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Bulletin

AMERICAN COLLEGE OF SURGEONS



Surgeons Help Heal Ukraine

Also Inside:

Sibling Surgeons Share Special Bonds

New 2023 CPT Coding Changes

Blood Product Stewardship

May Improve Patient Outcomes

“ The American College of Surgeons is focused on the future of medicine and ensuring that we are leading the way in quality, innovation, and delivering outstanding care for surgical patients. Our quality programs empower us to use our creativity, our skill, and our leadership to create better outcomes for all. ”

Patricia L. Turner, MD, MBA, FACS
Executive Director & Chief Executive Officer

THE POWER OF QUALITY





Cover Story



8 Surgeons Help Heal Ukraine

10
Retired Surgeon Trains Ukrainians to Save Lives,
Defend Their Homeland

Michael Baker, MD, FACS

14
Facial Plastic and Reconstructive Fellows
Lead Humanitarian Trip to Ukraine

Manoj Abraham, MD, FACS

16
Surgeons Reveal Lessons Learned in Ukraine
During Clinical Congress Session

Matthew Fox, MSHC

Features

20
Med Student Forms NGO
to Help War Victims, Ease
Training Burnout
Tony Peregrin

26
Sibling Surgeons Share Special
Bonds over Their Career Choices
Jennifer Bagley, MA

34
New 2023 CPT Coding Changes
Impact General Surgery, Related
Specialties
Megan McNally, MD, FACS, Jayme
Lieberman, MD, FACS, and Jan Nagle, MS

40
How Will the 2023 MPFS Affect
Your Practice?
Lauren M. Foe, MPH

42
What's New for the Quality
Payment Program in 2023
Haley Jeffcoat, MPH, and Jill Sage, MPH

Commentary

6

Executive Director's Update:
Fresh Start for the New Year

Patricia L. Turner, MD, MBA, FACS

46

Viewpoint: Surgical M&Ms Need
a Scientific Lexicon of "Neces-
sary and Sufficient"

John C. Alverdy, MD, FACS

Reports

50

Today's National Cancer Data-
base Is Key to a Better Tomorrow

Bryan E. Palis, MA, Ryan McCabe, PHD,
Rebecca Snyder, MD, MPH, FACS, Judy C.
Bouhey, MD, FACS, and Daniel J. Boffa, MD,
MBA, FACS

53

Blood Product Stewardship May
Improve Trauma Patient Out-
comes, Community Engagement

Garyn Metoyer, MD, Nicholas Giron, Sara
Chiochetti, MD, Christopher R. D'Adamo,
PHD, Jamie Gannon, MS, RN, CEN, Lindsey
Cromwell-Rims, RN, BSN, MHA, Bonnylin
Van Winkle, MD, Stephanie Armocida, MD,
Alana Keegan, MD, and Farheen Qurashi,
MD

56

Atlas Is Still Embraced
after More than 80 Years

Aron D. Wahrman, MD, MBA, MHCDS, FACS

News

58

Dr. Timothy Eberlein Is Elected
Chair of ACS Board of Regents

59

Deadline Is Approaching to
Apply for Surgical Ethics Fellow-
ships

60

2022 TQIP Annual Conference
Informs and Inspires Trauma
Care Providers

Tony Peregrin

67

Sudan Mandates STOP THE
BLEED Training for Drivers

68

In Memoriam:

Dr. Julius H. Jacobson II, Pio-
neering Vascular Surgeon and
Philanthropist

Michael L. Marin, MD, FACS

71

Call for Nominations for
ACS Officers-Elect and
Board of Regents



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Fresh Start for the New Year

Patricia L. Turner MD, MBA, FACS



WELCOME TO 2023, a new year that offers endless opportunities for fresh starts, new beginnings, and a recommitment to health and wellness and clinical excellence.

For the *Bulletin*, this issue marks the launch of a new design that features a contemporary style, easy-to-read layouts, and more photography and graphics than have been used in the past. We want you to *want* to read the *Bulletin*!

Within the redesigned publication, we also aim to bring you more content that can support your day-to-day practice and stories about our many remarkable

colleagues around the world. In this issue, we highlight surgeons who are making a difference in Ukraine (see pages 8–24) and three sets of surgeon siblings—all with unique perspectives and professional journeys (26–33).

For those of you who prefer to access content by listening to it, you may also have heard about our new podcast—the *House of Surgery*—where surgeons from all specialties, practice configurations, career stages, and locations will describe their success stories, explain the challenges they've overcome, and offer practical advice to their colleagues.

