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Bulletin

American College of Surgeons
Inspiring Quality:
Highest Standards, Better Outcomes

100+years

Preparation and teamwork in hurricane season

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The American College of Surgeons is dedicated to improving the care of the surgical patient and to safeguarding standards of care in an optimal and ethical practice environment.

Letters to the Editor 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 S. 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.

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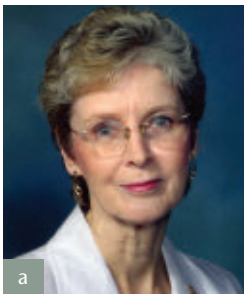
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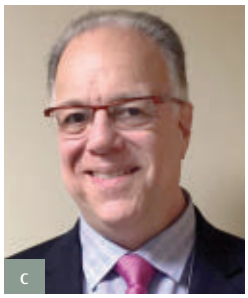
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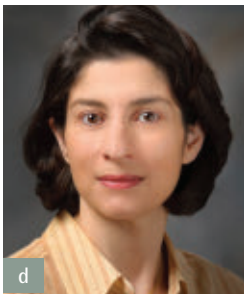
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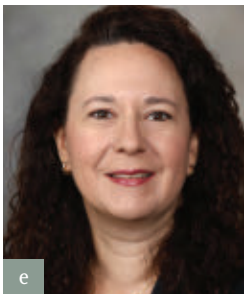
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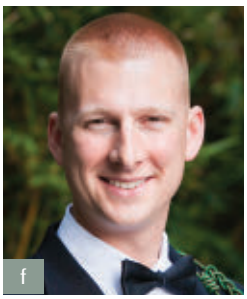
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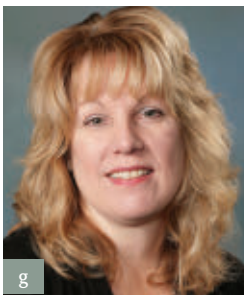
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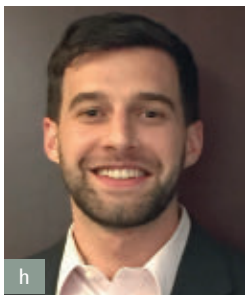
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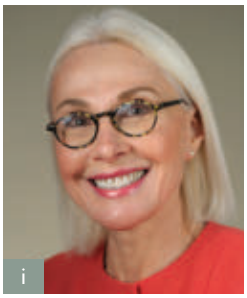
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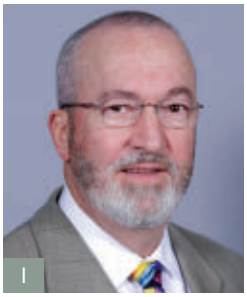
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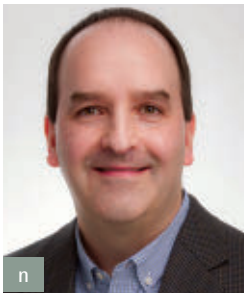
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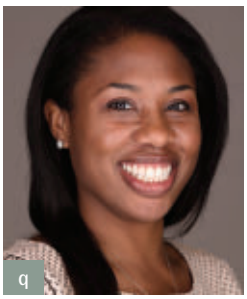
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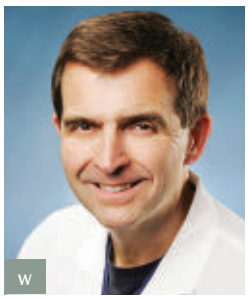
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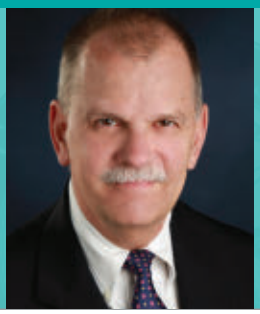


Looking forward

by David B. Hoyt, MD, FACS

The American College of Surgeons (ACS) online community platform, ACS Communities, recently began its fourth year. Under the leadership of Tyler G. Hughes, MD, FACS, Editor-in-Chief, the communities have become one of the most popular benefits of membership in the College, and the network continues to grow both in terms of number of communities and member engagement.

An ancient concept

The communities, in many ways, fill a basic human need to use communication to foster the survival and evolution of social groups. Communication as a means of promoting civilization dates back around 70,000 to 30,000 years ago, during what historian Yuval Noah Harari, PhD, refers to as the Cognitive Revolution. It is believed that at this time accidental genetic mutations changed the inner wiring of the brains of sapiens, enabling them to think in unprecedented ways and to share information that extended beyond offering warnings of imminent danger and pointing to the location of food, for example. Early man was now able to make logical connections, engage in social interactions, and to transmit information about more complex subjects.*

With this new ability, humans developed and shared legends, myths, and religions within their own social groups. This ability to tell stories and find meaning in them served as the basis of shared cultural mores needed to bond members of communities. The broad consequences of this evolution included the ability to plan and execute complex actions; establish larger, more cohesive social groups; and innovate by applying the group's collective intelligence.*

A popular form of communication

For the last few years, many members of the College have found that the ACS Communities provide a valuable means of tapping into the collective intelligence of their peers to address challenges they face in treating difficult cases, learn about innovative practices, and share their common interests. The communities have become an important part of our culture.

The total number of communities as of December 1, 2017, was 115, of which 76 were open and 39 were closed. (Open communities are accessible to all members of the ACS, and closed communities exist primarily to provide online work forums for ACS governing bodies and committees.) The five most active communities were the General Surgery, Rural Surgery, Breast Surgery, Minimally Invasive Surgery, and Bariatric Surgery Communities. By far the most widely used community was the General Surgery Community, with 22,239 members, 1,468 total discussion posts, 111 new threads, 1,357 replies to discussions, and 208 replies to sender.

All of the volunteer editors have done a great job of developing their communities, and I want to thank them all for their hard work and commitment. The Breast and Colon and Rectal Communities are both active, with a lively exchange of clinical and nonclinical posts. Editors Mike Stark, MD, FACS, of the Endocrine Community and Don Nakayama, MD, FACS, of the History Community (which now has 700 members) have done a phenomenal job of growing their communities and encouraging meaningful dialogue.

The members of the Women in Surgery Community have succeeded in addressing both clinical and nonclinical matters in a professional manner. The Surgeons as Writers Community is relatively small but provides great help to surgeons who write both for professional and personal reasons.

Some frequent posters have developed an international reputation. For example, Patrick Molt, MD, FACS, a general surgeon from Fairfield, IL, and Mark Crabbe, MD, FACS, a general surgeon from Sumter, SC, are respected commenters because their remarks and advice are rooted in scientific evidence and clinical experience.

The ACS Communities are for everyone

Some contributors, however, seem to believe the ACS leadership is not listening to them or is too focused on certain surgeons at the expense of others, and stri-

*Harari YN. *Sapiens: A Brief History of Humankind*. New York, NY: HarperCollins Publishers; 2015.

For the last few years, many members of the College have found that the ACS Communities provide a valuable means of tapping into the collective intelligence of their peers to address challenges they face in treating difficult cases, learn about innovative practices, and share their common interests.

dently voice their discontent in the communities. I can assure you that many College leaders, myself included, follow the communities regularly to get a better feel for the issues that are of greatest concern to surgeons in the trenches. This feedback gives us firsthand insights into the matters on which we need to take a stand or offer professional counsel.

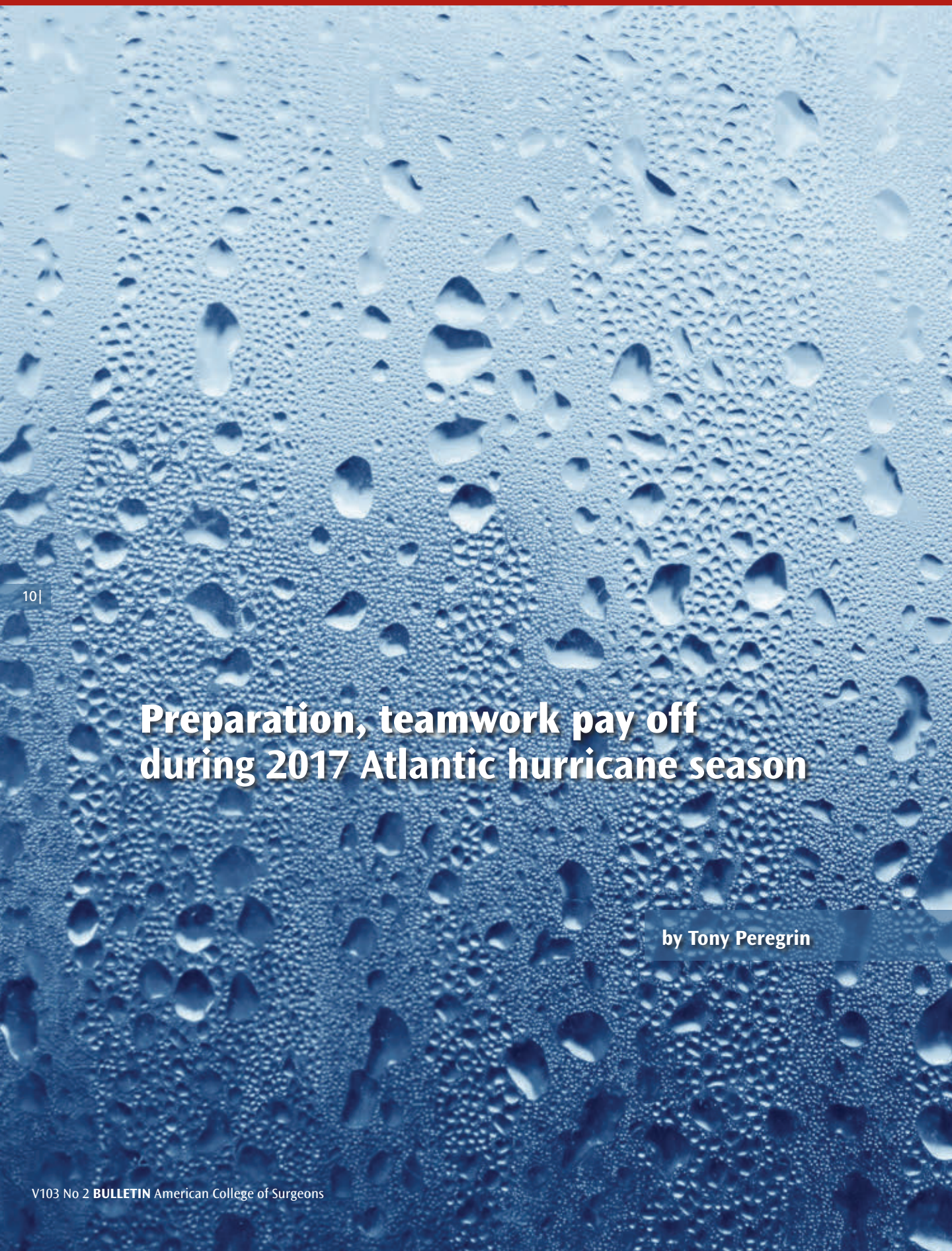
While we value thoughtful critiques from our colleagues, it can be discouraging when a few individuals choose to vent their frustrations without offering or acknowledging any solutions. I understand that some members of the communities read the digests regularly and enjoy seeing someone offer the same advice they would give, but are hesitant to offer their own posts. I believe that some people may be reticent to comment because they would prefer to avoid an online debate that leads nowhere.

If you are among the individuals who have been resistant to post, I invite you to post once to see how easy it is, even if only to introduce yourself and let others know you find their posts beneficial. To those few individuals who may view the communities as an outlet for airing their grievances, certainly I encourage you to speak your mind about how the College could better serve its members and represent your interests. But at the same time, I would remind these posters to tap into their emotional intelligence and consider whether their remarks are fostering a healthy dialogue about the issues or are driving people away. Are they sharing important information and offering innovative solutions to the challenges surgeons are facing? Are they encouraging other surgeons to add their perspective so that we can creatively and collectively improve surgeons' ability to provide quality care?

I would also recommend that contributors post in the community that is focused on their concerns. For instance, if legislative and regulatory issues are topping your list of priorities, consider posting in the Advocacy Community rather than in the General Surgery Community. The surgeons and staff who read posts in the Advocacy Community are more likely to share your frustrations and are focused on resolving these challenges, whereas the members of the General Surgery Community may be more interested in getting advice about clinical matters.

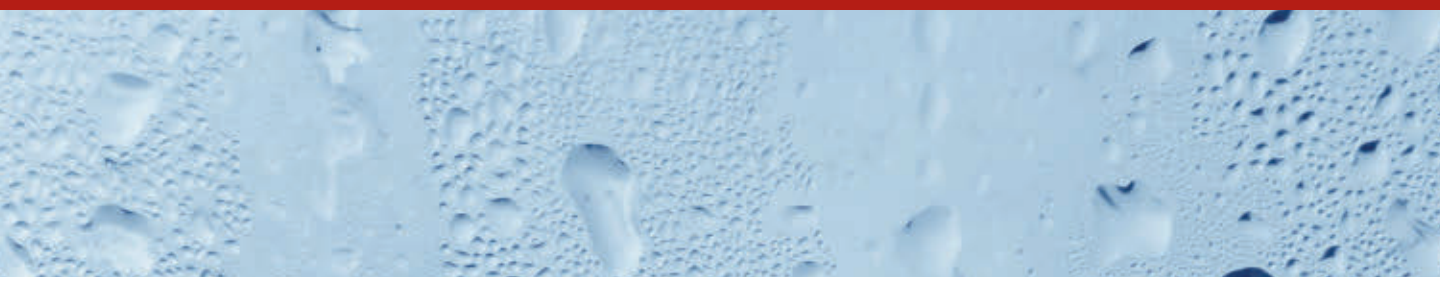
The ACS Communities platform provides a valuable means of telling stories that allow us to reinforce our principles as a professional society, to learn from each other, and to arrive at evidence-based solutions to problems, both clinical and nonclinical. All members of this organization are encouraged to participate in this powerful tool that can bring us together and promote our cultural values. ♦

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



Preparation, teamwork pay off during 2017 Atlantic hurricane season

by Tony Peregrin



Two Category 4 Atlantic storms made landfall in the mainland U.S. in the same two-week period of late summer 2017, making Hurricane Harvey and Hurricane Irma back-to-back disasters that challenged surgeons' preparedness and capacity to provide adequate patient care.[1,2]

Hurricane Harvey hit southeastern Texas August 25, 2017, resulting in more than 75 deaths.[3] Hurricane Irma made landfall September 10, 2017, on Florida's western coast, resulting in 75 deaths, including 14 storm-related deaths in the Florida Keys and 11 seniors who perished in a Hollywood, FL, nursing home.[4] Estimates for damages resulting from Hurricane Harvey range from $65 billion to $190 billion, while Hurricane Irma damage could end up costing between $50 billion to $100 billion.[5]

On September 18, 2017, Hurricane Maria made landfall in Puerto Rico (see related story, page 18). In all, the three storms resulted in more than 260 deaths and an estimated $300 billion in damages—making the 2017 Atlantic hurricane season the costliest on record.[6] According to CNN, "each hurricane posed different threats and caused different problems. Harvey brought massive flooding, Irma deadly storm surges, and Maria catastrophic high winds."[7]

This article describes how surgeons and their institutions prepared for the storms, surgeons' efforts to serve patients during the storms, the value of disaster preparedness, and lessons learned from working in the trenches during Hurricanes Harvey and Irma.

Hospital preparation

"All of the hospitals in Houston learned a lot from their experience with Tropical Storm Allison," said Barbara L. Bass, MD, FACS, FRCS(Hon), President, American College of Surgeons (ACS), referring to the tropical storm that devastated southeast Texas in June 2001 due to a record amount of flooding. "Hospitals realized that every facility needs to have its own preparation plan in place well before one of these events happens. At our institution, we have a well-developed plan that includes a ride-out team that designates, well in advance, who is going to be at the hospital at the time of the incident," said Dr. Bass, the John F. and Carolyn Bookout Presidential Endowed Chair, and chair, department of surgery, Houston Methodist Hospital, TX. "This planning is done as a routine part of living in this area, which is not infrequently hit with hurricanes and flooding due to tropical storms with exceptionally heavy rain."

"Once we knew it was in the Gulf and that there was a possibility that Houston would be impacted, we didn't wait for landfall," said SreyRam Kuy, MD, MHS, FACS, associate chief of staff, Michael E. DeBakey Veterans Affairs (VA) Medical Center. "Figuring out the logistics is a huge part of disaster preparation. I think, as surgeons, we sometimes forget all the other stuff that happens outside of the operating room (OR). We think the OR is the coolest part and the most fun part, but so much happens elsewhere, everything from waste management to food services to the electricity and plumbing."

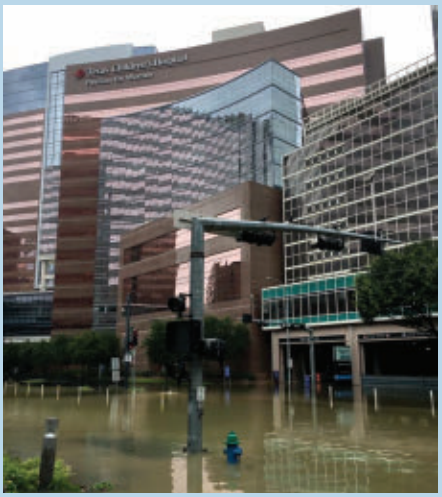
When Harvey transformed from a tropical storm to a Category 4 hurricane, it became apparent that hospital staffing needs could reach critical levels.

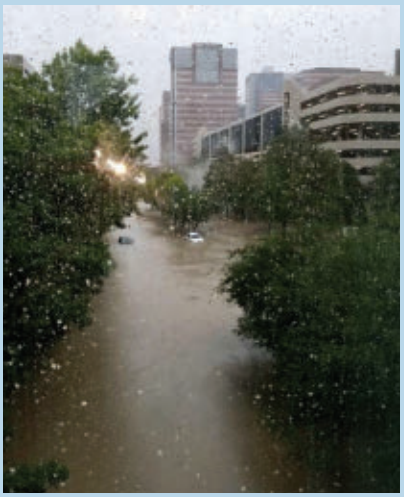
"We knew that if we let people go home, there was a risk that they wouldn't be able to get back in—and that's exactly what happened," Dr. Kuy said. "Holcombe Boulevard, which runs through the Texas Medical Center, became a river, and all the streets were flooded. People who had left the hospital couldn't physically drive through." To reach the hospital, "they swam or waded through the water, which many of our staff, residents, and students did."

According to Dr. Kuy, nearly 700 staff members remained at the DeBakey VA Medical Center in preparation for Harvey, some sleeping on office floors, with many others sleeping on cots in the facility's auditorium.

Even as an estimated 60 inches of rain fell from Hurricane Harvey in Texas, upending previous U.S. storm records, many hospitals in the area, such as Texas Children's Hospital, remained self-reliant in terms of staffing.[8]

"We basically had all our people in place," said Mary L. Brandt, MD, FACS, an attending surgeon, pediatric surgery service, Texas Children's Hospital, pointing to the hospital's ride-out system as the reason physicians were on hand throughout the





Scenes outside Texas Children's Hospital in the wake of Hurricane Harvey

Houston Methodist Hospital ride-out team

storm. "If you're on the ride-out team, you know that you're there until it's over."

Leading by example: Do as I do

Staff, including physicians, adopted new roles during Harvey in an effort to keep hospital operations up and running.

"The nurses and physicians worked together to figure out what needed to be done," Dr. Brandt said. "There were physicians doing tasks they don't usually do. There was no question everybody was just chipping in wherever they could to help make things as easy as possible for everybody else. As a result, there was an extraordinary camaraderie."

"We had staff who were here five or six days without ever going home—and that was the same for leadership," added Dr. Kuy. "We'd been in the hospital for the same amount of time, sleeping in the same gross, disgusting scrubs and the same pair of socks. I think the fact that the staff saw us going through the same situation had a huge impact on them. You have to show people that you are in it with them."

Surgeons who led by example included not only those individuals willing to work in the trenches and take on new tasks, but also those health care professionals who demonstrated a commitment to caring for patients under extraordinary circumstances.

"On Sunday morning, it became really clear that [Houston Methodist Hospital] was an island and that people were having a really hard time getting to and from the medical center," said Dr. Bass. "One of our surgeons, Robert Ochoa, Jr., MD, FACS, who lives nearby, actually walked in, almost swam in through deep water to work."

"On Saturday, it started raining, and by Sunday morning, I was following through with the intensive care unit (ICU) to make sure we had people there," said Dr. Ochoa, the surgical director of the surgical and liver ICU. "By early morning, we realized how bad it was and that our staff wasn't going to be able to get in. We had two interns and a second-year resident, a nurse practitioner (NP), and 28 sick ICU patients," Dr. Ochoa said. "I live about three miles away [from the hospital]. I drove about a mile, which was as close as I could get to the hospital, and I waded in through waist-deep water the rest of the way—about a mile and a half. The three residents who made it all had to basically do what I did to make it in. One of them walked about a mile or so with water up to his chest at some points to get in. And one of them had his car stall out on the way in, and he left it there and continued to walk about another three-quarters of a mile to get in."

To make matters more dire, many of the staff who were working at the hospital during the storm had to leave family and loved ones at home to face the hurricane alone, including Dr. Ochoa, who has a wife and three children.

"Leaving my house, I was a little bit anxiety-ridden because I wasn't quite sure if I would be able to get home if something were to happen, but I also knew that I had a couple of residents and an NP [at the hospital] and the patients, and somebody had to take care of them. So, that's why I decided to find a way to get here—to guide my residents and to give them support. And to support the nurses who also were here, and really just make sure that our patients were going to be safe," Dr. Ochoa said.

Another surgeon undeterred by the flooding was Stephen Kimmel, MD, FACS, a pediatric surgeon who

Houston Methodist Hospital ER team

Roberta Schwartz, executive vice-president, Houston Methodist Hospital, delivering meals to staff

Houston Methodist Hospital patient care unit staff

traveled by canoe to Clear Lake Regional Medical Center, Webster, TX, to operate on a 16-year-old suffering from testicular torsion.[9]

"I got the call to go take care of this boy and I drove my car about a mile from my house but the water was getting pretty deep, so I thought I would get stuck," Dr. Kimmel said. "I turned around and went back to the house and called my chief medical officer [CMO] and said, 'I can do the surgery, but I can't get there. I need your help.'" Dr. Kimmel's CMO made some phone calls and eventually was able to connect Dr. Kimmel with the Dickinson Volunteer Fire Department.

Firemen showed up at Dr. Kimmel's house at approximately 1:30 am. "At my door were two 19-year-old guys soaked to the skin in firefighter baseball caps. They said, 'Okay, doc, we're going to run for a while,'" Dr. Kimmel said. "We ran about a half a mile down my street, and it was dark and windy and pouring rain. We got out to one of the main roads and ran a little bit further to the fire station, and that's where they had stashed the canoe because the water between the station and the interstate was pretty deep. The three of us paddled about half a mile to the Interstate 45 overpass in Dickinson."

One of the volunteer firefighters had parked an F30 truck under the overpass. They loaded the canoe into the truck and were able to get through the feeder ramp and onto the highway, which had flooding but was passable, according to Dr. Kimmel. At another feeder road, the three men faced a flooded road that was not passable, so they parked the truck, jumped back into the canoe, and paddled up the feeder, passing people who were standing on top of their cars waiting for help.

Texas Children's Hospital acute care team

Houston Methodist Hospital dialysis team

Texas Children's Hospital support staff

Black Hawk helicopter delivering a pediatric patient to a dialysis center

Dr. Kimmel said the deepest water he encountered that day was located directly in front of the hospital. "It was probably five feet deep. The hospital is located a little bit higher, so we were able to climb up onto the embankment and make our way to the OR," he said.

"I really had no idea how bad it was going to be. I'd been in the hospital earlier that day and done rounds and done surgery and came home, and I was pretty confident that if I had to go back anytime, it would be no problem," said Dr. Kimmel.

When Dr. Kimmel entered the hospital for the second time that day, he found the OR staff fully prepped to begin the procedure. The hour-long operation was a success, and the patient was discharged within 48 hours.

Some patients displayed as much grit as the medical teams who cared for them. A former U.S. Army Ranger swam through flood waters to the DeBakey VA Medical Center, where he was treated for a burst appendix. According to Dr. Kuy, when the patient couldn't get anyone to take him to a hospital, he printed out a map to the VA, which he enclosed in a clear plastic garbage bag to waterproof it, and he walked to the hospital, even as the water rose past his knees and then up to his chest.

"This Army Ranger swam through two miles of sewage-contaminated flood waters to get to the hospital," said Dr. Kuy. "I asked him, 'How did you know it was contaminated with sewage?' He said, 'It smelled like a latrine. You never forget the smell of a latrine.'"

The patient was confident that if he was able to make it to DeBakey, he would receive proper care. He said, 'I knew that if I could get to the VA, they would take care of me. I knew that I could call on the VA,'" Dr. Kuy said. "It's humbling. We don't give our patients enough credit. It takes so much courage and resilience to do that. When a patient says, 'I know I can count on you. As long as I can get there, I know you will take care of me,' that is something we cannot take lightly. That is a huge responsibility for us to live up to that expectation. I'm so proud of all my staff at the Michael E. DeBakey VA Hospital because they lived up to that. The surgeon who performed his surgery was at a flooded apartment. We were able to get a high-water vehicle to bring her in so that she could do the surgery," said Dr. Kuy.

Patient care: Chronic medical conditions and pediatric patients in need of dialysis

As Harvey continued to swirl through the Gulf of Mexico toward the Texas coastline, surgeons and hospital systems, particularly in the southeastern part of the state, put their ride-out teams and other disaster plans into motion.

"We anticipated as many discharges as possible in order to get everybody out of the house that we could possibly get out of house," Dr. Bass said. "We, of course, shut down anything but emergency surgery, but we did have a few emergency cases that needed to be done, including abdominal emergencies and things like perforated bowel with peritonitis. The kind of medical emergencies that began to evolve over the next three to four days were primarily the medical patients who had chronic conditions, such as people who needed help with their diabetes or others with heart failure."

Managing chronic conditions was a top priority at Texas Children's Hospital as well.

The chief of pediatric nephrology, Michael Braun, MD, realized that dozens of children had gone several

Houston Methodist Hospital pharmacy with all hands on deck

days without dialysis, according to Dr. Brandt. "He called a colleague, Rita Swinford, MD, who is the medical director of the pediatric unit at Children's Memorial Hermann Hospital located a few blocks away, and the two of them worked with the U. S. Coast Guard to help find these children—33 in all," said Dr. Brandt, noting that these two hospitals cared for virtually every child on dialysis in southeast Texas.[10] "There were Black Hawk helicopters delivering these children to dialysis centers—including our center—efforts that saved these young patients' lives," Dr. Brandt said.

Hurricane Irma

Less than two weeks after Hurricane Harvey made landfall, Hurricane Irma trounced South Florida, Georgia, and the Caribbean. After hitting the Florida Keys as a Category 4 hurricane, the storm was eventually downgraded to a Category 1 as it pushed inland and moved up through the middle of the state, bringing heavy rain and strong winds to areas of Florida that were not initially expecting these conditions.[11,12]

Enrique Ginzburg, MD, FACS, trauma medical director and vice-chair of surgery, Jackson South Medical Center and Chair, Florida Board of Medicine, said his experiences overcoming the challenges of the catastrophic earthquake that struck Haiti in 2010 prepared him for Irma.[13]

Jackson South Medical Center is one of two safety-net hospitals for Dade County, Dr. Ginzburg said. "We ended up being the front line to the Florida Keys, so we received the most significant number of patients right after the hurricane passed through," he said.

Preparing for Irma

"We knew what to expect mostly due to Katrina and previous hurricanes. We knew that there would be virtually nothing going on during the hurricane itself, but we wanted to have a significant number of staff ready after the hurricane passed," Dr. Ginzburg said. As a result, Jackson South Medical Center organized staff into teams. The Alpha team would be present during the hurricane, and the Bravo team would be available after Irma passed.

Part of Jackson South Medical Center's natural disaster planning also took into account staff morale. "Our administrators are excellent. They basically allowed immediate family members to come in with the physicians with organized places for them to stay. And, although family members were asked to bring in their own provisions, the hospital actually provided food for everyone," he said. In fact, significant changes in designated evacuation zones meant more individuals came into the center than originally anticipated. Jackson South Medical Center provided 6,500 meals within a period of two days.

Sheev Dattani, MD, a Resident Member of the ACS who is affiliated with Florida Hospital, Tampa, said his facility prepared four OR teams and a fully staffed ER to provide care to victims of the storm. However, the downgraded storm didn't result in a noticeable bump in trauma patients, according to Dr. Dattani.

