g-r-e-s-s-i-o-n-s.” Using the elementary phonics I learned in first grade to help him pronounce a word, I also kept a dictionary by our side and made him look up each word he did not know. The man who clothed, fed, and sheltered me looked to me for guidance every morning, to learn literacy skills he never acquired. At this young age, my relationship with my father had already evolved. Though I relied on him for basic necessities, he relied on me for basics like reading house bills to him.

I am the youngest of eight children, but I am the only one who excelled academically. My older siblings barely graduated high school, with three graduating from a continuation school. Thus, the onus of helping my father overcome his illiteracy fell upon me.

I distinctly remember that on my last day in the SMYSP I wished that one day I would grow up to be a surgeon about whom other young women wrote research papers. My dream from that summer on was to become a neurosurgeon just like Dr. Canady, and while I did not pursue neurosurgery, I am a general surgery resident today because of her example.

By 6:00 am, we would finish our session and head out the door to begin our days and endure our separate struggles. My father would make his way to the laborers union, waiting in line for a work assignment. Some of these jobs would last a month, others a year. We never knew. Although we never had any guarantees of a steady income, my father always found a way. Realizing the disservice a lack of education caused him, he made it clear to his children that school should be our focus. However, he knew something was wrong with the Oakland Public School System, CA, and refused to let me endure the inadequacies that had academically stunted my older siblings. My father’s 14-hour days made it possible for me to attend private school. Through his sacrifices, I made the two-hour journey, after our morning ritual, four cities away to a private high school.

My parents, in their own unique ways, became the architects of my medical career. “Untraditional” is the word I would use to describe my family. When I was two months old, my parents divorced because of my mother’s crack cocaine addiction. She stayed out of my life until my senior year of high school, leaving my father to raise a young woman the best he knew how. As the youngest of 11 children raised by a Louisiana sharecropper, my father learned to pick cotton and groom cattle but could not read me bedtime stories. He went on to become a successful serial entrepreneur at the end of his career, and, to me, he is the embodiment of resilience, courage, and tenacity. My mother exemplified self-sacrifice. She starved herself of her children, knowing that it was better than subjecting them to the hardship of being raised by an unstable parent, then overcame addiction, allowing her to grow a new, vibrant relationship with her children. These qualities provided a strong foundation for me to not only to pursue my dreams, but achieve them. Together with Dr. Canady’s inspiring story and the characteristics instilled in me by my parents, I was empowered to achieve the dream of becoming a surgeon.

I was once asked whether I believed in the notion, “You can become whatever you dream to become.” I retorted, “Why wouldn’t I?” My colleague explained, “It is true, we can become whatever we dream to become, but it is also true that we can only dream of what we have seen.” My colleague was absolutely right. How can you become something, or even dream of something that you’ve never seen? Seeing Dr. Canady deliver the Olga M. Jonasson, MD, Lecture at the American College of Surgeons Clinical Congress reminded me of the path she and other distinguished women surgeons have paved for me, allowing me to become a surgeon, and for this, I am eternally grateful. ♦
How do we improve patient safety?

A look at the issues and an interview with Dr. Britt

by Kenneth A. Lipsky, MD, FACS, and L. D. Britt, MD, MPH, DSc(Hon), FACS, FCCM, FRCSEng(Hon), FRCSed(Hon), FWACS(Hon), FRCSI(Hon), FCS(SA)(Hon), FRCSGlasg(Hon)
In his welcoming remarks at the 40th annual meeting of the Association of Veterans Administration Surgeons (AVAS) in April 2016, L. D. Britt, MD, MPH, DSc(Hon), FACS, FCCM, FRCSEng(Hon), FRCSEd(Hon), FWACS(Hon), FRCSI(Hon), FCS(SA) (Hon), FRCSGlasg(Hon), Past-President of the American College of Surgeons (ACS), expressed concern that surgeons have made little progress in the prevention of adverse events in patient care over the last decade. “There still remain documented challenges with respect to patient safety and adverse events, including ‘never events.’ For example, a foreign object is left inside a patient 39 times per week, and wrong procedure/wrong site surgeries occur more than 40 times per week,” said Dr. Britt, Henry Ford Professor and Edward J. Brickhouse Chair, department of surgery, Eastern Virginia Medical School, Norfolk, and a member of The Joint Commission. With that assertion, Dr. Britt issued a challenge to the AVAS to address the prevention of adverse events, adding that the U.S. Department of Veterans Affairs (VA) is an ideal environment to test patient safety models that can then be applied in the private sector.

This article examines the issue of patient safety and specifically focuses on the following:

- Persistence of patient safety issues in the private sector
- Barriers to implementing patient safety initiatives
- Efforts to apply the high-reliability organization crew resource management (CRM) and HRO model to health care
- The pitfalls and benefits of checklists

This article concludes with an interview that Dr. Lipsky conducted with Dr. Britt to receive further insights from a noted patient advocate and surgical leader.

Persistence of patient safety issues

Since the publication of the Institute of Medicine (now the National Academy of Medicine) report, To Err Is Human: Building a Safer Health System, in 2000, many health policy experts have continued to point to problems in patient safety and the slow progress that has been made toward their reduction or elimination. As recently as May 2016, the British Medical Journal (BMJ) published an article claiming that medical error is the third-leading cause of death in the U.S.

While many private sector hospitals have encountered difficulty in improving patient safety, the VA has had some success in this area. One of the first VA studies to assess adverse events in patient care was published in 2001. This report stated that “almost a quarter (22.7 percent) of active care patient deaths were rated as at least possibly preventable by optimal care,” with 6.0 percent rated as “probably or definitely preventable.” Both estimates are notably lower than the 53 percent of adverse events identified as preventable in To Err Is Human. To further clarify the implications of their research, the authors conceded that “after considering three-month prognosis and adjusting for the variability and skewness of reviewers’ ratings, clinicians estimated that only 0.5 percent of patients who died would have lived three months or more in good cognitive health if care had been optimal, representing roughly 1 patient per 10,000 admissions to the study hospitals.”

Subsequently, the VA National Center for Patient Safety (NCPS) produced reports demonstrating progress and providing insight into preventable adverse events. Neily’s 2009 article assessed the effect of the 2003 VA Ensuring Correct Surgery and Invasive Procedures (ECSIP) directive on incorrect surgical procedures both
in and out of the operating room (OR) from 2001 to 2006. Paradoxically, after implementation of the protocols noted in the VA ECSIP guidance, the number of reported events increased. Individuals familiar with VA ECSIP indicated that an increase in reporting rather than a rise in incidents likely occurred (in-person communication at ACS Clinical Congress, October 2010). Neily noted that communication problems were the cause of approximately one-quarter of the adverse events. Human factors, time-out issues, training issues, and non-standardized protocols led to most of the other incidents. Another important observation was that “events occurred about equally in and out of the OR.” The team concluded that “time-out procedures alone have not been enough to prevent incorrect surgical and invasive procedures. We advocate earlier improved communication based on crew resource management (CRM) principles.”

A 2011 follow-up article published in the Journal of the American Medical Association: Surgery showed a decrease in reported adverse events from 2001 to 2009. The group proposed that implementation and training on the ECSIP directive, as well as clinical team training, likely contributed to this change.

Although the BMJ article created considerable controversy—mostly because of questions regarding the validity of the data—the overall message of the article resonated: physicians need to take charge of ensuring patient safety. In the article, the authors proposed several strategies that health care professionals can implement to reduce preventable deaths in health care:

- Improve transparency, so that when errors occur, their effects can be intercepted. Achieving this goal requires ending the culture of “shame and blame,” which pervades many health care institutions and often inhibits staff from reporting problems.
- Identify strategies to prevent vulnerabilities in the system from placing patients at risk of complications. This part of the process would require upfront discussion of potential issues that could lead to mistakes, the consequences thereof, and approaches to managing errors when they occur.
- Follow principles that take human limitations into account. Make it easier for people to provide safe care by identifying potential failure points—situations where the safety system fails and errors occur—and help them to compensate for their shortcomings.

Dr. Britt’s comments at the AVAS meeting and the BMJ article provided an excellent backdrop to the August 2016 National Surgical Patient Safety Summit (NSPSS), in Rosemont, IL, which was sponsored by the ACS and the American Academy of Orthopaedic Surgeons (AAOS). NSPSS participants expressed concerns about the effectiveness of patient safety strategies and discussed the following potential reasons why patient safety initiatives have fallen short of expectations:

- Minimal support from leadership due to lack of staff buy-in, with physicians typically remaining the key barrier to implementation
- Individual misconduct and noncompliance
- Failure to understand that individual failure is as important as systems failures
- Communication failures
- Ongoing attempts to apply quality improvement models, which may be unsuitable in the complex health care environment
- Physician concerns about loss of autonomy and being required to adhere to pre-established standards
- Potential distractions created through the use of information technology and the electronic health record (EHR)
- Questions about the concept of “zero harm”
- An overemphasis on data and dogma without due consideration for context of events
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Barriers to implementing patient safety initiatives

The list of potential reasons why patient safety mechanisms fail warrants further examination. A description of each barrier is as follows.

Failure to attain staff buy-in

One major hurdle for patient safety initiative implementation has been lack of staff physician buy-in. Some healthcare professionals question the value of the checklists that are commonly used to ensure that the operating room (OR) team take standard precautions during surgical procedures. Other staff suffer from “checkbox fatigue” and simply may go through the motions without really thinking about the effect of their actions on the individual patient.6 In a review of the implementation of the World Health Organization (WHO) Checklist in the U.K., Russ and colleagues concluded successful implementation required the following steps:7

• Modification to suit the local context
• Education tailored to the needs of each stakeholder
• Identification of local champions to promote safety in clinical work areas
• Executive leadership support
• A system of accountability for “improper” behavior or noncompliance
• Careful auditing

Individual misconduct and noncompliance

Despite the fact that the most critical adverse events occur in the OR, surgeons and anesthesia professionals frequently prove to be the most averse to patient safety initiatives. In 2015, for example, Russ and colleagues noted that “the most common barrier to checklist implementation, reported by 51 percent (61 of 119) of the sample, was active resistance or passive noncompliance from individuals on the OR team, most frequently (84 percent) from senior surgeons and/or anesthesiologists. This often made it challenging for the person leading the checks (often a nurse) to complete them in the intended manner, or without feeling personally attacked.” Often only after something untoward occurs do surgeons take an interest.7

This opposition perhaps should be expected, given that safety measures frequently are developed without input from the surgical teams expected to use them. Surgeons question the need for checklists in particular, claiming they can disrupt the flow of care, reduce efficiency, and have a minimal impact on improvements in care. Similarly, pilots were initially distrustful of cockpit management training initiatives, but now see the benefits of safety checklists and use them as standard operating procedure (personal communication via telephone, Alan Diehl, PhD, author of Air Safety Investigators: Using Science to Save Lives—One Crash at a Time, August 23, 2013). So the question becomes, how do we convince surgeons and other health care professionals that compliance with patient safety initiatives has a meaningful impact on patient outcomes?

Hospitals and patient safety advocates point to studies outside the U.S. and within the VA that show reductions in mortality following implementation of surgical safety programs.5,8 Sara J. Singer, professor of health care management and policy, department of health policy and management, Harvard T. H. Chan School of Public Health, Boston, MA, noted that when the Safe Surgery 2015: South Carolina (SSSC) initiative was launched, 38 of 67 South Carolina hospitals completed the pre-implementation survey. Of those 38 hospitals, 13 indicated that they had fully completed the SSSC program. The study concluded that hospitals that successfully participated in the South Carolina Surgical Safety Checklist project experienced an improvement in quality of care.9

Understanding individual failure is as important as overcoming systemic failure

Atul Gawande, MD, MPH, FACS, professor of surgery, Harvard Medical School; professor, Harvard School of Public Health; general surgeon, Brigham and Women’s
Hospital; and executive director, Ariadne Labs, Boston, noted that “fallibility comes from both failure due to ignorance and failure due to ‘ineptitude,’ the latter being failure to deliver on existing knowledge. Both can occur in surgery, but failure to deliver plays a substantial part” (personal communication at meeting, December 31, 2012).10,11

A study led by Peter J. Fabri, MD, PhD, FACS, surgeon and professor, industrial engineering, University of South Florida, Tampa, in 2008 reviewed 9,830 patient procedures and reported that 78.3 percent of surgical complications were related to medical error. In 75 percent of those cases, the error contributed to more than 50 percent of the outcome. The patient either died or suffered permanent injury in 25 percent of the cases. In contrast to many other publications on this topic, system and communication issues combined contributed to only 4 percent of the complications—the rest were due to human error. In cases with human error, 63.5 percent were due to an “error of technique,” 20 percent to a “mistake” (doing the wrong thing), and 58 percent to a “slip” (doing the right thing incorrectly). Errors in judgment were reported in 29.6 percent, inattention to detail in 29.3 percent, and incomplete understanding of the problem in 22.7 percent of the cases studied (personal communication via telephone, June 28, 2016).12

Communication failures
Studies indicate that lack of communication and teamwork cause most preventable sentinel events. Pronovost and several other investigators have shown that health care professionals who work in high-intensity environments, such as the OR and the emergency department, have negative perceptions of physician communication and teamwork skills. Physicians tend to overrate their abilities in these areas. Pronovost noted this discrepancy when reviewing data regarding ICU nurses and physicians’ impressions of teamwork, finding that physicians rate the nurses’ collaboration skills at 90 percent, whereas nurses rated the physicians at only 54 percent.11 Until physicians accept that poor teamwork and communication contribute to adverse events, further improvements cannot occur.

Over-reliance on CRM and other HRO models may hinder progress
In 1992, Dr. Diehl reported a 36 percent to 81 percent decline in aviation accidents as a result of CRM training.14 In 2000, Helmreich and others were interested in developing a safety improvement model to reshape medicine and they chose the CRM model because of the similarities between pilots and physicians.15-17 A 2016 meta-analysis of team training in health care showed that team training reduces medical errors by only 19 percent and improves clinical performance by only 34 percent.18 If aviation and medicine are so alike, why are we failing to achieve the same results in medicine as seen in aviation when the same techniques are implemented?

Richard Karl, MD, FACS, pilot for JetSuite Irvine, CA; owner, Safety Institute; and chairman emeritus of the department of surgery, University of South Florida, stated that although medicine is far more complicated than aviation, many tools used to improve airline safety could be used to reduce error and improve outcomes in health care if implemented properly. However, “You can’t just slide a checklist under the operating room door and expect it to work,” he added (personal communication, July 2016).