Some of the *House of Surgery* content has previously been released in other formats (e.g., Named Lecture from Clinical Congress); other content will be original programming. The *House of Surgery* will allow us to broaden the distribution of our high-quality programs in a mobile format. You can access the podcast on your favorite podcast platform, or you can listen on our website at facs.org/houseofsurgery.

The *House of Surgery* complements two other podcast series—*The Operative Word* from JACS and *Surgical Readings from SRGS*—both of which feature current content from their

respective publications. We want feedback. Tell us what you would like to hear.

ACS Surgeon Well-Being Month

Throughout the month of January, the ACS will remind you about the importance of well-being, resilience, and work-life integration. It's essential that we take care of ourselves, both physically and mentally, so that we can take better care of our patients. This can be especially challenging with the vagaries of managing a practice with slim margins and operating on sicker and sicker patients. We, the surgeons, can feel squeezed by mandates and requirements. The ACS is addressing each of these issues with a thoughtful action-oriented strategy.

We have numerous resources on our website that can help you identify and prevent burnout, create well-being, and maintain well-being. We are also developing new resources, will be redeploying our wellness survey, and will be creating tools that will help us improve conversations with colleagues to make sure they are okay. We will also be enhancing our peer networks to help all surgeons feel supported.

TQIP and In-Person Meetings

At our recent Trauma Quality Improvement Program (TQIP) in Phoenix, the theme was Leadership Promoting Wellness: Taking Care of Your Team to Take Better Care of Patients. More than 1,600 surgeons, trauma medical directors, program managers, registrars, and other members of the healthcare team joined us for talks that ranged from updates on National Trauma Data Standards, to quality improvement success stories, to advice on how to deal with disruptive coworkers.

Compassionate care was a central theme throughout the conference. TQIP Medical Director Avery B. Nathens, MD, PhD, FACS, opened the meeting by emphasizing that compassion is the antidote to burnout.

The keynote address was also on compassion. Stephen Trzeciak, MD, MPH, offered scientific evidence that compassionate care not only makes a positive difference to patients, but also to caregivers themselves. He reported that he changed his own thinking and practice after seeing data showing that depersonalization led to a fivefold higher chance of suboptimal patient care. He also explained how psychological safety and accountability within the healthcare team leads to higher team performance.

You can read more about the TQIP conference on pages 60–66.

Now that we are, hopefully, on the waning side of the pandemic, we have returned to in-person meetings and are regaining a critical element that enhances our professional well-being—being together and learning together.

There is a strength that comes with engaging with individuals who have a common experience, so please take advantage of our upcoming in-person conferences (see graphic on this page).



Because we recognize that surgeons have constraints on their time and resources, we are taking a thoughtful look at the footprint of all ACS meetings, including Clinical Congress. We want to be certain that every hour you spend at an ACS meeting adds value and that we are efficient and strategic with your time.

New Surgical Quality Partner Program

We recently launched a Surgical Quality Partner trust mark as part of a multiyear public campaign to drive awareness about the “Power of Quality”—the campaign theme. This mark is a designation that the hospital is an ACS Quality Partner and participates in at least one of the ACS Quality Programs. Twenty-eight hospitals received the mark last year, and the remaining 2,500 hospitals that participate in ACS Quality Programs will be offered the mark this year (see the November-December *Bulletin*).

In addition, we plan to release a Vascular Verification Program, in cooperation with the Society for Vascular Surgery, a High-Risk Gastrointestinal Surgery Verification Program, and a General Thoracic Surgery Verification Program, in cooperation with The Society of Thoracic Surgeons.

More details will be available about the public launch of the quality campaign beginning next month and about many other programs and initiatives that we plan to unveil this year.

In closing, I want to point out that the ACS is celebrating its 110th anniversary this year. I am continually inspired by the motto that has been our bedrock for more than a century—To Heal All with Skill and Trust.

I am still informed by these seven words as I think about what the future brings for us as surgeons, as an organization, and as a specialty.

Clinical excellence is our hallmark, and it is essential that we are recognized as physicians with impeccable integrity who put evidence-based patient care first and who deserve credit for the high-quality care we provide. As your ACS Executive Director and CEO, I am committed to telling our story and assuring that surgeons are recognized as leaders who know what is best for our patients and who have a voice in the conversations about the healthcare system writ large. **B**

Dr. Patricia L. Turner is the Executive Director & CEO of the American College of Surgeons. Contact her at executivedirector@facs.org.

Surgeons Help Heal Ukraine





After decades of relative peace throughout Europe, on February 24, 2022, Russia invaded Ukraine in a major escalation of the conflict that began many years ago.