"Fortunately, it was different for us in Tampa because the hurricane missed us, although we had initially thought we were going to get a direct hit," Dr. Dattani said.

Originally from Saskatoon, Saskatchewan, the tropical hurricane was the young surgeon's first experience with how a hospital engages in hurricane prep. In a

Portable cots set up in the auditorium in Michael E. DeBakey VA Medical Center

Michael E. DeBakey VA Medical Center: Dr. Kuy (foreground) with surgery residents who stayed on site during Hurricane Harvey and continued training

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continued on next page

report to CBC News, a Canadian news outlet, Dr. Dattani said, "I'm grateful for my medical training and I'm grateful for being able to support whoever I can here."[14] Dr. Dattani is Advanced Trauma Life Support® (ATLS®)-certified and an ATLS instructor. "I have found this training useful, specifically regarding how to quickly triage multiple trauma patients, so I felt ready to help in any situation that we would potentially see."

Lessons learned

While physicians who cared for patients during both Hurricane Harvey and Hurricane Irma credit their individual institutions' disaster preparedness as key to meeting the challenges of these storms, many highlighted areas for possible improvement.

"We ran out of food," said Dr. Kuy. "How are you going to run a hospital if you can't even provide food? The VA system usually requires lots of contracts and a lot of processes to make things happen. We reached out to Secretary David J. Shulkin [U.S. Veterans Affairs office], who was amazing—he made it happen. By midnight on Monday, we had a convoy of high-water trucks that brought in food for us. That had a huge impact because it showed that the national leadership really cared deeply about staff and patient well-being."

Another area for improvement is waste management. "We don't actually have a system for taking care of the waste ourselves. We had about three days' worth of space for waste even after emptying it out," Dr. Kuy said. "Clearly, we were flooded for at least three days. We need to think proactively about how we can prepare for this and how we can deal with waste management on our own." Despite these

Dr. Dattani (right) with Allen Chudzinski, MD, FACS, at Florida Hospital just before Hurricane Irma hit

Post-Hurricane Irma devastation

challenges, Dr. Kuy said strong leadership enabled hospital staff to provide quality patient care.

Dr. Ginzburg said a valuable lesson learned at Jackson South Medical Center was to have both the Bravo team—the recovery team intended to provide services after the storm had passed—already in-house along with the Alpha team. Physicians—many of whom were victims themselves suffering the loss of property due to Irma—worked tirelessly over multiple days to treat patients and to keep their institutions up and running. Even with adequate staffing and ride-out plans in place, health care professionals fought through physical and emotional exhaustion.

"With Irma, some people worked for two-and-one-half days at the hospital without relief," Dr. Ginzburg noted.

No matter how prepared hospitals are to meet the challenges of natural disasters, it's the enduring spirit of the health care providers—through coordinated teamwork, open communication, and a willingness to take on new tasks—that results in the provision of care to patients in need.

"It's interesting—when you are aware that you are involved in a real emergency, people actually rally," Dr. Bass said. "They take on a sense of a special mission. Situations like these actually become a memorable event, a bonding event for those people that are thrown into a crisis together." ♦

Acknowledgments

The photos accompanying this article were supplied by the interviewees.

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From the rescuers to the rescued: A tale of two hurricanes

by Bolívar Arboleda-Osorio, MD, FACS

Expressway leading from Caguas to San Juan blocked by trees, electrical wires, and posts

Editor's note: On September 6, 2017, Hurricane Irma ripped through a string of small Caribbean islands, with the eye passing over Barbuda, damaging approximately 95 percent of the buildings on the island. Surgeons from nearby Puerto Rico rushed to the rescue. Two weeks later, on September 20, Hurricane Maria made landfall in Puerto Rico, devastating the U.S. commonwealth and killing 499 people. This article recounts surgeons' efforts to respond to both natural disasters.

The roar of the turboprop engine faded as Ramón K. Sotomayor, MD, FACS, a general surgeon and surgical oncologist, was preparing to disembark from the plane. He was among a group that included one surgeon, one emergency room physician, and one intensive care unit physician assembled through an initiative of the HIMA-San Pablo Hospital System, Caguas, Puerto Rico, to assist in the aftermath of Hurricane Irma, which devastated the islands of St. Thomas, Tortola, Barbuda, and a number of other Virgin Islands just a few days earlier.

Hurricane Irma

Hurricane Irma moved over the northern Caribbean in early September as the strongest Atlantic basin hurricane ever recorded outside the Gulf of Mexico and the Caribbean Sea. While the eye of this super storm was projected to pass through Puerto Rico, most of the winds stayed to the north, and it felt more like the tropical storms to which islanders had grown accustomed. The northern Lesser Antilles, however, did not fare as well. Islands like Barbuda experienced 95 percent devastation to all infrastructure, and for the first time in more than 300 years, no human inhabitants remained on the island after the permanent evacuations.

Caribbean people, however, are resilient. For as long as can be recounted in written and verbal tales, the region suffers an economic setback each time a big storm passes through. Unlike large developed nations, the smaller islands have limited disaster recovery funds and even more limited crisis and emergency management plans—but in the words of a past-Prime Minister of Barbados, "It is the special character of a people who have survived and risen above slavery and indentureship, racism and the exploitation of colonization, and limited economic resources."*

As soon as the storm left the region, medical teams from Puerto Rico were on the move to aid their island brothers and sisters. "As the plane banked over the island, it was heartbreaking to see," said Dr. Sotomayor, who has treated patients in the British Virgin Islands through a collaborative partnership. "I had seen the islands many times from the air before, but this time it was different. The usual lush greenery was missing. One of the main clinics on the island of Bougainville was destroyed and the other one, Peebles Hospital, was running on a generator." One of the local surgeons,

*Caricom.com. Resilience of Caribbean people will determine success or failure—former PM Arthur. March 27, 2015. Available at: http://caricom.org/communications/view/resilience-of-caribbean-people-will-determine-success-or-failure-former-pm. Accessed December 18, 2017.

Fallen trees and electrical wires blocking the expressway entrance

Marjorie Yee-Sing, MB, BS, FACS, who has practiced in Tortola for some time, introduced Dr. Sotomayor to a number of patients. After reviewing their charts and examining them, he decided to airlift two of them for care at a tertiary center in Caguas.

Meanwhile, in Puerto Rico, Bolívar Arboleda-Osorio, MD, FACS, the author of this article, was taking care of a 74-year-old woman who had been flown in from St. Thomas. When she arrived in the emergency room (ER), she was noncommunicative. Initially, the ER team thought a neurologic baseline condition could be part of the problem because she arrived without relatives or a copy of her records from St. Thomas, but after ruling out any anatomic neurologic problem, we proceeded with her surgical care.

We knew she had abdominal pain for a week prior to her transfer to Puerto Rico. A computed tomography scan revealed a major process in her ascending colon, and we proceeded with an exploratory laparotomy. Intraoperative findings revealed the patient had necrosis of the posterior wall of the ascending colon, and a right colectomy with ileotransverse anastomosis was performed.

The hardest part was being unable to communicate with the patient or any relative. I managed to talk to her sister-in-law once via a military phone to explain her condition, but communication from St. Thomas was minimal, and no flights were leaving the island. After a week in the intensive care unit, the patient started recovering. It wasn't until more than a week later she was able to communicate and finally understood what happened and why she was in HIMA-San Pablo Hospital.

What is unfortunate about this story is that during her recovery, a second storm—Hurricane Maria, a deadly Category 5 storm—directly hit the island of Puerto Rico.

Hurricane Maria

Hurricane Maria roared mightily in the early hours of Wednesday, September 20, 2017. Having experienced Hurricanes Frederic (1979—Category 4), Hugo (1989—Category 5), Marilyn (1995—Category 3), Hortense (1996—Category 4), Georges (1998—Category 4), and many others in the past five decades, the 3.4 million residents of the Commonwealth of Puerto Rico thought they were adequately prepared with plywood, storm shutters, water, and batteries. With sustained winds of 155 miles per hour, the monster hurricane tore through the southeastern coast as it traversed the island. No other hurricane had had similar wind force since Hurricane Okeechobee (locally known as Huracán San Felipe) in 1928.[†]

On Thursday, September 21, the whole landscape had changed for the island of Puerto Rico. The El Yunque—the only tropical rainforest in the U.S. National Forest System—looked like a barren landscape, much like an early winter scene in New England

[†]Fritz A. Puerto Rico has a long history with tropical storms. None of them were like Hurricane Maria. *Washington Post*. September 19, 2017. Available at: www.washingtonpost.com/news/capital-weather-gang/wp/2017/09/19/puerto-rico-has-a-long-history-with-tropical-storms-none-of-them-were-like-hurricane-maria/?utm_term=.ee0a11ee3c1c. Accessed December 18, 2017.

Group of volunteers from HIMA-San Pablo Caguas Hospital preparing supplies after Hurricane Irma

when the trees are bare, waiting for the first snow. The majestic, weather-beaten fort of El Morro, however, survived mostly unscathed, keeping true to its purpose, in my observation, of defending the Spanish port city of San Juan from enemies.

The more modern buildings in San Juan, as well as the electrical and communication systems of the island, were decimated. More than 80 percent of the electric grid was destroyed, posing a major problem for all Puerto Ricans—and most notably health care, education, and emergency services. Hurricane Maria had created a humanitarian crisis at a time when Puerto Rico was the strongest supporter of its fellow island nations still reeling from the damage now of two storms.

"We are working with the emergency generator right now, and we have been able to get one of the operating rooms (ORs) running for the major trauma patients," said Andrés Guerrero, MD, FACS, chief of surgery at Hospital HIMA San Pablo-Caguas, the day after the hurricane hit. Dr. Guerrero had been taking care of a 58-year-old gentleman who had been transferred from St. Thomas during the previous hurricane two weeks earlier. "He arrived with a small bowel obstruction after receiving an exploratory laparotomy in his home island and thank God was improving. We were in the process of preparing him to go back to St. Thomas when this happened."

A week after Hurricane Maria, the situation was not much better. The electric grid was down in about 75 percent of the country and eight major hospitals in the island had to close. A number of dialysis units, home care centers, and other smaller health care facilities have closed as well. This is something I had never experienced in my 34 years as a physician. Our hospital was overloaded with patients who were transferred in from other institutions that fared worse than us. The OR was back to nearly fully functional status by the beginning of October, but the number of emergency cases we saw as late as December was incredible because such a large number of other hospitals have closed. In fact, during the first two weeks, the number of emergency cases at the hospital tripled. The dedication of our surgeons and all our staff is something to be proud about. We would have never in our wildest dreams thought that in such a short time we would go from being the rescuers to the rescued.

Relief efforts continue

On October 17, 2017, a surgical team from Operation Giving Back of the American College of Surgeons arrived in Puerto Rico to offer assistance in surgical care. At press time, no visiting surgeons remain on the island, as the assessment determined that the need was mostly for supplies and infrastructure rather than manpower. Caribbean people are a resilient people and we will continue to find purpose, gratefulness, and even joy in our most vulnerable time. ♦

Olga M. Jonasson, MD, Lecture:

WELLCOME COLLECTION

The quiet pioneer who started a revolution: Elizabeth Garrett Anderson

by Kathryn D. Anderson, MD, FACS

HIGHLIGHTS

- Summarizes the enduring legacy of Olga M. Jonasson, MD, FACS
- Describes the accomplishments of the first woman surgeon in England—Elizabeth Garrett Anderson
- Outlines Dr. Anderson's professional and personal journey

Dr. Jonasson

Elizabeth Garrett Anderson

Editor's note: The following is an edited version of the Olga M. Jonasson, MD, Lecture that Dr. Anderson delivered at Clinical Congress 2017 in San Diego, CA. The presentation has been modified to conform with *Bulletin* style.

I am most grateful to the American College of Surgeons (ACS) Women in Surgery Committee for asking me to give this lecture. I am glad to have the chance to honor the surgeon who was a heroine to so many medical students, residents, and surgeons of both genders, Olga M. Jonasson, MD, FACS.

Dr. Jonasson's impact

Olga had a unique character. She was a great technical surgeon whose many sayings in the operating room in her unexpectedly high voice were remembered and repeated by her former residents, all of whom held her in the highest esteem. She was the first woman in the U.S. to head a major department of surgery, going from chief of surgery at Cook County Hospital, Chicago, IL, to chair of the department at Ohio State University, Columbus. She left that post to become Medical Director of the ACS Education and Surgical Services Department, as it was then called, a post she held for the rest of her career. She ought to have been the first woman President of the College, but staff members were excluded from consideration for that position.

It was during her tenure at the ACS that I met Olga, when she tasked a number of us to search out women who should be but were not in leadership positions in American surgery. This came about when one of the members of the membership committee of the American Surgical Association (Jonathan L. Meakins, MD, FACS) became ashamed of the dearth of women in that organization (there were only three of us at that time) and came to Olga for a solution. This was a productive exercise for us and led to many more women being elected to prestigious societies and to reaching leadership positions in the College. I was so proud to call her my friend.

A tomboy in Victorian England

I am going to speak today of an earlier pioneer for women in surgery, one with whom I feel a great affinity, although she was born more than a century before me but whose career had some similarities to my own. I have chosen the first woman surgeon in England, Elizabeth Garrett Anderson, who piqued my interest several years ago because of our common last name and common heritage.* Perhaps it is arrogant to compare myself with a woman who certainly overcame many more obstacles than were placed before me and who pioneered the way for generations of women who were determined not to allow the shibboleths of their day to deter them from their desire to be surgeons. If so, I hope that this audience will forgive me.

Elizabeth Garrett was born in June 1836, the year before Victoria became queen of the British Empire. She was born in London's East End, the second child of a pawnbroker who bought and sold goods in this poor section of London. It was undoubtedly expected that a boy would be born, since the Garretts' first child was a girl. But Elizabeth never fit the mold of a proper English girl in the Victorian era. She was a tomboy.

I was also the second child and second girl, and I know for sure that my father had wished for a boy. My biological mother died in childbirth when I was 16 months old and my father lost, besides his wife and our mother, her twin babies who were boys. I have

*Thomas I. *The World's First Women Doctors: Elizabeth Blackwell and Elizabeth Garrett Anderson*. London, England: Collins Publishers; 2015.

EXPECTED PATHS IN THE 1800s

BOY	GIRL
School education	Learn sewing and music at home
University education	Hah!
Choose a profession	Learn perfect manners
Get married, have children but never do housework or child care	Get married and have children
Spend each day at work	Spend each day sitting in the drawing room, or looking after children and home
Share his opinions with others	Keep her opinions to herself, unless talking about children or home

wondered but never asked my father if he would have encouraged my career in medicine and surgery had the twins lived. I believe that he would, as he was in many ways, like Mr. Garrett, a man before his time. Elizabeth's father believed wholeheartedly in educating all his children to the same extent and Elizabeth was sent to a private girls' school, an unusual event for girls of that time. Boys went to public school (in England, these were inexplicably the private schools), whereas girls were educated at home by a series of governesses. There was a huge difference between boys' and girls' expectations, education, and life experiences in that era (see sidebar, this page).

Mr. Garrett did well in business and moved to a large country home in Aldeburgh, Sussex, as his business expanded. He made a fortune, so Elizabeth had the advantage that she never had to scrape and save for her medical education. I, on the other hand, had to win scholarships to go to medical school. However, Elizabeth's father did not believe that women should be educated after high school or have a career and at first did not take kindly to her wish to be a physician. Her mother never was reconciled to her daughter having a career, particularly in surgery, and there my experience was similar. For some reason that I never learned, my stepmother was very much opposed to my going to a university in the first place, never mind medical school.

Introduction to surgery

But I am getting ahead of myself. After Elizabeth left her private school for girls (there were no co-ed schools then) at the age of 15, she stayed in the family home for nine years, helping to raise her younger siblings and developing a deep and lasting friendship with her older sister that is reminiscent of the relationship I have with my older sister. But Elizabeth was bored, and her intellect was unused. When she was 22, a group of women published a magazine for women, *English Woman's Journal*. Among these women was one Emily Davies, who became a dear friend. She invited Elizabeth to hear a lecture given by Elizabeth Blackwell, MD, whom some in the audience will recognize as the first woman physician in the U.S. Dr. Blackwell emigrated to the U.S. from England with her family and pursued a medical career, culminating in a medical degree from Geneva Medical College (now Hobart and William Smith Colleges) in upstate New York, which was practically impossible in England or the U.S. She wanted to be a surgeon but lost an eye to infection and had to "settle" for a career in medicine. She expected that the women in her audience all wanted to be physicians, and she encouraged Elizabeth Garrett to pursue her dream. From then on, Elizabeth was determined to get a medical degree and practice medicine and become a surgeon.

My own introduction to surgery was not at all traumatic. In my family, there was no revulsion about women being surgeons as there was in Victorian families. I was inspired by a visit to the newly reopened Manchester Art Gallery after World War II; my sister and I were taken there by a beloved aunt, a very cultured woman whose own career as a teacher was handicapped by the restrictions on women in the era of George V.

At the art gallery, I saw a picture simply labeled "Theatre" in pencil with a wash of green, by Barbara Hepworth, better known in England as a sculptress. I apparently stood in awe before this drawing for a long time. Whether this sealed my career choice, I don't know, but I have loved that picture for a very long time. My fantasy life as a young girl always involved playacting being a surgeon.

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Dr. Blackwell

Emily Davies portrait by Rudolf Lehmann, 1880

Dr. Kathryn Anderson (left) as a young girl with her aunt and older sister

Medical education and training

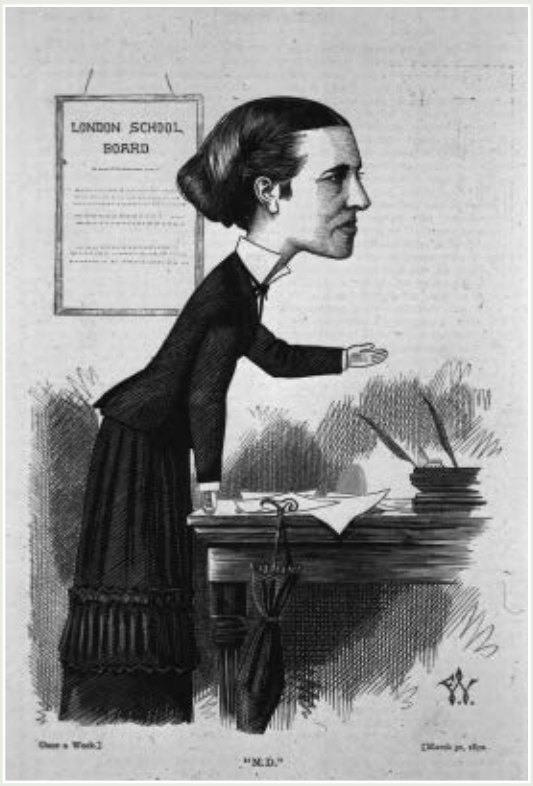
Miss Garrett's first venture into medicine was to enter the Middlesex Hospital in London as a nurse. She could not get into an English medical school, so she chose to enter a medical education through the back door, as a nursing student. I, too, had a delay in entering medical school, which in Europe, then and now, was directly after high school, though this was not for the same reason as Elizabeth's difficulty. I was due to take entrance exams (these were advanced, or A-level, exams, required for any university entrance) and hopefully do well enough to win a state scholarship to enable me to pay medical school fees. The day before the exams were due to start I developed epigastric pain, which migrated to my right lower quadrant. After considerable delay of the whole summer, due to our general practitioner's lack of diagnostic ability, my retro-caecal appendix was removed. I missed the exams, of course, and had to spend an extra year in high school before they were available again. This was one of my best years, as I spent the time relearning Latin and advanced mathematics, chemistry, physics, and biology, as well as taking other fun classes. During that year, my headmistress encouraged me to apply for and take the separate entrance exams for Oxford and Cambridge. This is where the requirement for Latin came in—I doubt it is required any longer. I was successful at Cambridge and entered Girton College at that university.

What does that have to do with Elizabeth's career? As it turns out, a lot. Girton College was founded by Emily Davies, Elizabeth's lifelong friend and mentor. Elizabeth stayed involved with this progressive women's college, the first resident college for women. Like all the Cambridge colleges, it was initially only for girls or only for boys, although most now are co-ed. In fact, my first room was in the Emily Davies Court. An anecdote that has little to do with Elizabeth: My rooms in my first and second years were on the ground floor, a convenient entrance to girls who stayed out after curfew and who would be fined if they came through the front door, which was guarded by a diligent ex-policeman with a very good memory. A knock on the window was frequent; the culprit climbed in, said goodnight, and went to her own room. It was rather disturbing for one's sleep, so I was glad to be on the first (American second) floor my third year.

Back to Elizabeth. At the Middlesex Hospital, she joined the medical students on their rounds, and after a while all pretense of being a nursing student was dropped. During this time, she met a physician named John Ford Anderson who was impressed by the young woman's depth of knowledge, and they formed a friendship that was to influence her life in the future in a very special way (I will come back to that in a little while).

For Elizabeth, her troubles began when it was obvious that she had aspirations to be a physician. The all-male student body rebelled at having a woman rounding with them and threatened to leave. The teachers were entirely dependent on the students' fees, and so they felt they had to dismiss her. Multiple applications to medical schools were made without success, and so she took an alternate path and applied for permission to audit lectures and take the exam for the license of the Society of Apothecaries, a substitute for the medical degree she craved. She attended lectures given by a member of a very famous family, the Huxleys. T. H. Huxley, the progenitor of this large and brilliant

T. H. Huxley said: "Let us have sweet girl graduates by all means. They will be none the less sweet for a little wisdom; and the golden hair will not curl less gracefully outside the head by reason of there being brains within." One of Huxley's descendants taught me physiology at Cambridge.



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"M.D.": 1872 wood engraving caricature of Elizabeth Garrett Anderson addressing the London School Board

family, renowned for their research in physiology and writing to this day, said: "Let us have sweet girl graduates by all means. They will be none the less sweet for a little wisdom; and the golden hair will not curl less gracefully outside the head by reason of there being brains within."[†] One of Huxley's descendants taught me physiology at Cambridge.

I, on the other hand, never was subjected to prejudice from my fellow medical students, and it was a rare fellow surgical resident who resented my presence. My medical school class in Cambridge had only eight women, but no distinction was made between the men and the women, other than the women did not have to bare their chests in the surface anatomy class. A few students put out the rumor that the men were doing our dissection for us (as, of course, it was perfect), but that falsehood died a natural death when we were observed.

In 1863, Elizabeth was 27 years old, and she again enrolled as a nurse, this time at the London Hospital. She was taken under the tutorship of an orthopaedic surgeon and learned to dissect the human body. Her piecemeal education enabled her to become licensed as an apothecary.

My own medical education was also divided. I met my American husband in the dissection room at Cambridge and transferred to Harvard University School of Medicine, Boston, MA, after three years, starting with the second year there and earning my medical degree in 1964—a total of six years of medical school. I never took the English final exams.

Elizabeth still had ambitions of becoming a surgeon, but in the meantime, she opened a dispensary for the poor in East London, close to the house where she was born. England began to take notice of this determined woman, but many of the comments about her by the British Medical Association (BMA) and *The Lancet* were scathing and cruel. But *Punch*, that unusual and often avant-garde magazine, published cartoons of her that

[†]Manton J. *Elizabeth Garrett Anderson*. New York, NY: E.P. Dutton and Co. Publishers; 1965.

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Girton College, Cambridge

were favorable. Her only patients at first were women and children, but later she had a wide patient base, including many men.

Still not satisfied, she continued to apply to medical schools, all of which rejected her. It came to Queen Victoria's ears that this intrepid woman was trying to get a medical degree. The Queen, herself a pioneer, having been the first in England to have a child under chloroform anesthesia, became angry after she learned of a supposedly secret visit to Elizabeth by her eldest and more modern daughter. Victoria was very unsupportive of women for her entire life. There is a syndrome of minorities, rare but still existing, of what I call the "teacher's pet syndrome"—someone who believes that as a minority, he or she has no obligation to foster others belonging to the same minority and often actively opposes them. I guess they enjoy being the minority in a field dominated by white males.

So, after multiple rejections by the English and Scottish medical schools, Elizabeth had to go to the University of Paris, France, for her degree. That institution did not want to admit her, but she drew the attention of the Empress Eugenie of France, who insisted. In fact, at that time, the Empress was presiding over the French Council of Ministers, the deciding body, during the illness of her husband, Napoleon III, and she mandated the entrance of women to medical training at the University of Paris. Elizabeth came first in the final exams out of a class of eight with a pass rate of three. So, finally, she became a bona fide physician.

A controversial figure

There were no formal residencies in surgery in the 19th century, and that was perhaps just as well for the time, as Elizabeth was then on her own to do as she liked. One of her former tutors at the London Hospital decided to open a children's hospital in London's East End. One of the board members initially was opposed to her becoming a staff member of this hospital, but Elizabeth was invited to give a presentation to the board. The board member was impressed with her presentation and withdrew his opposition. His name was James Skelton Anderson, the brother of John Ford Anderson whom I mentioned earlier. Undoubtedly, Skelton Anderson was influenced by his brother's opinion of Elizabeth. The subsequent friendship with Skelton led to their marriage in 1871. During her time at the children's hospital, the now Mrs. Anderson performed surgery in addition to running medical clinics and a dispensary that she named after Saint Mary. She often wrote about her nervousness before a major operation, a feeling I shared with her for my entire practice. As education became more formalized in England, she served on the London School Board and was a lively though often controversial member.

When she and Skelton Anderson made it known that they would marry, Elizabeth again experienced prejudice. It was widely believed at that time that women who married should stay home and become full-time mothers. So, it was expected that she would withdraw from practice and that would be a "waste of her education" and the waste of a place that should

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"Miss Garrett before the Board of Medical Examiners at Paris," wood engraving from *Harper's Weekly,* July 23, 1870

have been occupied by a man. I was also questioned closely in interviews on a number of occasions with queries such as: "You are getting married (or you are married), and you'll quit if you have children. Are you planning to have children?" I always thought this was impertinent and usually replied, sometimes rudely, that it was none of the enquirer's business.

It is not known how Elizabeth responded to such questions, but she was known to have a sharp tongue and was not afraid to put people in their place, sometimes to her own disadvantage—just like myself. Unlike me, she did go on to have three children: Louisa, her first-born at the age of 37, another girl, who died of meningitis, and Colin, her only boy. Her husband was always supportive, and the marriage lasted until his death from a stroke in 1907. They were two independent people who pursued their own separate interests but were bound together by love and affection.

In 1872, St. Mary's Dispensary became The New Hospital for Women, largely due to Elizabeth's efforts. At first, there was reluctance to allow her to perform surgery at the hospital. Indeed, she had the opportunity to perform the first oophorectomy done by a woman, but the board would not permit her to do this onsite. Perhaps they were afraid that they would be blamed if anything went wrong. Undaunted, Elizabeth set up a private house with an operating room, and the operation was successful. There was no opposition thereafter, and she performed many operations during the rest of her career at the hospital. Surgery in private houses was not unknown, even in the 20th century, though it involved major operations less and less. In fact, George VI had his pneumonectomy for carcinoma of the lung in Buckingham Palace. I remember my sister having dental work done under anesthesia, given by our general practitioner, which was performed on our kitchen table. I was excluded from observing this procedure, though I remember that I sneaked in.

By the 1870s, the principles and practice of antisepsis, promulgated by Lord Joseph Lister, were widely used and automatic infection of open wounds diminished substantially. Elizabeth stayed at The New Hospital for Women until she retired. After her death, the hospital was renamed the Elizabeth Garrett Anderson Hospital for Women, and in 1948 it was merged into The Royal Free Hospital for Women when the National Health Service was formed.

Acceptance

The final bastion of male supremacy, the BMA, finally recognized that it was behind the times, and in 1873 admitted Elizabeth Garrett Anderson as its first and, for 19 years, only female member. A number of papers she wrote were published in the *British Medical Journal*, though her numerous lectures on diverse subjects were never memorialized. She became in succession the president of the New Hospital for Women and

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Elizabeth Garrett Anderson

WELLCOME COLLECTION

The New Hospital for Women, from a magazine of 1899

the Medical School, and Mayor of Aldeburgh. She also became president of the East Anglia branch of the BMA. I have shared with Elizabeth the privilege of being the first woman to be given several honors, my own within the pediatric surgical community and in this College, my medical home.