Douglas E. Paull, MD, MS, Director, Patient Safety Curriculum and Medical Simulation, National Center for Patient Safety, suggested that, considering the dynamic state in which medical teams function, health care institutions should consider introducing the concept of “teaming.”19 Amy C. Edmondson, PhD, professor of leadership and management, Harvard Business School, noted health care teams are not static. Teaming reflects the activity of working together as an active process. It represents a fluid network of interconnected individuals working in temporary teams to solve problems (personal communication via telephone, July 25, 2016). The members of these groups have different levels of training and competence, with various members performing different responsibilities in the course of care or a procedure. Furthermore, several leadership units are often at play in an OR, including nursing, anesthesia, and
surgery, making teaming an even more realistic goal to achieve.19

One final mechanism that may lead to improved patient outcomes is the use of James Reason’s “Swiss cheese model,” or layered security approach, to detect errors in health care and other high-reliability organizations (HROs).20 Like the holes in Swiss cheese, this model suggests that in a complex system, an error may occur at one point, but the various other layers of the process provide opportunities for correction. This model, however, may be too simplistic for use in health care, where multiple cogs move simultaneously. In other words, the problem that we believe we have put into check may change the second we move on to the next task.21

Physician concerns about loss of autonomy
Lack of leadership is a key driver of sentinel and adverse events. According to Dr. Paull, “We ultimately have responsibility for our patient outcomes and experiences. Leaders set the tone for safety culture...leaders by their words and actions develop an environment that rewards people for speaking up with safety concerns.” Traditionally, surgeon leadership has meant serving as the “captain of the ship.” While the captain of the ship model may no longer be applicable in environments that emphasize patient-centered, team-based care, physicians must take the helm in overseeing the patient safety process.

The concept of supervising the surgical patient care process would suggest that surgeons should be invested in the entire patient safety venture. However, surgeons frequently disengage from conversations about non-technical skills. Dr. Edmondson recently noted that in an earlier study on the development of minimally invasive cardiac surgery programs, success hinged on how the lead surgeon viewed his or her role as a member of the team. In the instances where the lead surgeon viewed himself or herself as part of a partnership aimed at benefiting both the team and the patient, the project succeeded. These surgeons tore down the silos and ensured everyone contributed equally to the success or failure of the project. However, when the lead surgeon used authoritarian (top-down) leadership and simply expected everyone to execute a task as directed, the project failed.21

Potential distractions created by information technology and the EHR
In 2013, Mark Chassin, MD, MPP, MPH, FACP, president and chief executive officer of The Joint Commission, noted that in HROs, information technology is considered the vehicle for achieving “nearly perfect processes.”22 The EHR, with its electronic checklists and documentation pathways, was designed to make health care safer and more efficient. However, keying data into the EHR and marking off documentation in the EHR checklist seem to have taken precedence over actual patient care. Indeed, safety documentation processes have been reported to create distractions and reduce efficiency. Dr. Paull agrees that “checklists—read and verified prior to operations—are not designed to increase a documentation burden. If created by a provider on the front line and used correctly, they are cognitive aids preventing the user from forgetting important steps/information and that should help evoke discussion and engagement among team members. The checklists we promote are simply tools/artifacts that help facilitate teamwork and communication.”

Questions about “zero harm”
In 2013, Dr. Chassin also repeated the call for zero patient harm.22 However, some patient safety experts question whether zero patient harm is a desirable goal. A hallmark of HROs is the commitment to resilience. As noted in Weick and Sutcliffe’s work, HROs operate with the understanding that in spite of all their efforts and safety measures, they can never be completely error-free. Rather, HRO administrators strive to recognize errors early, mitigate the consequences, and prevent the organization from becoming disabled by an adverse event.23

The public and many hospital administrators are focused on zero tolerance of error or adverse events. Too often hospital committees focus on individual untoward events without regard to the context surrounding the error. As a result, they divert their focus...
REFERENCES


continued on next page

from improving patient care processes to explaining the circumstances surrounding a single event. As Dr. Paull said, “Zero harm does not mean zero error! Key to patient safety is preventing errors from reaching patients and causing harm. Never events represent the low threshold for participation in health care. That is why there is mandatory reporting of such events in many states. Close calls and such are what HROs focus upon. No patient actually gets hurt [in these instances] but we do not want anything to happen in future” (personal communication via e-mail, July 31, 2016).

Seeing the concepts in action

Following a 2015 report regarding the persistence of wrong site spine surgery and pain intervention events, a regional spine surgeon and pain intervention specialist workgroup was established to attempt to understand the root cause(s) of this problem. The natural assumption presented to our group was that when wrong level procedures occurred, there must have been willful violation of known precautions. The specialists reiterated that, in their experience, this did not seem to be the case. Their opinion was that, in most cases, the universal protocol was likely followed throughout the procedure and that other factors were at play. The participants recommended that physicians take the lead in education regarding the effects of the following factors on error:24

- Distraction and fatigue
- Routineness of procedure, complacency
- Communication problems, including handoffs
- Equipment or staff problems during localization
- Patient characteristics: Body habitus, spinal deformities, vertebral morphological variant
- Confirmation bias: Accepting inadequate views due to positioning in lieu of alternate/additional imaging or secondary confirmation with an additional expert
Similar to others, the participants in these calls concluded that creation of lengthy policies and checklists that do not pertain to a particular institution or team may be more likely to create bigger problems rather than solve them. Additionally, they felt that single episode/one-size-fits-all training is unlikely to have lasting effects as it may not “touch the heart and soul of the team.” They acknowledged that success requires a multi-tiered approach to overcome this hurdle. They also agreed that institutional leadership must be aware of the upstream and downstream interferences that occur prior to or after the OR universal protocol time-out checklist verifications. Finally, our surgeons expressed concerns that institutional focus specifically on the surgical team involved in an adverse event, while ignoring systemic issues, will ultimately lead to loss of motivation and subsequent burnout.

The health care industry has numerous hurdles to scale to reach the goal of improved patient safety and high reliability, but if we are unified, it is a goal within our grasp.

Disclaimer
The content of this article represents the opinions of the authors and the researchers cited herein and does not represent the opinion of the U.S. government, the U.S. Department of Veterans Affairs, or the Veterans Health Administration.

REFERENCES (CONTINUED)
Subsequent to Dr. Britt’s address to the Association of Veterans Administration Surgeons (AVAS) in April 2016, Dr. Lipshy interviewed the ACS Past-President and Chair of the ACS Committee on Health Care Disparities. Dr. Britt shared his views on the state of patient safety. A summary of that interview follows.

**You stated in your address to the AVAS that in spite of our best efforts, relatively little progress has been made in the prevention of adverse events in health care. With all of our technology and awareness, why can’t we close the gap on patient safety?**

There is no system. There is no communication. We have a dysfunctional system. We have too many distractions. It is a ruse. In the time out, there is no concentration on the actual tasks. I believe that we are not systematic. You need to fix the system first. We are a disparate federation consisting of insurance providers, hospitals, nurses, and medical providers. We are not integrated. To fix the problem, we need to integrate the system. We need to all work together to correct this problem.

Do you believe adverse events occur because we are simply not smart enough to do what we are supposed to do, or is there more to the story?

You are asking the wrong question. You need to ask, “Why are surgeons not doing it right in the first place?” At the end of the day, you need a system that corrects itself for these types of issues. You wouldn’t work for Vince Lombardi and keep making mistakes. If you become an outlier, you get a chance to redeem yourself. You get a chance for remediation. You relearn, or you move out. You are no longer on our team. You may find another place where you will fit in and function, but not with us. The true system should be able to effectively address these adverse effects. You cannot give the system a pass when it allows this to happen.

**Is training in the effects of team dynamics, communication, and human factors the answer, or are they a portion of the equation?**

The answer is both. These are all factors in the equation. Team training is only one component—a part of the equation. Communication is clearly a key aspect. You cannot fix this without improving communication. But this should not be a top-down process. There must be equal footing. We need a circular, cooperative communication process. We need to reconfigure the way we communicate. If the Institute of Medicine reports that adverse events have increased from 98,000 to 200,000, then we have a problem. Why? It is likely that optimal communication has not been achieved.

**Are we making a mistake in trying to apply high-reliability organization (HRO) models, given that health care delivery is more complicated and dependent on human factors, or are we simply applying those models incorrectly?**

We may not be hitting a home run, but we need to build upon these results. We need to embrace this and move on. [Patient safety] requires a multidisciplinary attack. Team training is just one of the components. You cannot minimize these results.

I’ve said it before—aviation is not the same as medicine. Medicine is much more complex. Aviation typically has a relatively stable environment when planes are operational. You get a weather report, and it changes infrequently. In aviation you don’t have to worry about comorbidities or typically worry about secondary changes. There is no parallel to what we have in medicine. There are always unknowns in medicine. We are just beating ourselves up too much over this.
I don’t think we can think of ourselves as captains of the ship. That title just does not fit any longer. I think of a surgeon as being the key member on a relay team.... However, after the baton is passed off, you cannot relax.

We need to move on and build a new model for this new health care world.

**Does the presence of several co-existing units help or hinder team training in health care?**

Is it disparate? We need a monolithic communication network. We need to talk to one another as if we are all on the same team and not different teams.

**Is the term “captain of the ship” a misnomer in health care? Does the “captain of the ship” exist in a health care HRO?**

I don’t think we can think of ourselves as captains of the ship. That title just does not fit any longer. I think of a surgeon as being the key member on a relay team. I am not captain of the team, but I am one of the team members. However, after the baton is passed off, you cannot relax. The oversight of the entire process is the responsibility of the surgeon. So wherever the patient is coming from or going to, the surgeon needs to provide that oversight; whether it’s in the clinic, the operating room, the PACU [post-anesthesia care unit], the ward, or wherever.

In a 2015 *General Surgery News* letter, Linda L. Wong, MD, FACS, described her experience after she saved a patient who was exsanguinating from a ruptured hepatic tumor, but left behind a single sponge (out of 120 used). In the end, she states that she was humiliated in spite of her heroic efforts.* Do you believe that the focus on raw data, single negative events, or following the checklist instead of focusing on the safe practice culture in general is distracting staff from prog-

ress in the area of patient safety improvement? If so, what can be done to rectify this prevailing concept of punishing people for a single event?

In the case you cite involving Dr. Wong, the data are not being taken into context. You must always view the data in the context of the patient and the environment. For example, everyone knows that the chance of leaving a foreign body in a patient is highest in the obese patient, the emergency case where a lot of blood is lost, and when there is a radical change in the surgery process/strategy. Now, don’t get me wrong, there is no excuse for a never event. We can never have a case of removing the wrong leg or wrong body part. (This response was in reference to a personal conversation held with Dr. Wong regarding events summarized in the November 2015 *General Surgery News* article.)

What do we do when it is obvious that the event is taken out of context with the entire case? In many cases physicians believe that no one really understood what occurred and were simply told that an unforgivable never event happened.

In these cases, at some point someone in charge should have taken over. You need the CEO [chief executive officer] or chief of staff to take control and put the incident into context. They needed to say, “This is not just a simple data point. Let’s work together to see how we can avoid future similar circumstances.” You need another level of oversight to step in and not rake staff over the coals unnecessarily. You need to focus on the process and not the individual when such mistakes are made. That is how a safety culture is created.

**Is the EHR the answer to all of our problems, as many outside agencies insist?**

I think that the EHR could be the answer, but in its current state, it is not. We should have a mandate that all health care records communicate with each other. The

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Surgeons must remember that the safety environment was brought about by surgeons.... Surgeons have handed that responsibility to others and need to go back to those principles.

EHR should assist us with evaluating quality metrics. If I could design the ultimate EHR, I would design one that interfaces with all records and provides appropriate benchmarks with good quality metrics.

So, why don’t we have this type of EHR yet?

It’s expensive. But we need the government to step in and mandate that these changes be made. We need to make sure that our EHRs are a part of an integrated system that talks to everyone and provides the data we need.

Is poor leadership the reason behind our failure to improve patient safety? Should hospital executives be trained similarly to those in other HROs?

It is important to understand failure of leadership when attempting to understand failure of maintaining safety, so yes, all hospital executives should be well versed in patient safety initiatives and undergo the same training as the staff undergoes. But remember, health care is far more complex than most other industries so the training should not be the same as in other industries.

One of my colleagues asked me why the payment models appear to reward CEOs and insurance companies in manners that are not aligned with patient safety and culture. Do you think that if CEOs were penalized for every adverse event at their hospital it would promote culture change?

I think that health care workers know that CEOs make money inconsistent with others in health care. Their compensation should be affected by or linked to patient outcomes.

Hippocrates said, “first, do no harm,” but is that the same as “zero patient harm”? Does a focus on zero harm help or hinder our cause in improving safety in health care?

I do not disapprove in general of the notion that we should have zero harm, but only when referring to never events. Everyone needs to remember that this environment is simply too complex to avoid any harm, but there is nothing wrong with this concept as a global mission. We just have to remember we cannot avoid all complications. However, we should never have never events—wrong site, wrong side, wrong patient, and so on. We simply cannot allow that to happen to our patients.

How do you and your department encourage a safety culture at your institution?

The culture of safety is discussed vigorously at every M & M [morbidity and mortality] conference, at every patient’s bedside, in all discussions about patients, on daily rounds, with the intent that no one forgets that patient safety is always our goal.

Why do we, as a surgical community, consistently argue about the validity of the data rather than acknowledge that a problem exists, move on, and seek solutions that work in departments?

We have not told the story very well. Surgeons must remember that the safety environment was brought about by surgeons. We created that safety culture long ago. Surgeons have handed that responsibility to others and need to go back to those principles. We all need to realize that being an outlier has consequences. Everyone knows there are three principles surgeons must live by. Clinical excellence and strong education are the first two. The third is good stewardship of resources, which includes effective utilization of resources in order to enhance quality care and patient safety. ♦
Above and beyond:
A primer for young surgeons interested in global surgery

by Paula Ferrada, MD, FACS; Joseph V. Sakran, MD, MPH, MPA, FACS;
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Ideally, global surgery refers to all efforts aimed at providing adequate access to optimal and affordable surgical care in all regions of the world. Examples of such efforts include, but are not limited to, research, creation of data registries, advocacy, education for all personnel involved in the surgical patient care, efforts to prevent surgical diseases, and volunteerism.

In recent years, many young surgeons have expressed a growing interest in helping to address the global surgical disease burden. This article is intended to serve as a primer for young surgeons interested in exploring global surgery opportunities.

Why surgeons should be involved

The World Health Organization (WHO) and The Lancet Commission on Global Surgery have determined that approximately 5 billion people around the world lack access to care and that this inability to receive necessary surgical care is one of the major causes of preventable morbidity and mortality. According to the WHO and The Lancet Commission, most of the preventable deaths are secondary due to non-compressible bleeding and lack of access to emergency surgery. In other words, in some areas of the world, patients are dying from the lack of resources that are regarded as basic necessities in high-income countries.

It is imperative that clinically active surgeons contribute to a sustainable effort to improve access to surgical care in economically disadvantaged countries. The first step in that direction is an understanding of surgical diseases as not only treatable, but also preventable.