THE INVASION BROUGHT A RETURN to so-called conventional warfare on the European continent, involving injury and death on a large scale across several fronts. Considered a humanitarian crisis, the war—almost a year later—remains a struggle for the people and warfighters of Ukraine to provide medical care because of displacement, disruptions, and destruction of healthcare infrastructure and capacity.

Against a backdrop of risk to personal safety and ongoing violence, several ACS members traveled to Ukraine, offering patient care for the injured, education for Ukrainian colleagues and care teams, and support for its citizens. In an uncertain, constantly evolving wartime situation, surgeons continue to exemplify the humanitarian spirit that is core to the College's ethos. In this series of articles, the surgeons describe their personal experiences.

The American Academy of Facial Plastic and Reconstructive Surgery team and Ukrainian colleagues evaluate a wounded Ukrainian warfighter.

1. Застосовувати прин
2. Розпізнавати ознак
3. Оцінювати клінічни
стану.
4. Оговорювати зміни
5. Оцінювати ефектив
Обговорювати впли



Retired Surgeon Trains Ukrainians to Save Lives, Defend Their Homeland

Michael Baker, MD, FACS

I traveled to Ukraine twice now to teach medical personnel how to care for injured patients. In late August 2022, I was on the first team deployed to the capital of Kyiv and taught some of the fundamental principles of immediate management of injured patients, as originally laid out in the Advanced Trauma Life Support® (ATLS®) course, to Ukrainian physicians and nurses.

THERE WERE FIVE TEAMS DEPLOYED over 2 months, and in October, I deployed a second time on the fifth and final team rotation to Odessa, adjacent to the Black Sea. Each rotation evolved and improved the necessary course materials.

Our team taught on behalf of the International Medical Corps (IMC) and the Harvard Humanitarian Initiative (HHI), which are non-governmental organizations (NGOs) focused on humanitarian activities. I also instructed a second course that was added during later deployments to teach the fundamental principles of emergency hemorrhage control from the STOP THE BLEED® (STB) course. The content being shared on an ad-hoc basis through these efforts is derived from courses developed and sponsored by the ACS.

The Russian attack on Ukraine—an unexpected and unjustifiable war with large numbers of victims sustaining complex injuries—was thrust on to the Ukrainian people and their healthcare system. Our goal was to provide the tools to improve the care of severely injured patients and enhance survival.

Imparting the Fundamental Principles of Immediate Management of Injured Patients

The first individual to provide care to the injured patient has a significant opportunity to impact outcome. Every minute counts in trauma care; many lives can be saved during what was once referred to as the “golden hour” after injury.

The “student audience” for the training, based on fundamentals in ATLS, was comprised primarily

Opposite page:
Dr. Baker lectures on the fundamentals of immediate patient care with Ukrainian-translated slides and simultaneous interpretation in Odessa (October 2022).

of Ukrainian physician and nurses. Some of them recently were drafted into uniform, but most were civilian healthcare providers. Few had prior trauma experience. We had some emergency room physicians and surgeons, but most of the participants were from other specialties such as infectious disease, pediatrics, pulmonary, and hematology. Everyone wanted to be prepared to do their part if the conflict continued to result in large numbers of casualties that could, once again, overwhelm the facilities and systems. These preparations had previously befallen Ukrainian health workers in late February and early March 2022. I learned that one pediatric hospital received more than 40 adult casualties shortly after the invasion began—an unexpected mass casualty event of crisis proportions.

Each training session started with didactic lectures that included PowerPoint slides and videos. We then split up into small groups for hands-on skills stations. Realistic mannequins were used at the skills stations to instruct four to five students at a time. The skills station goal was to reinforce the crucial elements of securing a patient's airway, stopping bleeding, stabilizing fractures, assessing disability, and more.

The fundamental concept of ATLS provides a standardized algorithm and language for immediate assessment and management of injured patients. It teaches how to evaluate the patient's condition rapidly and accurately, then initiate lifesaving treatments such as opening airways, inserting chest tubes, and applying tourniquets to manage bleeding. Resuscitation and stabilization proceed for the patient systematically and, according to priority, stopping

for lifesaving interventions. This comprehensive approach provides a proven framework, especially for those to whom trauma care is new.

The slides and materials were translated into the Ukrainian language, and we also had language interpreters at the lecture sessions and skills stations, which was essential. This way, the material could be read, the participants were able to receive lectures in their language, and they had the opportunity to practice and demonstrate the knowledge and skills in a small group setting.