Elizabeth was instrumental in gaining the admission of women to the Royal College of Physicians, which reminds me of the efforts of my colleagues (all MD, FACS) ACS Past-President Patricia J. Numann (who at Clinical Congress 2017 was presented as an Icon in Surgery); Patricia K. Donahoe; and ACS Foundation Chair Mary H. McGrath, among many others over the years, after we were formed into a group by Dr. Jonasson with the objective of identifying "worthy women." But Elizabeth, like me, was strenuously opposed to quotas. I have always felt that if I was refused to attain a position I was qualified for, it demeaned the position, but if I was appointed only because I was a woman, it demeaned me. I never enjoyed being the token woman any more than Elizabeth did.

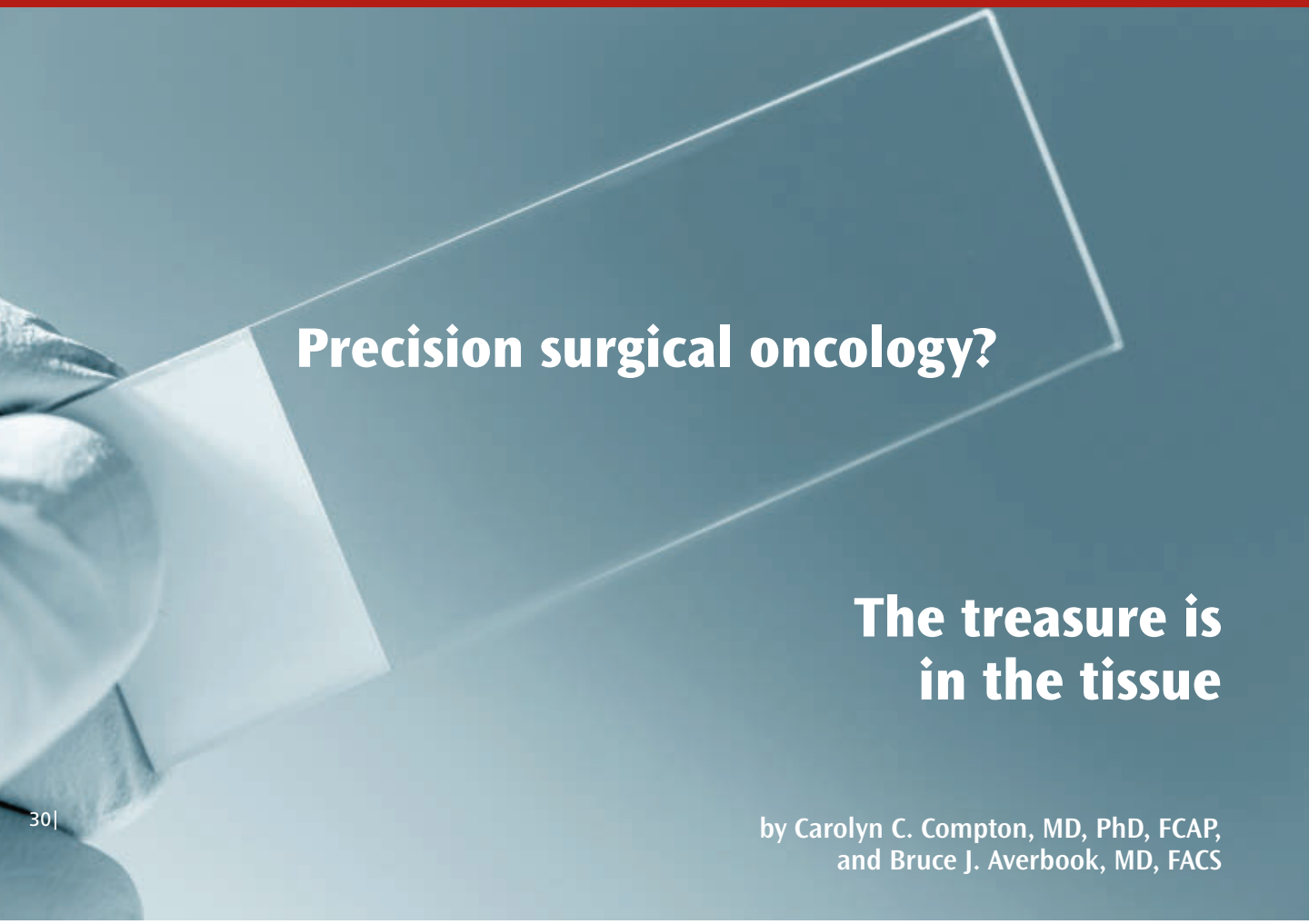
Mrs. Anderson, as she would have been known in England, a title without the appellation "doctor" that to English surgeons is an honor (stemming from the time of the barber-surgeons), lived for 16 years after her retirement at the age of 65 in 1901. She spent the rest of her life surrounded by family and beloved of her colleagues, her mentees, and her community. She never attained any national honors, though she clearly deserved them, because Queen Victoria never forgave her for stepping out of the mold of the Victorian lady and, horrors, getting a medical degree from France. Her son, Edward VII, did not rectify his mother's omission. Ultimately, Elizabeth became forgetful and developed progressive dementia, a fate I hope to avoid. She died in 1917, at the age of 81.

Clearing the path for other women

I have stressed the early struggles of this great pioneer of women. Once she had obtained medical training, her social position and her wealth allowed her to do many things that a poor woman could not accomplish. For all her life, she helped those women coming after her and, along with her friendship with Emily Pankhurst, the famous suffragette, helped to obtain the vote for women and better their position in society, regardless of whether they were physicians. She certainly paved the way for us all, always striving to reach equality but not receive special privileges.

I will close with Elizabeth's words: "I ask you to turn your thoughts to the future and to consider where further progress is most wanted."[†] We must guarantee that future patients will receive not only the latest in technological advances but the best in humanitarian care that transcends gender, ethnicity, religion, and specialty. ♦

[†]Manton J. *Elizabeth Garrett Anderson*. New York, NY: E.P. Dutton and Co. Publishers; 1965.



Precision surgical oncology?

The treasure is in the tissue

by Carolyn C. Compton, MD, PhD, FCAP, and Bruce J. Averbook, MD, FACS

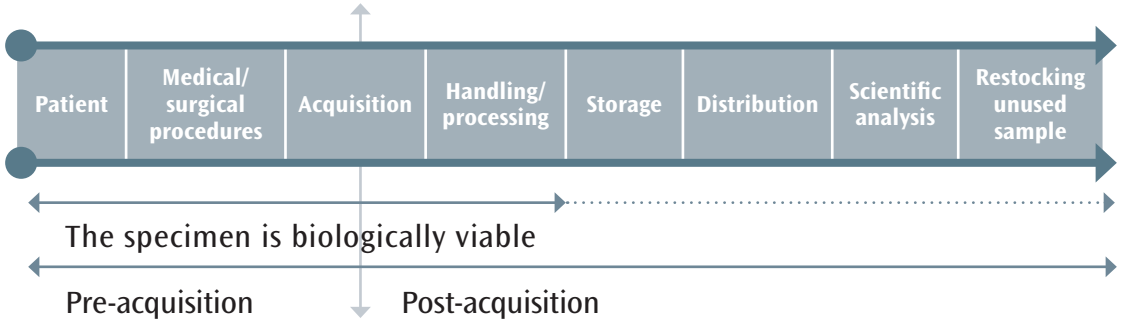
HIGHLIGHTS

- Summarizes the challenges of obtaining uncompromised cancer resection specimens
- Describes cold ischemia time and its effect on molecular analysis data
- Outlines ACS and ASCO-CAP collaborative efforts to improve the integrity of biospecimens

In the era of precision oncology, the molecular biological data derived from patient biospecimens directly influences patient management. For cancer resection specimens, traditional types of specimen-derived data, such as tumor type, grade, pathological stage, and resection margin status, also are essential and must be accurately reported; however, these data are derived from histopathological observation and are rarely significantly compromised by preanalytical variables in the biospecimen "life cycle" (see Figure 1, page 31). Therefore, little, if any, attention needed to be directed toward the standardization, control, and tracking of preanalytical variables. With molecular assessment now standard for many cancers and increasingly required for many others, the bar for the molecular quality of cancer biospecimens has gone up and has given preanalytics a much greater level of significance.

Preanalytical variables, for any patient biospecimen, include all of the processing, handling, and transport procedures the specimen undergoes, along with all of the physical and environmental factors to which it is exposed before being analyzed. Many of these variables have profound effects on the molecular quality of patient biospecimens but may have little or no effect on morphological parameters. Thus, historically, before molecular testing of patient

FIGURE 1. THE LIFE CYCLE OF A SURGICAL RESECTION SPECIMEN



specimens became standard practice, the bar for preanalytical variation was only as high as it needed to be for routine histopathology.

Despite the fact that the current level of attention to and control over preanalytical variables is wholly inadequate for molecular testing, it has never been changed appropriately to ensure the molecular integrity of patient specimens to meet the needs of precision oncology. Because professional perceptions about biospecimen stewardship, for both surgeons and pathologists, are still based largely on this historically low bar for biospecimen quality, there is an urgent need to change the culture of surgery and surgical pathology practice to ensure the control of specimen quality is a primary focus. Safeguarding the molecular quality of patient biospecimens is vital for precision oncology and must be regarded as an integral part of the professional responsibilities of surgeons and pathologists.

Cold ischemia time

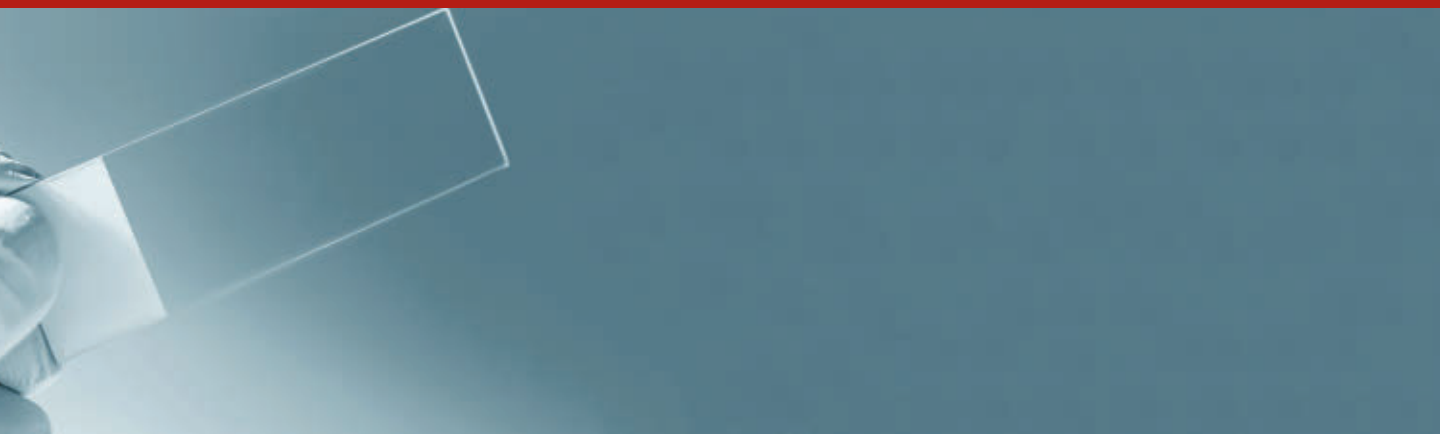
One of the most important preanalytical variables starts in the operating room (OR) and is known as cold ischemia time—the period that elapses between removal of the tissue from the body by the surgeon and the fixing or freezing of the tissue (processes known as tissue stabilization) by the pathologist. During this time, the tissue is still viable and experiences major biological stress in the form of anoxia, nutrient deprivation, temperature change, and desiccation with subsequent changes in gene expression, protein translation and modification, and molecular degradation. Stabilization halts further biological activity or molecular degradation and represents a critical and time-sensitive step in tissue processing.

Cold ischemia time affects different classes of biomolecules in different ways, depending on the relative lability or stability of the molecular entity. However, cold ischemia time should always be as short as possible, but a maximum of one hour would be a reasonable goal that is both data-driven and practicable in the clinical setting.*

At present, the only enforced cold ischemia time in pathology practice comes from the American Society of Clinical Oncology/College of American Pathologists (ASCO-CAP) human epidermal growth factor receptor 2 (HER2) testing in breast cancer guidelines with a strong recommendation of time to fixative within one hour.* With the exception of this special case, cold ischemia times for cancer resection specimens can vary significantly—from minutes to days—and there are no requirements to record, let alone control, cold ischemia times for these specimens. Thus, the molecular quality of the vast majority of cancer resection specimens, and, therefore, their "fitness" for molecular testing, is largely or completely unknown at the time of analysis. When the molecular composition is altered and the quality of tissues is compromised, as often occurs as a result of cold ischemia-related factors, the molecular analysis data derived from the tissue is unreliable. In fact, the quality of the molecular data derived from a biospecimen can never be higher than the quality of the molecular analytes in that specimen.

The ultimate risk, of course, is that incorrect molecular analysis data generated from compromised tissue specimens will lead directly or indirectly to inappropriate or erroneous patient management decisions, or worse, fatal errors in judgment. In a setting in which

*Wolff AC, Hammond ME, Hicks DG, et al. Recommendations for human epidermal growth factor receptor 2 testing in breast cancer: American Society of Clinical Oncology/College of American Pathologists Clinical Practice Guideline Update. *J Clin Oncol*. 2013;31(31):3997-4013.



the results of a companion diagnostic test are the gateway to the informed use of a specific (often costly) therapy, the stakes are high, and neither a false negative nor a false positive can be tolerated.

The quality gap

The case for extending control over cold ischemia time for every surgical resection specimen from every cancer patient would seem to be evident given the potential detrimental impact of this variable on molecular integrity and the increasing focus on specimen-derived molecular data. Nevertheless, most cancer resection specimens fall into a quality gap in the chain of custody from surgeon to pathologist, largely due to the aforementioned problem in professional perception and practice.

Specifically, the issue has to do with a surgeon's perception that safe and effective excision of the diseased tissue is his or her primary responsibility while the custodianship of the resected tissue is not part of this duty. Surgeons typically delegate custodianship to OR staff and other hospital staff who may handle/carry the specimen, place it in a holding station (often a refrigerator), or deliver it to the pathology department. No records are required to document the variations in physical conditions to which specimens are subjected nor is the time lapse between resection and delivery to pathology recorded.

Pathologists, for their part, typically consider the specimen to enter their domain of professional responsibility only after it is delivered to their department. Their knowledge of the events preceding the delivery of the specimen to the pathology department, including the exact time of resection and removal of the specimen (the start of cold ischemia time), is usually minimal to nonexistent. However, it is important to note that even after the specimen has been accessioned to pathology, there is no requirement to control or record the duration or conditions of the cold ischemia time that elapses prior to gross examination and tissue stabilization. The challenge of controlling and recording cold ischemia time can only be met if surgeons and pathologists alike change these practices and jointly share the responsibility for custodianship of the specimen.

Joint dialogue

Pathologists are stepping forward to address their part of the preanalytics challenge, but much remains to be done, both inside and outside of the discipline of pathology. Although the ultimate goal is a sweeping improvement in the molecular integrity of all resection specimens for all cancer patients, this milestone cannot be achieved without the collaborative efforts of surgeons.

Initiating a culture change

The ASCO-CAP and the American College Surgeons, under the auspices of the Commission on Cancer (CoC), have initiated a joint dialogue emphasizing the importance of surgeons and pathologists working together to improve the molecular integrity of resection specimens. The CoC has appointed Bruce Averbook, MD, FACS, a coauthor of this article, as its representative to this effort with the goal of defining coordinated surgical and pathology practices that ensure coordinated custodianship for surgical resection specimens in routine practice. The CoC and the ASCO-CAP agree that closure of the quality gap for surgical resection specimens is essential for high-quality care of cancer patients and that this effort is the joint responsibility of surgeons and pathologists.

Changing the cultures of both the OR and surgical pathology practice is a daunting challenge. Not only will it require educational initiatives for surgeons and surgical pathologists, but for other essential staff such as nurses, radiology staff (for example, for breast

Changing the cultures of both the OR and surgical pathology practice is a daunting challenge. Not only will it require educational initiatives for surgeons and surgical pathologists, but for other essential staff such as nurses, radiology staff...and pathology assistants as well.

tissue undergoing specimen imaging), and pathology assistants as well. The time during which the resection specimen sits at room temperature after removal, the length of time required for packaging, labeling, and transport, and the number of handoffs between carriers/transporters all become important considerations for systems analysis at any institution. The surgeon will need to be aware of, and seek to remedy, these issues at his or her institution, which will vary significantly depending on practice setting.

It will be essential to always track and record the time from tissue resection/harvest to the tissue stabilization step and to foster good communication between the OR and the pathology team. In institutions with high volumes of cancer surgery, it may even be necessary to have dedicated personnel who serve as "tissue navigators" and have specimen handling, transport, and annotation (recording of key preanalytical factors) as their primary role. Alternatively, this role might be developed as a specialty focus for existing staff, such as pathology assistants.

Routine logistical and operational issues will need to be addressed on an institution-specific basis to accomplish the goal of controlling cold ischemia time. Special or unusual circumstances that could affect cold ischemia time may need to be addressed as well. For example, it may no longer be acceptable to keep resected cancer specimens in a holding refrigerator overnight and deliver them to the pathologist in the morning for processing. This revised process would include surgical specimens resected after usual business hours, such as add-on cases or emergency cancer cases (for example, bowel obstruction or perforation). Wire localization procedures or any localization step that requires radiological confirmation by tissue re-imaging after harvest/resection can increase cold ischemia time both in time for imaging and time for transport from the OR to radiology and back and then on to pathology.

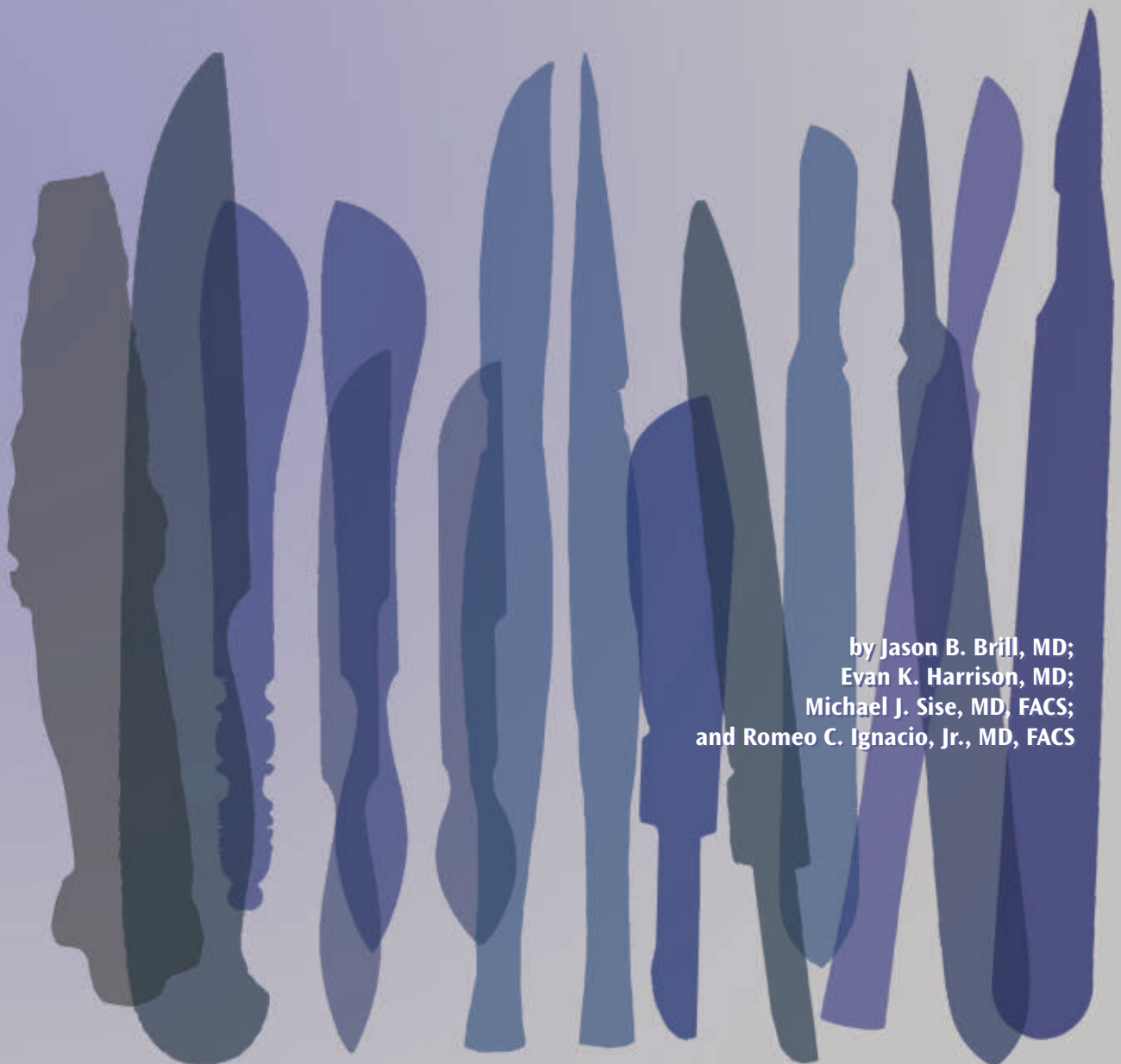
A variety of other challenges also may impede prompt specimen processing, including the availability of personnel for transporting specimens as soon as they are ready for delivery or the existence of long distances between the OR and the pathology department. In addition, the lack of availability of pathologists at satellite outpatient surgery centers may need to be addressed at some institutions. Lastly, the transplant patient presents another urgent circumstance that will require more flexibility on the part of the pathology team to be available as required.

A step forward

Closure of the quality gap for cancer resection specimens is an essential step forward for quality practice of precision oncology, but it will also have widespread effects on translational research. Most of the biospecimens that are used in correlative scientific studies of patients in clinical trials and that contribute directly or indirectly to biomarker and/or new product development come from clinically derived samples. Thus, improving the molecular quality and consistency of cancer resection specimens will simultaneously improve the quality of patient care and translational research with obvious benefits for cancer patients, both present and future.

Though challenging, closing this quality gap falls clearly into the category of "the right thing to do." CoC accreditation standards may change in the future with regard to documentation of cold ischemia time, timely specimen management, and compliance with a goal of tissue stabilization within an hour. We need to start now. ♦

The history of the scalpel: From flint to zirconium-coated steel



by Jason B. Brill, MD;
Evan K. Harrison, MD;
Michael J. Sise, MD, FACS;
and Romeo C. Ignacio, Jr., MD, FACS

HIGHLIGHTS

- Describes the origins and evolution of the scalpel
- Summarizes the transition to the modern scalpel
- Outlines key developments such as retractable blades and their effect on the surgical profession

Editor's note: The following article is based on a poster presented at the History of Surgery Poster Session at the American College of Surgeons (ACS) Clinical Congress 2017 in San Diego, CA. The session is sponsored each year by the Surgical History Group. For more information, go to *facs.org/archives*.

The surgical knife, one of the earliest surgical instruments, has evolved over 10 millennia. While the word "scalpel" derives from the Latin word scallpellus, the physical instruments surgeons use today started out as flint and obsidian cutting implements during the Stone Age. As surgery developed into a profession, knives dedicated to specific uses also evolved. Barber-surgeons embellished their scalpels as part of the art of their craft. Later, surgeons prized speed and sharpness. Today's advances in scalpel technology include additional safety measures and gemstone and polymer coatings. The quintessential instrument of surgeons, the scalpel is the longstanding symbol of the discipline. Tracing the history of this tool reflects the evolution of surgery as a culture and as a profession.

Origins

Pinpointing a specific period of time when a cutting implement became the first surgical knife depends largely on perspective. Shells, razor-like leaves, bamboo shoots, and even fingernails may all be viewed as early surgical instruments. Thumbnails for newborn circumcisions, scarification via plant stems, and venesection with sharks' teeth served as the first examples of sharp tools for procedures on the human body.[1,2]

John Kirkup, MB, BS—a retired surgeon and honorary curator of the Historical Instruments Collection at the Royal College of Surgeons of England—researched the history of surgical tools for more than 20 years.[3] According to Dr. Kirkup, circumcision with sharpened stones, one of the earliest recorded elective procedures, evolved into knives used for basic procedures.[4] Excavations of archaeological sites dating to

FIGURE 1.
FLINT DAGGER OF ÖTZI THE ICE MAN

Image © South Tyrol Museum of Archaeology/ Harald Wisthaler, Bolzano, Italy

FIGURE 2.
EXAMPLE OF A ROMAN SCALLPELLUS AND SIMILAR INSTRUMENTS

Courtesy of Historical Collections & Services, Claude Moore Health Sciences Library, University of Virginia, Charlottesville

FIGURE 3.
SURGICAL SET FROM THE AMERICAN REVOLUTIONARY WAR

Displayed in the Smithsonian National Museum of American History, the set includes wood and iron handles and required routine sharpening of the blades

FIGURE 4.
DETACHABLE BLADES FROM CIRCA 1900

Courtesy of the Royal College of Physicians and Surgeons of Glasgow, Scotland

the Paleolithic and Neolithic periods revealed knives for surgical use as early as 10,000–8,000 BC.[5]

Blades were initially composed of flint, jade, and obsidian, with specific pieces chosen for their sharp edges. Fracture and flake techniques were then employed to refine these early blades into cutting instruments with desired characteristics, making these objects among the first human-refined tools.[6]

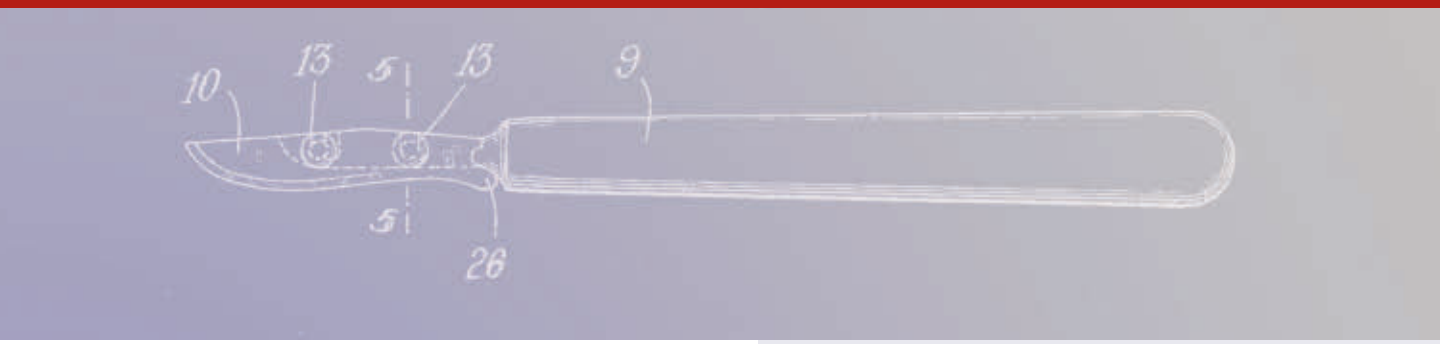
A particularly well-preserved prehistoric blade mounted onto a handle was found in 1991, preserved in ice near the Austrian-Italian border (see Figure 1, page 35). These types of tools were used for scarification, venesection, lancing, and circumcision. In fact, these instruments were still used for many of the same purposes by Alaska Native tribes well into the 19th century.[7] Evidence of obsidian blades used for more complex procedures such as craniotomies appeared around 4000 BC in prehistoric Anatolia, modern-day Turkey. Some archeological specimens are still sharp enough to incise skin.[8]

Transition to modern scalpels

Metal blades replaced sharpened stone: first it was copper (3500 BC), followed by bronze and then iron (1400 BC). But it wasn't until 400 BC that the concept of a surgical knife was first described by Hippocrates.[9] He used the term "macairion," a smaller version of a Lacedaemonian sword called a "machaira," to describe the surgical tool. The machaira was a broad-cutting blade with a single edge and sharp point, containing the same essential features of the modern scalpel as defined by *Stedman's Medical Dictionary*: "A pointed knife with a convex edge."[10,11] In Rome, Galen and Celsus used an instrument with this shape—a small, sharp blade for specialized used for incision and drainage, tendon repairs, and vivisections (see Figure 2, page 35).