Inequities in training, a paucity of surgeons, and a lack of resources for the surgical patient can be found in nations around the world. Surgeons who provide care in low- and middle-income countries (LMICs) often encounter wide variations in resources. This disparity, once seen as a drawback to providing surgical care in underserved regions, is now viewed differently because LMICs provide opportunities to become experienced in how to be resourceful in challenging circumstances at home and abroad.

Indeed, participating in global surgery initiatives can be rewarding both personally and professionally. Serving in LMICs brings perspective to what is truly essential in the care of the surgical patient.

Increasing awareness of our cultural surroundings and our appreciation for the local health care system are some examples of nontechnical experiences that providing care in resource-poor settings can offer young surgeons. Recognizing surgeons’ capacity to develop innovative solutions to problems, as well as their skill set for treating complex patients without the resources available in high-income countries, is both humbling and inspiring.

Guidelines for participating in a global surgery program

Before deciding to participate in a global surgery initiative, surgeons should consider the following guidelines.

Understand your role, the composition of the team, and the environment

Providing surgical care involves far more than the technical skills required to perform an operation. In addition to properly equipped operating rooms, safe surgery requires making the most of all team members’ competencies, ranging from nurses to anesthesiologists. Combining these skills with those from ancillary services such as phlebotomy, pathology, and microbiology allows for the development of the robust infrastructure essential to optimal surgical outcomes.

When traveling to a different area of the world, it is imperative to understand the health care gaps in the nation or region you are visiting in order to effect change and avoid exacerbating existing localized problems. The importance of performing a needs analysis before embarking on a global surgery initiative cannot be overemphasized. Understanding the local needs and the capabilities of the team will allow surgeons to appropriately tailor resources to meet the needs of
According to the WHO and The Lancet Commission, most of the preventable deaths are secondary due to non-compressible bleeding and lack of access to emergency surgery. In other words, in some areas of the world, patients are dying from the lack of resources that are regarded as basic necessities in high-income countries.

the community and optimize surgical care. This cache includes the equipment and tools necessary not only during the operation, but also in the ongoing management of surgical diseases.

Surgeons who provide care in austere environments need to use cost-effective techniques and be capable of providing a range of clinical services that extend beyond the operating room, such as taking and documenting vital signs, triaging patients, transporting patients, and obtaining lab tests and results.

In summary, when planning to participate in a global surgery opportunity, prepare to act in the following ways:

• Functioning in a team-based setting with health care professionals who bring a wide range of skill sets.

• Understanding the local environment and potential limitations of resources.

• Maintaining an open mind to how dynamic situations may arise in LMICs. Be flexible. Teaching and learning may happen on the go, in many busy situations.

Ethical considerations
When engaging in global outreach, surgeons should maintain the same patient safety standards they follow in their home institutions and ensure that all team members practice within their scope of training. Although it might seem easy to uphold these values regardless of the setting, the reality is that working within one’s scope of practice in LMICs can often be difficult. The spectrum of surgical pathology in these countries is broad, whereas the number of local clinicians and specialists is limited. The desire of wanting to meet patients’ needs must be balanced with our pledge to “above all, do no harm.” While trainees can be of significant
Recognizing surgeons’ capacity to develop innovative solutions to problems, as well as their skill set for treating complex patients without the resources available in high-income countries, is both humbling and inspiring.

value in bolstering the availability of care in underserved areas, they also must provide only services in which they have been adequately trained and uphold the same ethical standards as they would in their native countries.

Global surgery during training and reciprocity
A global surgery rotation has become a powerful means of attracting residents and fellows to training programs in recent years. Surgical outreach is appealing to trainees because it allows them to develop technical proficiency while increasing their cultural awareness.

In turn, for allowing residents and fellows to attain this experience, some institutions engage in reciprocal relationships with health care providers in LMICs by creating opportunities for them to observe operations in the U.S. and to participate in educational activities. Creating and, more importantly, maintaining these reciprocal relationships are crucial to the success of global health care initiatives. Collaborative research projects, the creation of data registries for underserved areas, and programs that allow international visitors from LMICs to travel abroad and observe new technologies in use are all results of successful reciprocal relationships in global surgery.

Research and funding
Despite growing interest in global surgery in the last decade, funding opportunities for surgical research have been limited. Yet, institutional support is crucial in generating seed funding for global surgery programs. Creating an infrastructure that allows young surgeons to pursue both clinical and academic interests will facilitate the professional development of junior faculty. Institutional buy-in also allows young surgeons to establish a track record that will be useful when exploring other sources for global surgery outreach funding.

Achieving institutional buy-in requires persistence and resilience. Success does not happen overnight and entails a slow, steady progression of building relationships, getting published, and attaining practical experience.

Mentorship
Establishing an environment in which young surgeons can build successful careers in academic global surgery is timely and essential. Not only are young surgeons interested in participating in global surgery initiatives, but they also are creating greater awareness about the lack of access to surgical care in many parts of the world.

Surgery departments, universities, and societies that prioritize global surgery should foster the development of young surgeons with an interest in providing care in underserved areas. Mentorship during the first several years of a surgical career is critical in generating academic credibility and in developing relationships with global surgery leaders.

Many surgical societies offer opportunities for mentorship and networking, including the American College of Surgeons (ACS) Young Fellows Association (YFA) and the Operation Giving Back (OGB) program. Other organizations that are active in global health also can provide these resources (see sidebar on page 37).

The College’s role
OGB provides the tools necessary to facilitate humanitarian outreach among ACS members of all specialties, at all stages of their career, who are interested in domestic and/or international service. Through a network of high-impact partner organizations, OGB directs surgeons to volunteer opportunities that align with an individual’s skills, passions, and beliefs.

OGB rolled out a number of educational programs at Clinical Congress 2016 that were aimed at young surgeons who are interested in global surgery,
OTHER RESOURCES

Most academic health care institutions have an office of global health. Developing partnerships to carry out projects already in place within these departments can be a good start for the young surgeon seeking experience in this area.

In addition to the ACS, many organizations and associations provide opportunities for surgeons at all stages of their career to gain global health care experience, including the following:

• The Association for Academic Surgery offers international courses, a listing of international fellowships and travel grants for visiting professors, and sponsors a Global Surgery Research Fellowship Award: www.aasurg.org/awards

• The Bethune Round Table, which takes place annually in Canada, is an international conference devoted entirely to the discussion of surgical issues in the developing world: canjsurg.ca/wp-content/uploads/2014/03/48-6-479.pdf

• The Brigham and Women’s Hospital Global Surgery Program, Boston, MA, is designed to ensure patients have access to surgical care by developing a cadre of global surgery leaders, offering deep capacity building, and providing connections to broad international surgical assessments and advocacy: www.brighamandwomens.org/Research/labs/CenterforSurgeryandPublicHealth/Research/GLOBAL_Surgery/default.aspx?sub=1

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• The Duke Global Health Institute (DGHI), Durham, NC, works to reduce domestic and international health care disparities. Recognizing that global health problems stem from economic, social, environmental, political, and health care inequities, DGHI brings together interdisciplinary teams to solve complex health problems and to train the next generation of global health leaders: globalhealth.duke.edu/about

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• Harvard Medical School’s Program in Global Surgery and Social Change, Boston, and the Paul Farmer Global Surgery Fellowship at Boston Children’s Hospital address disparities in global surgical and anesthesia care: ghsm.hms.harvard.edu/programs/surgery

• Mending Kids focuses on transformational surgical care for children by empowering communities to create self-sustaining programs: www.guidestar.org/profile/95-4394305


• The Panamerican Trauma Society, hosted by the division of acute care surgical services, department of surgery, Virginia Commonwealth University, Richmond, enhances collaboration in trauma and emergency surgery through North, Central, and South America. These programs are available to surgeons, students, residents, nurses, and paramedics: www.panamtrauma.org/International-Fellow-Travel-Scholarship

• The Rutgers University division of acute care surgery and the Rutgers School of Public Health, New Brunswick, NJ, offer a master’s in public health in global health and epidemiology with global surgery tracks in Latin America. Funded opportunities exist for student, resident, and fellow research in trauma systems development. Rutgers also offers nonfunded (no compensation is provided to participants), non-accredited one- to two-year global surgery fellowships: Global.rutgers.edu

• The University of California, Los Angeles (UCLA), features its Global Surgery Initiative as part of the UCLA Center for World Health. The mission of the Global Surgery Initiative parallels that of the UCLA Center for World Health, with a focus specifically on bringing a standard of care to the surgical patient in all regions of the world: worldhealth.med.ucla.edu/index.php/serve/global-surgery-initiative/

• The University of Utah’s Center for Global Surgery, Salt Lake City, is a network of providers and professionals who envision a world in which safe, effective, and affordable surgical and anesthetic care is accessible to all people. Embedded within the school of medicine’s department of surgery, the center positions surgical faculty, residents, and medical students to address barriers of access to essential surgical care through innovation, research, and advocacy: medicine.utah.edu/globalsurgery/

• The University of Washington (UW) Global Health Certificate for Residents and Fellows is available to all residents and fellows at UW. This certificate program draws on courses, seminars, and other global health training activities available at UW: globalhealth.washington.edu/education-training/residents-fellows/global-health-certificate

• WHO Programme for Emergency and Essential Surgical Care is dedicated to strengthening health systems, achieving universal health coverage, and ensuring the safety and efficacy of clinical procedures in anesthesia, surgery, orthopaedics, and obstetrics: www.who.int/surgery/en/
Establishing an environment in which young surgeons can build successful careers in academic global surgery is timely and essential. Not only are young surgeons interested in participating in global surgery initiatives, but they also are creating greater awareness about the lack of access to surgical care in many parts of the world. Including a one-day didactic course, Global Health Competencies for Surgeons: Cognitive and System Skills. This course was designed to educate international volunteers about a variety of relevant issues, including what to expect in low-resource surgical environments, situational ethics, cultural competency, and information regarding tropical diseases. The Global Health Competencies for Surgeons course also provides didactic and hands-on training in key areas of need such as orthopaedics, general surgery, neurosurgery, plastic surgery, and obstetrics and gynecology.

Conclusion
Young surgeons who are interested in developing a niche in global surgery have access to a wealth of opportunities. The need to advance collaboration internationally in order to ensure access to safe surgical care, enhance training, and increase research opportunities exists throughout the global community. The ACS supports involvement in global surgery initiatives via OGB, and the YFA stands ready to assist young Fellows who are interested in learning more about how they can become involved in global surgery initiatives.

BIBLIOGRAPHY
Teaching residents about medical liability

by Ross F. Goldberg, MD, FACS; Kenneth D. Goldberg, Esq; and Daniel M. Caruso, MD, FACS

Medical school provides the knowledge and lays the foundation on which physicians build their professional careers. Residency is where surgeons learn how to operate and practice surgery, applying the textbook knowledge acquired in medical school to clinical situations, and it is where they learn how to care for patients in a variety of settings. Some surgeons pursue additional training via fellowships, while others graduate and decide to enter the workforce, ready to tackle their new roles as attendings.

All of this rigorous training prepares surgeons to practice surgery and provide quality care, but it doesn’t prepare them for the realities of running a practice. This article describes how one institution, Maricopa Medical Center, Phoenix, AZ, prepares surgery residents for the possibility of being deposed or for being a defendant in a medical liability lawsuit.
To show our residents what it is like to be a defendant in a medical liability case, one of our chief residents was “served” with a summons to appear at the grand rounds to be deposed on an actual case in which he had participated.

**Insufficient preparation**

Many institutions and organizations, including the American College of Surgeons, supplement resident education with training in the areas of finance, professional liability, insurance, and other topics relevant to practice management. Many residency programs also try to address these topics in day-to-day training and provide some real-world scenarios that can help prepare residents for the business realities of surgical practice.

Training institutions also have morbidity and mortality (M&M) conferences, which encourage surgeons and residents to take responsibility for the role in a negative outcome or a near-miss and provide an opportunity for colleagues to learn from the experience. Sometimes at these M&M meetings, attending surgeons and residents discuss the importance of documenting our actions with the same gravitas that we discuss the actions themselves in order to emphasize the need to record information in a patient’s chart.

Unfortunately, even with this emphasis on recording patient information, residents walk away from these meetings without a full understanding of the importance of documenting our actions with the same gravitas that we discuss the actions themselves in order to emphasize the need to record information in a patient’s chart.

In all, 20 minutes of the two-hour grand rounds were devoted to this mock deposition. We attempted to make this vignette as realistic as possible, with obvious limitations. Mr. Goldberg was given few details about the case—just enough to allow him to ask pertinent questions, which the attending staff helped to shape. The chief resident did not get a chance to meet with an attorney to “prepare” for the deposition, nor did he have a chance to review the chart until the day of the deposition. This situation would rarely occur in reality. Liability lawyers typically spend significant time preparing a defendant for questioning. However, in this situation, we wanted to amplify the experience to educate the residents and emphasize the necessity of preparation before walking into a deposition or a medical liability trial. The audio of the entire grand rounds program, including the mock deposition, was recorded and archived for future teaching purposes.

The chief resident sat in the front of the room while Mr. Goldberg questioned him. The entire department of surgery was present, including the attending faculty, residents, medical students, advanced nurse practitioners, physician assistants, and support staff. A hospitalwide announcement was issued, and members of the department of anesthesiology (anesthesiologists and certified registered nurse anesthetists) also were in attendance.

Mr. Goldberg prefaced the deposition by providing the attendees with a background in legal concepts. He then began this deposition by asking background questions and learning more about the witness. The chief resident did well initially. He is a well-spoken, well-respected resident leader who has always been known as a patient advocate and talented clinician and surgeon. However, the chief resident got confused and started

**Mock deposition at Maricopa**

For one of our grand rounds, we invited an attorney, Kenneth D. Goldberg, Esq., senior counsel of the Chartwell Law Firm, LLP, New York, NY, to speak on the topic of medical professional liability and how surgeons can best prepare to defend themselves if they are ever sued for liability. Mr. Goldberg, a co-author of this article, has more than 40 years of experience preparing defendants for both depositions and trials.

In addition to Mr. Goldberg’s lecture, we presented a mock deposition. To show our residents what it is like to be a defendant in a medical liability case, one of our
changing his answers when the attorney asked about the resident’s involvement as a witness in another medicolegal case. Instead of asking for clarification or taking a minute to collect his thoughts, he continued forward, unsure of his answers, and changed them as he was asked additional questions. It was obvious he also was nervous, and the purposeful lack of preparation had its effects. Just three minutes into the deposition, Mr. Goldberg caught the chief resident in a contradiction. The resident first stated that he did not know about any other witnesses in that previous medicolegal case, then quickly stated that he did know about them.