ATLS was introduced in 1980, and now has been taught to more than 1 million doctors in more than 80 countries around the world.* While Ukraine remains in a state of active conflict, it cannot be a participant in the recognized ATLS teaching program. Nonetheless, the five IMC/HHI ATLS instructor teams trained 150 physicians and 100 nurses in the fundamentals of immediate patient care based on principles taught in the ATLS course over 2 months with the permission of the ACS.

We also presented slides and videos focused on combat injuries, salvage of severe tissue destruction, and rehabilitation. This was very well-received, and teaching links were established between US instructors and providers in Ukraine for future collaboration, as there are needs for additional teaching and support in all these areas.

In addition, there are issues related to resource allocation that need to be addressed to improve patient outcomes. Development of a more mature trauma system is necessary considering the current conflict and especially after the damage and destruction of so much of Ukraine's hospitals and healthcare infrastructure.

At the time this article was written, the invading Russians had damaged more than 800 medical facilities and turned another "123 into piles of stones," according to the Ministry of Health of Ukraine.† The US, its allies, and the NGOs are making great strides to help the Ukrainians move in positive directions, but there will be a great deal to rebuild.

Incorporating STB and Other Training

STB training enables both medical and nonmedical individuals to prepare for unexpected casualties, helping to ready the public to save lives if people nearby are severely bleeding. The principles of hemorrhage control promote quick actions to control serious bleeding, which includes how to:

- Use your hands to apply pressure to a wound
- Pack a wound to control bleeding
- Correctly apply a tourniquet

Dr. Baker supervises students on an airway skills station (October 2022).





Dr. Baker leads a skills station during his first trip to Ukraine (September 2022).

In Ukraine, 300 students received training to be able to control serious bleeding, and a significant number completed additional “train the trainer” instruction to be able to pass that training along to others.

Other training teams were sent by IMC/HHI during our time in Ukraine. One team was teaching a prehospital version of casualty care to paramedics, emergency medical technicians, school nurses, and nursing home staff who also had very limited exposure to the initial care of the complex injured patient. An additional team taught chemical, biological, radiological, nuclear, and explosives response.

Ukrainian Life during War, Outside the Classroom


Most of our students spoke some English, whereas others were fluent. After Ukraine departed the Soviet Union in 1990s, English became an important asset for education and commerce. The interpreters were outstanding. They had great attitudes and were hard workers with a strong “can do” spirit. All the students learned crucial skills and were extremely grateful for the information. Our interpreters also commented that they had absorbed, after several course iterations, much medical knowledge and numerous skills, while also feeling confident they could assist the injured, should they be the first on the scene.

On the streets and in the cafes, numerous Ukrainian people approached us to find out why we were there when they heard us speaking English. They were grateful for our presence in Ukraine, despite the ongoing danger. They felt fortunate that the US was in their corner, willing to help them to keep their democracy, and they were thankful that we would come to a war zone to help.

Away from the battlefield, life in Kyiv and Odessa appeared outwardly normal with open air cafes, opera, ballet, and children playing outside. But there was an overhanging pall. There was a curfew overnight. The air raid sirens sounded almost every

day (and some nights) to warn of incoming missiles. Our phones were loaded with an air raid warning app. Fortunately, there was no strike near where I was located, but the hotel windows of one group were blown out, and instructors taught some of the course work in the bomb shelters.

Ukraine is a beautiful country with proud people who will not back down. The Russian army advanced into greater Kyiv to approximately 20 km north of where I initially taught—with some elements committing alleged war crimes—but they were stopped by the strength, bravery, and ferocity of the Ukrainian military and people.

When IMC reached out to see if I would teach in Ukraine, I felt there was no alternative. There is a role for everyone in this fight because an attack on democracy anywhere is an attack on democracy everywhere. I am no longer one to don a uniform and pick up a weapon, but I can teach others to save lives—using my knowledge of the fundamentals of ATLS. And, as a young Ukrainian physician reminded me after our first course, eloquently quoting from the Talmud, “...whoever saves one life saves the entire world.” 

Dr. Michael Baker is a retired general and trauma surgeon and Osher LifeLong Learning (OLLI) faculty member for University of California, Berkeley, Dominican University of California in San Rafael, and Cal State East Bay in Hayward. He served in the US Navy for 30 years and retired as a Rear Admiral.

*American College of Surgeons. Advanced Trauma Life Support web page. Accessed December 1, 2022. Available at: <https://www.facs.org/quality-programs/trauma/education/advanced-trauma-life-support/?page=1>.

†Ministry of Health of Ukraine. Ukraine will rebuild hospitals according to the best international standards in design and construction—Bohdan Borukhovskiy. August 20, 2022. Accessed December 1, 2022. Available at: <https://en.moz.gov.ua/article/news/ukraine-will-rebuild-hospitals-according-to-the-best-international-standards-in-design-and-construction-%e2%80%93-bohdan-borukhovskiy>.