The Romans named their version of this tool the scallpellus, the diminutive form of the word scalper ("incisor" or "cutter").[12] With the collapse of the Roman Empire, surgical innovation flourished in the Islamic Golden Age. Albucasis (Abū al-Qāsim Khalaf ibn al-'Abbās al-Zahrāwī, 936–1013) in the Caliphate of Córdoba (modern Spain) used a scalpel that held a retractable blade.[13,14] Surgical instruments became even more varied and specialized with the Renaissance in the 14th and 15th centuries. Embellishments to the scalpel included fixed and folding blades and specialized tips, such as lancets, bistouries, and double-edged blades called catlins.

Barbers working during the Renaissance period, including fathers of modern surgery such as Guy de Chauliac and Ambroise Paré, used ornamented scalpels with artistic flourishes that enjoyed wide popularity for several hundred years.[15] The requirements of antisepsis and asepsis in the late 19th century subjected instruments to caustic chemicals and pressurized steam sterilization, so nonmetallic decorations became obsolete (see Figures 3 and 4, this page).



Disposable scalpels

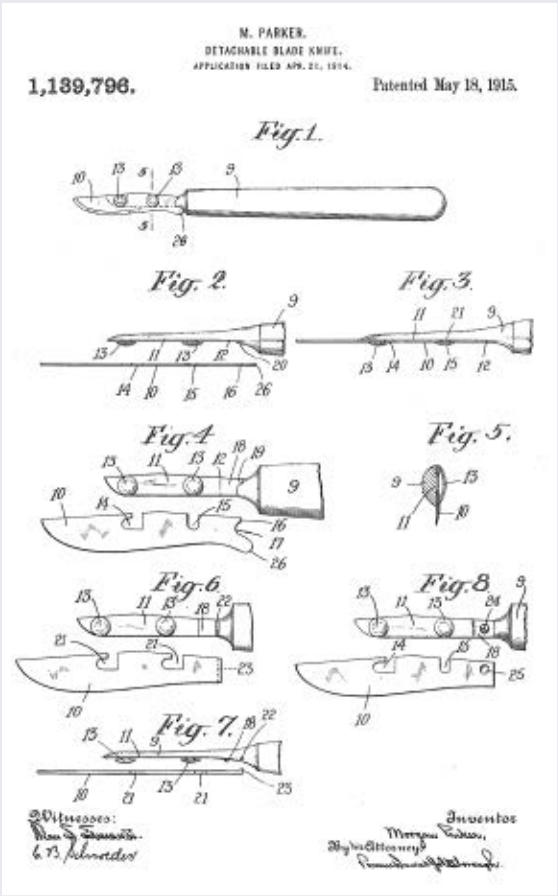
King C. Gillette founded the American Safety Razor Company (later the Gillette Safety Razor Company) in 1901 to produce and market a handle-and-frame device that held disposable razors. John Murphy, MD, FACS, a Chicago, IL, surgeon and one of the founders of the ACS, adapted Gillette's razors into a tool that could be used when performing surgical operations. Dr. Murphy's version featured interchangeable blades, although it required extra instruments to complete a blade exchange.[16]

In 1914, Morgan Parker, a 22-year-old engineer, invented the two-piece blade-and-handle medical scalpel that is used in ORs today.[10] It allowed rapid mass-produced, sharp blades to be used and exchanged on standard reusable handles. According to legend, Mr. Parker's uncle, a New York, NY, surgeon, became impatient with the cumbersome process of the blade exchange in his busy practice. A glance at Mr. Parker's elegant solution reveals its genius (see Figure 5, this page). He stated the following in his original patent application: "For the purpose of securing the blade to the handle, headed studs are preferably provided on the handle adapted to co-act with suitable slots in the blade. When such headed studs and slot are employed, the blade may be readily secured upon the handle and when in position will be held so rigidly as to preclude the possibility of movement relative to the handle."[17]

When Mr. Parker presented his scalpel at the ACS Clinical Congress of 1915 in Boston, MA, its reception encouraged him to take it to production. Mr. Parker, an engineer but not a businessman, sought a partner. The first name listed alphabetically in the phone book under "medical suppliers" was C.R. Bard. Together, they formed the Bard-Parker Company, which became one of the iconic names in surgery. They developed cold sterilization to avoid superheating, which killed microorganisms, but also dulled the blade. The rib-back handle replaced those that bore the paired studs in 1936 in order to ensure one-way fitment between the blade and handle.

The numbering system of blades and handles is arbitrary, a fact that likely confirms the suspicions of generations of surgical interns. As part of the Bard-Parker

FIGURE 5.
MORGAN PARKER'S ORIGINAL PATENT


M. PARKER.
DETACHABLE BLADE KNIFE.
APPLICATION FILED APR. 21, 1914.

1,139,796. Patented May 18, 1915.

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4

Fig. 5.

Fig. 6

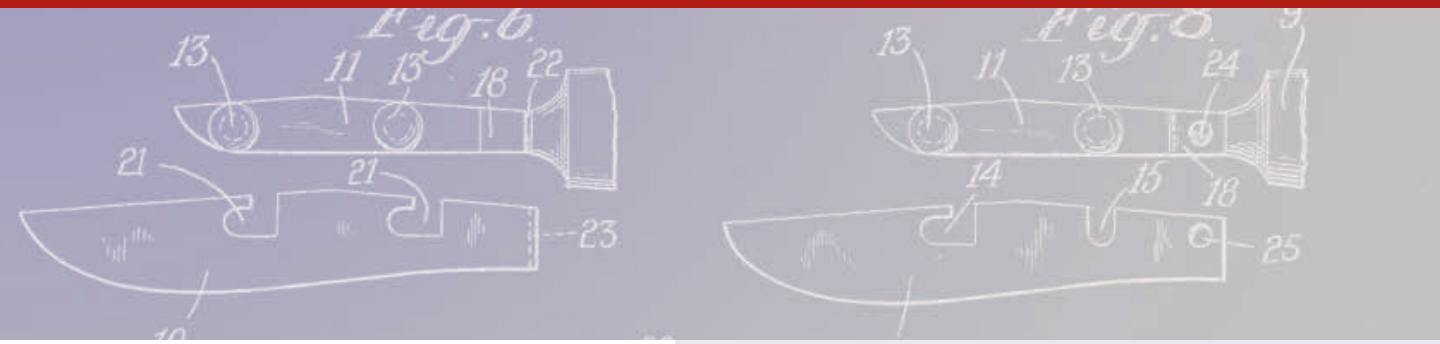
Fig. 8

Fig. 7.

Witnesses:

Inventor

Source: United States Patent and Trademark Office, *www.uspto.gov*



marketing scheme, each new blade and handle design was given a new number and occasionally a letter that denoted a "new and improved" model (for example, #15C).[18] As a result, a given number has no relation to size, shape, sharpness, or even a place in the product timeline.

Modern additions

In the modern era, hardened alloys, such as 316L and 440C stainless steel, replaced carbon steel in most settings. Stainless steel had superior corrosion resistance, and reusable handles benefited most from the high chromium content of stainless steel. Retracting blades, a concept dating to the time of Albucasis of the 10th century, became an increasingly common safety feature. Nickel and chromium plating became less common. Recent technological improvements include zirconium nitride, diamond, and polymer coating that enhance the cutting edge. For all the improvements evident in contemporary surgical technology, electron microscopic images actually confirm that the edge of Neolithic obsidian blades exceed today's steel scalpels in sharpness.[19]

Conclusion

The scalpel, since its first use as a medical knife by the Romans, has been a symbol of the surgeon. Its evolution in many ways mirrors the progress of those wielding it. Prehistoric humans used stone tools occasionally for medical uses. The Greeks and Romans advanced both knowledge and skill while creating dedicated surgical knives. The barber-surgeons refined techniques as they refined the instruments used for them. Asepsis mandated sweeping changes in both scalpel and surgical practice. Today, the modern surgeon relies on a wide array of technologically advanced and ever-changing equipment, yet the operation still begins with the scalpel, the profession's oldest instrument. ♦

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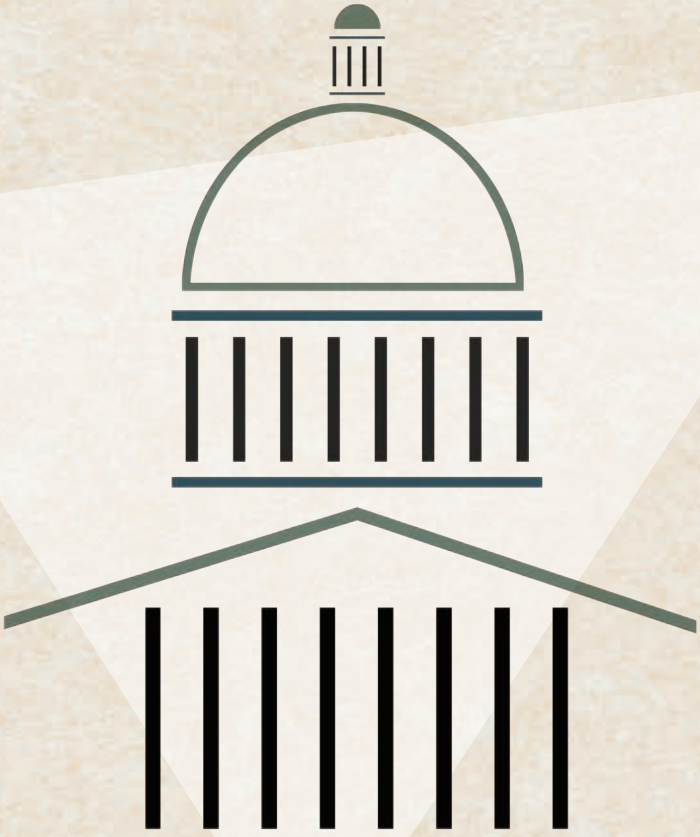

ACS manages 2017 legislative gains despite Hill focus on ACA repeal, tax reform

by Kristin McDonald

Congress concluded 2017 with a landmark vote on a tax package that contained a repeal of the individual health insurance coverage mandate in the Affordable Care Act (ACA) in 2019. This action represents the most the Republicans could agree to in their efforts to repeal and replace the ACA—after years of health care debate marked by the divisive politics that accompanied any discussions surrounding "Obamacare." And while repeal of the individual mandate does undo a key component of the ACA, it is likely that additional efforts to repeal, adjust, or improve other portions of the ACA will occur in 2018.

The repeal of the individual mandate will probably continue to drive the health care conversation in 2018. However, providers and their patients are facing many issues beyond the ACA, and in an environment that is mostly overcast with such a large-scale priority, it can leave little daylight for other legislative issues. It is in this context that the American College of Surgeons (ACS) continues to fight for the College's policy priorities, both in the debate over the ACA, as well as with respect to issues that affect surgeons and surgical patients.

The College's policy priorities are set and examined annually at the Division of Advocacy and Health Policy's (DAHP's) meeting with the Health Policy and Advocacy Group (HPAG) at the beginning of the year. The issues facing the practice of medicine are numerous and broad in scope. As such, the DAHP and HPAG had 44 policy priorities to discuss with state and federal decision makers at the beginning of 2017; that list only grew over the course of the year as Congress delved deeper into various aspects of health care. While not all 44 issues received attention from Congress in 2017, they are topics on which the DAHP continued to educate members of Congress, as well as to advocate and develop solutions over the course of 2017. It is likely that 2018 will see a similarly lengthy list, and the College will continue to push for appropriate action on each issue.

The College has taken the lead on a number of legislative activities, including efforts to improve the implementation of the Medicare Access and CHIP (Children's Health Insurance Program) Reauthorization Act of 2015 (MACRA); ensure access to surgeons in shortage areas; provide appropriate pain control; provide Stop the Bleed® training to members of Congress; and advocate for high-quality cancer care. As the College has worked to develop solutions on legislative priorities, it also has sought new ways to engage Fellows as grassroots activists through in-district meetings, virtual Hill days, and improvements to *Surgeons*Voice—the ACS Professional Association's nationwide, interactive advocacy program—to make taking action on legislation easier for busy surgeons. A summary of the College's key activities in 2017 follows.

MACRA

The College has been closely tracking the implementation of MACRA, including moving the ACS-Brandeis Advanced Alternative Payment Model through the approval process at the U.S. Department of Health and Human Services (HHS). Frank G. Opelka, MD, FACS, ACS Medical Director, Quality and Health Policy, in November 2017, testified on this process before the U.S. House Committee on Energy and Commerce Health Subcommittee's hearing, MACRA and Alternative Payment Models: Developing Options for Value-based Care.

The ACS also is carefully monitoring implementation of the Merit-based Incentive Payment System (MIPS) and offering solutions to problems with the program. While most improvements to MIPS will be done through the regulatory process, some changes only Congress can make. The key congressional committees with jurisdiction over MACRA, such as the Senate Finance Committee, were unable to focus attention on improvements in 2017 because of competing priorities but have expressed openness to addressing concerns related to MIPS this year. Ensuring that surgeons can succeed in MIPS remains a top priority for the College in 2018.

Workforce shortages

For a number of years, the College has been raising awareness about the growing shortages in the surgical workforce. A 2016 study prepared by the University of North Carolina at Chapel Hill found that while the supply of general surgeons will grow slightly by 2030, it will not match overall growth in the U.S. population or the demand for surgical services.

A 2017 report from the American Association of Medical Colleges projects shortages in all surgical specialties by 2030. Additionally, the Health Resources and Services Administration (HRSA) estimates the supply of general surgeons will not keep pace with population growth, falling behind by nearly 3,000 general surgeons by 2025. HRSA also highlights that no consistent national or regional data source is available to estimate baseline shortages or surpluses and points out that the lack of data forces the agency to use the current (2013) supply of general surgeons as the baseline for demand.

U.S. Reps. Larry Bucshon, MD, FACS (R-IN), and Ami Bera, MD (D-CA), and Sens. Charles Grassley (R-IA) and Brian Schatz (D-HI), introduced the Ensuring Access to General Surgery Act of 2017 (H.R. 2906/S. 1351) legislation that would direct the government to study what constitutes a general surgery shortage area, determine where such shortages exist, and whether a formal general surgery shortage area designation is warranted. The bill also grants authority to the HHS Secretary to make a formal designation based on the data.

The legislation has been a key component of the College's grassroots efforts. It was a topic during the 2017 Advocacy Summit in Washington, DC, with

more than 300 surgeons participating in more than 200 meetings on Capitol Hill to raise awareness of the shortage. Fellows also have sent nearly 500 letters to Capitol Hill encouraging members of Congress to support the legislation.

Opioids

Congress continues to seek ways to address the growing opioid crisis. Recently, the College was asked to join the congressional Bipartisan Working Group, a coalition of legislators from both sides of the political spectrum who meet regularly to discuss pending issues before Congress, to share the physician perspective on solutions to the opioid epidemic. John Daly, MD, FACS, Co-Chair of the ACS Patient Education Committee, participated in the meeting and used his experience as co-chair to provide key insights to lawmakers regarding how to best address the opioid crisis, while also ensuring that physicians can provide appropriate care to their patients.

Following the working group meeting, Dr. Daly met with other lawmakers to highlight several of the informational tools the ACS is using to educate both patients and prescribers about the effects of opioids. These materials include the Statement on the Opioid Abuse Epidemic (*facs.org/about-acs/statements/100-opioid-abuse*), a patient education guide, and the August opioid-focused edition of the *Bulletin* (*bulletin.facs.org/2017/08*). Through these congressional meetings, the ACS continues to play an active role in addressing the opioid epidemic, an issue likely to receive continued policymaker attention in 2018 and beyond.

Stop the Bleed

The Stop the Bleed® program has captured the attention of key members of Congress. In 2017, as part of a renewed focus on in-district meetings, the DAHP assisted Fellows in providing bleeding control training to their members of Congress during the August in-district work period.

Furthermore, in October 2017, the College hosted a Stop the Bleed training program on Capitol Hill for members of Congress and their key staffs. The congressional event focused on how early intervention from a Stop the Bleed-trained individual can save the life of someone suffering from a bleeding injury. In addition to providing valuable training to lawmakers, this event showcased the vital role that surgeons play in educating the public.

ACS Fellows who led the training include ACS Regent Lenworth M. Jacobs, Jr., MD, MPH, FACS; Leonard J. Weireter, Jr., MD, FACS; Mark L. Gestring, MD, FACS; John H. Armstrong, MD, FACS; Joseph V. Sakran, MD, MPH, MPA, FACS; and Jack Sava, MD, FACS. Congressional special guests included Dr. Bera and Reps. Phil Roe, MD (R-TN); Raul Ruiz, MD (D-CA); and Brad Wenstrup, DPM (R-OH), who provided opening remarks.

Members of Congress and their staff left the program with a better understanding of how to become lifesaving immediate responders, and of the value of Stop the Bleed training. They also left with the intention of encouraging their colleagues to participate in the program. As a result, the DAHP developed several Stop the Bleed initiatives on Capitol Hill that will be a part of 2018 programming.

Cancer

ACS Cancer Programs, including the Commission on Cancer (CoC) and the National Accreditation Program for Breast Centers, are consortiums of professional organizations dedicated to improving survival and quality of life for cancer patients through standard-setting, prevention, research, education, and accreditation. DAHP staff worked with the CoC's Advocacy Committee to develop a robust advocacy agenda that includes issues ranging from

palliative care, to cancer research funding, to a special resolution championed by Reps. Lynn Jenkins (R-KS) and Mike Thompson (D-CA) that recognizes the importance of voluntary accreditation by ACS Cancer Programs to ensure access to high-quality cancer care.

This portfolio of issues was part of the College's first virtual Hill day, an event that enabled surgeon advocates across the nation to participate and make their voices heard by colleagues, members of Congress, and the public via social media. Participants used Twitter hashtag #cancerprogramsday and other ACS handles to advocate for policies that could affect the future of cancer care; contacted members of Congress via *Surgeons*Voice; and shared information via social media about how cancer education, research, and prevention saves lives.

The ACS Cancer Programs October 2017 virtual Capitol Hill day resulted in 60 letters to members of Congress; more than 245 #cancerprogramsday tweets; more than 14,340 Twitter impressions (interactions or replies from others online), including 50 retweets; and engagement of several members of Congress, including Representative Thompson and Sen. Lisa Murkowski (R-AK).

More ways to get involved

These bills and examples of engagement represent only a small snapshot of the efforts of the College to advocate on behalf of the Fellows, but they do highlight the diverse set of policy priorities the ACS seeks to advance each year. While the politics in an election year are likely to be even more heated than in 2017, the all-consuming debate over the repeal and replacement of the ACA should consume less time, allowing for more movement on some of the key issues facing medicine. The College will continue to raise awareness in 2018 and encourage the resolution of key issues facing surgeons and surgical patients.

ACS members can actively influence key surgical issues throughout 2018. The following are some examples of ways to be engaged:

- Stay informed about ACS legislative priorities by reading *ACS NewsScope* weekly, checking the ACS Advocacy web page at *facs.org/advocacy* and *surgeonsvoice.org,* and reading "Dateline: DC" in the online *Bulletin*.
- Build relationships with your lawmakers and their local staff by arranging in-district meetings, attending town halls, or inviting them to visit your surgical practice; details for setting up an in-district meeting are available at *facs.org/advocacy/participate/surgeonsvoice/guide*.
- Respond to ACS calls to action by contacting your lawmakers through *Surgeons*Voice at *surgeonsvoice.org*.
- Mark your calendar to participate in the 2018 Leadership & Advocacy Summit, May 19–22 in Washington, DC, as well as your local ACS chapter's state lobby day.
- Learn about the ACSPA-*Surgeons*PAC at *surgeonspac.org*. ♦

Statement on Cannabis Regulation and Risk of Injury

The American College of Surgeons (ACS) Committee on Trauma (COT), through its Subcommittee on Injury Prevention and Control, developed the following Statement on Cannabis Regulation and Risk of Injury to educate surgeons and other medical professionals on the significance of cannabis and its effect on safety and the risk of injury. The ACS Board of Regents approved the statement at its October 2017 meeting in San Diego, CA.

The ACS recognizes the following:

- Cannabis is among the most commonly abused substances in the U.S., and its use has increased over the past decade, while active components have increased almost sixfold in content and potency over the last three decades. Cannabis is also one of the most commonly detected intoxicants in driving-related incidents.[1-4]

- More than 25 states have enacted laws legalizing marijuana to some degree.[1,3]

- Cannabis impairs the ability to perform tasks associated with driving in a dose-dependent fashion for several hours after using a cannabis-containing product.[5,6]

- Cannabis-associated motor vehicle operation has increased fivefold over the past quarter-century, especially in states where its use has been legalized or decriminalized.[7,8]

- Current methods for determining cannabis-related intoxication are challenging and difficult to utilize at the point of need, and may not accurately determine impairment.[5,9-12]

- Since 1970, cannabis and cannabinoid-containing compounds have been listed by the Drug Enforcement Administration as a Schedule I Controlled Substance with "no currently acceptable medical use" and the Food and Drug Administration has not

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approved marijuana as a safe and effective drug for any indication.[13]

The ACS therefore supports the following:

- Educating the public about safe driving habits and the risks of recent cannabis use, including co-use with alcohol, medications, or any illicit substances[14]
- Funding research to determine appropriate medical cannabis use and restriction for use in conjunction with motor vehicle operation[15]
- Developing evidence-based legislation to deter driving while intoxicated in conjunction with reliable point-of-care tests to accurately identify cannabis intoxication or impairment
- Encouraging the comprehensive care of the injured patient, including attention to the use of substances that impair judgment and dexterity, including cannabis
- Researching the effectiveness of brief interventions to reduce cannabis-intoxicated driving[16] ♦

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Statement on Post-Traumatic Stress Disorder in Adults

The American College of Surgeons (ACS) Committee on Trauma (COT), through its Subcommittee on Injury Prevention and Control, prepared the following Statement on Post-Traumatic Stress Disorder in Adults to educate surgeons and other medical professionals on the significance of post-traumatic stress disorder (PTSD) and the mental health impact of trauma. The ACS Board of Regents approved this statement at its October 2017 meeting in San Diego, CA.

The ACS recognizes the following facts:

- PTSD is a state of anxiety following a physical or psychological traumatic incident that includes symptoms of extreme fear, anxiety, insomnia, helplessness, and recurring memories that may result in avoidance of people, places, or objects associated with the event. Symptoms lasting longer than 30 days after the event are considered to be PTSD.

- Epidemiologic investigation at U.S. trauma centers demonstrates that approximately 20–40 percent of injured trauma survivors experience high levels of PTSD and/or depressive symptoms during the year following injury.[1-3]

- A series of investigations now demonstrates a strong relationship between the symptoms of PTSD, depression, and functional impairments after injury.[1-3]

- Victims of interpersonal violence have an increased risk of PTSD.[4-7]

The ACS supports efforts to promote, enact, and sustain legislation and policies that encourage:

- Implementing a screening/referral protocol into the care of trauma patients using an evidence-based tool, such as the Primary Care PTSD screen (PC-PTSD), PTSD Checklist–Civilian version (PCL-C), and integration of the protocol into the electronic health record[8-10]

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- Implementing hospital-based violence intervention programs with a mental health component in hospitals that care for those individuals injured as a result of interpersonal violence[11]

- Enhanced research funding to better understand PTSD and depression following injury, and to identify best methods of alleviating the symptoms and their sequelae ♦

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Statement on Post-Traumatic Stress Disorder in Pediatric Trauma Patients

The American College of Surgeons (ACS) Committee on Trauma (COT), through its Subcommittee on Injury Prevention and Control, prepared the following Statement on Post-Traumatic Stress Disorder in Pediatric Trauma Patients to educate surgeons and other medical professionals on the significance of post-traumatic stress disorder (PTSD) and the mental health impact of trauma in children. The ACS Board of Regents approved this statement at its October 2017 meeting in San Diego, CA.

The ACS recognizes the following facts:

- PTSD is a state of emotional and behavioral disorder that can result from witnessing or experiencing an event involving actual or possible death, serious injury, or physical or sexual violence.

- PTSD is defined as a set of four symptom clusters that include intrusive memories, thoughts, or sensations relating to the event; avoidance of people, places, objects, or sensations associated with the event; negative alterations in mood and thought patterns; as well as hyperarousal, anxiety, and unhealthy reactivity to stress. Symptoms lasting longer than 30 days after the event are considered to be PTSD, whereas symptoms observed soon after the event (lasting at least three days and up to 30 days) are considered acute stress disorder (ASD).[1]

- Epidemiologic investigation at U.S. trauma centers demonstrates that approximately 20–40 percent of injured trauma survivors experience high levels of PTSD and/or depressive symptoms in the year following injury.[2-4]

- A relationship has been found between the symptoms of PTSD, depression, and functional impairment, as well as quality of life during the first year after injury in adolescents.[4,5]

- Victims of interpersonal forms of trauma, such as domestic or community violence and child physical and sexual abuse, have increased risk of developing PTSD.[7,8]

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- Well-disseminated, evidence-based behavioral interventions exist for treating pediatric PTSD, which can serve as resources for children and adolescents who score positive on screening protocols.[9,10]

The ACS supports efforts to promote, enact, and sustain legislation and policies that encourage the following:

- Implementing a screening/referral protocol into the care of pediatric trauma patients for ASD/PTSD using an evidence-based tool, such as *www.HealthCareToolbox.com* (National Child Traumatic Stress Network), and integration of the protocol into the electronic health record.[8,11-15]

- Implementing hospital-based violence intervention programs with a mental health component specific for children in hospitals that care for those patients affected by interpersonal violence.[16]

- Enhanced research funding to better understand PTSD and other trauma-related disorders in children following injury, and to identify best methods of alleviating the symptoms and their sequelae.

- Parents of trauma-exposed children also may experience emotional and behavioral consequences related to the event, which may influence children's recovery; thus, attending to the parents' needs also is critical. ♦

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Regulatory burden reduction

by Lauren Foe, MPH

Health care providers are inundated with a growing number of regulatory requirements promulgated by various federal agencies. Although these policies are broadly intended to ensure that patients receive care that meets quality and safety standards, providers are confronted with the burden of regulatory compliance. Surgeons find themselves spending more time completing paperwork and other tasks to satisfy administrative requirements, taking away time with patients. The regulatory burdens on surgeons and their practices add hurdles to providing necessary care and increase spending on nonclinical activities.

In January 2017, the Trump Administration issued Executive Order 13771, which seeks to "manage the costs associated with the governmental imposition of private expenditures required to comply with Federal regulations."* Following the release of this order, the U.S. Department of Health and Human Services (HHS) and the Centers for Medicare & Medicaid Services (CMS) began meeting with stakeholders to discuss physician burden and regulatory relief. To further define which regulations are most burdensome and should be modified, CMS launched the Patients over Paperwork initiative, under which agency officials will visit physician practices across the country to gather information on the administrative duties required of health care professionals.

The American College of Surgeons (ACS) has long supported policies that enhance patient care, reduce regulatory burden, and streamline clinical workflow. Over the past year, the ACS Division of Advocacy and Health Policy has positioned the College at the forefront of the regulatory relief movement. The ACS is an active participant in all regulatory reform events hosted by HHS and CMS, and provides feedback to federal leaders on the impact of unnecessary regulations on the provision of essential surgical services. In early 2018, the ACS launched its Stop Overregulating My OR [operating room] initiative, which describes specific actions that should be taken to reduce burdens and enable surgeons to reinvest their time and resources in patients. More information about the initiative is available on the ACS website at *facs.org*.

This column provides an overview of the regulations that are most onerous for surgeons and describes ACS recommendations for reducing or eliminating these encumbrances.

What burdens are associated with the global codes data collection process, and what recommendations does the ACS have for easing these demands?

In July 2017, CMS began collecting data on postoperative visits furnished in the 10- and 90-day global period from physicians who are part of groups of 10 or more providers and who live in one of nine specified states. Under this mandatory reporting policy, which is intended to allow CMS to gather enough data on postoperative visits for the purpose of revaluing surgical services starting in 2019, physicians must report one Current Procedural Terminology (CPT) code 99024 for each postoperative evaluation and management (E/M) visit provided in the global period.†

This reporting requirement disproportionately affects physicians who provide global services. CMS failed to address numerous implementation issues or allow adequate time for provider education before the agency began collecting postoperative visit data. Furthermore, CMS has not assured providers that all claims submitted with the required data will be captured and counted,

*Trump DJ. Executive order: 13771: Reducing Regulation and Controlling Regulatory Costs. January 30, 2017. Available at: www.gpo.gov/fdsys/pkg/FR-2017-02-03/pdf/2017-02451.pdf. Accessed December 28.

†All specific references to CPT codes and descriptions are ©2017 American Medical Association. All rights reserved. CPT and CodeManager are registered trademarks of the American Medical Association.

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has not shared a comprehensive plan for data validation, nor has provided details on how the data will be used in the future.