At no time did Mr. Goldberg raise his voice, nor did he press the chief resident to answer a question or intimidate him in any way. The witness was asked general questions, with follow-up questions after every answer. Yet, once that first misstep occurred with the chief resident, the deposition took a more challenging turn.

When it came to the actual case itself, the chief resident was provided with the patient’s chart to review. With some simple questioning about timing of the case and details of what occurred as compared with what was actually documented in the patient’s chart, the chief resident seemed to return to his previously confident state, and he began to agree with Mr. Goldberg’s characterizations. What is notable here, however, is the fact that in a relatively brief 20-minute period, this honest, reliable, well-respected chief surgical resident was made to appear confused, unsure, and, worst of all, dishonest and unreliable.

While it was initially entertaining for the residents to see one of their fellow residents on the stand, they soon realized how difficult it can be to be a defendant in a medical liability lawsuit. In discussing the mock deposition with the residents, we discovered that many had the same reaction: they want to avoid being placed in a similar position, and many described it as a “scary” and “horrifying” situation. An initial reaction like this is expected. The take-home message for residents and everyone who attended the mock deposition is that we must document everything we do in the delivery of patient care and not rely on memory or hearsay.

**Following up on concepts conveyed**

According to Mr. Goldberg, a deposition is not a hunt for the truth. Rather, it is merely an opportunity to determine the facts of the case. You do not win or lose in a deposition. You are not there to make your case and change someone’s mind. You are there to recount the facts of the case. Physicians, especially surgeons, seem to have a natural inclination to try and explain their actions at every opportunity, and that tendency is something attorneys use to their advantage.

Mr. Goldberg offered an example of how attorneys can use a proclivity for over-explaining to their advantage. An attorney might ask, “Did you speak with Dr. Jones last week?” An individual may be tempted to respond by saying, “No, I did not speak with Dr. Jones last week.” In fact, in this context, that is the wrong answer. It is wrong because it sounds like the respondent did speak with Dr. Jones, just not that previous week, thus providing an avenue for the attorney to follow up with more questions regarding other interactions with Dr. Jones. The correct answer for this question is a simple, “No.”

The grand rounds concluded with a discussion describing the type of answers that are not advisable in this context, including the following:

- Explaining one’s thought process
- Providing information one does not know by guessing
- Volunteering to discuss documents the questioner has not addressed
- Volunteering answers to questions that have not been asked
- Testifying as to what other people know
Mr. Goldberg also described how to respond to situations in which the defendant is expected to share personal information. He underscored the importance of preparing for a medical liability case, advising that a defendant meet with his or her attorney to discuss their testimony before going to trial.

The residents got a firsthand view of what could happen at a deposition—one that is very different from what they’ve seen in film or on television. They saw how the simplest questions can unravel someone’s credibility, which underscored both the need for preparation beforehand and the importance of proper documentation in the medical record.

More often than not, surgical residents still exist in the limited world of surgical training, and despite hearing about what can happen to them once they leave that protected space, a more meaningful teaching method is to demonstrate what can happen. Some residents, unfortunately, will experience realities like participating in a deposition during training, since they can be named as defendants in a medical liability lawsuit. Others have been called as witnesses for trauma cases, like the chief resident in the mock deposition at our institution, but he quickly realized that being a defendant is an entirely different experience.

The better we prepare residents to manage their involvement in a medical liability deposition or lawsuit, the better positioned they will be to succeed in all aspects of their career. This mock deposition approach was a new teaching experience for our department, and we were unsure how it would be received. Fortunately, we found that this learning exercise was effective for both the residents, as well as for other members of the department.

Lessons learned
If another residency training program is considering organizing a mock deposition training exercise, we suggest the following guidelines:

- Plan on allotting at least two hours to complete this exercise. Maricopa did not have an M&M conference the day of this presentation, and instead focused on the grand rounds. This schedule allowed ample time for discussion and for the mock deposition. The timing of the exercise also made it possible for our night team residents to participate without violating duty hour restrictions.

- Participant buy-in is key. Carefully select the person who will play the defendant. The chief resident we chose understood his role and was comfortable with what was going to happen during the exercise. He even came to grand rounds wearing a suit in order to have the appearance of an actual defendant in a liability case. In other words, you need buy-in from your participants if you are going to make it work.

- Select a lawyer with medical deposition experience. As stated earlier, Mr. Goldberg has 40 years of experience in defense litigation, and he used all of his client preparation tools for our mock deposition. Partnering with an attorney who has extensive experience in preparing physicians for these kinds of depositions and trials is essential.

Surgical education continues to successfully employ simulation to train residents in operative technique—and, as this exercise at Maricopa Medical Center shows, we also can use simulation in a different way to prepare students, residents, and attending faculty for the challenges that medical liability situations present.

THE ART OF THE DEPOSITION

You do not win or lose in a deposition. You are not there to make your case and change someone’s mind. You are there to recount the facts of the case. Physicians, especially surgeons, seem to have a natural inclination to try and explain their actions at every opportunity, and that tendency is something attorneys use to their advantage.
Rural surgery has always been and remains an important part of our nation's health care delivery system, as an estimated 60 million people live in rural areas in the U.S.* I am a board-certified general surgeon, and I practiced in a rural area of northwest Kansas for many years. The population of the town where I practiced, Hill City, KS, was approximately 3,000 and the county population was approximately 4,000 when I moved there in the 1970s. Now I am retired, and I want to tell my story.

How I wound up in rural Kansas
People ask me how I wound up in a small town like Hill City, KS. I came from India and did my residency in surgery at Misericordia Hospital and at Knickerbocker Hospital in New York, NY. After finishing my general surgery residency, I did one year of plastic surgery training at Upstate Medical Center, Syracuse, NY. In those days, most young surgeons wanted to go into private practice or join a group practice. In my case, I was uncertain whether patients would come to see me since I am from a foreign country.

I found an ad in one of the medical journals and discovered that the Graham County Hospital in Hill City was looking for a physician. I called the hospital and the chief executive officer (CEO) asked me to come for an interview. I agreed. I flew to Hays, KS, the location of the closest airport to Hill City, and the CEO of the hospital came to the airport to greet me.

At the time, I did not realize Hill City was a small town. I knew the location by looking at the map, but I was not aware of the area's population size. The CEO took me around Hill City and then to the hospital, where he introduced me to the hospital board members; they offered me the job, and I accepted.

A rewarding and busy practice
In late summer of 1973, I moved with my wife and my son, who was two years old at the time, to Hill City from New York City. The day after our move, I started seeing patients. A few days later, the CEO of the hospital took me to his house. His wife told me, “I heard that people like you.” I was glad to hear that, as my work motivation was to take care of patients to the best of my ability and knowledge. Fortunately, it did not take long for me to get established.

I started performing major operations in the fall of 1973. Harl Stump, MD, FACS, a general surgeon in Hays, would assist me in major cases. Without his help, I could not have done major operations. A pediatrician colleague by the name of B. N. Reddy, MD, also helped me with some major cases.

I practiced in Hill City for 41 years. In those 41 years, I performed the following procedures, among many others:

- Tonsillectomy and adenoidectomy: 144
- Appendectomy: 255
- Herniorrhaphy: 266
- Carpal tunnel release: 181
- Cholecystectomy: 351
  - Open cholecystectomy: 219
  - Laparoscopic cholecystectomy: 132
- Thyroidectomy: 18
- Gastroscopy: 1,053
- Sigmoidoscopy: 104
- Colonoscopy: 709

When I was in training, all cholecystectomies were open. I read about laparoscopic cholecystectomy (lap chole) in a surgical journal. At that point, I went to St. Louis, MO, to practice on animals. Subsequently, I went to Salina, KS, to learn more. Dr. Stump also helped me do laparoscopic cholecystectomy.

Other operations that I performed ran the gamut of general surgery, plastic surgery, and obstetrics-gynecology (OB-GYN)—from gastrostomy tube replacement to radical mastectomy; from wound closure with flap to removal of foreign bodies, including bullets and screws; and from cesarean section (C-section) to hysterectomy.

I did two cases of parathyroidectomy, despite not having done the procedure in my training. I learned from reading articles. In the 1970s I also did a few cases of gastrojejunostomy, vagotomy, and pyloroplasty. In those days, there were no proton pump inhibitors like Nexium or Protonix. If the patient did not respond to H-2 blockers and continued to have symptoms of peptic ulcer, we had to operate.

I also did a few cases of orthopaedics, such as open reduction and internal fixation of fractures of medial malleolus or lateral malleolus. When I was in training, I would help orthopaedic surgeons doing all these cases. Fortunately, I rarely encountered complications. I recall two cases with common bile duct injury while doing lap chole. I sent those patients to a different hospital, where they received appropriate surgical care.

**Delivering babies**
When I first started in Hill City, I did not realize I was supposed to perform deliveries. One day, I was talking to the CEO of the hospital in the hallway, and he said a patient, who was clearly pregnant, was waiting to see me. I was kind of surprised. That was when I started doing deliveries. I did not have much experience as a resident doing deliveries, although as part of medical school training, I did rotations in OB-GYN.

I was trained at a private hospital in New York City that had no OB-GYN residency program. As a surgical resident at Knickerbocker Hospital, I helped with C-sections and hysterectomies, and that is how I learned to do these operations. I also learned from another physician, Carl Kobler, MD. The adage of “see one, do one, teach one” applied to me, for sure.

A woman came to my office with labor pains. She was full-term and was having contractions. Her cervix was approximately 9 cm dilated. I could feel the head of the fetus. I told her, “You better go to the hospital now. I’ll follow you, and I will deliver the baby at the hospital.” The woman said, “Doc, my friend who dropped me here went shopping. I have to wait for her to come and take me to the hospital.” I told her, “There is no time to wait. You’d better go to the hospital now.” She said, “Doc, I’m sorry, I have no transportation.” So, I took the patient in my car to the hospital, where I delivered the baby. I do not think you will see many physicians in non-rural areas taking the patient to the hospital as well as delivering the baby.

I once delivered two babies minutes apart. Two mothers came to the hospital in labor, almost at the same time. They were placed in separate rooms. I examined both of them, and the cervix of each patient was fully dilated. I went to one room,
I recall these experiences fondly today. They have stuck with me over the years, and that’s why it is disheartening to see so few young surgeons pursuing careers in rural surgery.

I delivered the baby, tied and cut the umbilical cord, and handed the baby to the nurse. Another nurse came and said, “Oh, Doc, the other patient is having more pain.” I had no time to change my gown. I just changed my gloves, ran to the other room, delivered the baby, tied and cut the umbilical cord, and gave the baby to the nurse. Then I went back to the first room, changed gloves, and delivered the placenta. I went back to the second room, changed gloves, and delivered the placenta. Both newborns did well.

I slept many nights in the physician’s lounge, waiting to deliver babies. As you know, when the cervix is 6–8 cm dilated, the baby is nearing birth, so I did not want to go home and come back right away. So I just slept in the doctor’s lounge, and when the nurse called from the delivery room, I would go and deliver the baby. In all, I delivered 523 babies. There was one breach presentation. I also delivered one set of twins. I applied forceps on three occasions to deliver the babies; two babies were, unfortunately, stillborn.

ACS supports rural surgery
I recall these experiences fondly today. They have stuck with me over the years, and that’s why it is disheartening to see so few young surgeons pursuing careers in rural surgery. The American College of Surgeons (ACS) has sought to address the unique needs of rural surgeons by establishing the ACS Advisory Council for Rural Surgery and the Rural Surgery track at the annual Clinical Congress. In addition, ACS Fellows were involved in the launch of the Society for Young Rural Surgeons (SYRUS). The mission of the society is to increase the awareness of medical trainees and practitioners of the surgical workforce needs of rural areas (at home and abroad) and to provide training and career support for these surgeons. According to SYRUS, 10 universities in states that have many rural communities have rural surgery residency programs. These programs provide trainees with skills and the knowledge needed to practice in the rural areas. Residents attain broad-based general surgery training, but also rotate through high-demand surgical specialties, including otolaryngology, urology, orthopaedics, and OB-GYN.

Rural surgical practices offer many advantages, including greater autonomy and opportunities to offer personalized services to the people who are your neighbors. Of course, it has disadvantages as well, including isolation, both professional and personal; difficulty getting coverage; and greater burden of on-call duty.

If you want to practice surgery in a rural area, you have to be prepared to do a wide range of procedures, and it is better to be familiar with as many as possible. The motivation should be to make the patient better. Do your best without thinking too much about reimbursement.

It also helps to have personal and professional support. I want to thank the nursing staff at Graham County Hospital, Hill City, for their help over the years. I also want to thank Dr. Stump for assisting in major cases and Dr. B. N. Reddy for assisting in C-sections and other cases. Last but not least, I want to thank my wife, Nalini, for her support. You cannot practice successfully without support from your loved ones. ♦
A new approach for advanced gastric cancer: Using PET scans as a biomarker of preoperative chemotherapy efficacy

by Manish A. Shah, MD; Vivian E. Strong, MD, FACS; and Judy C. Boughey, MD, FACS

Despite recent advances in the management of gastric cancer, most patients diagnosed with this disease will live less than one year once the disease has metastasized. Few countries have screening programs for gastric cancer in place, and most patients with gastric cancer will be diagnosed with locally advanced or metastatic disease—generally micrometastatic disease that results in recurrence, usually within two years following resection of the primary cancer.

In the U.S., the fatality-to-case ratio for gastroesophageal cancers is 0.66, suggesting that approximately two-thirds of newly diagnosed patients will have metastatic disease at some point in the course of their illness and will require systemic therapy. Many drugs are considered active in these diseases, including platinums (cisplatin and oxaliplatin), fluoropyrimidines, irinotecan, taxanes, and targeted therapies (for example, trastuzumab and ramucirumab). Despite the many treatment options available, median survival for advanced gastric cancer remains dismal at eight to 10 months. Hence, the question remains, how can we use new technology and the drugs available to improve patient outcomes?

Perioperative chemotherapy

Oncologists suggest that therapies that effectively treat micrometastatic disease will have the greatest potential impact on patient outcomes. In Europe and the U.S., a common approach is to administer perioperative chemotherapy for resectable gastroesophageal cancer, a strategy based on the MAGIC (Medical Research Council Adjuvant Gastric Infusional Chemotherapy) Trial. The MAGIC study was the first trial to show an improvement in survival with use of perioperative chemotherapy in patients with gastric, gastroesophageal junction (GEJ), and lower esophageal cancers. In this trial, the chemotherapy arm showed a statistically significant improvement in overall survival (OS) (five-year OS rates 36 percent versus 23 percent; hazard ratio (HR) 0.75, 95 percent confidence interval (CI) [0.60-0.93]; p=0.009) compared with surgery alone.