Facial Plastic and Reconstructive Fellows Lead Humanitarian Trip to Ukraine

Manoj Abraham, MD, FACS

EDITOR'S NOTE: *In early 2022, a team of American Academy of Facial Plastic and Reconstructive Surgery (AAFPRS) members gathered to discuss how, as specialists, they could provide aid to injured Ukrainians. The discussion led to a 9-day medical mission trip in September through an AAFPRS humanitarian and educational surgical exchange program called FACE TO FACE, which provides complimentary care to those who suffer from facial deformities caused by birth or trauma.*

The following personal account was adapted from an article in the AAFPRS newsletter.

THIS MEDICAL MISSION TO UKRAINE WAS a collaborative effort, which I led as chair of FACE TO FACE. We partnered with Razom, the third-largest Ukrainian aid organization based in the US; one of its founders, Mariya Soroka, accompanied us on the trip. The organization INgenious, set up by Ivanka Nebor, MD, who is originally from Ukraine, also helped us provide aid to physicians in the war-torn country. Dr. Nebor played a critical role in arranging the trip. Finally, we collaborated with Healing the Children Northeast (HTCNE). I have led many medical missions with HTCNE and sit on the board. We had 10 surgeons on this trip, all from the New York or New Jersey area, as well as ancillary staff such as nurses, a surgical technician, and administrators to help with logistics.



Because of the active war, it was not possible to fly directly into Ukraine. The team first met in Kraków, Poland, and then took a bus across the border. This was a nearly 12-hour journey, including several hours to cross security at the Ukraine border. We traveled along a special, expedited “green corridor” arranged for our team, and we could see other trucks stuck at the border, which would need to wait for days to cross.

We traveled to Ivano-Frankivsk, a city near the Western border of Ukraine, where we were stationed due to safety reasons in the event that we needed to evacuate our team quickly. There, the team worked at the Ivano-Frankivsk Regional Clinical Hospital with an official invitation from the Ministry of Health of Ukraine and the hospital.

Our main partner at the hospital was Natalia Komashko, MD, who organized the effort to help train Ukrainian medical staff through her head and neck society. More than 130 individuals who had traveled from all over the county were in attendance. The surgical procedures were livestreamed to a conference room, and the surgeons were equipped with microphones in the operating room so that we could describe in detail each step we were doing. We operated on a total of 34 patients, with many very complex cases that took 10 to 12 hours each, including microvascular free tissue transfer and 3-D custom patient-specific implants. The surgeries were performed in collaboration with local Ukrainian surgeons.

The team worked incredibly long days, getting up at 5:00 or 6:00 am and not returning to the hotel until 11:00 pm, often just prior to the mandatory curfew when everything was shut down. We worked with our Ukrainian colleagues on all the cases, educating and training as we operated.

At the end of the week, there was a farewell ceremony with the hospital heads, regional governor’s office, and parliamentarians (similar to

US congresspersons) who were very appreciative and thanked us for our efforts. We estimated that we provided more than \$1 million of donated medical supplies and services on this trip.

Despite the security concerns—sandbags and metal anti-tank barriers set up at street intersections and around important buildings, frequent emergency alerts, and air raid sirens—we were able to successfully conduct this mission in partnership with our Ukrainian colleagues. Together, we took care of many patients with severe facial injuries from the war, providing state-of-the-art care that would have otherwise not been available to them. Our team was incredibly impressed by the resiliency of the Ukrainian people, with many patients intent on returning to the war effort despite their severe injuries. It was an exhausting but incredibly gratifying experience.

Since our trip, the situation in Ukraine has deteriorated further, but we hope to send additional teams soon. We are currently working on bringing Ukrainian surgeons to the US to provide training on microvascular reconstruction and other advanced reconstructive techniques. In this way, when the surgeons return to Ukraine, they will have an exponential impact by taking care of the large number of patients with devastating injuries from the war. **B**