The ACS urged CMS to delay the collection of global codes data until the agency corrects outstanding implementation issues, tests the reporting and data collection process, and shares a plan for data validation so that providers can confirm that submitted data are received and connected to the correct code. CMS began data collection without addressing these concerns.

The College asserts that CMS should not have imposed this burden on physicians until the data reporting process had been tested and proven to be effective. Without sufficient preparation, physician education, or a plan for data validation, the information collected is inherently flawed and of low statistical quality. Given these unresolved issues, the ACS recommends that CMS avoid using such data to revalue global services in 2019.

What burdens are associated with MIPS benchmarking, and what recommendations does the ACS have for easing these demands?

The Medicare Access and CHIP (Children's Health Insurance Program) Reauthorization Act (MACRA) of 2015 requires that, starting in 2019, the Merit-based Incentive Payment System (MIPS) performance threshold be set at the mean or median of the composite performance scores for all MIPS-eligible physicians, thereby penalizing approximately half of Part B providers. It is purely speculative to consider how CMS will implement the rewards or penalties once the threshold is set. One option would include a graduated scale for rewards or penalties. A graduated scale would mean that physicians clustered near the mean/median would see less impact than physicians who are further from the mean/median. In such a scenario, those furthest from the mean/median would stand to gain or lose the most. Those details will remain unclear until CMS finalizes its benchmarking policy.

The MIPS benchmarking system is inadequate for measuring physician performance and lacks rigor in common data aggregation, common data analytics, and reporting. To accurately compare physicians' MIPS data, CMS must use reliable methods, including standardized data definitions, risk adjustment/data analytics, data ascertainment methods, and data normalization methods. The ACS recommends that CMS provide additional flexibility

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in its benchmarking policy and allow more time to test and implement a statistically valid measure framework that follows care across an episode.

To address the flawed benchmarking process and lack of MIPS measures that are relevant to surgeons, the College is developing a comprehensive measure framework inclusive of high-value process measures across an episode of care, coupled with complementary patient-reported outcome and patient-reported experience measures. This framework provides an opportunity to accurately measure and compare surgeon performance across the phases of surgical care in alignment with a patient's clinical flow.

What burdens are associated with prior authorization, and what recommendations does the ACS have for easing these demands?

Prior authorization (PA) is a process through which approval for coverage of a medical service or supply item must be obtained by a health care provider before the service or item may be furnished to a patient. PA requirements are overused and applied to all physicians, regardless of their ordering patterns or adherence to evidence-based clinical guidelines.

A 2017 ACS survey of nearly 300 Fellows and practice managers indicated that, on average, a surgical practice receives approximately 37 PA requests per surgeon per week, taking providers and staff 25 hours—the equivalent of three business days—to complete. Many practices must hire full-time employees who exclusively process PA requests, as the task of fulfilling all PA requirements, which often include lengthy phone calls and submission of voluminous medical records, is too tedious for physicians and other staff to perform while simultaneously interacting with patients. In addition, there is little to no consistency across insurers' PA programs, forcing physicians and staff to spend significant time reviewing each insurer's PA criteria and processes.

The administrative burdens associated with PA requirements often result in delayed or interrupted treatment and can lead to severe, life-threatening health outcomes. Many patients remain in the hospital while awaiting PA for necessary services or supplies that would allow them to be discharged earlier, which puts them at risk for complications.

The ACS asserts that PA requirements should be standardized across all insurers and that such requirements should be applied only to complex cases or to providers with ordering patterns that differ substantially from their colleagues' after adjusting for patient population. PA should not be required for services or supplies that are standard for a specific condition or that previously have been approved as part of a patient's care treatment plan. A reduction in the variation and scope of PA requirements across insurers could drastically reduce administrative costs to surgeons and ensure prompt delivery of care.

To better integrate PA processes into the clinical workflow, the ACS also recommends that PA requests, decisions, and appeals processes be automated through uniform electronic transaction portals for medical and pharmacy services. To ensure that patients have timely access to care, PA decisions should be transmitted by an insurer to a provider through the appropriate electronic portal within 24 hours for urgent care and 48 hours for non-urgent care. It is crucial that PA information be entered into electronic platforms shared by physicians, administrative staff, and insurers to streamline payor-provider communication and reduce the time and resources practices devote to PA.

What burdens are associated with E/M documentation guidelines, and what recommendations does the ACS have for easing these demands?

The E/M documentation guidelines were developed in 1995 when medical records were on paper. Back then, these guidelines created accountability to describe the level of E/M codes selected for the services billed. In the digital electronic health record (EHR) era, these guidelines are easily proliferated, creating voluminous medical records. The result is extraneous notes of little or no value, including the perpetuation of errors and misinformation. The EHR has become a hindrance to care and communication among providers.

Although it is important that physicians document their work, the current system requires unnecessary information, sometimes obscuring relevant and necessary data for patient care. The ACS recommends that CMS review and modernize E/M guidelines to reduce burdens, remove redundancies, and align use with EHRs. The College urges CMS to convene a group of physicians, including surgeon representatives, to explore the role of medical complexity, risk of medical decision making, and other factors that incorporate aspects of a patient's overall health status into a new weighting of the E/M documentation requirements.

What burdens are associated with the skilled nursing facility three-day stay requirement, and what recommendations does the ACS have for easing these demands?

The skilled nursing facility (SNF) benefit is for Medicare patients who require a short-term intensive stay in a SNF. Beneficiaries must have a prior inpatient hospital stay of at least three consecutive days to be eligible for Medicare Part A coverage of SNF care. If a beneficiary is not admitted to a hospital as an inpatient for at least three days, Medicare will deny Part A payment for stays at a SNF. This requirement compromises some patients' access to necessary post-hospital care coverage under Medicare and contributes to avoidable hospital admissions.

The three-day stay requirement assigns an arbitrary time frame to patient care and detracts from physicians' clinical judgment in determining a patient's status. The ACS recommends that CMS review this policy to determine if waiving the three-day stay requirement would reduce Medicare costs and maintain the quality of care provided to beneficiaries. The College supports a system where patients are assured that their care and financial obligations will not be adversely affected by their patient status and length of stay.

What burdens are associated with the Two-Midnight Rule, and what recommendations does the ACS have for easing these demands?

Under the Two-Midnight Rule, inpatient stays of less than two midnights after hospital admission are not considered medically necessary. The implementation of this policy, which was intended to reduce the number of short hospital inpatient stays and long outpatient stays, has resulted in negative consequences for physicians and Medicare beneficiaries. The Two-Midnight Rule has not resulted in a significant reduction in the number of long outpatient stays billed to Medicare, leading to higher costs and greater limitations for beneficiaries seeking SNF care following an outpatient stay under observation status.[‡]

The Two-Midnight Rule has failed to create uniform

[‡]Medicare Payment Advisory Commission. Report to the Congress: Hospital short-stay policy issues. June 2015:173-204. Available at: http://medpac.gov/docs/default-source/reports/june-2015-report-to-the-congress-medicare-and-the-health-care-delivery-system.pdf?sfvrsn=0. Accessed December 28, 2017.

The ACS recommends that CMS develop a standardized approach for audit contractors to notify providers of a review, request medical records, inform providers of the specific reason a claim is denied, and clearly state a provider's appeal rights.

criteria for inpatient status or substantially reduce the number of long outpatient stays for Medicare beneficiaries. The ACS recommends that CMS rescind the Two-Midnight Rule in favor of physicians' clinical judgment and the medical necessity of a hospital stay.

What burdens are associated with Medicare documentation, certification, and recertification requirements, and what recommendations does the ACS have for easing these burdens?

Medicare documentation policies set forth redundant requirements for verifying physician orders, delaying patient access to services and equipment. CMS only will pay for covered services if physicians certify and recertify medically necessary care and resources, including hospital stays, wheelchairs, colostomy supplies, diabetic testing supplies, physical therapy, and home health and hospice services. These documentation requirements are redundant and require physicians to review lengthy patient charts to confirm orders that they have already certified as medically necessary.

The ACS recommends that CMS take a more targeted approach to the enforcement of documentation and certification requirements. The College urges CMS to standardize and streamline this process and eliminate requirements for providers to regularly recertify a patient's condition when the patient is diagnosed with a chronic illness. Authorization for certain types of medical supplies should also be standardized across suppliers so that providers are not required to recertify a patient's need for such supplies each time a patient switches supply brands. The ACS also recommends that physicians be allowed to authorize their clinical staff, such as nurse practitioners and physician assistants, to complete certification forms on their behalf.

What burdens are associated with Medicare program integrity, and what recommendations does the ACS have for easing these demands?

Physicians are facing an increasing amount of prepayment and postpayment audits from CMS and its contractors. These audits often are voluminous and not completed in a timely manner, depriving physicians of reimbursement for extended periods. The number of reviews and types of contractors are confusing, add unwarranted physician burden and unnecessary costs, and disrupt and distract from delivering care.

Medicare and Medicaid audits are a great source of frustration and expense for surgeons. Physicians need a single, transparent, consistent, and fair review process to reduce administrative burdens. The ACS recommends that CMS develop a standardized approach for audit contractors to notify providers of a review, request medical records, inform providers of the specific reason a claim is denied, and clearly state a provider's appeal rights.

Expenditures, such as printing and shipping fees for providers who receive clinical documentation requests from auditors, are high. The College urges CMS to require auditors to reimburse providers for the medical records submitted. Physicians who win an appeal of an audit should be reimbursed the full cost of complying with the review process by the auditing entity.

What burdens are associated with medical translator services, and what recommendations does the ACS have for easing these demands?

The HHS Office of Civil Rights requires all physicians who receive payments from any federal health program to provide access to verbal or written translation services for individuals with disabilities

or limited English proficiency. HHS does not pay for medical translators and places the responsibility on physicians to offer translation services at no cost to patients. Hiring translators who are fluent in the appropriate dialect and are familiar with medical terminology is expensive, particularly when interpreters impose a time minimum for their services or charge travel and cancellation fees. Qualified medical translators can cost physicians hundreds of dollars per patient visit, and the cost of retaining a qualified translator often exceeds the total payment for the treatment provided.

The ACS believes that federal funding should be provided to physicians for the purposes of hiring medical translators to ensure continued access to care for patients with disabilities or limited English proficiency. The College recommends that the cost of medical translator services be considered part of the cost of care delivery and asks that CMS provide reimbursement for CPT code T1013, *sign language or oral interpretive services, per 15 minutes*.

To further reduce these costs to physicians, the ACS urges the HHS Office of Civil Rights to revise the definition of a "qualified interpreter" to allow the use of an adult, such as a relative or friend, accompanying a patient to interpret or facilitate communication.

What burdens are associated with the exchange of digital health information, and what recommendations does the ACS have for easing these demands?

The clinical care model is growing increasingly intricate, with a vast amount of information that must interoperate across different electronic platforms, thereby creating a high demand for the exchange of digital health information in a convenient and usable format. While patients receive care longitudinally over time, and not always in one facility or under one EHR, existing digital information exchange processes do not effectively track patients over time and space.

Without access to interoperable and usable digital health information, providers spend hours documenting and searching for information, which is extremely burdensome and detracts from patient care. The current digital environment cannot deliver the information physicians need to develop even a basic treatment plan, and surgeons are frustrated with an inefficient clinical workflow that reduces time with patients.

To enable digital health information interoperability across EHRs, mobile devices, registries, and patient clouds, the ACS recommends that HHS establish an interoperability framework and collaborate with the physician community, along with other stakeholders, to determine best practices for leveraging digital health information to improve health, enhance care, and optimize costs.

In addition, the College has partnered with Health Level Seven and the Health Services Platform Consortium to create national standards for the exchange, integration, and retrieval of digital health information. Once these standards are complete, the ACS recommends that CMS adopt them as a mandatory component of EHR certification to promote interoperability across health care providers, facilities, and insurers.

For more information about regulatory requirements or the College's administrative burden reduction efforts, contact Lauren Foe, ACS Regulatory Affairs Associate, at lfoe@facs.org. ♦

Race and residency training in the post-Charlottesville era

by Allison N. Martin, MD, MPH

Naturally, I was on edge when I heard about the alt-right rally scheduled in our town last summer. I was on call for both general surgery and trauma during the weekend of the August 12, 2017, Unite the Right rally. Every available member of our surgical residency program was present, whether on call or not, and assembled into trauma teams. When we received notice that violence was occurring in downtown Charlottesville, VA, I joined an entire army of hospital staff of all backgrounds as we rallied together, braced ourselves for the response, and did what we do best—care for the sick and injured. There were no voices of hate or frustration from the medical staff that day, only effective communication to respond and coordinate care for those in need. It was one of the most inspiring moments of my life.

Earlier experiences with race

Charlottesville's racial homogeneity is no different than that of many U.S. towns and cities, and its whiteness does not intimidate me. This was true when I began my surgical training several years ago, long before white supremacists descended upon our town. I am no stranger to being the only black person in a room.

I grew up in a rural community in Kentucky that was more than 90 percent white. Whether being called a "nigger" for accidentally bumping into a fellow classmate in the hallway or losing the opportunity to be one of the first black valedictorians at my high school due to a last-minute policy change, throughout my life I have been reminded covertly and overtly that I am black.

As a high school student volunteering at my local community hospital, I was sent to comfort newborns when members of the Ku Klux Klan (KKK) from a neighboring county would come have their babies delivered at our hospital. I never feared these individuals who proudly displayed their shaved heads and swastika tattoos, but they served as a visible reminder of the overt racism and discrimination that has always been a part of American history.

The same stigma that I confronted as a child in rural Kentucky has followed me North and South, through the halls of elite academic institutions, and into the operating rooms (ORs) and clinics where I now train as surgical resident. I was naïve to think that becoming a physician would spare me from the stigma associated with my complexion. My academic achievements did not matter to the nurse who ordered me to retrieve the catheter and blanket, thinking that I was an OR tech, yet soon found out that I was the resident physician taking care of our shared patient. I experience a brief moment of tension, uncertainty, and doubt that seems to pervade the room when a patient is surprised that his or her physician is young, female, and black. In addition to the normal stresses and challenges of residency, my colleagues from different gender, ethnic, religious and other underrepresented minority groups face hurtful acts of ignorance from both colleagues and patients. These little

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instances build the perception of intolerance, no matter how strong the message of diversity and inclusion is broadcast for the public's consumption.

Starting a discussion

Studies that examine challenges facing minority trainees rarely have been explored; however, several qualitative studies have started the difficult work of describing these experiences.[1,2] Chief among issues identified by black trainees include the simple fact that being a black trainee in the U.S. makes you highly visible. By nature, trainees of color stand out, which can make them feel more vulnerable and prone to criticism.[1] In the months following the rally and counter-protest, I have been touched by the unity and support from the Charlottesville community and my colleagues. Fellow trainees have come forward to share instances where they have been openly discriminated against either in our community or within the hospital. Instances where some patients have refused care from one of my non-white colleagues have come to light. I have heard the groans of staff members when a non-English speaking patient presents for evaluation in clinic. These examples demonstrate that this problem has been longstanding in our town, and it did not start the weekend of the rally.

Though I had a solidly middle-class upbringing and have experienced many forms of privilege in my life, the America that I know and the Charlottesville that I know have not always been comfortable with minorities existing in this predominantly white space. Now it is my job to stand up and tell people why it matters that trainees of color are here and why it is important that we stay. We have not and may never be a post-racial or color-blind society. We can, however, be present in the moment. We can recognize suffering as a universal phenomenon. We can encourage discourse where before there existed only silence. I want my fellow trainees, particularly junior residents and medical students, to know that I am here for them and that many in their community both want and need them to be present, sharing their knowledge and their talents. This is a duty I am happy to uphold.

Going forward, we all must recognize this problem will not fade away. Leaders of the alt-right movement have already vowed to return to Charlottesville, and stories of rallies elsewhere have become

I appeal to all of my friends and colleagues at this critical time: we cannot afford for you to treat this incident as the fad or hashtag of the moment.

widespread. Although I was not shocked that a group of white supremacists, neo-Nazis, and KKK members were planning to rally in our town, I was surprised at how some individuals have reacted. "How could this happen here?" many have asked. I cannot say I wonder the same thing. There is a veil of discrimination and racial divide that was present in this town long before I arrived. I appeal to all of my friends and colleagues at this critical time: we cannot afford for you to treat this incident as the fad or hashtag of the moment. We cannot go back to our respective corners and proceed with business as usual. You need to stand up to white supremacy in all its forms, whether it appears in the form of Nazi imagery or in colloquial conversation through a joke or stereotype.

Your protest must be greater and more forceful than a candlelight vigil; words and actions that oppose this hatred must become a part of your daily life. When a friend or colleague comes to you after a patient or co-worker has said something denigrating and insulting to them, take time to listen and understand rather than dismiss it as being all in their head. If the events from the Unite the Right rally reveal anything, it is that racism is real, and it is present here. You witnessed it on your doorstep.

A path forward

Very little has been written regarding how to best confront challenges faced by trainees of color, and almost zero data are available regarding how or whether this experience differs for surgical trainees versus trainees in nonsurgical training programs. Butler and colleagues demonstrated a profound discrepancy in the number of underrepresented minorities among U.S. surgical residents, with only 4.7 percent black residents compared with 64.4 percent white residents. Furthermore, blacks represent only 2.9 percent of U.S. academic surgeons.[3,4]

The limited body of research that does exist on this topic suggests a few particular actions that might enhance the training environment for black residents. These recommendations include the following:

- Acknowledgement by majority faculty and residency leadership of how residents' race may influence their experience as surgical trainees. This recognition may help combat the sense of vulnerability associated with being an underrepresented minority in surgical training.[1,5]
- Formal and structured programs for mentoring and career development for all residents, which may ensure that opportunities that encourage pursuit of research, resident leadership activities, and academic development are offered in a more equitable fashion to all trainees. Mentorship and research during training have been shown to influence the pursuit of an academic career, an important finding given the continued underrepresentation of physicians of color in academic medicine.[3,4]
- Actively shaping a programmatic and institutional environment that encourages discussion and recognition of "racial fatigue," which may include creating opportunities for trainees of color to have planned social support in both formal and informal settings. Specific institutional mechanisms to respond to instances of racism and bigotry experienced by trainees should be well-defined and a faculty champion designated.[2]
- Coordination of an institutional action plan to advocate for faculty, staff, and trainees facing discrimination from patients who exhibit discriminatory behavior. This protocol should include both a pathway for reporting this inappropriate behavior and

Just as the caretakers of Monticello have sought to unify the complicated pieces of Thomas Jefferson's history intertwined with the tales of slaves who lived and suffered under the yolk of slavery on top of the hill that overlooks Charlottesville, we must rebuild our image of surgical training.

designation of a core group of individuals who are available to respond to these issues on behalf of the institution.

Implementing these steps is not going to be easy. Just as the caretakers of Monticello have sought to unify the complicated pieces of Thomas Jefferson's history intertwined with the tales of slaves who lived and suffered under the yolk of slavery on top of the hill that overlooks Charlottesville, we must rebuild our perceptions of race and how it impacts surgical training. The previously held assumption that our city and others like it is a safe zone for students and learners of all backgrounds has been effectively shattered. As we rebuild from the tragedy resulting from the rally, it is important to do so in unity.

Training programs with predominantly white, male leadership must create an environment where trainees from all backgrounds can thrive and learn. Other authors have written about the importance of black trainees working in an environment where they can receive encouragement and affirmation from all faculty members.[1]

Creating a better workspace for minority trainees, therefore, means recommitment to and redoubling of efforts aimed at recruiting both black faculty and trainees. It means formulating a targeted and specific plan for increasing diversity in surgical training programs, and this is a step that has already been taken at the University of Virginia and in the department of surgery, specifically.

After departmental debriefings in the wake of this tragedy, I know now more than ever that I am not the only one to experience racism, sexism, and bigotry at work. It happens often—more than many people are comfortable admitting. Conversations surrounding race and ethnicity are never going to be easy, but if we do not use this opportunity to try, we may never again get the chance. Standing firm and speaking up is the only way we can move forward. ♦

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CLINICAL RESEARCH PROGRAM

Surgical management of ADH, ALH, and LCIS

by Diana Dickson-Witmer, MD, FACS; Amy C. Degnim, MD, FACS; Isabelle Bedrosian, MD, FACS; and Judy C. Boughey, MD, FACS

The most important implication of finding atypical ductal hyperplasia (ADH) or lobular neoplasia—atypical lobular hyperplasia (ALH) or lobular carcinoma in situ (LCIS)—is that the patient is at a significantly increased lifetime risk of developing breast cancer (1–2 percent per year for ADH or ALH, and approximately 2 percent per year for LCIS).[1-3]

These patients should be thoroughly informed of breast cancer risk and appropriate surveillance and risk-reduction strategies, which should include consideration of prevention therapy, which has been shown to reduce risk of breast cancer development by as much as 70 percent for women with these high-risk breast lesions.[2]

For the surgeon, another important issue is when to surgically excise an area of ADH or lobular neoplasia found on core needle biopsy (CNB) to evaluate for potential upstaging to malignancy.

Lobular neoplasia: ALH and LCIS

Lobular neoplasia is a term that includes both ALH and classic LCIS, the distinction being only the percentage of the terminal ductal lobular unit involved (greater for LCIS than ALH). Risk of breast cancer—invasive and ductal carcinoma in situ (DCIS)—is increased for both, approximately a four- to fivefold increased risk for ALH and eight- to ninefold increased risk for LCIS, with both breasts at increased risk. Recent estimates of absolute risk suggest 1–2 percent per year for ALH and 2 percent per year for LCIS.[1-5]

Upgrade rates for ALH and classic LCIS on CNB in retrospective studies were wide-ranging in early studies, but more contemporary studies with consistent large core biopsies demonstrate single-digit upgrade rates for pure lobular neoplasia without mass lesion on imaging. Recent studies that distinguish ALH from LCIS show higher upgrade rates for LCIS (7–28 percent) compared with ALH (0–9 percent).[6-8]

Thus, the preponderance of evidence indicates that for patients without mass lesions and pure ALH on CNB, routine excision is not required; for patients with pure LCIS (no mass lesion), excision should be considered in the patient's clinical context. One study has noted higher upgrade rates for lobular neoplasia identified with screening magnetic resonance imaging (MRI), especially in women with prior history of cancer.[9] LCIS with comedo-necrosis and pleomorphic LCIS have upgrade rates as high as 40 percent to invasive cancer and should be excised.[10-11]

ADH

ADH and low-grade DCIS have an identical histologic phenotype, and the distinction is made primarily on the quantity of atypia present. Because the linear extent of atypia is a criterion for distinction between ADH and DCIS, and because multiple studies have shown an upgrade rate of 10–30 percent for ADH on CNB, surgical excision is the well-established standard of care.[12] Because surgical excision is costly and is a burden on the patient, ongoing research is aimed at identifying a subset of ADH with lower upgrade rates, where excisional biopsy might safely be omitted. Several studies have evaluated factors associated with upgrade in an attempt to identify a subset with low risk of upgrade.[13,14] Common factors identified across these studies include: no mass lesion, removal of a large majority (at least 50 percent) of the lesion seen mammographically, no

TABLE 1. EXCISIONAL BIOPSY RECOMMENDATIONS

CNB finding	Excisional biopsy recommendation
ALH with concordant imaging	Not recommended
Classic LCIS with concordant imaging	Consider excision
Classic LCIS identified on MRI	Recommended
LCIS with comedo-necrosis	Recommended
Pleomorphic LCIS	Recommended
ADH	Recommended

necrosis, and ADH involving only one or two terminal duct lobular units.

For women with ADH who met these criteria, upgrade rates were only 3–5 percent. However, prospective validation of these criteria is lacking; therefore, surgical excision remains the standard of care for ADH found on CNB.

If safety of omitting surgical excision for the low-risk subgroup of ADH could be established, more than 3,000 women each year might be spared an operation from which they derive no value. As compelling as this goal is, it would be premature to omit surgical excision for ADH on CNB outside of a clinical trial.

Conclusion

Both lobular neoplasia and ADH confer a long-term increased risk of breast cancer, and should trigger discussion of risk-reduction and surveillance strategies. Surgical excision is standard of care for ADH identified on core biopsy, though current research efforts are focused on identifying a subgroup where excision might safely be omitted. Surgical excision is also recommended for "non-classic" LCIS, such as pleomorphic LCIS and LCIS with comedo-necrosis, and for LCIS found on core biopsy of enhancing lesions on MRI. For ALH, growing evidence supports omission of surgical excision when there is no mass lesion, no accompanying ADH, and biopsy was performed by large core vacuum-assisted biopsy with excellent sampling and concordance with the target image. For LCIS, surgical excision should be considered, taking into account the clinical context and patient goals (see Table 1, this page). ♦

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Underused resources every ACS member should know about

by Connie Bura

This month's column features three different sets of resources developed specifically for members of the American College of Surgeons (ACS).

Over the past year, the Resident and Associate Society (RAS-ACS) produced a comprehensive webinar series for young surgeons. More than 100 members participated in each live webinar, but did you know that the archived versions can be viewed for free?

In addition, the members of the ACS Board of Governors (B/G), who represent members of the College in their state, region, or specialty, work to create useful tools for surgeons. In the past year, the B/G has released a series of training presentations directed at residents and others.

The College also offers a variety of discount programs that benefit our members. These affinity programs include partnerships that the ACS has established to provide special rates and services to our members. These programs may not be something most members associate with the ACS, but a brief review of what's available may spark your interest.

Webinars for young surgeons

The RAS-ACS webinar series is targeted at young surgeons who are starting their practice in

WEBINAR PRESENTATION TOPICS

- The Art of Negotiation
- Basic Principles of Coding and Reimbursement for Young Surgeons
- Becoming Your Own Boss: Tips for Starting Your Own Surgical Practice
- Being a Leader Within Your Hospital and on Your Medical Staff
- Clinical Documentation Improvement
- Contract Negotiations: Advice and Pitfalls to Avoid
- Cultivating the Next Generation of Surgeon-Scientists
- Disability Insurance from the ACS Insurance Program
- Domestic Volunteerism: Options for Young Surgeons Who Want to Help
- Drug Shortages: The Problem, Possible Causes, and Future Directions
- Functional Ergonomics for Surgeons: Protect Your Neck and Your Career
- Global Surgery for the Young Surgeon
- Marketing for the Young Surgeon: Why Understanding Marketing Is Important
- Mindfulness and Work-Life Balance for the Busy Surgeon
- Patients in the Know: Impact on Recovery
- Preparing a Top-Notch Fellowship Application
- Principles of Leadership for the Young Surgeon
- Protect Your Online Reputation
- Safety, Wellness, and Logistics for the Pregnant Surgeon
- Seeking Mentorship and Ascending the Academic/Private Practice Ladder
- Transcare for the Transgender Patient in the Surgeon's Office
- Understanding the Difference Between Leadership and Power

private or academic surgical medicine. These webinars, which run up to 60 minutes, take a deep dive into career path choices and strategies, best practices for navigating the career ladder, and managing personal life and wellness. They provide young surgeons with new strategies and tools on relevant topics, are presented live by subject matter experts, and are accessible to ACS members free of charge. Enjoy interaction with the presenter in a live format or view the webinar later when your schedule permits. These brief, yet informative, educational programs are accessible for one year after the event at *facs.org/member-services/ras/webinars*.

Visit the RAS-ACS website to view and sign up for upcoming webinars.

B/G resources for members

The B/G released several new tools. One example is a standardized letter of recommendation for medical students available at *facs.org/about-acs/governance/board-of-governors/resources*. It's never too early to begin thinking about those medical students who may be asking you to write a letter of recommendation for their residency application, and it's best to draft that letter while the student's performance is fresh in your memory. To help ensure that you cover all of the salient points, the B/G created this standardized letter, which covers all of the key points you'd like to address when recommending a medical student for residency. It is recommended that you download the letter template so that you have access to it when needed.

The B/G also has developed an Onboarding Checklist for Surgeons, available at *facs.org/onboardingsurgicalchecklist*, which offers action items for consideration by a new surgeon, and the surgeon, group, or hospital hiring a surgeon. The list is divided into items regarding preparation for practice life and items related to an employment contract, which are intended to serve as guidelines for discussion—not mandatory requirements. Some material in the "Preparation for practice life" section may be included in a contract.

Although many surgeons have had input, the list is not exhaustive and will be updated as necessary. The College encourages you to download the checklist and keep it handy for when you are starting or joining a practice or hiring a new surgeon.