A similar degree of benefit was noted in the second landmark trial of perioperative chemotherapy, the French Fédération Nationale des Centres de Lutte contre le Cancer (FNCLCC)/Fédération Francophone de Cancérologie Digestive (FFCD) 9703 study. Treatment with perioperative chemotherapy resulted in significantly improved OS (five-year OS rate 38 percent versus 24 percent; HR 0.69, 95 percent CI [0.50-0.95]; p=0.02). Similar to the MAGIC Trial, the subgroup of GEJ tumors derived the highest benefit from perioperative chemotherapy (HR 0.57, 95 percent CI [0.39-0.83]).

Human Epidermal Growth Factor Receptor (HER) 2-directed therapy improved survival in patients with metastatic HER2-positive gastric and GEJ adenocarcinoma, and represents a promising predictive marker for HER2-positive, early-stage disease. However, the addition of
HER2-targeted therapy to chemotherapy in the neoadjuvant or adjuvant setting remains unproven and is being examined in Europe (NCT02581462, NCT02205047).

**PET scans as a biomarker for treatment planning**
Serial fluorodeoxyglucose (FDG)-positron emission tomography (PET)/computed tomography scanning can identify response to preoperative chemotherapy by evaluating the change in the standardized uptake value (SUV) of the administered FDG as compared with the baseline. This response may be identified early in the preoperative treatment plan, before completion of the first cycle. FDG-PET non-responders, which comprise approximately 50 percent of patients who initiate preoperative therapy, have significantly worse outcomes.

However, what are the options when we identify early in treatment that a patient has a poor response to chemotherapy and is destined for a worse outcome? Would early assessment of response afford the opportunity to modify therapy in those patients who are not responding and potentially improve patient outcomes? This strategy is being tested in a prospective clinical trial: Alliance A021302: Impact of Early FDG-PET Directed Intervention on Preoperative Therapy for Locally Advanced Gastric Cancer: A Randomized Phase 2 Study (NCT02485834). In this study, patients with FDG-avid locally advanced gastric cancer receive standard preoperative chemotherapy in cycle 1. A PET scan is performed on-study at the end of cycle 1 (paid for by the study), followed by a central review to determine if the patient is classified as a PET responder or PET non-responder. A PET responder is defined as having at least a 35 percent reduction in SUV compared with the baseline PET scan. PET non-responders—patients with tumors that had less than 35 percent reduction in SUV (about 50 percent of all patients)—will then go on to enroll in the study (see Figure 1, this page) if they remain surgical candidates (that is, no distant disease identified on PET). Patients are randomized to

**FIGURE 1.**
**A021302: IMPACT OF EARLY FDG-PET DIRECTED INTERVENTION IN LOCALLY ADVANCED GASTRIC CANCER**

FDG non-responders are registered and randomized to salvage therapy vs. surgery
This is an important national study that seeks to answer these questions: Does it matter if we identify poorly responding patients early in the treatment plan? And can altering therapy affect their outcomes?

For additional information, contact Manish A. Shah, MD (mas9313@med.cornell.edu), or Vivian E. Strong, MD, FACS (strongv@mskcc.org).

REFERENCES

Joint Commission now offering Comprehensive Cardiac Center Certification

by Carlos A. Pellegrini, MD, FACS, FRCSI(Hon), FRCS(Hon), FRCSEd(Hon)

The Joint Commission started accepting applications for a new, advanced Comprehensive Cardiac Center Certification on January 1. This voluntary program is for Joint Commission-accredited hospitals seeking an independent evaluation and recognition of their comprehensive cardiac center services.

This certification is for hospitals that offer the highest quality, most complete range of services for cardiac patients. It is designed for hospitals with robust cardiac care facilities, with the aim of helping institutions to establish the structures, processes, and culture necessary to achieve sustained levels of effective clinical performance and patient outcomes across cardiac specialties and the continuum of care.

This program will help health care centers deliver comprehensive cardiac care through compliance with consensus-based standards, effective integration of evidence-based clinical practice guidelines, an organized approach to performance measurement and improvement, and achievement and/or maintenance of required advanced disease-specific care certification requirements.

**Scope of care requirements**
At minimum, the institution’s scope of care, treatment, and services need to include management of the following domains (see Figure 1, page 50):

- Ischemic heart disease, through medical and interventional/ surgical care, including acute coronary syndrome treatments, percutaneous coronary interventions, and coronary bypass graft surgery
- Cardiac valve disease, including valve replacement/repair procedures
- Arrhythmias, including electrophysiology services and outpatient device clinics (formerly called pacemaker clinics but broadened to include automated internal cardiac defibrillators)
- Advanced heart failure, including outpatient services
- Cardiac arrest, including prevention of inhospital arrests

Comprehensive Cardiac Center Certification is designed for hospitals with robust cardiac care facilities, with the aim of helping institutions to establish the structures, processes, and culture necessary to achieve sustained levels of effective clinical performance and patient outcomes across cardiac specialties and the continuum of care.
resuscitation, and targeted temperature management for cardiac arrest

- Cardiac rehabilitation of patients, as indicated, either on site or by referral
- Cardiovascular risk factor identification and cardiac disease prevention

**Surgeon involvement**
Cardiothoracic surgeons are identified in the Comprehensive Cardiac Center Certification standards as key members of both the executive leadership and interdisciplinary teams. Cardiothoracic surgeons will want to be included in the certification process and involved in the discussions and decisions regarding the adoption of clinical practice guidelines and performance improvement measures that relate to the surgical procedures in their areas.

Surgeons should also be aware that the review process will be looking for the following criteria:

- Consistency of patient care based on guidelines that include surgical practice.
- Standardized order sets related to surgical procedures.
- No pattern of outliers in surgical practice among different surgeons. (Note: Variations from standard practice based on patient-specific clinical issues are expected; however, the reasons for variation from the standard of care need to be documented.)

The Joint Commission’s Comprehensive Cardiac Center Certification program was developed with input from a technical advisory panel comprised of clinicians with specific expertise in comprehensive cardiovascular care.

Additional information about the Comprehensive Cardiac Center Certification program is available via the following resources:

- The Comprehensive Cardiac Center Certification website at www.jointcommission.org/certification/comprehensive_cardiac_center_certification.aspx
- Via e-mail at CCCCertification@jointcommission.org

Prepublication requirements are posted online at www.jointcommission.org/standards_information/prepublication_standards.aspx.

**Disclaimer**
The thoughts and opinions expressed in this column are solely those of Dr. Pellegrini and do not necessarily reflect those of The Joint Commission or the American College of Surgeons.
The 2016 Pediatric Report of the National Trauma Data Bank® (NTDB®) is an updated analysis of the largest aggregation of U.S. trauma registry data ever assembled. In total, the NTDB now contains more than 7.5 million records. The 2016 Pediatric Report is based on 141,051 records, submitted by 744 facilities, for admission year 2015. There are 36 Level I or Level II pediatric-only centers—30 are standalone Level I pediatric centers, and six are standalone Level II pediatric centers. The NTDB classifies pediatric patients in this report as patients who are younger than 20 years old.

Use of ICD-10 in report development
The World Health Organization’s International Classification of Diseases (ICD), is the world-standard diagnostic tool for health management, epidemiology, and clinical purposes. ICD is used to monitor incidence and prevalence of diseases and other health care problems.* In 2009, the U.S. Department of Health and Human Services published a regulation requiring U.S. providers to transition from the ninth edition of the classification system (ICD-9) to ICD-10, which is what the rest of the world was using.

ICD-10 has several advantages over its predecessor. Some trauma-related highlights include expanded injury codes, a combination of diagnosis/symptom codes to reduce the number of codes necessary to describe a condition, and two additional characters added along with subclassifications to allow laterality and greater specificity in code assignment. This transition required a significant change in institutional infrastructure throughout the U.S. Consequently, the final date of implementation was delayed until October 1, 2016. As a transitional year, this annual report allows the inclusion of both ICD-9 and ICD-10 codes (see Table 1, page 52).

The mission of the American College of Surgeons (ACS) Committee on Trauma (COT) is to develop and implement meaningful programs for trauma care. In keeping with this mission, the NTDB is committed to being the principal national repository for trauma center registry data. The purpose of

ICD-10 has several advantages over its predecessor. Some trauma-related highlights include expanded injury codes, a combination of diagnosis/symptom codes to reduce the number of codes necessary to describe a condition, and two additional characters added along with subclassifications to allow laterality and greater specificity in code assignment.
The purpose of this report is to inform the medical community, the public, and health policy decision makers about a variety of issues that characterize the current state of care for injured pediatric patients in our country. It has implications for many areas, including epidemiology, injury control, research, education, acute care, and resource allocation.

Many members of the ACS COT, including the Pediatric Surgery Subspecialty group, along with dedicated individuals caring for pediatric patients at trauma centers around the country, contributed to the early development of the NTDB and have helped to advance its growth in recent years. Building on these achievements, the goals in the coming years include improving data quality, updating analytic methods, and enabling more useful inter-hospital comparisons. These efforts will be reflected in future NTDB reports to participating hospitals, as well as in annual pediatric reports.

Throughout the year, we will be highlighting these data through brief monthly reports published in the Bulletin. The NTDB 2016 Pediatric Report is available on the ACS website as a PDF file at facs.org/quality-programs/trauma/ntdb. In addition, information is available on our website about how to obtain NTDB data for more detailed study. To submit your trauma center’s data, contact Melanie L. Neal, Manager, NTDB, at mneal@facs.org.

### TABLE 1.
#### DIFFERENCES BETWEEN ICD-9-CM AND ICD-10-CM CODE SETS

<table>
<thead>
<tr>
<th></th>
<th>ICD-9-CM</th>
<th>ICD-10-CM</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 to 5 characters in length</td>
<td>3 to 7 characters in length</td>
<td></td>
</tr>
<tr>
<td>Approximately 13,000 codes</td>
<td>Approximately 68,000 current codes</td>
<td></td>
</tr>
<tr>
<td>First character may be alpha (E or V) or numeric; characters 2–5 are numeric</td>
<td>Character 1 is alpha; characters 2 and 3 are numeric; characters 4–7 are alpha or numeric</td>
<td></td>
</tr>
<tr>
<td>Limited space for new codes</td>
<td>New codes can be added</td>
<td></td>
</tr>
<tr>
<td>Limited code detail</td>
<td>Specific code detail</td>
<td></td>
</tr>
<tr>
<td>No laterality</td>
<td>Includes laterality</td>
<td></td>
</tr>
</tbody>
</table>
Letters to the Editor

Editor’s note: The following comments were received regarding recent articles published in the Bulletin.

Letters should be sent with the writer’s name, address, e-mail address, and daytime telephone number via e-mail to dschneidman@facs.org, or via mail to Diane Schneidman, Editor-in-Chief, Bulletin, American College of Surgeons, 633 N. Saint Clair St., Chicago, IL 60611.

Letters may be edited for length or clarity. Permission to publish letters is assumed unless the author indicates otherwise.

Bulletin transition to online publication
I guess it is a sign of the times that the Bulletin of the American College of Surgeons is transitioning to an exclusively electronic publication in 2017. According to recent e-mail from ACS headquarters in Chicago, IL, it is an “exciting” development and will save the College thousands of dollars. However, it is quite likely that senior Fellows will stop bothering to read much of what the College sends their way.

Those of us who are not constantly glued to small glowing screens will not spend much time perusing the publication. At least I won’t. With a magazine in hand, one can flip the pages, move along, go back if desired, and put the issue down for another time. Yes, that can be done online, but it is more laborious and then there are so many other distractions at hand. One can waste a whole lot of time following various links, forgetting what might have been of interest a few minutes earlier. Will we print out hard copies of Bulletin articles? Not very likely.

Of course, this decision is part of a trend, and the College has held out longer than many other organizations and publications. I fear that the College is, in effect, abandoning a generation of surgeons, but then, those surgeons do not represent the future.

Edward Z. Walworth, MD, FACS
Lewiston, ME

Statement on OR attire
I was surprised by the content of the American College of Surgeons “Statement on operating room attire,” published in the October 2016 Bulletin. Although few surgeons would have argument with the general principles espoused in the guideline, I think we do a great disservice to our female colleagues (growing in number and many of whom appear regularly as authors in the Bulletin) to characterize the skull cap as symbolic of the profession.

In my local hospital, I see disposable skull caps most often worn by wanna-be surgeons—some of them perhaps aspiring residents, but many not physicians at all.

Personally, as a cardiac surgeon I have always worn a disposable nurses’ or bouffant cap to maximize coverage, hoping to minimize the impact of my personal grooming, whether or not there exists evidence that leaving hair or ears uncovered contributes to wound infection.

Let’s move into the 21st century—fewer symbols and more common sense.

Peter West, MD, FACS
Santa Barbara, CA
The 2016 Trauma Quality Improvement Program (TQIP) Annual Scientific Meeting and Training, November 5–7 at the Omni Orlando Resort at ChampionsGate, FL, drew nearly 1,600 attendees—the highest number to date—including trauma medical directors, program managers, coordinators, and registrars.

“There are so many people here today—all of whom are committed to the care of the patient,” said Avery Nathens, MD, PhD, FACS, FRCSC, in his opening remarks at the seventh annual meeting. Dr. Nathens is surgeon-in-chief, department of surgery, and medical director, trauma, Sunnybrook Health Sciences Centre, Toronto, ON, and Medical Director of the American College of Surgeons (ACS) Trauma Quality Programs. “We aspire to zero preventable deaths,” he said. “I think, with the degree of commitment in this room, that is possible,” referring to the seminal report released by the National Academies of Sciences, Engineering, and Medicine (NASEM) Committee on Military Trauma Care’s Learning Health System and Its Translation to the Civilian Sector’s A National Trauma Care System: Integrating Military and Civilian Trauma Systems to Achieve Zero Preventable Deaths after Injury, cosponsored by the ACS. The report calls for eliminating all preventable deaths in both military and civilian trauma patients.

Topics covered at the 2016 TQIP meeting include best practice guidelines for palliative care, an overview of the ACS TQIP Collaboratives program, lessons learned from the Pulse nightclub mass casualty event, and a presentation from trauma survivor-turned-Ironman triathlete Brian Boyle.

**TQIP update**

Dr. Nathens provided an update on key TQIP initiatives including a new program, Level III TQIP, which launched in July 2016 and extends the program to more levels of care. The program includes access to risk-adjusted benchmarking, opportunities to share best practices, and online education customized to Level III centers.

Dr. Nathens also highlighted the ACS Registries Project, which will migrate all ACS clinical registries into a single platform. “We worked to find a partner to meet the needs of all of the ACS Quality Programs,” he said. “You will see a lot of integration of data across all programs. [However,] I want to make an important clarification—local registries will remain the same. What you will see differently are business intelligence tools that will help you better understand the data. And from a reimbursement standpoint, you will be able to export data to the Surgeon Specific Registry.”