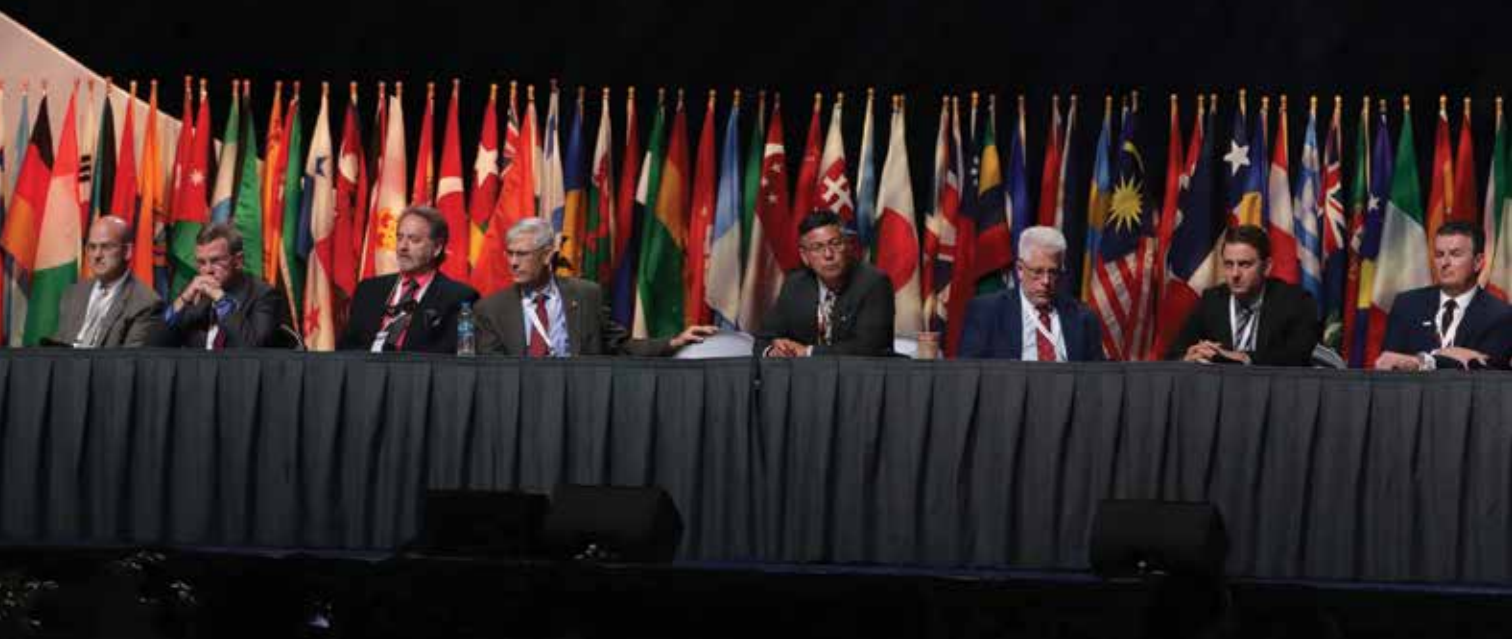
Dr. Manoj Abraham is a facial plastic surgeon in Poughkeepsie, NY, and a clinical associate professor in the Department of Otolaryngology at New York Medical College in Valhalla, NY. He also is a Specialty Society Governor for the ACS Advisory Council for Otolaryngology-Head & Neck Surgery.

Opposite page:
Dr. Abraham and team perform a nasal reconstruction. (From left: Drs. Nebor, Abraham, a local resident surgeon, and Dr. Komashko)

This page:
The AAFPRS team gathers with Ukrainian colleagues and dignitaries on the mission’s final day.



Access the multimedia extras at facs.org/bulletin



Surgeons Reveal Lessons Learned in Ukraine During Clinical Congress Session

Matthew Fox, MSHC



“The surgeons here in this meeting room who come to Ukraine are true heroes.”

—Dr. Hnat Herych

THE ONGOING WAR IN UKRAINE has shown the importance of military and civilians surgeons maintaining their clinical readiness, according to Peggy Knudson, MD, FACS, Medical Director of the Military Health System Strategic Partnership–ACS. Dr. Knudson moderated a Special Session at Clinical Congress 2022 in San Diego, CA, which featured a panel of surgeons who have traveled to Ukraine. The panelists discussed their efforts to assist Ukrainian surgeons and what they learned in managing injuries for combatants and civilians in this humanitarian crisis.

Aaron Epstein, MD, MA

From the start of the Russian invasion of Ukraine, US surgeons have been providing humanitarian relief. Dr. Epstein, a surgical resident at the University at Buffalo in New York and founder of the Global Surgical and Medical Support Group (GSMSG), described his organization’s efforts to treat the injured and educate medical personnel on the frontline. GSMSG was among the first non-profit groups on the ground, Dr. Epstein said, with surgeons and other volunteers arriving in Ukraine only 4 days after the war started. “And we’ve maintained a continuous presence since the war began,” he said.

Through bombings and missile strikes, GSMSG staff members have provided combat casualty care training to more than 20,000 Ukrainians, including surgeons, medics, nurses, and laypeople.