In addition, the B/G has developed four teaching modules for use by faculty that address key topics relevant to training residents and others. Each presentation can be downloaded free of charge from the B/G Resources web page at *facs.org/about-acs/governance/board-of-governors/resources*. Modules available at present include the following:

- Clinical Teaching: The Teachable Moment—a 21-slide PowerPoint presentation
- Giving Constructive Feedback—a 41-slide PowerPoint presentation
- Intraoperative Teaching—a 33-slide PowerPoint presentation
- Teaching Millennials—a 22-slide PowerPoint presentation

ACS affinity programs

Many members don't realize that the ACS offers a variety of discounted affinity programs to its members. The ACS discount programs include exclusive members-only discounts and benefits on rental cars from AVIS, medical liability insurance coverage from The Doctors Company, an ACS credit card

AIG Private Client Group property and casualty insurance products are designed to help protect and minimize threats to the personal assets and safety of policyholders.

and personal checking account from Bank of America, free admission to museums across the country, discounted titles from the publisher Springer, and access to informed consent documents for a range of surgical procedures. In addition to these benefits, we offer a full suite of ACS Insurance Program products. The newest additions to our affinity program offerings are American International Group (AID) property and casualty insurance and Collette Travel. Visit *facs.org/member-services/benefits/discount* for more information.

AIG Private Client Group property and casualty insurance products are designed to help protect and minimize threats to the personal assets and safety of policyholders. With an integrated approach toward insurance, AIG strives to reduce the cost and magnitude of risk for policyholders.

AIG Private Client Group offers insurance solutions for a variety of coverage needs, including the following:

- Homeowners insurance
- Personal excess liability
- Auto insurance
- Private collections insurance
- Yacht insurance

AIG Private Client Group can help safeguard both your assets and your way of life with a complimentary insurance review to help identify gaps in your current coverage. Visit the AIG website for ACS members at *www-207.aigprivateclient.com/index.php?cmpid=DMC-Surgeons* to sign up for ACS member discounts.

What's to come

All members are encouraged to review and take advantage of these resources. Throughout the year, this column will offer more information about ACS resources, including a series of brief essays developed by the B/G that address the following topics:

- How to obtain work/life balance during the early practice years
- Flash points in contract negotiation: Potential areas of contention
- Best advice on strategic resource negotiation when starting a surgical practice
- Coding pearls
- How to build referrals
- Conflict resolution
- Top 10 things to avoid in your first years of practice

The ACS Division of Member Services anticipates that as you review these benefits, you will find something that is useful to you in your practice or personal life. For details about any of these items, contact Connie Bura, Associate Director, Division of Member Services, at cbura@facs.org. ♦

Joint Commission publishes 2018 National Patient Safety Goals

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

[The NPSGs] were developed, and have been updated with, input from the Patient Safety Advisory Group, which is composed of nurses, physicians, pharmacists, risk managers, clinical engineers, and other health care professionals.

The Joint Commission's 2018 National Patient Safety Goals (NPSGs) are in effect and available on The Joint Commission's website. These standards are simple, actionable, and applicable to the work that surgeons perform, especially the Universal Protocol (UP) for Preventing Wrong Site, Wrong Procedure, Wrong Person Surgery.

The NPSGs were established in 2002 to help accredited organizations address specific areas of concern with respect to patient safety issues. The first set of NPSGs took effect in January 2003. They were developed and have been updated with input from the Patient Safety Advisory Group, which is composed of nurses, physicians, pharmacists, risk managers, clinical engineers, and other health care professionals.

The 2018 NPSGs outlines goals for the following programs: ambulatory health care, behavioral health care, critical access hospital, home care, hospital, laboratory services, nursing care center, and office-based surgery.

NPSGs for hospital and office-based surgery

The 2018 NPSGs applicable to The Joint Commission's Hospital and Office-Based Surgery (OBS) Accreditation programs are listed below and feature language from the simplified versions of the NPSGs. It is important to note that some NPSGs are applicable only to the hospital program, not to the OBS program.

UP for Preventing Wrong Site, Wrong Procedure, Wrong Person Surgery

- UP.01.01.01: Make sure that the correct operation is done on the correct patient and at the correct place on the patient's body.
- UP.01.02.01: Mark the correct place on the patient's body where the operation is to be done.
- UP.01.03.01: Pause before the operation to make sure that a mistake is not being made.

NPSG 1: Improve the accuracy of patient identification

- NPSG.01.01.01: Use at least two ways to identify patients. For example, use the patient's name and date of birth. This step is done to ensure that each patient gets the correct medicine and treatment.
- NPSG.01.03.01: Make sure that the correct patient gets the correct blood when a blood transfusion is performed.

The 2018 NPSGs outlines goals for the following programs: ambulatory health care, behavioral health care, critical access hospital, home care, hospital, laboratory services, nursing care center, and office-based surgery.

NPSG 2: Improve the effectiveness of communication among caregivers

- NPSG.02.03.01: Get important test results to the right staff person on time (hospital program only).

NPSG 3: Improve the safety of using medications

- NPSG.03.04.01: Before a procedure, label medicines that are not labeled (for example, medicines in syringes, cups, and basins). Do this in the area where medicines and supplies are set up.
- NPSG.03.05.01: Take extra care with patients who take blood thinners (hospital program only).
- NPSG.03.06.01: Record and pass along correct information about a patient's medicines. Find out what medicines the patient is taking. Compare those medicines with new medicines given to the patient. Make sure the patient knows which medicines to take at home. Tell the patient it is important to bring an up-to-date list of medicines every time they visit a doctor.

NPSG 6: Reduce the harm associated with clinical alarm systems

- NPSG.06.01.01: Make improvements to ensure that alarms on medical equipment are heard and responded to on time (hospital program only).

NPSG 7: Reduce the risk of health care-associated infections

- NPSG.07.01.01: Use the hand-cleaning guidelines from the Centers for Disease Control and Prevention or the World Health Organization. Set goals for improving hand cleaning. Use the goals to improve hand cleaning.
- NPSG.07.03.01: Use proven guidelines to prevent infections that are difficult to treat (hospital program only).
- NPSG.07.04.01: Use proven guidelines to prevent infection of the blood from central lines (hospital program only).
- NPSG.07.05.01: Use proven guidelines to prevent infection after the operation.
- NPSG.07.06.01: Use proven guidelines to prevent infections of the urinary tract that are caused by catheters (hospital program only).

NPSG 15: The organization identifies safety risks inherent in its patient population

- NPSG.15.01.01: Find out which patients are most likely to try to commit suicide (hospital program only).

For more information

Questions about the 2018 NPSGs should be directed to The Joint Commission's Standards Interpretation Group at 630-792-5900 or by using the Standards Online Question Form available at *http://web.jointcommission.org/sigsubmission/sigquestionform.aspx*.

The full chapter of 2018 NPSGs for the Hospital Accreditation program is available at *www.jointcommission.org/assets/1/6/NPSG_Chapter_HAP_Jan2018.pdf*.

To view the NPSGs for all programs, visit *www.jointcommission.org/standards_information/npsgs.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.

2017 *Pediatric Annual Report:* ICD-10

by Richard J. Fantus, MD, FACS

The 2017 *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 8 million records. The 2017 *Pediatric Report* is based on 156,244 admission year records for 2016 submitted by 762 facilities. There are 27 Level I or Level II pediatric-only centers; 20 are standalone Level I pediatric centers, and seven are standalone Level II pediatric centers. The NTDB classifies pediatric patients in this report as patients who are younger than 20 years of age.

Use of ICD-10 in report development

The International Classification of Diseases (ICD), owned and published by the World Health Organization, 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.

*World Health Organization. Classifications. Available at: www.who.int/classifications/icd/en/. Accessed December 27, 2017.

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

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

Many dedicated individuals of the ACS COT, including the Pediatric Surgery Subspecialty group, along with dedicated individuals who provide care to pediatric patients at trauma centers across the country, contributed to the early development of the NTDB and its rapid growth in recent years.

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 report uses admission year 2016 records, and 95 percent of those containing valid ICD codes are reported with ICD-10 nomenclature (see Table 1, page 66).

ACS COT goals in publishing the report

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 this report is to inform the medical community, the public, and decision makers about a variety of issues that characterize the current state of care for injured pediatric patients in our nation. It has implications for many areas, including epidemiology, injury control, research, education, acute care, and resource allocation.

Many dedicated individuals of the ACS COT, including the Pediatric Surgery Subspecialty group, along with dedicated individuals who provide care to pediatric patients at trauma centers across the country, contributed to the early development of the NTDB and its rapid 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 NTDB data through brief monthly reports in the *Bulletin*. All previous years of the NTDB *Pediatric Annual Report* are available on the ACS website as a PDF file at *facs.org/ntdb*. In addition, the website contains information on how to obtain NTDB data for more detailed study. If you are interested in submitting your trauma center's data, contact Melanie L. Neal, Manager, NTDB, at mneal@facs.org. ♦

Acknowledgment

Statistical support for this article was provided by Ryan Murphy, Data Analyst, NTDB.

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.

Hemorrhage control training should be mandatory for health care professionals

After every terrible tragedy, we see bystanders, news outlets, and social media forums discussing the importance of hemorrhage control. However, interest in these lifesaving skills waxes and wanes with active shooter or terrorist incidents. In 2016, the National Academies of Science, Engineering, and Medicine published the report, *A National Trauma Care System: Integrating Military and Civilian Trauma Systems to Achieve Zero Preventable Deaths After Injury,* which stated that approximately 30,000 potentially survivable deaths occur in the U.S. each year.*

The Hartford Consensus gave us a foundation to eliminate preventable death. The collaboration between the American College of Surgeons and the Department of Homeland Security has helped develop programs like Stop the Bleed® and *bleedingcontrol.org* to address potentially survivable deaths. The goal: teach bystanders to identify and treat life-threatening bleeding with direct pressure, tourniquets, and pressure dressings.†

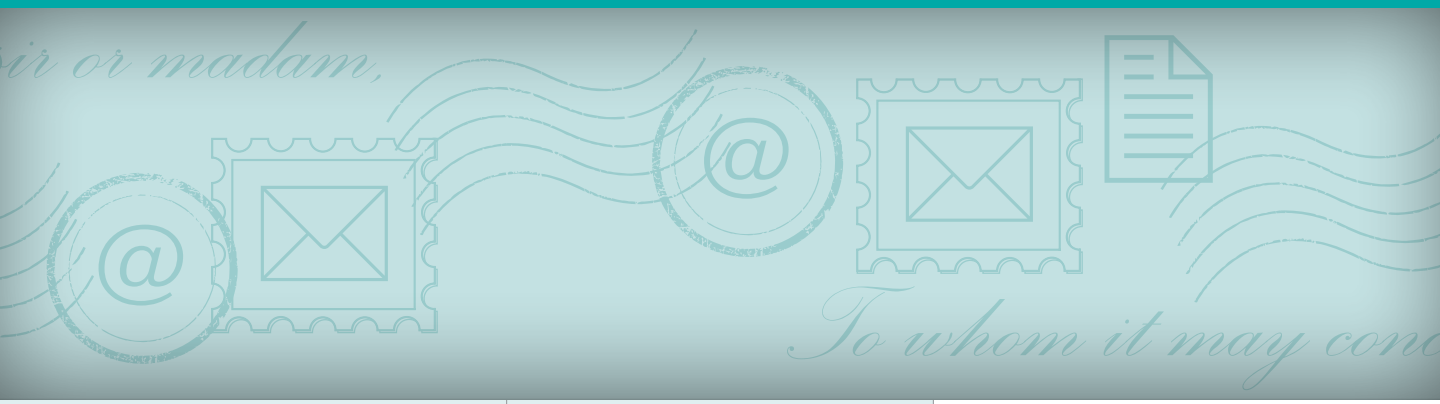
We expect and encourage the bystander to seek these training opportunities and become certified in bleeding control; however, there is little expectation that medical professionals learn these skills. Bleeding control is not mandatory training in the majority of medical schools, although it's not uncommon for students to undergo cardiopulmonary resuscitation (CPR) training before matriculation. Nor is bleeding control training offered in many medical schools. Hospitals do not require bleeding control training but often require CPR certification for physicians applying for privileges.

A Stop the Bleed course can be completed in as little as two hours. Many injuries that cause life-threatening bleeding are immediately treatable, and this care will saves lives. Compare this with the results from administering CPR for cardiac arrest, where underlying disease is common—even with the best prehospital treatment and return of spontaneous circulation, outcomes are poor.‡

*National Academies of Sciences, Engineering, and Medicine. *A National Trauma Care System: Integrating Military and Civilian Trauma Systems to Achieve Zero Preventable Deaths After Injury.* Washington, DC: The National Academies Press; 2016.

†Jacobs LM. Out of unspeakable tragedy comes progress in bleeding control. *Bull Am Coll Surg.* 2017;102(6):11-16.

‡Institute of Medicine. *Strategies to Improve Cardiac Arrest Survival: A Time to Act.* Washington, DC: The National Academies Press; 2015.



Why does the health care system expect bystanders to take bleeding control courses, yet have no expectations of the people who comprise the same health care system? For society to understand the importance of hemorrhage control, all health care professionals should be certified in a bleeding control course. A health care professional is anyone who participates directly in patient care.

The solution starts by mandating bleeding control training for employment as a health care professional at a hospital or clinic. Physician credentialing should require mandatory training that allows the physician to identify and treat life-threatening hemorrhage. Additional courses or instruction are available to identify and treat the other two leading causes of preventable death—tension pneumothorax and airway obstruction.

The next logical step is the requirement that bleeding control be taught early in medical school education—possibly the first week of medical school and with the assistance of emergency medical services and other emergency health care professionals.

These efforts will give medical students a real-life skill and help them understand the importance of preventable death from bleeding. These opportunities can also bring forward students who can eventually become instructors and teach hemorrhage control to the community. In turn, we will help create community outreach projects that will benefit bystanders and medical leaders alike.

We, as health care professionals, cannot expect bystanders to understand the importance of bleeding control and trauma care if health care professionals continue to ignore the importance of these skills. To truly address the impact of trauma and accidents on our population, we must start with health care professionals.

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Why does the health care system expect bystanders to take bleeding control courses, yet have no expectations of the people who comprise the same health care system? For society to understand the importance of hemorrhage control, all health care professionals should be certified in a bleeding control course.

TQIP annual meeting shares best practices, advances in trauma care

by Tony Peregrin

The 2017 Trauma Quality Improvement Program (TQIP) Annual Scientific Meeting and Training, November 11–13 in Chicago, IL, drew nearly 1,650 attendees—a 15 percent increase from 2016 and the highest number to date—including trauma medical directors, program managers, coordinators, and registrars.

Highlights of the eighth annual TQIP meeting include a keynote presentation titled Increasing Survival from Active Shooter and All Severe Hemorrhagic Events by **Lenworth M. Jacobs, Jr., MD, MPH, FACS,** vice-president of academic affairs and chief academic officer at Hartford Hospital, Hartford, CT; updates and progress reports on TQIP and Committee on Trauma (COT) initiatives; an overview of American College of Surgeons (ACS) military partnerships specifically related to National Academies of Science, Engineering, and Medicine (NASEM) report activities; a session summarizing teamwork essentials for the trauma team; and a presentation from trauma survivor Noah Galloway, who lost an arm and a leg in an improvised explosive device attack during Operation Iraqi Freedom in December 2005.

Empowering the public to Stop the Bleed

Citing a Texas State University and U.S. Federal Bureau of Investigation (FBI) study, Dr. Jacobs outlined active shooter incidents with the highest casualty counts between 2000 and 2013, including Cinemark Century 16 Theater, Aurora, CO (12 killed and 58 wounded); Virginia Polytech Institute, Blacksburg (32 killed and 17 wounded); and Sandy Hook Elementary School, Newtown, CT (27 killed and 2 wounded).

"These children did not go to school to be shot, they went to school to learn," Dr. Jacobs said, referring to the Sandy Hook event, which proved to be the tipping point for the ACS and other organizations to begin considering ways to improve survival from these situations.

"If you can stay alive for 10 to 25 minutes, you are probably going to be okay. The duration of the Virginia Tech event was eight to nine minutes, with 174 rounds shot. The event at Fort Hood lasted 10 minutes, with 214 rounds shot. In Las Vegas, more than 1,000 rounds were shot, and it was over in 10 minutes. Civilians had to make life-or-death decisions, and therefore, they should be engaged in training and decision making. Our mantra is to inform, educate, and empower," said Dr. Jacobs, chair of the Hartford Consensus Joint Committee to Enhance Survivability from Active Shooter and Intentional Mass Casualty Events, and a Regent of the College.

"The mission is to keep the blood in the body any way that you can," he said.

Dr. Jacobs also described how the efforts of the U.S. military's Tactical Combat Casualty Care (TCCC) program led to a renewed focus on prehospital tourniquet use. Before TCCC guidelines were introduced, military medics were instructed to use a tourniquet only as a final measure to stem extremity hemorrhage. After widespread implementation of TCCC tourniquet recommendations, deaths from extremity hemorrhage decreased significantly, Dr. Jacobs said, citing a comprehensive study of 4,596 U.S. combat fatalities from 2001 to 2011, which found that the incidence of preventable deaths from extremity hemorrhage had decreased to 2.6 percent. "This data is very powerful information to take to the decision makers of the U.S.," he said.

After the Joint Committee to Create a National Policy to Enhance Survivability from Intentional Mass Casualty and Active Shooter Events was convened by the ACS in April 2013 in collaboration

Dr. Nathens

Conference attendees

with representatives from the medical community, the National Security Council, the U.S. military, the Federal Bureau of Investigation, and others, the committee developed a set of recommendations collectively known as the Hartford Consensus. The primary aim of the Hartford Consensus is to prevent anyone from dying from uncontrolled bleeding.

A national Hartford Consensus survey assessed the general public's interest in acting as immediate responders, with 92 percent of respondents indicating they would be very likely or somewhat likely to try to control bleeding in someone they did not know. The survey results, according to Dr. Jacobs, suggested a need for strategies to educate laypeople in hemorrhage control, which led to the launch of the Stop the Bleed® campaign in October 2015. Bleeding control kits, a key component of this initiative, contain pressure bandages, hemostatic dressings, tourniquets, and gloves. "We patterned the kits off of the U.S. military. They have tested and deployed this equipment with positive results," he said.

As of November 2017, more than 8,000 instructors and more than 100,000 participants worldwide have been trained in Stop the Bleed principles, Dr. Jacobs said.

TQIP update

"Inspiring quality: Better standards, better outcomes—but how do we it?" said **Avery Nathens, MD, PhD, FACS, FRCSC,** in his opening remarks. "We do this through the four pillars of quality: setting standards, building the right infrastructure, using robust data, and verifying that everyone is consistent with those standards." Dr. Nathens is surgeon-in-chief, department of surgery, medical director, trauma, Sunnybrook Health Sciences Centre, Toronto, ON; and Medical Director, ACS Trauma Quality Programs.

The College's Quality Programs touch 2,800 hospitals around the world, according to Dr. Nathens, and lead to greater access to surgical care, fewer complications, and improved outcomes in the areas of trauma, cancer, breast care, bariatric surgery, and overall surgical care. He highlighted several recent initiatives that support the work of these programs, including the publication of the *Optimal Resources for Surgical Quality and Safety* manual (the red book), which describes key concepts in quality, safety, and reliability to ensure patient-centered care.

Dr. Nathens also described the QuintilesIMS (now called IQVIA) partnership with the ACS, which provides a "common data platform that will provide a shared data infrastructure across ACS Quality Programs and new and enhanced business tools," he said, including tools for advanced data validation business intelligence. He noted the favorable reviews from initial pilot testers, including comments describing how easy the reports were to decipher, how the data displayed seamlessly via Excel spreadsheets, and how users were able to navigate quickly through the validation summary report, allowing them to identify and fix errors. He emphasized that local registries would remain the same, but other factors might change, including program nomenclature and definitions, as well as corrective actions and resolution timeframes.

Dr. Nathens also outlined plans for revising the *Resources for Optimal Care of the Injured Patient* manual. "We are focused on revising standards in the 'orange book,' and we put forward specific goals. First, we are going to drop criteria that are burdensome and that have limited patient benefit. We are also going to incorporate clarifications and prioritize changes based on evidence and expert opinion. Perhaps most

From left: Drs. Nathens, Bulger, and Stewart

importantly, we are going to be a bit broader in terms of input. In the past, it was a small committee, but now we have [representatives] from PIPS [the ACS COT Performance Improvement and Patient Safety Program], TQIP, VRC [ACS COT's Trauma Center Verification, Review, and Consultation], and STN [the Society of Trauma Nurses] providing many perspectives, with changes that are hopefully more meaningful in terms of improving patient care."

Another important component of Dr. Nathens' TQIP update focused on the ACS TQIP Benchmark Report released in the fall of 2017, which is based on admissions from 2016 and the first quarter of 2017 from 466 TQIP centers. "This is the first year where we focused on AIS [abbreviated injury scale] 2005, which is a shift from AIS 1998 and affects adult, Level III, and collaborative reports," Dr. Nathens said. He noted the 2017 report features an expanded section on orthopaedic trauma care, with a greater focus on tibia shaft fractures.

Dr. Nathens also highlighted TQIP best practice guidelines for managing different patient populations and processes, including the recently released ACS TQIP Palliative Care Best Practices Guidelines, which was released in November 2017 and provides health care professionals with evidence-based recommendations regarding the care of the trauma patient. A new best practices guideline on imaging is due in early 2018, according to Dr. Nathens. Future best practices guidelines will cover nonaccidental trauma such as child abuse and elder abuse.

In addition, Dr. Nathens outlined key recommendations in the NASEM report, particularly Recommendation 5, which calls for military and civilian trauma systems to collect and share common data spanning the continuum of care.

"Is there life after discharge? An estimated 50 percent suffer from chronic pain, 40 percent suffer from anxiety or depression, and 25 percent have post-traumatic stress disorder. We have to change our notion of trauma beyond 'alive or dead.' Traumatic injury is a complex, chronic disease…and we have to figure out what we can do in the acute phase of care that will improve these outcomes," Dr. Nathens said.

COT update

Ronald M. Stewart, MD, FACS, Chair of the COT, provided an overview of key COT initiatives, including the new 10th edition of the Advanced Trauma Life Support® (ATLS®) program, which he called "the most exciting update since its inception." Due for release in the spring, the new edition of the ATLS course will feature updated core content, interactive discussions, and structural changes to the skills stations.

A push to complete the national trauma system, a component of the NASEM report, is another priority for the COT, especially considering that at least one-third of Americans today reside in an area without a complete trauma system. "Now is the time to fill in the patchwork quilt of the national trauma system," Dr. Stewart said. "We must implement a National Trauma Action Plan now, and quite frankly, we need your leadership [to do this]," he said.

He described the pillars of a modern trauma system—prevention, acute care, rehabilitation, a framework for disaster preparedness—and he noted that these pillars will be fully realized through teamwork and the leadership provided by the incoming Chair of the ACS COT, **Eileen Metzger Bulger, MD, FACS.**

In addition, Dr. Stewart described the "two contrasting narratives" regarding firearm injury prevention. In a 32-question survey completed by

Dr. Hoyt

Conference attendees

U.S. COT members in February 2016, slightly more than half of surgeons surveyed adhere to one narrative that considers firearms important for safety and are emblematic of personal liberty. In contrast, approximately 30 percent of surgeons surveyed subscribe to the second narrative that firearms place citizens at risk for harm and reduce personal liberty. He called for stakeholders to approach firearm injury prevention as a public health issue and to engage in "consensus decision making centered around doing the right thing for the patient and our citizens."

ACS military partnership

David B. Hoyt, MD, FACS, Executive Director of the College, described the Military Health Service Strategic Partnership American College of Surgeons (MHSSPACS), which launched in December 2014, as the most recent example of a long tradition of the military and civilian surgeons working together to improve patient care. As examples of the contributions of ACS members, Dr. Hoyt noted that COL Edward D. Churchill, MD, FACS, Theater Commander for Surgery in the Mediterranean in World War II, challenged military brass to treat hemorrhagic shock with blood rather than plasma, and that Paul Hawley, MD, FACS(Hon), Past-Director of the ACS, has been credited with developing the U.S. Department of Veterans Affairs' health care system.

"Vietnam is when we started to really change things, from a trauma standpoint, because of the availability of helicopters," added Dr. Hoyt. "Patients were now transported to where physicians could do something," he said, underscoring the importance of rapid evacuation to definitive care.

After describing these historic accomplishments in trauma care, Dr. Hoyt focused on the future of civilian and military surgical collaboration specifically related to military health system (MHS) readiness.

Citing a study of 86 military-affiliated surgeons conducted by C. William Schwab, MD, FACS, FRCS, Dr. Hoyt noted that more than 50 percent had two years or less of independent surgical practice for their first deployment. Almost 25 percent were stationed without another general surgeon present, and 60 percent found their pre-deployment military training unhelpful.

"And, so, what happens when peace breaks out?" asked Dr. Hoyt, referring to surgeons who deploy on missions with little surgical activity. "Many with combat experience separate from the service, and others return to a garrison practice with little trauma exposure. Currently, of the 57 military treatment facilities, only seven see trauma, and only one is verified by the ACS Committee on Trauma as a Level I center."

To enhance MHS readiness, Dr. Hoyt and Jonathan Woodson, MD, FACS, then-Assistant Secretary of Defense for Health Affairs, signed a memorandum of understanding in October 2014 that focused on education and training for military surgeons, quality initiatives, systems-based practice related to the military trauma system, and trauma research.

"We brought together 12 surgeon subject matter experts (SMEs) who had seen deployment and had experience in surgical education," Dr. Hoyt said, referring to steps taken to execute the education and training component of the agreement. The SMEs, representing the Army, Navy, and Air Force, compiled a list of topics based on the Joint Trauma System Clinical Practice Guidelines. The list was, in turn, distributed to nearly 700 surgeons with deployment experience to develop training course and assessment tools.

COL Brian J. Eastridge, MD, FACS, professor, department of surgery, division chief, trauma

From left: Dr. Jenkins, Mr. Galloway, and Dr. Eastridge

and emergency general surgery, University of Texas Health Science Center, San Antonio, underscored the importance of enhancing prehospital treatment of battlefield casualties to reduce case fatality rates and preventable deaths among U.S. servicemen and women. "We looked at combat deaths that were occurring before patients even reached the hospital, and 25 percent were found to likely have a survivable injury. A large majority, about 90 percent, died from hemorrhage," Dr. Eastridge said, citing a published study that examined 4,596 battlefield fatalities between October 2001 and June 2011.

"Now that TCCC is broken up into phases of care, we've got better techniques and technology for hemorrhage control," he said. TCCC phases of care include: (1) care under fire, (2) tactical field care, and (3) tactical evacuation care.

"While both the military and civilian sector have a high level of quality of care, they are not effectively integrated," said **Donald Jenkins, MD, FACS,** professor of surgery, vice-chair, department of surgery, University of Texas Health Science Center, San Antonio, noting the NASEM report's call to form a sustainable military/civilian workforce partnership. The cyclical nature of combat—times of war with lengthy periods of peace in between—is one challenge to maintaining a military trauma system, according to Dr. Jenkins, as is the lack of a discernable career path for military trauma leaders within the Department of Defense (DoD) health care system. Another barrier to developing a joint workforce centers on the fact "some military occupations do not have a civilian counterpart, and often credentialing and licensing are not transferable to the civilian setting," he said.

One solution to these workforce-related challenges involves revamping entry-level training for the trauma workforce so that it is more uniform through the development of a standard curriculum and assessment to measure skills and abilities. Another solution, noted Dr. Jenkins, is to standardize data collection, particularly in the prehospital setting, by incorporating the DoD Trauma Registry and the National Trauma Data Bank, from the point of injury to rehabilitation.

The session concluded with a report from Dr. Hoyt, who provided an update on the Achieving Zero Preventable Deaths Conference that took place in April in Bethesda, MD. The conference, attended by 169 stakeholders (both physicians and nonphysicians) was designed to "disseminate, refine, and implement the NASEM report recommendations," he said. College and COT initiatives based on the recommendations of the NASEM report and discussed at the conference include the development of minimum trauma system standards with the goal of creating a national trauma system and a partnership with the National Association of State Emergency Medical Services Officials (also known as NASEMSO) to develop a joint policy statement linking EMS and hospital data.

Essentials of teamwork for the trauma team

"There is a prevalent theory that says safety is achieved by doing the same thing, the same way, every time, and that safety can best be maintained by limiting variability," said **Andrew Grose, MD,** assistant professor of orthopaedic surgery, Westchester Medical Center, Hawthorne, NY, and associate editor, *Patient Safety in Surgery*. "But in the clinical environment, everything is rapidly changing and evolving. There is no such thing as a routine, uneventful minute, hour, or day." He noted that threat management and

Mr. Caulk (left) and Dr. Grose

Mr. Galloway

task adaptation skills—which are rooted in both technical acumen and communication-based competencies—are essential for achieving acceptable outcomes.