Dr. Nathens also spoke about the TQIP Collaboratives, through which hospitals in either a specified geographic area or a hospital system work together with a shared goal of trauma system quality improvement. At present, Florida, Georgia, Michigan, Pennsylvania, and Texas have TQIP Collaboratives, and North Carolina, parts of California, and the Committee on Trauma (COT) Region III are in the process of forming TQIP Collaboratives.

Another TQIP initiative of note centers on best practice guidelines for managing different patient populations and processes. Past TQIP Best Practice guidelines have included standards for the management of geriatric trauma patients, massive transfusion, traumatic brain injury, and orthopaedic trauma. A new best practices guideline for palliative care will be released in 2017. The next TQIP guideline will focus on imaging in pediatric trauma.
COT update
Ronald M. Stewart, MD, FACS, Chair of the COT, noted that the National Academy of Science’s report, Accidental Death and Disability: The Neglected Disease of Modern Society, was released 50 years prior to the TQIP meeting and was the precursor to the NASEM’s 2016 report on achieving zero preventable trauma deaths, as described by Dr. Nathens.

“You know that trauma is the leading cause of death for people under the age of 44,” said Dr. Stewart, professor and chair of the department of surgery, University of Texas Health Science Center, San Antonio. “Trauma accounts for 41 million emergency room visits and 2 million hospital admissions. More than 130,000 Americans die every year as a result of trauma,” he said. “But look at our children—trauma accounts for more deaths in children than all other causes combined.

“When you leave this meeting, we want you to realize that trauma is one of the most critical health problems across the globe...now is the time [for action],” Dr. Stewart said.

A key initiative for the ACS COT in 2016 centers on firearm injury prevention, Dr. Stewart noted. According to a survey of COT members conducted last year, 53 percent of respondents described personal ownership of firearms as “beneficial or generally beneficial.” A total of 88 percent of respondents indicated that the College should give firearm injury prevention top priority. “The COT can serve as a forum for civil, collegial, and professional dialogue on this issue,” he said. “We must identify where we don’t agree and foster a dialogue with the goal of developing creative solutions and consensus,” he added.

Dr. Stewart pointed to the development of the Stop the Bleed program as an initiative that received a “highly enthusiastic response at Clinical Congress [2016].” The goal of the Stop the Bleed campaign was to work with partners from both inside and outside health care to teach all Americans the ABCs of basic hemorrhage control: Alert 911, find the Bleeding injury; and use Compression to stop the bleed.

Dr. Stewart updated attendees on other key COT projects, including the following: The development of Advanced Trauma Life Support® 10th Edition; the Future Trauma Leaders Program; the new Needs Based Assessment of Trauma Systems tool, which helps trauma system leadership answer complex questions surrounding trauma center designation; and the COT’s commitment to implementing the recommendations in the NASEM report on zero preventable deaths from trauma.

Keynote as conversation
The meeting’s keynote address was an unscripted conversation between former Medical Director, ACS Trauma Programs, and former Chair of the COT, J. Wayne Meredith, MD, FACS, and Michael C. Chang, MD, FACS, professor of surgery, Wake Forest Baptist Medical Center, and Chair of the TQIP Committee for the ACS COT. The dialogue focused on the history of early data registries, the Major Trauma Outcome Study (MTOS), the formation of the National Trauma Data Bank (NTDB), and where we are headed in the future.

“The piece you all bring to the table every day is a commitment to the level of data quality and a commitment to getting it right,” said Dr. Meredith, the Richard T. Myers Professor and Chair, department of surgery, Wake Forest School of Medicine; surgeon-in-chief,
Dr. Meredith noted that the first computerized trauma database was established in 1969 at Cook County Hospital, Chicago, IL. It became the model for the Illinois Trauma Registry, collecting data from trauma centers across the state in the early 1970s. In the early 1980s, the ACS COT commissioned the MTOS, which collected data retrospectively from several countries, including the U.S. Survival probability norms were developed via the Revised Trauma Score, the Injury Severity Score, and other criteria.

MTOS ended in 1989, and the COT went on to develop enhanced trauma registry software with the aim of producing what is now known as the National Trauma Data Bank® (NTDB®). “When I first got to the College, the NTDB was [basically] a drawer full of floppy discs,” Dr. Meredith said. He noted that the success of the NTDB and other College-supported trauma projects is the result of leadership from key COT Chairs, including Donald Trunkey, MD, FACS; A. Brent Eastman, MD, FACS; David B. Hoyt, MD, FACS; and John Fildes, MD, FACS.

Dr. Meredith and Dr. Chang concluded the session with a look at where TQIP is headed. Dr. Meredith said population health management (PHM) as an approach to improving patient outcomes and cutting costs would be key to programs such as TQIP. PHM can be used to identify patients in need, as well as better, more cost-effective allocation of resources.

The trauma community needs to look at outcomes other than mortality data, Dr. Meredith added. “We need pragmatic clinical trials. And we need to figure out how to download information from electronic health records [EHR] into the registries,” he said.

**Guiding principles of quality improvement**

**Dr. Hoyt**, ACS Executive Director, provided an update on the College quality programs.

“How do you achieve quality? What we are really trying to do is be consistent with our care, and to do that, you need a commitment to the four guiding principles of continuous quality improvement.” These principles include standards supported by research; infrastructure (staffing, equipment, checklists); rigorous data (including post-discharge tracking); and verification.

New and notable ACS quality improvement projects include the Strong for Surgery program; the Coalition for Quality in Geriatric Surgery project; the Comprehensive Unit-Based Safety Program for Enhanced Recovery after Surgery; and the soon-to-be-released Resources for Optimal Quality Surgical Care, which covers the five phases of surgery: pre-op, intermediate pre-op, intraoperative, post-op, and post-discharge. “This manual establishes the standards for all of the [College] quality programs,” Dr. Hoyt said.

“We are in uncertain times. We know it. We feel it,” Dr. Hoyt said. “But we are also an enabler of quality care, and we are an irreplaceable catalyst for clinical, educational, and research activities.”
Palliative care: Best practice guidelines
Presenting an overview of palliative care best practice guidelines, Anne C. Mosenthal, MD, FACS, the Benjamin F. Rush Jr. Professor and Chair, department of surgery, The Rutgers New Jersey Medical School, Newark, NJ, and Chair, ACS Committee on Surgical Palliative Care, reminded attendees that “it’s not just about preventing mortality.” Dr. Mosenthal said the guidelines are based on national palliative care quality programs developed by the American Academy of Hospice and Palliative Medicine, the Hospice and Palliative Nursing Association, the National Quality Forum, and others. “The key principle that governs all of these guidelines is that palliative care is delivered in parallel with life-sustaining trauma care throughout the continuum from injury to recovery,” Dr. Mosenthal said. “Best practice requires trauma physicians and nurses to have basic competencies in primary palliative care, pain and symptom management, and end-of-life care.”

A key component of the best practice guidelines is early identification of patients who would benefit from early goals-of-care conversations. This screening is based on the patient’s mortality risk; degree of disabling trauma injury; previous functional status (including one or more serious illnesses, frailty, and age); and an answer to the “surprise question,” which is, “Would you, the physician, be surprised if the patient died within 12 months or before adulthood?”

All elements of the screening tool are organized into three categories: negative screen (non-life threatening trauma, no disabling trauma injuries, no serious or chronic illness); Category 1 positive screen (potential life expectancy under a year or severe functional decline); and Category 2 positive screen (imminently dying or expected outcome is unacceptable to patient). Each category includes corresponding palliative care measures, such as goals of care conversation, comfort measures, Do Not Resuscitate orders, and so on, depending on the level of the injury.

David H. Livingston, MD, FACS, the Wesley J. Howe Professor and chief, trauma, surgical critical care, and acute care surgery, The Rutgers New Jersey Medical School, Newark, said successful guideline application requires buy-in from both the institution and the trauma service. Institutional support should include “training to empower health care providers to be comfortable and competent in providing basic palliative care.” As for the role of the trauma service in guideline implementation, Dr. Livingston said patients should have a palliative care assessment within 24 hours of admission using a tool defined by the institution. He also suggested tagging patients in EHRs to define them as palliative care recipients in order to foster communication across the continuum of care.

Response to the Orlando mass shooting
A panel of staff from the Orlando Regional Medical Center (ORMC) discussed lessons learned from the Pulse nightclub mass shooting June 12, 2016, in the same city that a few months later would host the 2016 TQIP meeting. “This was the deadliest mass shooting in U.S. history to date,” said Joseph A. Ibrahim, MD, FACS, medical director for ORMC, a Level I trauma center. “Many of you in this room reached out to us, and we’ll never forget that.”

Dr. Ibrahim said a successful disaster preparedness plan transforms a mass casualty
event—where the number of patients exceeds available medical resources—to a multiple casualty event where patients are successfully managed by mobilizing additional resources. Aided by staff from Arnold Palmer Hospital—the regional pediatric hospital and part of the Level I trauma center—and the Winnie Palmer Hospital for Women and Babies, physicians performed 29 operations and transfused 441 units of blood within the first 24 hours.

“Every hospital must prepare and drill in order to handle the worst that humanity or the environment can produce,” he said. For the last 20 years, ORMC has enhanced its disaster intake plan through rigorous training drills, which are held monthly with emergency medical services personnel, and through process improvements brought about by ORMC’s response to three major hurricanes.

Susan K. Ono, BSN, RN, said ORMC’s close proximity to the Pulse nightclub provided another lesson learned for future mass casualty events. “The nightclub was so close that a lot of patients were able to receive hemorrhage control quickly, allowing for earlier cessation of bleeding and rapid resuscitation.” Ms. Ono noted that bystanders on the scene could have assisted in these efforts had they been trained, underscoring the importance of the Stop the Bleed campaign described earlier.

“We also learned that having a collaborative team is vital to success in stressful situations,” Ms. Ono said, noting that all but one of the trauma surgeons have worked together for the last 10 to 20 years. A total of 471 team members contributed to ORMC’s response, and many staff members performed roles outside of their usual job descriptions, including assisting family members, offloading patients, and helping with environmental services-related tasks. Ms. Ono emphasized the importance of role delineation in managing an effort of this size, as well as the implementation of a tiered staffing model that pairs outside health care providers with on-staff team members.

“Don’t underestimate your residents,” she added. “Our surgical, orthopaedic, and emergency medicine residents immediately responded and worked tirelessly for the next 36 hours to care for the victims. We would not have been able to respond as we did without them.”

Other ORMC panelists discussed the timeline of events leading up to ORMC’s response, revealed how the facility met Health Insurance Portability and Accountability Act privacy and disclosure challenges while keeping families informed on the status of their loved ones, and highlighted the importance of community support.

**TQIP Collaboratives**

“A collaborative is defined as a group of TQIP hospitals working together with the shared goal of system quality improvement,” said Holly Michaels, MPH, Program Manager, ACS Trauma Quality Programs. At present, trauma centers in Florida, Georgia, Michigan, Pennsylvania, and Texas have formed TQIP Collaboratives, and several other entities have expressed interest in the program, including Hospital Corporation of America, COT Region III, and California. To be eligible for the TQIP Collaboratives program, participants must comprise at least three adult Level I or Level II hospitals.
with the shared goal of system performance improvement.

Primary benefits of the program, according to Ms. Michaels, include semiannual reports that aggregate data from participating hospitals, allowing participants to compare collective collaborative performance with all other TQIP participants. The Collaborative Benchmark Reports provide an opportunity for participants to identify system-wide areas for improvement that may not be easily determined from the perspective of an individual institution. Analytic tools, such as the TQIP Collaborative Driller, are another key benefit of the program. The driller allows collaborative leadership to compare demographic data, injury characteristics, and processes of care.

“We interviewed some of the collaboratives leadership to discover lessons learned,” said Ms. Michaels. “Strong leadership is important to starting a collaborative and gaining momentum.” The interviews also revealed that “increased communication between centers and the sharing of best practices was a fundamental goal of all collaboratives.”

Ms. Michaels also presented the program’s recently retooled tiered fee structure, which makes the TQIP Collaboratives program more accessible to trauma systems of all sizes and configurations, especially smaller trauma systems.

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**Trauma survivor: Brian Boyle**

The final session of the 2016 TQIP meeting featured the perspective of trauma survivor-turned-Ironman competitor, Brian Boyle. In July 2004, on the drive home from swim practice, 18-year-old Mr. Boyle was involved in a near-fatal collision with a speeding dump truck. He lost 60 percent of his blood, his heart was displaced and moved across his chest, and his organs and pelvis were pulverized. He was resuscitated eight times on the operating table before being placed in a medically induced coma. A few months later, Mr. Boyle started blinking his eyelids and eventually emerged from his comatose state. Three years later, he staged a remarkable achievement when he crossed the finish line at the Hawaii Ironman.

“When I was in the coma, I was still very aware,” said Mr. Boyle, who was unable to move or talk but was able to hear, see, and feel pain while he was on life support in the intensive care unit. “Sometimes, I would only have a view of the ceiling, but I could tell whenever someone came in to my
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Nationally recognized cancer surgeon Michael J. Zinner, MD, FACS, Coral Gables, FL, is the 2016–2017 Chair of the Board of Regents (B/R) of the American College of Surgeons (ACS). He was elected at the Annual Business Meeting of Members in October 2016.

A Miami native, Dr. Zinner is a general surgeon with expertise in pancreatic-hepatobiliary diseases. Since 2016, he has been the founding chief executive officer and executive medical director of the Miami Cancer Institute at Baptist Health South Florida. Prior to that time, he served as surgeon-in-chief and Moseley Professor of Surgery, Brigham and Women’s Hospital and Harvard Medical School, and clinical director and chief of surgical services, Dana-Farber/Brigham and Women’s Cancer Center, Boston, MA.

As Chair of the B/R, Dr. Zinner works closely with ACS Executive Director David B. Hoyt, MD, FACS, and chairs the Regents’ Finance and Executive Committees. The College’s 24-member B/R formulates policy and is ultimately responsible for managing the affairs of the College. The Board’s diversity and variety of experiences and interests among its members enable the Regents to represent views related to myriad issues in contemporary surgery.

Previous organization leadership roles
A Fellow of the ACS since 1983, Dr. Zinner has previously served as Vice-Chair of the B/R (2010–2015) and Chair of the ACS Board of Governors (2008–2010).


The author of more than 230 academic articles, Dr. Zinner brings his expertise to the editorial boards of several surgery journals, including the Journal of the American College of Surgeons, Annals of Surgery, and the Journal of Gastrointestinal Surgery.

Throughout his distinguished career, Dr. Zinner has served as the principal investigator for numerous National Institutes of Health-funded grants, many of which focus on researching various aspects of gastrointestinal disease or investigating ways to improve care of critically ill patients in the surgical intensive care unit.