Read an in-depth interview with Dr. Epstein on his work in creating GSMSG on pages 20–24.

John B. Holcomb, MD, FACS

The explosions that have become emblematic of the Ukraine war have led to injuries of a different nature than those seen in the Iraq and Afghanistan conflicts. Dr. Holcomb, professor of surgery and surgical critical care at the University of Alabama at Birmingham, has provided aid and education in Ukraine. He noted that “there is not a typical war injury,” saying that many factors influence the type of injuries seen in this conflict. The blasts in urban environments have made shrapnel, burns, and infection a primary concern.

Dr. Holcomb, who operated for 23 years in the US Army, described some of the services and initiatives that he and his colleagues were able to introduce in Ukraine, including telehealth services that greatly improved medical communications, as well as the provision of whole blood, which has proven to be more effective in transfusion.

Steven E. Wolf, MD, FACS

Dr. Wolf, division chief of burn, trauma, and acute care surgery at The University of Texas Medical Branch in Galveston, shared details of the burn injuries he saw in his time in Ukraine. The explosions from the war, including those generated from white phosphorous and uranium shells, tend to produce polytraumatic injuries such as hemorrhage, organ injuries, and fractures. These are more immediately pressing concerns in battlefield treatment than burns; however, burn injuries have a long-lasting impact.

“Treating a burn isn’t the first thing you do, but it’ll probably be the last,” he said.

Opposite:
Panelists share their experiences at Clinical Congress 2022 during session SL103. The Ukrainian Crisis: Surgical Lessons Learned.



Left:
Dr. Hnat Herych

Right:
Dr. Steven Wolf
(right) and panelists

Warren C. Dorlac, MD, FACS

The specific educational needs of Ukrainian surgeons and medical teams for casualty care are addressed as opportunities present themselves, both on and away from the battlefield, according to Dr. Dorlac, medical director of trauma and acute care surgery at UCHealth Medical Center of the Rockies in Loveland, CO.

Nurses, medical students, residents, and faculty—all were involved in the multipronged education trips that Dr. Dorlac and his team provided, which involved didactic sessions and frequent case reviews of the injured. And while the US-based volunteers went to Ukraine to teach, they also came away having learned much. “We went in with what we thought was important, but as anyone involved in combat training knows, you learn a lot yourself,” said Dr. Dorlac, who served for 26 years in the US Air Force.

Ukrainian Surgeon Hnat Herych, MD, PhD

One of the most impactful presentations came from Dr. Herych, a surgeon from Lviv, Ukraine, who described the difficulty in watching his fellow Ukrainian citizens experience devastating war injuries. Lviv is a city in the western part of Ukraine, away from the eastern front, but Dr. Herych’s large, modern hospital is one of the best equipped to handle the mass injuries of civilians and combatants.

More than 6,000 patients with war injuries have been received at his hospital, Dr. Herych said. Unfortunately, there has been no discrimination when it comes to severity or target of attacks, and “soldiers, newborns, and older patients are experiencing the same types of injuries.”

War-related challenges for providing treatment have included arrival of mass casualties simultaneously, increased demand for blood transfusions, and the logistics of managing evacuations. However, the war has prompted advances in Ukrainian medical treatment, including the use of whole blood, which was previously illegal. “With the help of friends from Ukraine and the US, we started using blood transfusion even while it was illegal,” Dr. Herych said. The ministry of health came to allow the use of whole blood after seeing the positive results in patients.

Dr. Herych also spoke on the difficulties of communicating about medical treatment, infection control, and continuing treatment while Russian attacks continue to target infrastructure, homes, schools, and hospitals. He stressed that the war is not over—just recently, Russia launched missiles across the country, including in Lviv. Dr. Herych showed footage of explosions visible from his hospital.

However, Dr. Herych concluded, “The surgeons here in this meeting room who come to Ukraine are true heroes,” he said. “They are an example of how people can support a nation that is fighting for their freedom, their democracy, and their independence.”

The Clinical Congress session discussed in this article, SL03. The Ukrainian Crisis: Surgical Lessons Learned, is available to view on-demand via the conference’s virtual platform through May 1. All Clinical Congress registrants have access to the on-demand content; others can register at facs.org/clincon2022. 

Matthew Fox is the Digital Managing Editor in the ACS Division of Integrated Communications in Chicago, IL.