"We do everything we can to reduce variability in the airline industry," added co-presenter **Peter Caulk,** a health care crew resource management expert and a former instructor for the U.S. Navy's elite fighter weapons school, also known as Top Gun. "The impact of doing these things right is tremendous. In health care there is a certain pride if you operate self-deprived of sleep, but not in aviation," Mr. Caulk said, citing a study published in the *British Medical Journal* in 2000 that examined 31,033 pilots and surgeons and their attitudes regarding error and teamwork in aviation and medicine. Of the pilots who responded to the study's survey, 74 percent answered "yes" when asked if fatigue has a negative effect on performance, while 30 percent of surgeons, nurses, and residents responded "yes" to the same query, Mr. Caulk said.

Checklists are tools that help ensure safety and reduce errors in both aviation and medicine, but they only work if they are tethered to effective team communication. "You can have a checklist, but if the culture doesn't support it, it doesn't work," said Mr. Caulk. The keys to bolstering team buy-in include exhibiting interpersonal skills; supporting participation by each team member; asking open-ended questions beyond the yes/no format; encouraging team briefings (setting goals and concerns); and standardizing the process.

Checklists only work if they are used 100 percent of the time, are interactive, developed by the users, easy to use, and can be shortened for emergencies when appropriate, Dr. Grose added.

Trauma survivor: Noah Galloway

During his second deployment in 2005, **Noah Galloway** was severely injured after a roadside bomb exploded while the U.S. Army soldier was driving along a remote road in southwest Bagdad. The bomb resulted in the loss of Mr. Galloway's left arm below the elbow and his left leg above the knee. He woke up on Christmas Day at Walter Reed Hospital.

A period of deep depression set in. "I drank all the time and wasn't taking care of myself. I was always into fitness, and I let that go. I rushed into a second marriage and when that didn't work, I realized I was really struggling," said Mr. Galloway, who would eventually place third on the 20th season of *Dancing with the Stars* in 2015. "People always ask me, 'What is the one thing that turned it around?' Life is not a movie—there isn't one thing that happens and everything is fine," he said. Mr. Galloway noted that his three children were his chief inspiration for overcoming his emotional and physical challenges.

Mr. Galloway eventually quit smoking and drinking, resumed his fitness regimen, and became the first veteran and amputee to be featured on the cover of *Men's Health* magazine as the "Ultimate *Men's Health* Guy."

Mr. Galloway urged health care providers to guard against burnout and to make self-care a priority. "Make sure to take care of yourselves. We need you at your best, because you are saving our lives."

The ninth annual TQIP Scientific meeting and Training will take place November 16–18, 2018, at the Anaheim Convention Center, CA. ♦

Acknowledgment

The photos in this article were taken by Dr. Stewart.

Dr. Neumayer

Leigh A. Neumayer, MD, MS, FACS, elected Chair of ACS Board of Regents

Leigh A. Neumayer, MD, MS, FACS, Tucson, AZ, is the 2017–2018 Chair of the Board of Regents (B/R) of the American College of Surgeons (ACS). She was elected at the Annual Business Meeting of Members, October 25, 2017, in San Diego, CA.

A general surgeon, Dr. Neumayer is professor and chair, department of surgery, and the Margaret and Fenton Maynard Endowed Chair in Breast Cancer Research, University of Arizona (UA) College of Medicine, Tucson. She also is the interim senior vice-president for UA Health Sciences. Before accepting these positions in Arizona, Dr. Neumayer was professor, department of surgery, University of Utah Health Sciences Center, and the Jon and Karen Huntsman Presidential Professor, University of Utah/Huntsman Cancer Institute, Salt Lake City.

In her role as Chair of the Board of Regents, Dr. Neumayer will work closely with the ACS Executive Director David B. Hoyt, MD, FACS, and will chair the Regents' Finance and Executive Committees. The College's 24-member Board of Regents formulates policy and is ultimately responsible for managing the affairs of the College.

Previous leadership roles

A Fellow of the ACS since 1994 and a member of the B/R since 2009, Dr. Neumayer has served in many leadership roles within the organization. She was Chair of the Committee on Medical Student Education (2001–2003), Vice-Chair of the Surgical Research Committee (2015–2016), a Governor for the ACS Utah Chapter (2002–2008), and Vice-Chair of the Board of Regents (2016–2017). Dr. Neumayer also was Vice-Chair of the Nominating Committee of the Board of Governors (2004–2006) and a Board of Governors Executive Committee Member (2008–2011).

Nationally, Dr. Neumayer has served on the board of directors of the American Board of Surgery (2005–2011) and as the President of the Association of Women Surgeons (1997–1998), the Association for Surgical Education (2001–2002), the Association of Veterans Administration Surgeons (2002–2003), and the Society of Clinical Surgery (2012–2014).

At present, she serves on the editorial boards for the *Journal of the American College of Surgeons*, and *Annals of Surgery*.

Dr. Neumayer's most recent work is focused on the diagnosis and treatment of breast cancer via 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 students, residents, and colleagues in these and other pursuits.

Dr. Neumayer studied biomedical engineering at Colorado State University, Fort Collins, before getting 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, Tuscon. Dr. Neumayer then studied clinical research design and statistical analysis at the University of Michigan, Ann Arbor.

Dr. Schwartz elected Vice-Chair

Marshall Z. Schwartz, MD, FACS, professor of surgery and pediatrics, and vice-chairman, department of surgery, Drexel University College of Medicine, Philadelphia, PA, was elected Vice-Chair of the ACS Board

Dr. Schwartz

of Regents. Dr. Schwartz also is the emeritus surgeon-in-chief and director of the surgery research laboratory at St. Christopher's Hospital for Children, Philadelphia.

A Fellow of the College since 1982, Dr. Schwartz has been a Regent since 2009 and has served on many ACS Committees. He was Chair of the Advisory Council Chairs (2004–2008), the Advisory Council for Pediatric Surgery (2004–2008), and the Health Policy and Advocacy Group (2014–2017). At present, he is Chair of the Comprehensive Communications Committee and a Member of the Surgical History Group Executive Committee. ♦

Register now to participate in 2018 Leadership & Advocacy Summit

by Brian Frankel, Michael Carmody, and Katie Oehmen

The American College of Surgeons (ACS) will host the seventh annual Leadership & Advocacy Summit May 19–22 at the Renaissance Washington, DC, Downtown Hotel. The summit is a dual meeting offering comprehensive and specialized sessions that provide volunteer leaders and advocates with the skills and tools necessary 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 network with ACS leaders, attend professional development sessions, and engage with colleagues to determine new and innovative ways to face challenges and enhance their leadership skills. It begins Saturday evening, May 19, with a Welcome Reception open to all registrants, followed by a full day of programming on Sunday, May 20.

More than 400 ACS leaders and members are expected to participate in the Leadership 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 key topics, including change management, managing complex and diverse teams, ethics in surgical leadership, leading in times of crisis, mentoring for a career in surgical leadership, and more. In addition, a portion of the event will be dedicated to sharing ACS chapter success stories and working to identify strategies to enhance and strengthen chapters.

For more information about the Leadership Summit, contact Brian Frankel, ACS Manager, International Chapter Services and Special Initiatives, at bfrankel@facs.org or 312-202-5361.

Advocacy Summit

The Advocacy Summit provides a unique opportunity to obtain the knowledge and skills necessary to become a surgeon advocate. With several legislative priorities for Congress to consider before the 2018 midterm elections, surgeons are encouraged to travel to Washington to learn about and participate in this unique political climate.

Since last year's summit, the Division of Advocacy and Health Policy (DAHP) has been focused on an extensive list of federal legislative priorities, including reducing administrative practice burdens; modifying and implementing new physician payment reforms; improving electronic health record and health information technology interoperability; increasing funding for trauma systems; enhancing cancer care and accreditation; and addressing surgical workforce and graduate medical education issues. ACS staff also will help members and attendees navigate the many additional legislative changes that lie ahead.

The Advocacy Summit will begin after the Leadership Summit on Sunday, May 20, with a dinner and keynote address. Past speakers have included television journalist Chuck Todd, 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 environment in Washington, and speakers will provide updates on important health care policies and issues that detract from surgeons' ability to provide quality patient care. Attendees will then apply this knowledge in face-to-face meetings with their senators and representatives and congressional staff. This portion of the program provides an opportunity to demonstrate surgery's strength

The summit is a dual meeting offering comprehensive and specialized sessions that provide volunteer leaders and advocates with the skills and tools necessary to be effective in those roles.

on Capitol Hill regarding issues of importance to surgeons and the surgical patient.

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 in Washington. The Advocacy Summit is a great place to interact and share ideas with other surgeon advocates; meet face-to-face with key health care policymakers and legislators; and, perhaps most importantly, become the constituents their legislators know and trust to offer advice on surgical issues.

The ACS Professional Association political action committee (ACSPA-*Surgeons*PAC) sponsors various events for members and *Surgeons*PAC contributors. These events provide contributors with unique networking opportunities and advanced educational sessions aimed at providing an insider's perspective on how College members can remain active participants in the political process.

In addition to raising funds to elect or re-elect congressional candidates who support a pro-surgeon, pro-patient agenda, *Surgeons*PAC will host a reception at which PAC contributors will be recognized for their commitment to the surgical profession. Other *Surgeons*PAC-sponsored events include an annual drawing with a grand prize valued at $3,000, a political luncheon featuring a renowned guest speaker, and presentation of the 2017 PAC awards. Resident engagement opportunities will be provided as well. In addition, the *Surgeons*PAC information booth will provide attendees with a venue to meet DAHP staff to learn more about the College's advocacy and political efforts.

For more information about the Advocacy Summit, contact Michael Carmody, ACS Congressional Affairs Coordinator, at mcarmody@facs.org or 202-672-1511. For more information about *Surgeons*PAC activities, e-mail surgeonspac@facs.org or call 202-672-1520. ♦

Coming next month in *JACS* and online now

Empowering postsurgical patients to improve opioid disposal: A before-and-after quality improvement study

Jessica M. Hasak, MPH; Carrie L. Roth Bettlach, NP; Katherine B. Santosa, MD; et al found that dissemination of an educational brochure improved disposal of unused opioids after surgery. This low-cost, easily implemented intervention can improve disposal of unused opioids and ultimately decrease the amount of excess opioids circulating in our communities.

This article and all other *JACS* content is available at *www.journalacs.org.* ♦

Disciplinary actions taken in 2017

The Board of Regents of the American College of Surgeons (ACS) took the following disciplinary actions at its February 10, 2017, meeting in Chicago, IL:

- Ron Samuel Israeli, MD, a urology surgeon from New Jersey, was expelled from the College. This action was taken after his license to practice medicine in the state of New York was placed on probation following a finding that he committed professional misconduct by practicing medicine with negligence on more than one occasion.

The Board of Regents took the following disciplinary actions at its June 9, 2017, meeting in Chicago:

- A plastic surgeon from Riverside, CA, was censured. The Board of Regents took this action following a disciplinary action from the California Medical Board related to patient care.

- Tadge Kanjo, MD, a general surgeon from Utah, was expelled from the College. This action was taken following disciplinary action from the Colorado Medical Board that resulted in the relinquishment of his license to practice medicine in that state after he failed to comply with a board order.

- An otolaryngologist from Somersworth, NH, was censured by the ACS following disciplinary action from the New Hampshire Board of Medicine.

The Board of Regents took the following disciplinary actions at its October 20, 2017, meeting in San Diego, CA:

- A general surgeon from Morristown, NJ, was admonished. The Board of Regents took this action following a finding that this surgeons' expert witness testimony was in violation of the ACS *Bylaws*.

- Michael Lee King, MD, a general surgeon from Pueblo, CO, was suspended from the College with terms and conditions for reinstatement. This action was taken following the revocation of his license to practice medicine in the State of Colorado.

- Larry David Tice, MD, FACS, a neurosurgeon from Fruita, CO, had his full Fellowship privileges restored following a period of probation. That probation followed a state medical board action related to unprofessional conduct. ♦

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.

Making quality stick:
Optimal Resources for Surgical Quality and Safety

Individual disciplines working together in an increasingly regulated environment

Editor's note: In July 2017, the American College of Surgeons (ACS) released *Optimal Resources for Surgical Quality and Safety*—a new manual that is intended to serve as a trusted resource for surgical leaders seeking to improve patient care in their institutions and make quality stick. Each month, the *Bulletin* highlights some of the salient points made throughout the "red book."

Increasingly, surgical care is provided by multidisciplinary teams. Thus, quality champions must be aware of the scope of practice, practice guidelines, quality improvement programs and registries, and regulatory requirements unique to each discipline involved in the delivery of surgical care. *Optimal Resources for Surgical Quality and Safety* addresses the unique characteristics and requirements for general surgery and 19 other surgical fields, including the following: surgical oncology; trauma, emergency general, and critical care surgery; burn, abdominal transplant, vascular, bariatric and metabolic surgery; and rural, pediatric, complex gastrointestinal, orthopaedic, urologic, neurological, cardiothoracic, otolaryngology, ophthalmic, gynecologic, and plastic surgery.

Health care professionals in these and other disciplines are facing increasing external regulatory pressures. These demands are exerted by federal agencies, licensing boards, accrediting bodies, medical specialty boards, professional organizations, health care institutions, and so on. Active participation in the process of improving standards of care and a commitment to accountability and transparency, rather than blind submission to an increasing regulatory framework, will be the winning strategy in the future. It is imperative that surgeons work with internal and external stakeholders, including regulatory agencies, to enhance the quality and safety of the health care services they provide to their patients.

Be sure to read next month's overview of the red book, which will focus on data analytics and putting data gleaned from clinical registries to work for quality improvement and patient safety.

Optimal Resources for Surgical Quality and Safety is available for $44.95 per copy for orders of nine copies or fewer and $39.95 for orders of 10 or more copies at *facs.org/redbook*. ♦

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- Abstract and video specifications and guidelines can be found on ***facs.org***

American College of Surgeons

Inspiring Quality:
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Chapter news

by Luke Moreau and Brian Frankel

Brooklyn-Long Island Chapter: From left: Matthew Coffron, Manager of Policy Development, ACS Division of Advocacy and Health Policy; Teresa Barzyz, BLI Chapter Administrator; Jeffrey P. Weiss, MD, FACS, President, BLI Chapter; Michael Kazim, MD; Daniel Garibaldi, MD, FACS, President, Nassau Surgical Society; Mr. Buttle; and Michael Setzen, MD, FACS, Program Director

Brooklyn-Long Island Chapter hosts Annual Clinic Day

The Brooklyn-Long Island (BLI) Chapter of the American College of Surgeons (ACS) and the Nassau Surgical Society hosted a combined Annual Clinic Day in Uniondale, NY, December 6, 2017. The event featured educational programming for 10 surgical specialties, with more than 400 surgeons and other health care professionals in attendance.

The keynote speaker was Greg Buttle, a former New York Jets football player who spoke on The Value of a Team. The event included a Resident Jeopardy Competition with winners Daniel Gross, MD, postgraduate year (PGY)-4; Phil Rosen, MD, PGY-4; and Jose Torres, MD, PGY-5, from the State University New York Downstate Medical Center taking the top prize. A Resident Abstract Poster Presentation also took place, with the top 10 posters receiving special awards. The joint efforts of the BLI Chapter and the Nassau Surgical Society have enhanced the scope of the Annual Clinic Day for the last 15 years.

Connecticut Chapter hosts 49th Annual Meeting

The Connecticut Chapter of the ACS hosted its 49th Annual Meeting October 20, 2017, at the Marriott in Farmington. The meeting took place in conjunction with the annual meetings of the Connecticut Surgical Quality Collaborative and the Connecticut Chapter of the American Society of Bariatric and Metabolic Surgeons.

The nearly 200 surgeons and residents in attendance enjoyed a day of engaging lectures, interesting research presentations, fellowship, and competition at the 10th Annual Surgical Skills Competition. Danbury Hospital claimed the 2017 championship.

The James Foster Memorial Lecture speaker, ACS Past-President Gerald B. Healy, MD, FACS, FRCS(Hon), FRCSI(Hon), professor of otology and laryngology, Harvard Medical School, Boston, MA; and the Healy Chair in Otolaryngology (emeritus), otolaryngologist-in-chief (emeritus), and surgeon-in-chief (emeritus), Boston Children's Hospital, presented an inspirational talk, The DASH Is What It's All About!, inspired by the Linda Ellis poem, "The Dash." Joseph V. Sakran, MD, MPA,

Connecticut Chapter: From left: Dr. Sakran; Kimberly A. Davis, MD, MBA, FACS, Chapter President; and Dr. Healy

Florida Chapter: Dr. Loftus (left) and Dr. Eidelson, winners of the inaugural Surgical Skills Competition at Clinical Congress 2017

MPH, FACS, director, emergency general surgery; associate chief, division of acute care surgery; and assistant professor of surgery, The Johns Hopkins Hospital, Baltimore, MD, presented an insightful and topical afternoon lecture, Dissecting Social Media—A Practical Approach for the Surgeon.

The chapter honored Scheuster E. Christie, MD, FACS, St. Francis Hospital, Hartford, with its Distinguished Service Award in recognition of a career devoted to serving his patients and peers and inspiring countless residents on their path to practice. David Shapiro, MD, MHCM, FACS, St. Francis Hospital, presented the award to his mentor and colleague.

The chapter also presented all three Connecticut medical schools—the Frank H. Netter MD School of Medicine at Quinnipiac University, Hamden; the University of Connecticut School of Medicine, Farmington; and the Yale School of Medicine, New Haven—with perpetual plaques listing the names of recent award recipients. As future awards are presented, the chapter will update these plaques, recognizing the graduates who earn the Chapter's Excellence in Surgical Sciences award each year.

The Connecticut Chapter is planning its 2018 meeting, which will celebrate its 50th anniversary and take place October 19.

Florida Chapter residents win Clinical Congress Surgical Skills Competition

Residents from the Florida Chapter won the inaugural ACS Skills Competition: So You Think You Can Operate? at the Clinical Congress in San Diego on October 22, 2017. Tyler Loftus, MD, a PGY-4 general surgery resident at the University of Florida, Gainesville, and Sarah Eidelson, MD, a PGY-3 general surgery resident at Jackson Memorial Hospital, University of Miami, beat out seven teams sponsored by ACS chapters and residency programs.

Indiana Chapter hosts Will C. Moore Lecturer

L. Michael Brunt, MD, FACS, chief, section of minimally invasive surgery, Washington University, St. Louis, MO, delivered the 2017 William C. Moore Lecture to the Indiana Chapter November 14, 2017. The Moore Lecture comprises a nonclinical talk provided to the chapter and a scientific lecture to the department of surgery, Indiana University School of Medicine, Indianapolis. More than 70 members of the Indiana Chapter attended the nonclinical portion of the talk, during which Dr. Brunt provided insights gained from his mountain-climbing experiences in the U.S. and abroad. His presentation to the department of surgery focused on patient safety—including safe cholecystectomy, a movement he has championed.

The lecture honors Will C. Moore, MD, from Summitville, IN. In addition to serving in World War I field hospitals in the Argonne Forest, Verdun, and St. Michael, he was the benefactor to more than 50 medical students and held positions of leadership in the Muncie, IN, medical community and Indiana state organization offices. He had an unmatched impact on surgery in Indiana, performing more than 60,000 operations throughout his career.

Indiana Chapter: Dr. Brunt delivering the William C. Moore Lecture

Keystone Chapter: From left: Joseph Blansfield, MD, FACS, Keystone Chapter President; Dr. Pruitt; and Christopher Buzas, DO, FACS, Keystone Chapter President-Elect

Keystone Chapter hosts annual scientific meeting

The Keystone Chapter of the ACS hosted its annual meeting November 3, 2017 at the Lehigh Valley Hospital's Cedar Crest campus, Allentown, PA. The event featured a full day of educational sessions, providing Continuing Medical Education credits for physicians in attendance. Tyler Hughes, MD, FACS, ACS *Surgery News* co-editor and Editor-in-Chief of the ACS Communities, and Basil Pruitt, Jr., MD, FACS, FCCM, MCCM, ACS Second Vice-President, were featured speakers.

A total of 30 resident abstracts were submitted for the poster competition, 12 of which were chosen to present orally to the attendees; the remaining posters were judged throughout the day. Cash prizes were awarded to the top two oral abstract competition winners—Sasha Slipak, MD, a general surgery resident at Geisinger Medical Center, Danville, won first place, and Rachel Appelbaum, MD, a general surgery resident at Lehigh Valley Health Network, won second place. The top two poster presenters also were recognized—Sinziana Cornea, BS, a medical student at Tower Health, Reading, won first place, and Anjuli Gupta, DO, a general surgery resident at Geisinger Medical Center, Wyoming Valley, won second place. The meeting concluded with the annual Resident Surgical Jeopardy Tournament, emceed by Christopher P. Coppola, MD, FACS, a pediatric surgeon at Geisinger Medical Center, Danville. The winners of the Surgical Jeopardy tournament were Nils Tomas McBride, MD, and Saranf Kashyap, MD, both from Easton Hospital, PA.

Maryland Chapter holds Fall Dinner Meeting, elects new officers

A crowd of residents and academic and community surgeons attended the Maryland Chapter of the ACS (MD-ACS) Fall Dinner Meeting November 16 at La Scala Restaurant, Baltimore.

Following dinner, Chapter President Frank Rotolo, MD, FACS, Finney Trimble Surgical Associates, Greater Baltimore Medical Center, called the business meeting to order, and a new slate of chapter officers was elected, as follows:

- President: Jon Efron, MD, FACS, Johns Hopkins Medicine, Baltimore
- President-Elect: Jose Diaz, MD, FACS, University of Maryland Medical Center, Baltimore
- Secretary: Joseph V. Sakran, MD, MPA, MPH, FACS, Johns Hopkins Medicine, Baltimore
- Treasurer: Jesus Esquivel, MD, FACS, Surgical Specialists, Frederick Regional Health System, Frederick

The group then welcomed B. Todd Heniford, MD, FACS, chief, division of gastrointestinal and minimally invasive surgery, and director, Carolinas Hernia Institute, Carolinas Health Center, Charlotte, NC, who spoke on Advances in Abdominal Wall Reconstruction.

The MD-ACS 2018 Annual Meeting is scheduled for April 28 at the Marriott Inner Harbor Camden Yards, Baltimore.

Massacusetts Chapter: From left: Drs. Kelly, Vazquez, Cherng, and Czerniach, winners of the Massachusetts Chapter Top Gun Competition

Metropolitan Philadelphia Chapter: Surgical Jeopardy winners from Drexel University, from left: Drs. Teichman, Morano, Pastrana, Schafer, Gleeson, Serniak, and Pontell

Residents revel at Massachusetts Chapter's 64th Annual Meeting

The Massachusetts Chapter of the ACS (MCACS) held its 64th Annual Meeting December 2 at the Westin Copley in Boston, with a record registration of 168 professionals, including 93 residents. Chapter President Anne C. Larkin, MD, FACS, recognized Program Chair Robert P. Driscoll, MD, FACS, for putting together a valuable program addressing health care disparities.

The day opened with two sessions showcasing 12 resident research papers. The 5th Joseph Murray Resident Research Basic Science Award was presented to Sameer Hirji, MD, general surgery resident, Brigham and Women's Hospital, for Utility and Feasibility of Intra- and Post-Operative Crisis Management Checklists in Cardiac Surgery. The Resident Research Clinical Award was presented to Janaka Lagoo, MD, resident, Ariadne Labs, Boston, for Physicians Working in New Hospital Environments: Understanding Their Challenges to Develop Real Solutions.

Throughout the morning, attendees also visited the poster hall to speak with the 40 authors about their work. The Basic Science Poster of Distinction Award was presented to Shen Li, MD, resident, Massachusetts General Hospital, Boston, for Pioglitazone Reduces Hepatocellular Neoplasia in a Rat Model of Cirrhosis. The Clinical Poster of Distinction Award was presented to Rajshri Mainthia, MD, Massachusetts General Hospital, for Malpractice Claims after Cholecystectomy: What Factors Are Associated with Plaintiff Payout?

The meeting also featured the Survivor Game, which was moderated by George C. Velmahos, MD, PhD, FACS, division chief of trauma, emergency surgery, and surgical critical care, Massachusetts General Hospital, using an audience response system accessed through attendees' smartphones to vote participants "off the island." The winner was David Harris, MD, PGY-3 resident, Brigham and Women's Hospital.

Peter S. Hopewood, MD, FACS, ACS Commission on Cancer Representative, Cape Cod Healthcare Falmouth, presented four awards on behalf of the ACS Commission on Cancer. Recipients were Mallika Gopal, third-year medical student, Boston University School of Medicine, for Impact of Subtype and Location on Pathological Upstaging of Clinical T1b/T2N0 Esophageal Cancer; Abha Aggarwal, PhD, MSPH, MS, Brigham and Women's Hospital, for Metabolic Inhibition of Anaplastic Thyroid Cancer with 3-BP Depends on Hexokinase II Expression; Praveen Sridhar, MD, PGY-2 resident, Boston University, for Pre-Clinical Evaluation of Spliceosome and Proteasome Inhibition in Triple Negative Breast Cancer; and Gabriel J. Ramos-Gonzalez, MD, PGY-2 surgical research fellow, Boston Children's Hospital, for Long-Term Outcomes of Liver Transplantation for Hepatoblastoma: A Single-Center 14-Year Experience.

The meeting concluded with the seventh annual Resident Top Gun Competition, where surgical residents' laparoscopic skills, including intracorporeal knot tying, transferring of objects from one hand to another, and

Nevada Chapter: From left: Drs. McNickle, McNicoll, Chestovich, Rivera, and Kuhls

pattern cutting, were judged. The winning individual on the initial four tasks was Mohamad Abdulhai, MD, general surgery resident, Lahey Hospital and Medical Center, Burlington. Following the final "surprise" task, the winning team of the coveted MCACS Top Gun trophy was from UMass Memorial Medical Center, led by residents Donald R. Czerniach, MD; Nicole Cherng, MD; John Kelly, MD; and Samuel Vazquez, MD.

Metropolitan Philadelphia Chapter hosts Third Annual Jeopardy Tournament

The Metro Philadelphia Chapter of ACS (MPACS), PA, hosted its Third Annual Jeopardy Tournament November 9 at the National Mechanics restaurant. A total of 60 residents and MPACS Fellows were in attendance as the nine jeopardy teams fought for the coveted trophy. Jeffrey Butcher, MD, FACS, MPACS President, was the emcee, and Robert Kucejko, MD, MPACS Resident Subcommittee Chair, coordinated the event. Eight Philadelphia-based institutions competed in this year's tournament. Team Drexel, composed of Elizabeth Gleeson, MD; William Morano, MD; Marlon Pastrana, MD; Matthew Pontell, MD; Charles Schafer, DO; Nicolas Serniak, MD; and Amanda Teichman, MD, walked away as the 2017 Surgical Jeopardy Champions.

Other competing Philadelphia institutions included Abington, Einstein, Jefferson, Lankenau, Philadelphia College of Osteopathic Medicine, Temple, and the University of Pennsylvania.

Nevada Chapter attends trauma meeting in Hawaii

Several members of the Nevada Chapter of the ACS traveled to the Trauma Winter Conference/ ACS Committee on Trauma Region IX Resident Papers Competition December 8, 2017, hosted by the Hawaii Chapter of the ACS at The Queen's Medical Center, Honolulu.

Representing the Nevada Chapter in the Resident Papers Competition were the following: Allison McNickle, MD, University of Nevada, Las Vegas, School of Medicine (UNLV SOM), acute care surgery fellow and Nevada ACS COT first-place winner; Christopher McNicoll, MD, MPH, MS, UNLV SOM general surgery resident and Nevada ACS COT second-place winner; and Nancy Rivera, MD, UNLV SOM acute care surgery fellow. Both Chapter President Deborah Kuhls, MD, FACS, and Paul Chestovich, MD, FACS, trauma surgeon and assistant professor, department of surgery, UNLV School of Medicine, spoke at the Trauma Winter Conference on firearm injuries and reducing pediatric computed tomography scans, respectively.

New Hampshire rejuvenates chapter

The New Hampshire Chapter of the ACS convened an organizational meeting at Clinical Congress 2017 to discuss rejuvenation of the chapter. All New Hampshire Chapter members were then invited to attend the Annual Meeting of the Massachusetts Chapter in Boston on December 2, 2017. The chapter hopes to partner with other New England chapters for additional events in the future while it builds momentum.