He has received numerous awards and accolades for his devotion to teaching and mentoring students, surgical residents, and research colleagues, and has been recognized by Harvard Medical School and the Association of Women Surgeons for his advocacy role in the advancement of women in medicine.

Dr. Zinner holds a bachelor’s degree in electrical engineering from the Johns Hopkins University, Baltimore, MD, and earned his medical doctorate from the University of Florida School of Medicine, Gainesville. He performed his surgical residency training at the Johns Hopkins Medical Institutes. Midway through his residency training, he traveled to Bristol, U.K., serving as registrar for one year in thoracic surgery at the Frenchay Hospital. He is a retired U.S. Army Major who performed three years of military service (1973–1976) at the Walter Reed Army Medical Center, division of surgery, Medical Corps, Washington, DC.
Leigh A. Neumayer, MD, FACS, is the 2016–2017 Vice-Chair of the Board of Regents (B/R) of the American College of Surgeons (ACS). Dr. Neumayer, a Tucson, AZ, general surgeon, assumed her new leadership role at the ACS Clinical Congress in Washington, DC, in October 2016.

Dr. Neumayer is professor and chair, department of surgery, University of Arizona College of Medicine–Tucson, and the Margaret and Fenton Maynard Endowed Chair in Breast Cancer Research. Her most recent work is focused on the diagnosis and treatment of breast cancer through innovative technology and clinical trials. She has led investigations in hernia repair techniques, breast cancer treatment, surgical quality and outcomes, and surgical education techniques. Dr. Neumayer has mentored numerous faculty, residents, and students in these and other pursuits.

As Vice-Chair of the B/R, Dr. Neumayer works with B/R Chair Michael J. Zinner, MD, FACS, and other Regents and Officers to provide leadership to the Board and ensure all Regents contribute to the overall governance of the College. She helps the Chair ensure the B/R receives proper information, plan board meetings, direct strategic planning every two to three years, and drive discussions toward consensus.

A legacy of leadership
A Fellow of the ACS since 1994, Dr. Neumayer has served in many roles within the organization. She has been a member of the B/R since 2009 and was Chair of the Committee on Medical Student Education (2001–2003), Vice-Chair of the Surgical Research Committee (2015–2016), and a Governor for the Utah Chapter of the ACS (2002–2008). Dr. Neumayer also was Vice-Chair of the Nominating Committee of the Board of Governors (2004–2006) and chaired the Nominating Committee of the B/R (2012–2013).


Dr. Neumayer studied biomedical engineering at Colorado State University, Fort Collins, before earning her medical degree from Baylor College of Medicine, Houston, TX. She trained in general surgery at the University of California, San Francisco, and at the University of Arizona. Dr. Neumayer then studied clinical research design and statistical analysis at the University of Michigan, Ann Arbor.
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At the end of World War II, surgeons who had served during the conflict gathered at the Excelsior Hotel in Rome, Italy, to discuss their experiences. This meeting was the first of what would be called the Excelsior Surgical Society. These meetings continued annually until the death of the last World War II member, Michael E. DeBakey, MD, FACS.

Facilitated by the recently established partnership between the American College of Surgeons (ACS) and the Military Health System, a new generation of surgeons who have been deployed to Iraq and Afghanistan has resurrected the Excelsior Surgical Society. With the adoption of its charter and election of officers, it is now an official society within the ACS. The society offers a “home” for the military surgeon within the ACS, and will serve as both a path to membership in the College as well as a way for military surgeons to transition from military to civilian practice.

Visit the society’s web page at facs.org/member-services/mhspacs/ess-membership for more information and to apply for membership.

Daylong meeting

In conjunction with Clinical Congress 2016, the Excelsior Surgical Society held a daylong meeting, with nearly 200 active and retired military surgeons, residents, and students in attendance. The meeting included discussion of the following topics:

• State of the Service addresses by the three General Surgery Consultants to the Army, Navy, and Air Force Surgeon Generals:
  - COL Mary Edwards, MD, FACS (Army)
  - CAPT Craig Shepps, MD, FACS (Navy)
  - Col Gregory York, MD, FACS (Air Force)

• The John Pryor Annual Lectureship, delivered by retired Army COL Norman M. Rich, MD, FACS, department of surgery, Uniformed Services University of the Health Sciences (USUHS) and the Walter Reed National Military Medical Center (WRNMMC), Bethesda, MD

• The Committee on Trauma Region 13 (Military Region) annual resident paper competition

• Abstracts on various surgical topics submitted by surgeons from multiple military health care facilities across the country

• Panel discussions on training and sustainment for surgeons in the military

Facilitated by the recently established partnership between the ACS and the Military Health System, a new generation of surgeons who have been deployed to Iraq and Afghanistan has resurrected the Excelsior Surgical Society.
Election of Officers
At the business meeting, the following Excelsior Surgical Society Officers were elected:

- President: **CAPT Eric Elster, MD, FACS**, U.S. Navy, professor and chairman, department of surgery at USUHS and WRNMMC
- Vice-President: **Col Stacy Shackelford, MD, FACS**, U.S. Air Force, Deputy Commander for Clinical Services/Chief of the Medical Staff 455th Expeditionary Medical Dental Group, Craig Joint Theater Hospital Bagram Airfield, Afghanistan
- Secretary: **COL Robert B. Lim, MD, FACS**, U.S. Army, Chief, Metabolic and Advanced Laparoscopic Surgery, Tripler Army Medical Center, Honolulu, HI
- Treasurer: **COL Kirby R. Gross, MD, FACS**, U.S. Army, Director, Army Trauma Training Center, University of Miami, FL
- Councilperson at Large, U.S. Army: **COL Matthew Martin, MD, FACS, FASMBS**, Trauma Medical Director, Madigan Army Medical Center, Tacoma, WA
- Councilperson at Large, U.S. Navy: **CPT Gordon Wisbach, MD, FACS**, staff surgeon, department of general surgery, Naval Medical Center San Diego, CA
- Councilperson at Large, U.S. Air Force: **Col Joe DuBose, MD, FACS**, vascular and trauma surgeon, Travis Air Force Base, California
- Councilperson at Large, Reserve/National Guard: **COL Jay A. Johannigman, MD, FACS**, Director of the Division of Trauma and Surgical Critical Care and Professor of Surgery at the University of Cincinnati, OH
- Honorary Member: **Dr. Rich**, Leonard Heaton & David Packard Professor, Founding Chairman, department of surgery, USUHS and WRNMMC ♦
THE AMERICAN COLLEGE OF SURGEONS is a leader in initiatives to improve quality of care for surgical patients in the areas of trauma, cancer, bariatric surgery, breast care, general surgery, and surgeon-specific outcomes.

Visit facs.org/quality-programs to learn more.
The American College of Surgeons (ACS) will host its sixth annual Leadership & Advocacy Summit, May 6–9 at the Renaissance Washington, DC, Downtown Hotel. The summit is a dual meeting that offers comprehensive and specialized sessions that provide volunteer leaders and advocates with the skills and tools they need to be effective in those roles. Registration for the event is now open at facs.org/summit.

Leadership Summit
The Leadership Summit provides a venue for members to connect with ACS leaders, and to participate in discussions about innovative ways to face challenges and enhance leadership skills. It begins Saturday, May 6, with an initial reception open to all registrants, followed by a full day of programming on Sunday, May 7.

More than 400 ACS leaders, members, residents, and medical students participate in the Leadership portion of the summit. Topics will focus on honing the communication and strategic thinking skills necessary for effective leadership in and out of the operating room. Speakers will address topics such as leadership strategies, ethics in leadership, common mistakes in leadership, team building, managing critical situations, and domestic volunteerism. In addition, a portion of the meeting will be dedicated to sharing ACS chapter success stories and working to identify strategies to enhance and strengthen chapters.

Advocacy Summit
The Advocacy Summit provides the best opportunity to attain the skills and knowledge needed to become a seasoned surgeon advocate. With a new presidential administration and Congress, it is vital that surgeons make the trip to Washington to observe and participate in the evolving political environment.

Since last year’s summit, many details about physician payment under the Medicare Access and CHIP (Children’s Health Insurance Program) Reauthorization Act (MACRA) of 2015 have been set. At the Advocacy Summit, surgeons will be briefed on the steps they must now take to start complying with MACRA, and ACS staff will help members navigate the many additional legislative changes that are likely to occur.

The Advocacy Summit will begin Sunday, May 7, with a dinner and keynote address. Past speakers have included political commentator Chris Matthews, U.S. Army Gen. (Retired) Stanley A. McChrystal, author Thomas Goetz, and journalists Bob Woodward and George Will.

Sessions planned for the following day will focus on the political climate in Washington, and speakers will provide updates on important health care issues, including Medicare physician payment, graduate medical education, and ensuring patient access to the highest quality surgical care. Tuesday morning, attendees will apply what they have learned at the summit in face-to-face meetings with their senators and representatives and/or congressional staffs. This portion of the program provides an opportunity to rally surgery’s collective grassroots on issues such as physician payment, professional liability, and physician workforce.
The summit is a dual meeting that offers comprehensive and specialized sessions that provide volunteer leaders and advocates with the skills and tools they need to be effective in those roles.

Fellows attending the Advocacy Summit will have the opportunity to make an early impression on a new Congress. During this three-day conference, participants can expect to receive comprehensive advocacy training and learn how to use these skills throughout the year, not just when in Washington. The Advocacy Summit is the place to confer with other surgeon advocates to share ideas and meet face-to-face with key health care policymakers and legislators. Perhaps more importantly, the Advocacy Summit gives surgeons an opportunity to become the constituent their legislators know and trust to offer advice on surgical issues.

The ACS Professional Association political action committee (ACSPA-SurgeonsPAC) will host various events for members and SurgeonsPAC contributors. These events provide contributors with unique networking opportunities, advanced educational sessions aimed at helping College members become more effective surgeon-advocates, and an insider’s perspective on how to remain engaged in the political process.

In addition to raising funds to elect and/or re-elect congressional candidates who support a pro-surgeon, pro-patient agenda, SurgeonsPAC will host a reception at which PAC contributors will be recognized for their commitment to surgery and the surgical patient. Other SurgeonsPAC-sponsored events include the annual raffle, a political luncheon featuring a special guest speaker, and presentation of the 2016 PAC awards. Resident engagement opportunities will be provided as well. In addition, the SurgeonsPAC booth provides attendees with a venue to interact with ACS Division of Advocacy and Health Policy staff to learn more about the PAC and ACS advocacy efforts.

For more information about the Leadership Summit, e-mail ms@facs.org. For more information about the Advocacy Summit and ACSPA-SurgeonsPAC activities, e-mail surgeonspac@facs.org or call 202-672-1520.

**Elizabeth R. Berger, MD, MS; Chihsiung E. Wang, PhD; Cary S. Kaufman, MD, FACS; and colleagues examined how National Accreditation Program for Breast Centers (NAPBC) accreditation has affected compliance with quality measure since being established by the American College of Surgeons in 2008 as a quality improvement program for patients with breast disease. NAPBC accreditation was associated with higher post-mastectomy radiation therapy (PMRT) rates and better adherence to the PMRT quality measure.**

This article and all other JACS content is available at [www.journalacs.org](http://www.journalacs.org).
Disciplinary actions taken in 2016

The Board of Regents of the American College of Surgeons (ACS) took the following disciplinary actions at its February 5, 2016, meeting in Chicago, IL:

• Ramakrishna Kothalanka, MD, a general surgeon from Florida and Arizona, was expelled from the College. This action was taken following the revocation of his license to practice medicine in Arizona and previous disciplinary actions by the states of Florida and New Jersey in relation to his license to practice medicine.

• Jeffrey Allen Zapora, MD, a general surgeon from Macungie, PA, was expelled from the College. This action was taken following the suspension of his license to practice medicine in Pennsylvania and suspension of his hospital privileges following his arrest on charges of indecent exposure.

The Board of Regents took the following disciplinary actions at its June 3, 2016, meeting in Chicago:

• A general surgeon was censured following a complaint alleging that this Fellow had failed to respond to certain trauma patients in violation of federal regulations and the ACS Bylaws, Article VII, Section 1(f).

• A general surgeon was admonished after being charged with possible violation of the ACS Bylaws, Article VII, Section 1(f). This action was taken after this Fellow was named in a complaint alleging failure to respond appropriately to patients in an emergency room setting.

• A general surgeon was censured after it was determined that expert witness testimony provided by this surgeon in a medical malpractice lawsuit violated the ACS “Statement on the physician acting as an expert witness” and the Bylaws, Article VII, Section 1(i).

The Board of Regents took the following disciplinary actions at its October 14, 2016, meeting in Washington, DC:

• Matthew J. Goldschmidt, MD, FACS, an oral-maxillofacial surgeon from Chagrin Falls, OH, had his Fellowship placed on probation with conditions for reinstatement. This action was taken following disciplinary action by the State Medical Board of Ohio placing his license to practice medicine on probation for three years with terms and conditions. The state took action after he admitted that he had created documents months and years after the actual date of service to make patient charts more complete.

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.
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Nominations for 2017 volunteerism and humanitarian awards due February 28

The American College of Surgeons (ACS), in association with Pfizer, Inc., is accepting nominations for the 2017 Surgical Volunteerism Award(s) and Surgical Humanitarian Award. All nominations must be received by **February 28, 2017**.

**Volunteerism Awards**
The ACS/Pfizer Surgical Volunteerism Award—offered in four potential categories annually—recognizes surgeons who are committed to giving back to society by making significant contributions to surgical care through organized volunteer activities. The awards for domestic, international, and military outreach are intended for ACS Fellows in active surgical practice whose volunteer activities go above and beyond the usual professional commitment or retired Fellows who have been involved in volunteerism in the course of active practice and into retirement. Resident Members and Associate Fellows of the ACS who have been involved in significant surgical volunteer activities during their postgraduate surgical training are eligible for the Resident award. Surgeons of all specialties are eligible for each of these awards.

For the purposes of these awards, “volunteerism” is defined as professional work in which one’s time or talents are donated for charitable clinical, educational, or other worthwhile activities related to surgery. Volunteerism in this case does not refer to uncompensated care provided as a matter of necessity in most clinical practices. Instead, volunteerism should be characterized by prospective, planned surgical care to underserved patients with no anticipation of reimbursement or economic gain.

**Humanitarian Award**
The ACS/Pfizer Surgical Humanitarian Award recognizes an ACS Fellow whose career has been dedicated to ensuring the provision of surgical care to underserved populations without expectation of commensurate reimbursement. This award is intended for surgeons who have dedicated a significant portion of their surgical careers to full-time or near full-time humanitarian efforts rather than routine surgical practice. Examples include a career committed to missionary surgery, the founding and ongoing operations of a charitable organization dedicated to providing surgical care to the underserved, or a retirement characterized by surgical volunteer outreach. Having received compensation for this work does not preclude a nominee from consideration and, in fact, may be expected based on the extent of the professional obligation.

**Nominations**
Nominations will be evaluated by the ACS Board of Governors’ Surgical Volunteerism and Humanitarian Awards Workgroup and their selections will be forwarded to the Board of Governors Executive Committee for final approval.

The following conditions apply to the nominations process:

- Self-nominations are permissible but require at least one outside letter of support
- Re-nomination of previous nominees is acceptable but requires completion of a new application

The ACS recommends that nominators plan a minimum of 30 minutes to complete the application form. For the nominee to have a fair review, detailed information is required, including the following:

- Demographic information about the nominee and nominator.
- Details about the nominator’s relationship to the nominee, along with background information on the nominee’s surgical career.
- Completion of narrative sections requesting detailed information.
about the nominee’s volunteerism or humanitarian work, including the type of service they provide, the sustainability of the programs in which they are involved, any advocacy efforts in which they may have been involved, along with additional roles they have played.

- It helps to tell a story with your nomination. Specific examples and anecdotes are encouraged.

- The information provided will be shared with your nominee during our verification process. It may be worthwhile to obtain input from the nominee in advance.

- The nomination form does not need to be completed in one sitting. You may start an application and then come back to enhance it with additional detailed information you have obtained about the nominee.

The nomination website opened January 3, 2017, for electronic submission and can be accessed through the Operation Giving Back (OGB) section of the ACS website at facs.org/ogb. For more information, contact OGB at ogb@facs.org. •

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**2016 Webcast Package**
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**Pick 25 of 2016**
Select 25 webcast sessions from Clinical Congress 2016.

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*Practicing Surgeons are eligible for CME Credit and Self-Assessment Credit.

For more information
Visit [facs.org/clincon2016/about/resources/webcasts](http://facs.org/clincon2016/about/resources/webcasts) or contact Olivier Petinaux by phone at 866-475-4696 or by e-mail at elearning@facs.org.
Keystone Chapter offers Surgical Jeopardy at annual meeting

Pennsylvania’s Keystone Chapter of the American College of Surgeons (ACS) hosted its Annual Scientific Meeting November 18, 2016, at the Henry Hood Center for Health Research on the campus of Geisinger Medical Center, Danville, PA. Approximately 100 Fellows, residents, medical students, and other health care professionals were in attendance for a full day of educational seminars presented by experts in the surgical field.

A total of 12 residents presented their abstracts at the meeting, and 20 additional residents had their abstract posters reviewed and judged at the event. The first-place oral presentation was presented by Kathryn Jaap, MD, and second place was awarded to Enobong Efiong, MD, both residents at Geisinger Medical Center. The winning poster was submitted by Nina Neuhaus, MD, and the second-place poster was submitted by Michael Eerhart, MD, both residents at Geisinger as well.

The chapter also presented its annual Surgical Jeopardy competition at the annual meeting. Resident teams that competed for the coveted trophy this year were from Geisinger Medical Center; Penn State Medical Center, Hershey; Reading Hospital; and St. Luke’s University Hospital, Bethlehem. Christopher Coppola, MD, FACS, Past-President of the chapter, emceed the event, and Council members David Arbutina, MD, FACS; Joseph Bannon, MD, FACS; and Mary J. Reed, MD, FACS, served as judges. At the end of the lightning round, the team of Melissa Linskey, MD, and Audrey Kulaylat, MD, from Penn State Medical Center were victorious.

The 2017–2019 Keystone Chapter Officers also were elected at the meeting. They are as follows: Joseph Blansfield, MD, FACS, Geisinger Medical Center, President; Christopher Buzas, DO, FACS, Geisinger Medical Center, President-Elect; and Paul Brown, MD, FACS, Cardiothoracic & Vascular Surgeons of Lancaster, Secretary/Treasurer. Two Regional Councilors were elected to a three-year term: Edwin Shearburn III, MD, FACS, Grand View Surgical Associates, Sellersville; and Joseph Bannon, MD, FACS, Geisinger Medical Center.

Planning for the next Annual Scientific Meeting is under way.
and the meeting is scheduled for November 17, 2017, at the Lehigh Valley Hospital, Allentown.

**Hockey Hall of Famer addresses Brooklyn-Long Island Chapter**

Pat LaFontaine, National Hockey League Hall of Famer, and Sara Morse, Manager, Legislative and Political Affairs, ACS Division of Advocacy and Health Policy, spoke at the combined Brooklyn-Long Island Chapter and the Nassau Surgical Society 2016 Annual Clinic Day, December 7, in Uniondale, NY. More than 500 health care professionals attended the meeting, which featured educational programs for 11 specialties. The combined educational program included many renowned speakers in each specialty from across the U.S. The event included a resident Surgical Jeopardy competition and an abstract poster presentation; in all, residents submitted 73 posters for evaluation, with the top poster from each specialty receiving an award.

The joint efforts of the local surgical society and the Brooklyn-Long Island Chapter have greatly expanded and improved the annual meeting over the last 14 years.

**Connecticut Chapter hosts 49th Annual Meeting**

The Connecticut Chapter of the ACS hosted its 49th Annual Meeting October 28 at the Marriott Hotel in Farmington, CT. The Connecticut Surgical Quality Collaborative (CtSQC) and the Connecticut Chapter of the American Society for Metabolic & Bariatric Surgery (CTASMBs) cohosted the event, marking the first time all three societies have partnered. ACS Regent Lenworth M. Jacobs, Jr., MD, MPH, FACS, presented the Foster Memorial Lecture on the Hartford Consensus, which played an integral role in launching the ACS and National Security Council’s Stop the Bleed program.

The meeting opened with a talk by noted blogger, The Skeptical Scalpel, a retired ACS Fellow who prefers to remain anonymous, who provided a practical and enlightening talk on the use of social media by surgeons and surgical residents. Adil Haider, MD, MPH, FACS, from Brigham and Women’s Hospital, Boston, MA, gave the keynote address, Enhancing our Cultural Dexterity: The Next Steps in Reducing Disparities and Providing Patient-Centered Surgical Care.

The Connecticut Chapter presented its Distinguished Service Award to Scott Ellner, DO, FACS, in recognition of his work to expand quality programs in Connecticut, including co-founding the CtSQC. The chapter presented the Legislator of the Year Award to the Honorable Nancy Wyman, Lieutenant Governor, State of Connecticut, in recognition of her career-long support of Connecticut’s physicians and health care system.

In addition, the chapter presented resident paper competitions in general surgery, trauma, clinical oncology, plastic and reconstructive surgery, specialty surgery, ACS National Surgical Quality Improvement Program (ACS NSQIP®) and Enhanced Recovery After Surgery (ERAS), and bariatric surgery. First-place papers are as follows:

- **John D. MacArthur Trauma Competition:** Michael P. DeWane, MD, Yale School of Medicine, New Haven: Prolonged Postoperative
Ventilation Is Associated with VTE Development in the Critically Ill Emergency General Surgery Population

- Clinical Oncology Competition: Jennifer L. Hubbard, MD, Saint Mary’s Hospital, Waterbury: Correlation of Breast Density with Breast Cancer Prognosis

- General surgery (two sections):
  - Section 1, Rachel B. Scott, DO, Danbury Hospital: Giant Inguinoscrotal Hernia: A Case Report of Progressive Preoperative Pneumoperitoneum Using an Implanted Vascular Access Catheter with Subcutaneous Reservoir and Open Preperitoneal Mesh Repair;
  - Section 2, Jeremy Carroll, BS, University of Connecticut Health Center, Farmington: Characterization of Human Esophageal Epithelial Cells Before and After Conditional Reprogramming: A Novel Approach to Autologous Stem Cell Tissue Engineering

- Surgical specialties: Charles R. Litchfield, MD, Saint Mary’s Hospital: Experience with a Novel Fibrin Sealant Patch in Patients Undergoing Non-Clamped Open Partial Nephrectomy

- Plastic surgery: Samuel Kim, MD, Yale Medical School, Mutational Profile of Benign Vascular Tumors—The Yale Experience

• Quality, ERAS and NSQIP: Gopi Ukani, MD, Saint Mary’s Hospital: Antibiogram-Driven Antibiotic Selection Supersedes National Guidelines in Prevention of Surgical Site Infections

• Bariatric surgery: Rachel B. Scott, DO, Danbury Hospital: Microlaparoscopic Sleeve Gastrectomy Is Safe in the Community Setting: A Single Surgeon’s Experience

The chapter also held its Eighth Annual Surgical Skills Competition. Eight residency programs competed, including the obstetrics-gynecology residency program from St. Francis Hospital, Hartford, which made its debut this year. Each team was composed of an intern, a mid-level, and a chief. Stations were scored based on skill level, technique, and time to completion. This unique partnership with industry, created by the Connecticut Chapter, is a teaching tool that uses game theory to challenge the skills taught in residency training. The residents from Saint Mary’s Hospital won first prize and were awarded surgical textbooks relevant to their training.

Massachusetts Chapter: Top Gun Competition winners from Boston Medical Center, from left: Drs. Carmine (team mentor), Levin, Beresnova, and Brady

Massachusetts Chapter holds 63rd Annual Meeting

The Massachusetts Chapter hosted its annual meeting December 3, 2016, with a record number (157) of health care professionals attending. The meeting opened with two Oral Resident Research Paper Competitions. The winners were Kelsey Han of Massachusetts General Hospital for The Surgeon As the Second Victim: Results of the BISA Study; and Alexander Munoz of Massachusetts General Hospital, who won the fourth Joseph E. Murray [MD, FACS] Award for Modulation of Intestinal Epithelial and Microbiotal Homeostasis with Exercise in a Colitis Model. Other session highlights included a panel on safety for surgeons and talks on surgeon burnout, helping colleagues in trouble, among others.

Throughout the morning, attendees had opportunities to visit the poster hall to speak with authors about their work. Two residents received Resident Research Awards for their posters, as follows:

- Moshe Lapidot, MD, Brigham and Women’s Hospital, Boston, for Highly Effective Heparanase-Based Therapy for Mesothelioma
The meeting concluded with the sixth Annual Resident Top Gun Competition. For this contest, surgical residents from participating institutions throughout Massachusetts were invited to showcase their laparoscopic skills. A total of 10 teams competed, each with three residents. They were judged on a series of tasks requiring laparoscopic skills, such as intracorporeal knot tying, transferring of objects from one hand to another, and pattern cutting. The winner of the coveted Top Gun trophy was the team from the Boston Medical Center, led by Brian J. Carmine, MD, FACS, with residents Scott Levin, MD; Olga Beresnova, MD; and Matt Brady, MD.

Italy Chapter
The Italy Chapter of the ACS recently partnered with the Association of Italian Surgeons in North America (AISNA) to facilitate cultural and professional exchanges among Italian and North American institutions. These exchanges are intended to be bi-directional for Italian medical students, residents, and surgeons who want to visit the U.S. for research projects, and for AISNA members who would like to visit Italian health care institutions. AISNA was established in 2012 with the main purpose of creating a network of surgeons who graduated from Italian medical schools and now practice in Canada, Mexico, and the U.S. The association, which is composed of Fellows of the ACS, met with the Secretary-Treasurer of the Italy Chapter, Giuseppe Nigri, MD, FACS, at Clinical Congress in Washington, DC.

France Chapter
A joint French Chapter/Association Française de Chirurgie session took place in Paris, France, during the 118ème Congrès Français de Chirurgie, September 29, 2016, and was organized by Eric Voiglio, MD, FACS, and Olivier Monneuse, MD, FACS.

A roundtable discussion titled How to Travel from France to the USA As a Resident or As a Fellow took place during the session and featured presentations from Douglas Slakey, MD, FACS, Tulane University School of Medicine, New Orleans, LA; Steven DeMeester MD, FACS, University of Southern California, Los Angeles; and Guillaume Passot, MD, Hospices Civils de Lyon, France.

In addition to the roundtable, three papers selected from the ACS Committee on Trauma Resident Trauma Papers Competition were presented.
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## MEETINGS CALENDAR

### FEBRUARY

**Puerto Rico Chapter**  
February 18–20  
San Juan, PR  
Contact: Aixa Velez-Silva,  
acspuertoricochapter@gmail.com,  
www.acspuertoricochapter.org/

**North & South Texas Chapters**  
February 23–25  
Austin, TX  
Contact: Janna Pecquet,  
janna@southtexasacs.org,  
www.ntexas.org/ and  
www.southtexasacs.org/

### MARCH

**New Jersey Chapter Annual Socioeconomic Meeting**  
March 4  
Iselin, NJ  
Contact: Andrea Donelan,  
njsurgeons@aol.com,  
www.nj-acs.org

**Latin American Congress**  
March 14–17  
Lima, Peru  
Contact: Dr. David Ortega,  
Email: scgperu@gmail.com,  
scgp.org/congreso2017/

**Second European Meeting of ACS Region 15 Chapters**  
March 21  
Munich, Germany  
Contact: Dr. Norbert J. Senninger,  
Senning@ukmuenster.de

### APRIL

**Minnesota Surgical Society: A Chapter of the ACS**  
April 7–8  
Minneapolis, MN  
Contact: Janna Pecquet,  
janna@msurgicalsociety.org,  
www.mnsurgicalsociety.org

**Indiana Chapter**  
April 21–22  
Indianapolis, IN  
Contact: Tom Dixon,  
tdixon@ismanet.org,  
www.infacs.org

**Japan Chapter**  
April 28  
Pacifico Yokohama, Kanagawa  
Contact: Dr. Kazuhiko Yoshida,  
kaz-yoshida@jikei.ac.jp

**Northern California Chapter**  
April 28–29  
Berkeley, CA  
Contact: Christina McDevitt,  
nccacs@att.net,  
www.nccacs.org

**North Dakota and South Dakota Chapters**  
April 28–29  
West Fargo, ND  
Contact: Leann Benson,  
leann@ndmed.com

**Florida Chapter**  
April 28–29  
Orlando, FL  
Contact: Stacy Manthos,  
smanthos@floridafacs.org

### MAY

**Australia and New Zealand Chapter**  
May 1  
East Melbourne, Australia  
Contact: Monique Whear,  
Monique.Whear@surgeons.org

**Italy Chapter**  
May 4–5  
Catania, Sicily  
Contact: Dr. Antonio Di Cataldo,  
dicataldoa@tiscali.it,  
www.facsitaly.org

**Chile Chapter**  
May 7  
Valparaiso, Chile  
Contact: Dr. Owen Korn Bruzzone,  
Tel. +5 (622) 264-1878

**Biennial Meeting of the Israeli Surgical Society**  
May 9–11  
Kfar Blum, Israel  
Contact: Dr. Joseph Klausner,  
Klausner.joseph@tlvmc.gov.il

### FUTURE CLINICAL CONGRESSES

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