New Mexico Chapter: Front row, from left: Drs. Fahy, Remillard, Bass, Vigil, and McKee. Back row: Drs. Batley, Rajput, Kwan, Yeats, and Pitcher.

The New Hampshire Chapter is seeking enthusiastic individuals to play a leadership role in its revitalization.

New Jersey Chapter hosts the 66th Annual Clinical Symposium

The New Jersey Chapter of the ACS hosted its 66th Annual Clinical Symposium December 1, 2017, at The Renaissance Woodbridge Hotel & Conference Center in Iselin, NJ. More than 200 surgeons, surgical residents, and medical students attended the meeting.

Specialty surgical sessions centered on bariatric/foregut surgery, colon/rectal surgery, global surgery, plastic surgery, transplant and hepato-pancreato-biliary surgery, trauma and thoracic surgery, urologic surgery, and vascular surgery. Additionally, the surgical residency directors met.

The event featured Surgical Jeopardy for the surgical residents, with Eric Lazar, MD, FACS, a pediatric surgeon in Morristown, moderating. Participating teams included Cooper University Health Center, Camden; Bronx-Lebanon Hospital Center; Morristown Medical Center; Rutgers New Jersey Medical School, Newark; Rutgers Robert Wood Johnson Medical School, New Brunswick; and Saint Barnabas Medical Center, Livingston. Residents from Bronx Lebanon Medical Center won for the second consecutive year.

A surgical resident poster and manuscript contest took place. The winners were Robin F. Irons, MD, Cooper University Hospital, Camden, for Acceleration of Diabetic Wound Healing with Adipose Derived Stem Cells, Endothelial Differentiated Stem Cells and Topical Conditioned Medium Therapy in a Swine Model; Mihir M. Shah, MD, Rutgers Cancer Institute of New Jersey, for Comparison of Perioperative Chemotherapy vs. Postoperative Chemoradiation Therapy for Distal Gastric Cancer: An Analysis of the National Cancer Database; and Anthony Scholar, MD, MBS, Rutgers, New Jersey Medical School, for Improving Cancer Patient Emergency Room Utilization: A New Jersey State Assessment.

The keynote speaker was Rachel R. Kelz, MD, FACS, associate professor of surgery, University of Pennsylvania, Philadelphia. Dr. Kelz's topic was E-IQ: Education, Innovation and Quality. The topic was well received and those in attendance participated in an interactive exercise on IQs.

The 2017 Sheen Award recipient, Melina Kibbe, MD, FACS, chair, department of surgery, and the Zach D. Owens Distinguished Professor, University of North Carolina at Chapel Hill, attended the awards dinner Friday evening and presented the lecture When Mice Are Men, which focused on the difference between drug trials between men and women.

A brief business meeting was conducted during which the following new chapter officers were elected (all MD, FACS): Justin T. Sambol, President; Joseph E. Cauda, President-Elect; Anne C. Mosenthal, Vice-President; Dr. Lazar, Secretary; and Robert M. Olson, Treasurer. The meeting concluded with a presentation on the extensive legislative review by the chapter lobbyist.

Wisconsin Chapter: From left (all MD, FACS): Brian Lewis, President-Elect; Shanu Kothari, ACS Governor; Michael Garren, Immediate Past-President; David Schultz, President; and Barbara Boyer, Secretary-Treasurer

New Mexico Chapter holds State of Surgical Science Meeting

The 2017 State of Surgical Science Meeting of the New Mexico Chapter of the College (NMACS) took place September 8–9, 2017, in Albuquerque. Anthony Vigil, MD, FACS, NMACS President, and Jean Remillard, MD, FACS, NMACS President-Elect, led the event. The NMACS welcomed Barbara L. Bass, MD, FACS, FRCS(Hon), then President-Elect of the ACS, as the keynote speaker. She presented Retooling Reimagined: Building the Infrastructure to Support a Lifetime of High Performance Surgery. The NMACS welcomed many other speakers from the University of New Mexico School of Medicine, Albuquerque, including Ashwani Rajput, MD, FACS, who presented the Commission on Cancer update; Victor Phuoc, MD, who presented Robot-Assisted Surgery for Gastrointestinal Oncology; David Pitcher, MD, FACS, ACS Governor, who presented the Merit-based Incentive Payment System; and Heidi Miller, MD, FACS, who presented Approaching the Complex Ventral Hernia Patient. The Annual Resident Abstract Competition took place during the meeting, and Alissa Greenbaum, MD, and Jaideep Das Gupta, MD, both from the University of New Mexico School of Medicine, tied for first place.

This year's program included a Surgical Jeopardy competition. Three teams from the University of New Mexico participated in this event. Zoe Jones, MD, won the competition and a trip to Clinical Congress 2017.

The chapter elected its 2017–2018 officers and council members during the annual business meeting. Dr. Remillard was elected President; Bridget Fahy, MD, FACS, was elected President-Elect; Chayanin Musikasinthorn, MD, FACS, was elected Vice-President; and Albert Kwan, MD, FACS, agreed to another term as Secretary-Treasurer. Rohini McKee, MD, FACS; Kamran Kamali, MD, FACS; Ashwani Rajput, MD, FACS; and Jerry Batley, MD FACS, were elected councilors.

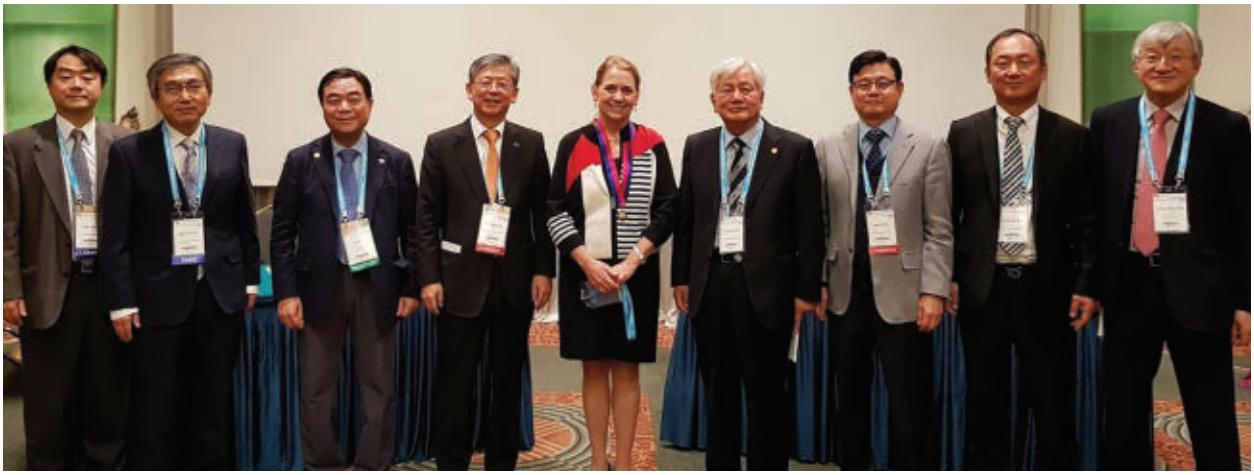
A joint meeting with the New Mexico Medical Society is planned for September.

Wisconsin Surgical Society holds Annual Conference

Sen. Ron Johnson (R-WI) held a town hall meeting November 3, 2017, as part of the Annual Conference and Meeting of The Wisconsin Surgical Society—a Chapter of ACS. After some brief comments, the senator opened the floor for questions. Topics were wide-ranging, including health care reform and tort reform. The gathering of more than 150 people found the session to be valuable and interesting. The meeting took place at the American Club, Kohler, WI.

Chapter Speed Networking: Clinical Congress 2017

A Chapter Speed Networking event took place October 23 at Clinical Congress 2017. Approximately 70 chapter leaders and administrators from around the world were invited to learn more about how to strengthen the activities of their local chapters. The event offered a fun, fast-paced educational and social environment for sharing best practices on topics such



South Korea Chapter: Dr. Bass (center) with leaders of the South Korea Chapter of ACS and the Korean Surgical Society

as membership recruitment, engagement of members of the Young Fellows Association and the Resident and Associates Society, social media, advocacy, and dynamic meetings.

Chapters discussed similar experiences, and one of the benefits of the event was that it provided a forum for building lasting connections with members of other ACS chapters.

Kuwait Chapter hosts inaugural meeting

The Kuwait Chapter of the ACS hosted its inaugural Chapter Conference, September 28–October 1, 2017, with the theme of Education and Innovation. Surgeons of all specialties in Kuwait attended the event. Notable guests included Courtney M. Townsend, Jr., MD, FACS, then-ACS President, and Carlos A. Pellegrini, MD, FACS, FRCSEd(Hon), FRCSEng(Hon), FRCSI(Hon), ACS Past-President.

The conference promoted innovation in surgery, one of the challenges in modern health care, and provided an evidence-based approach to addressing the real challenges in surgery and other complex therapies. Plenary lectures were intermixed with educational sessions and offered opportunities for surgeons to discuss the hot topics in surgery and for scientists to present their devices and innovative work.

After the inauguration of the Kuwait Chapter on September 30, the delegates and the organizing committee were invited to a special event at the Bayan Palace.

On November 25, 2017, the Kuwait Chapter also organized an Advanced Laparoscopy Suturing Course for surgeons from all surgical subspecialties.

Korean Surgical Society and South Korea Chapter of ACS hold Annual Congress

Dr. Bass attended the Annual Congress of the Korean Surgical Society and South Korean Chapter of ACS, which took place November 2–4, 2017, in Seoul, South Korea. Dr. Bass provided an ACS update and gave a lecture, Retooling Reimagined: Building the Infrastructure to Support a Lifetime of High Performance in Surgery.

Dr. Bass recognized the 70th anniversary of the Korean Surgical Society, founded in 1947. To increase international networking, the Korean Surgical Society works with the South Korea Chapter of ACS, Japan Surgical Society, and numerous other international surgical organizations to improve the quality of education.

The mission of the South Korea Chapter of ACS, which was formed in 1987, and the Korean Surgical Society is to improve the quality of patient care, which will contribute to the advancement of public health in South Korea.

The College welcomes a new international chapter

The ACS welcomes the Qatar Chapter to its international chapter network. The ACS Board of Regents officially granted a charter to the Qatar Chapter at its October 2017 meeting in San Diego, CA. The Qatar Chapter will work with the College to provide opportunities for ACS members in Qatar to get involved at the local level. The addition of the Qatar Chapter increases the worldwide network of ACS chapters to 112—45 international and 67 domestic chapters. ♦

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Inspired to address challenges the underserved faced in their own community when requiring surgical care, Drs. Schecter (above) and Grey co-founded Operation Access in 1993. This organization provides donated outpatient surgeries and specialty care to the under- and uninsured. It is a model for surgical care delivery to the underserved throughout the U.S. today.

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ACS in the NEWS

Editor's note: Media around the world, including social media, frequently report on American College of Surgeons (ACS) activities. Following are brief excerpts from news stories covering research and activities from the ACS Clinical Congress 2017, held in San Diego, CA, October 22–26. To access the news items in their entirety, visit the online ACS Newsroom at *facs.org/media/acs-in-the-news*.

Gunshot sensors improve odds for shooting victims

Philadelphia Inquirer, October 24, 2017

"Gunshot sensors may help speed treatment of shooting victims and potentially improve outcomes for those with the most serious injuries, a new study suggests.

About 90 U.S. cities have installed the sensors to help pinpoint shooting scenes and find victims. Fewer than 20 percent of shots fired are reported to police, according to the researchers."

Surgery process maps may reduce infection risks in low resource settings

Medscape, October 24, 2017

"Process maps can reduce the risk for perioperative infection in low-income countries by pinpointing barriers to good procedures, researchers say.

A process map implemented at a pilot site in Jimma, Ethiopia, significantly improved such measures as hand-washing and the timing of prophylactic antibiotics, said Jared Forrester, MD, a surgical fellow at Stanford Health Care in Palo Alto, [CA]. 'This can be a powerful tool,' he said."

Acoustic gunshot sensors help speed treatment of shooting victims

Yahoo! Finance, October 25, 2017

"Acoustic gunshot sensors have been pinpointing shooting scenes and victims for years. The tech can be found in around 90 U.S. cities in total. Meanwhile, the American military has been using it to track down the source of gunshots on the battlefield since 2011. But, the effectiveness of the sensors in saving the lives of ordinary citizens has never been quantified. That's all changing, courtesy of a new study by surgeons at the University of California, San Francisco-East Bay. The key finding from the analysis of shooting victims (identified through the sensors) is that the tech is potentially beneficial for those who have suffered serious injuries."

Checklist aims to help prevent surgical infections in Africa

Scope, October 26, 2017

"For the last year, Stanford surgery resident Jared Forrester, MD, has been living in Ethiopia, tackling one of surgery's most troubling issues—how to prevent infections after an

operation. Infection is always a risk with surgery, but those risks can be as much as five times higher among patients in low- and middle-income countries, Forrester said."

Many high-risk women skip breast cancer screenings, even if they're free

United Press International, October 26, 2017

"Knowing they're at increased risk for breast cancer isn't enough to persuade many women to get [magnetic resonance imaging] screenings—even if they're free.

Researchers studied more than 1,000 women in a U.S. military health system who had a 20 percent or greater lifetime risk of breast cancer due to genetics or personal or family history."

More than 80% of women with a high risk of breast cancer are not getting screened, study warns

Daily Mail, October 27, 2017

"Earlier MRI screening is recommended for women with genetic predisposition to breast cancer, or personal or family history of the disease.

But the study presented at the American College of Surgeons Clinical Congress in San Diego found the vast majority of these women choose not to get it."

Treating appendicitis without surgery: Fears raised

Medscape, October 27, 2017

"By managing older, sicker patients' appendicitis without surgery, U.S. physicians may be increasing their risk for death by a slight but statistically significant degree, data suggest.

'Mortality, we were surprised to find, was significantly higher in the patients managed nonoperatively,' said lead author Isaiah Turnbull, MD, PhD, [FACS,] an assistant professor of surgery at Washington University in Saint Louis, [MO]."

Belly fat widens odds of emergency surgery troubles

Health, October 30, 2017

"Excess belly fat dramatically increases the risk of complications and death after emergency surgery, a new study finds.

The research included more than 600 patients who had emergency surgery and underwent [computed tomography] scans of the abdomen and pelvis before surgery. These scans were used to calculate waist-to-hip ratios, a measure of belly fat. A healthy ratio should not exceed .90 in men and .85 in women, according to the World Health Organization." ♦

Call for nominations for the ACS Board of Regents and ACS Officers-Elect

The American College of Surgeons (ACS) 2018 Nominating Committee of the Fellows (NCF) and the Nominating Committee of the Board of Governors (NCBG) will be selecting nominees for leadership positions in the College as follows.

Call for nominations for Officers-Elect

The 2018 NCF will select nominees for the three Officer-Elect positions of the ACS: President-Elect, First Vice-President-Elect, and Second Vice-President-Elect. The deadline for submitting nominations is **February 23, 2018**.

Criteria for consideration

The NCF will use the following guidelines when considering potential candidates:

- Nominees must be loyal members of the College who have demonstrated outstanding integrity and an unquestioned devotion to the highest principles of surgical practice.
- Nominees must have demonstrated leadership qualities, such as service and active participation on ACS committees or in other components of the College.
- The ACS encourages consideration of women and underrepresented minorities for all leadership positions.

All nominations must include the following:

- A letter/letters of nomination
- A personal statement from the candidate detailing his or her ACS service and interest in the position (for President-Elect position only)
- A current curriculum vitae (CV)
- The name of one individual who can serve as a reference

Further details

Entities such as surgical specialty societies, ACS Advisory Councils, ACS committees, and ACS chapters that would like to provide a letter of nomination must provide a description of their selection process and the total list of applicants reviewed.

Any attempt to contact members of the NCF by a candidate or on behalf of a candidate will be viewed negatively, and may result in disqualification. Applications submitted without the requested information will not be considered.

Nominations must be submitted to officerandbrnominations@facs.org. If you have any questions, contact Emily Kalata at 312-202-5360 or ekalata@facs.org.

Call for nominations for Board of Regents

The 2018 NCBG will select nominees for pending vacancies on the Board of Regents to be filled at Clinical Congress 2018. The deadline for submitting nominations is **February 23, 2018**.

Criteria

The NCBG will use the following guidelines when considering potential candidates:

- Nominees must be loyal members of the College who have demonstrated outstanding integrity along with an unquestioned devotion to the highest principles of surgical practice.
- Nominees must have demonstrated leadership qualities, such as service and active participation on ACS committees or in other components of the College.
- The ACS encourages consideration of women and underrepresented minorities for all leadership positions.
- The NCBG recognizes the importance of the Board of Regents representing all who practice surgery in both academic and community practice, regardless of practice location or configuration.

- Nominations are open to surgeons of all specialties, but particular consideration will be given this nomination cycle to those in the following specialties:
  - Burn and critical care surgery
  - Gastrointestinal surgery
  - General surgery
  - Surgical oncology
  - Transplantation
  - Trauma
  - Vascular surgery
- Only individuals who are currently and are expected to remain in active surgical practice for their entire term may be nominated for election or reelection to the Board of Regents.

All nominations must include the following:

- A letter of nomination
- A personal statement from the candidate detailing his or her ACS service and interest in the position
- A current CV
- The name of one individual who can serve as a reference

Further details

Entities such as surgical specialty societies, ACS Advisory Councils, ACS Committees, and ACS chapters that would like to provide a letter of nomination must provide at least two nominees and a description of their selection process, along with the total list of applicants reviewed.

Any attempt to contact members of the NCBG by a candidate or on behalf of a candidate will be viewed negatively, and may result in disqualification. Applications submitted without the requested information will not be considered.

Nominations may be submitted to officerandbrnominations@facs.org. If you have any questions, contact Emily Kalata at 312-202-5360 or ekalata@facs.org.

For information only, the current members of the Board of Regents who will be considered for re-election are (all MD, FACS): John L. D. Atkinson, James C. Denneny III, Timothy J. Eberlein, Henri R. Ford, Enrique Hernandez, L. Scott Levin, Linda Phillips, Anton A. Sidawy, Beth H. Sutton, and Steven D. Wexner. ♦

Stand out in 2018—update your ACS member profile

Freshening up your online presence is one resolution that will be easy to keep in 2018 for members of the American College of Surgeons (ACS). It takes fewer than 30 minutes to update your online ACS member profile. Your ACS member profile allows you to maintain a professional presence online and easily connect with your colleagues. Your patients can visit your profile to learn more about you, and it will help potential patients find you. Personalize your profile with information about your practice, your education and training, areas of clinical concentration, and your board certifications and society memberships. Add a link to your practice website and a photo. Find more information on the benefits of keeping an up-to-date profile at *facs.org/updateyourprofile*.

To update your profile today, log in to the ACS website at *facs.org* using your member login information. Click on My Profile in the blue navigation bar and select My Profile Overview. Click on the pencil icon in the top right corner of each section to edit. Be sure to save your changes before moving on to the next section. Contact ms@facs.org for assistance. ♦

Nominations for 2018 volunteerism and humanitarian awards due February 28

The American College of Surgeons (ACS), in association with Pfizer, Inc., is accepting nominations for the 2018 Surgical Volunteerism Award(s) and Surgical Humanitarian Award. All nominations must be received by **February 28, 2018**.

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 commitments or retired Fellows who have been involved in volunteerism during their 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 dedicated 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 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.

Nominations

The following conditions apply to the nominations process:

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

Plan to spend a minimum of 30 minutes completing 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 with 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 they are involved in, any advocacy efforts they may have been involved in, and any additional roles they have played, among other items.
- It helps to tell a story with your nomination. Specific examples and anecdotes are encouraged.
- The information you provide 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 can start an application and then come back to enhance it with additional/more detailed information obtained about the nominee.

The nomination website 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. ♦

Apply for International Scholarships for Surgical Education by March 1

The American College of Surgeons' (ACS) Division of Education and the International Relations Committee have announced three international scholarships focused on surgical education. All application materials and supporting documents are due no later than **March 1, 2018,** for attendance at Clinical Congress 2018, October 21–25 in Boston, MA.

These awards will offer faculty members from countries other than the U. S. and Canada the opportunity to participate in a variety of faculty development activities to obtain new knowledge and skills in surgical education and training, which will be useful in improving surgical education and training in the scholar's home institution and country.

The scholars will participate in the annual ACS Clinical Congress, including the Surgical Education: Principles and Practice course, as well as other plenary sessions and courses that address surgical education and training across the continuum of professional development. This continuum includes the needs of practicing surgeons throughout their entire careers, as well as the needs of residents, medical students, and other members of the surgical team.

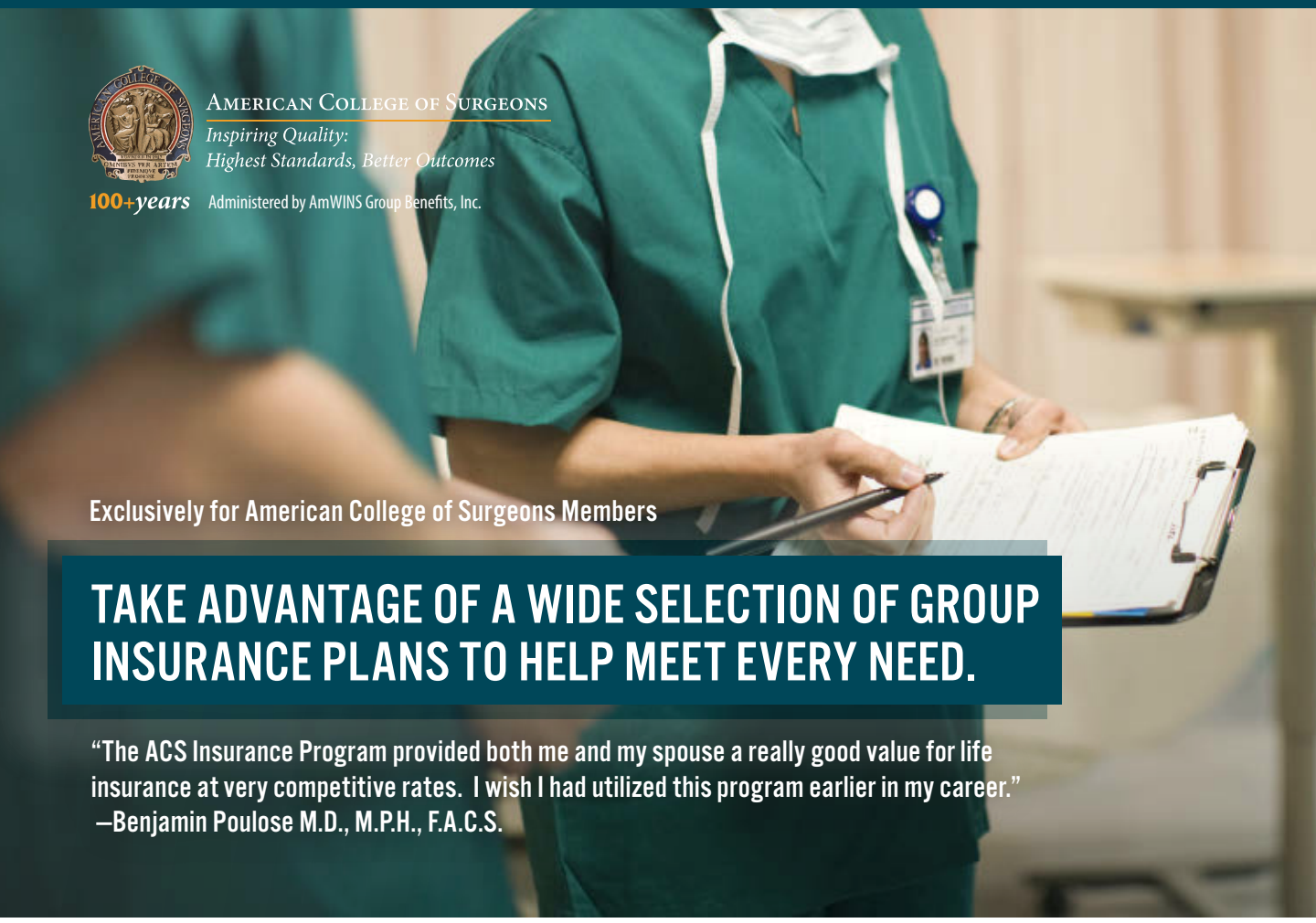
Following the Clinical Congress, each scholar will visit two Level I ACS-accredited Education Institutes selected in advance based on the scholars' interest areas in surgical education and training. At the conclusion of the Clinical Congress and his or her visits to the ACS-accredited Education Institutes, each scholar will send to the International Relations Committee and to the Division of Education a brief report outlining the outcomes that have been achieved as a result of the scholarship, specifically focusing on achievement of the objectives outlined in their scholarship application. The scholarships will facilitate the scholars' involvement in subsequent collaborative ventures in education and training under the aegis of the ACS Division of Education.

Each scholarship provides a stipend of $10,000, supporting travel and per diem in North America, and the cost of courses undertaken at the Clinical Congress and at the ACS-accredited Education Institutes to be visited. Clinical Congress registration and fees for attendance at the Surgical Education: Principles and Practice course will be provided gratis. Assistance will be offered to reserve affordable housing in the Clinical Congress host city.

Requirements

Applicants must provide documentation of prior experience in surgical education and training, such as involvement in the development and evaluation of education modules, use of novel teaching and assessment strategies, or curriculum design. In addition, applicants must submit a one-paragraph description of their education philosophies, a list of specific educational goals and objectives for their visits, and evidence of support of these goals and objectives from the leadership at their home institutions. These documents will be reviewed by the Division of Education as part of the selection process. At least five years of experience is required beyond completion of all training and fellowships. Scholarships must be used in the year awarded; they may not be postponed.

Full scholarship requirements for this program may be reviewed at *facs.org/member-services/scholarships/international/issurged*. The application for the scholarship can be accessed at the bottom of the requirements page. Questions should be directed to the ACS International Liaison at kearly@facs.org. ♦



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Calendar of events*

*Dates and locations subject to change. For more information on College events, visit *www.facs.org/events* or *facs.org/member-services/chapters/meetings*.

FEBRUARY

2018 ACS Coding and Reimbursement Workshop
February 8–10
Las Vegas, NV
Contact: KarenZupko & Associates, Inc., information@karenzupko.com, *www.karenzupko.com/workshops2/gensurg-workshops/*

Georgia Lobby Day
February 14
Atlanta, GA
Contact: Kathy Browning, gaacs@gmail.com, *georgiaacs.org/*

United Arab Emirates Chapter
February 15–17
Dubai, UAE
Contact: Agustina Dagus, adagus@mafraqhospital.ae

North Texas Chapter
February 16
Dallas, TX
Contact: Carrie Steffen, info@ntexas.org, *www.ntexas.org/*

Indiana Lobby Day
February 20
Indianapolis, IN
Contact: Tom Dixon, tdixon@ismanet.org

Arkansas Lobby Day
February 21
Little Rock, AR
Contact: Linda Gist, lindac92@comcast.net

South Texas Chapter
February 22–24
Houston, TX
Contact: Janna Pecquet, janna@southtexasacs.org, *www.southtexasacs.org*

2018 ACS Coding and Reimbursement Workshop
February 22–23
Orlando, FL
Contact: KarenZupko & Associates, Inc., information@karenzupko.com, *www.karenzupko.com/workshops2/gensurg-workshops/*

MARCH

Oregon Lobby Day
March 4
Salem, OR
Contact: Harvey Gail, harvey@spiremanagement.com, *www.oregonchapteracs.org*

Peru Chapter
March 14–16
Lima, Peru
Contact: Dr. Jaime Herrera-Matta, scgperu@gmail.com

APRIL

Japan Chapter
April 5–7
Tokyo, Japan
Contact: Dr. Yoshida Kazuhiko, kaz-yoshida@jikei.ac.jp

Florida Chapter
April 6–7
Orlando, FL
Contact: Brian Hart, bhart@floridafacs.org, *floridafacs.org*

Northern California Chapter
April 6–7
Berkeley, CA
Contact: Christina McDevitt, nccacs@att.net, *www.nccacs.org*

Ohio Chapter
April 6–7
Cincinnati, OH
Contact: Emily Maurer, emaurer@facs.org, *www.ohiofacs.org*

North and South Dakota Chapters
April 13–14
Deadwood, SD
Contact: Terry Marks, tmarks@sdsma.org *marylandacs.org/*

FUTURE CLINICAL CONGRESSES

2018
October 21–25
Boston, MA

2019
October 27–31
San Francisco, CA

2020
October 4–8
Chicago, IL