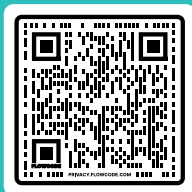


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Med Student Forms NGO to Help War Victims, Ease Training Burnout

Tony Peregrin

It was during a rare break in 2015, just 2 weeks into medical school at Georgetown University School of Medicine in Washington, DC, that Aaron Epstein, MD, MA, decided to create the Global Surgical and Medical Support Group (GSMSG).

Right:
Dr. Aaron Epstein





THE NON-GOVERNMENTAL ORGANIZATION (NGO) enables physicians, nurses, and medics trained in the US to provide care for patients in war-torn regions, including Ukraine and northern Iraq.^{1,2}

“I was sitting on my couch during a long weekend, and I just Googled ‘How do you start a 501(c)(3) nonprofit?’ At the time, I wasn’t sure this was going to amount to anything, so I just made up a name that represented what I hoped to do—have a global impact and provide medical and surgical services—and I just mashed all those words together,” said Dr. Epstein, acknowledging he purposely selected the name, in part, because its acronym is a palindrome.

Prior to becoming a medical student, Dr. Epstein spent years working in national security after graduating from Rice University in Houston, TX, with a degree in international policy studies and economics, and later a masters degree in intelligence and security studies from the Georgetown University Walsh School of Foreign Service.^{3,4}

Dividing his time as a general surgery resident at the University at Buffalo in New York and managing the day-to-day activities of the GSMSG delayed Dr. Epstein’s 5-year residency by 1 year, but the postponement has helped enhance his medical training experience.

“Basically, my fourth year has been split over 2 years,” explained Dr. Epstein. “Instead of one straight academic year, it’s half academic and then half travel doing global surgery. I don’t think of it as a sacrifice, because if you think about it, anyone who’s gone through general surgery residency knows that you probably need a break in there somewhere—otherwise you are going to break.”

Dr. Epstein explained that the GSMSG re-energized him, while also helping him get through the general

“I was sitting on my couch during a long weekend, and I just Googled ‘How do you start a 501(c)(3) nonprofit?’”

—Dr. Aaron Epstein

surgery residency grind. For other general surgery residents, he recommends considering a pause to pursue other endeavors.

“Sure, you can blast right through training and come out sane at the other end, but I would say there is real value in taking a year to pursue research, an MBA, or something you are passionate about outside of surgery,” said Dr. Epstein.

In January 2015, Dr. Epstein conducted his first medical mission to the Kurdistan Region in northern Iraq. During his fourth year of residency in February 2022, Russian troops began to gather on the Ukraine border.

“I’d say a lot of the people in our group saw this coming because they’re prior military and intelligence,” Dr. Epstein said. “There were specific nuances to how the forces were getting deployed along the border and how their support units were getting set up, so many of us in the group were saying, ‘This isn’t for show; this is for real.’”

Dr. Epstein started reaching out to members of the GSMSG volunteer roster, making them aware that if they went, “there was a good chance we might not come back.” At the time, the working assumption was

Dr. Epstein teaches Ukrainian physicians and medical students how to place trauma chest tubes (March 2022).

that Russia would overrun all of Ukraine in a matter of days or weeks. “Despite that, we had dozens of people offering to go,” he said, although they ultimately selected just a handful of volunteers—a mix of prior US Army Special Forces medics, Navy Seal medics, a former US Army surgeon, an anesthesiologist, and an operating room (OR) nurse.

The GSMSG team arrived in Ukraine a week after the war started. In addition to providing health and surgical services to the injured, a primary aim of the GSMSG was to train local physicians and civilians in combat care. “Our surgeon and the surgical team trained our Ukrainian surgeon counterparts on damage control resuscitation, damage control surgery, and other interventions. The medics trained the civilian population en masse on combat casualty care,” said Dr. Epstein, a Fulbright Specialist in Healthcare and Peace/Security Development.

“I remember being in the Middle East and seeing a lot of a groups dumping supplies and leaving once they got their photo shoots with CNN,” mused Dr. Epstein. “I remember one place in Iraq, there was a

remote medical clinic serving a refugee camp, and they had this brand-new CT scanner. It was still in the wrapper, and the medical staff there said, ‘No one’s ever showed us how to use this thing.’ I remember thinking ‘Wow, we can do so much better and have such a bigger impact if we focus on education and training and building capacity.’”

To date, the GSMSG has rotating teams of 10 to 20 civilian physicians, nurses, and medics who have trained more than 20,000 Ukrainians in varying levels of combat casualty care via in-person or virtual platform instruction. These teams also have provided care to victims with horrific casualties, including adults and children with significant burns and patients with traumatic limb injuries. “Self-reliance in an area is the ultimate goal. We don’t want to be needed. I think that is a difference between us and other groups engaging in similar international humanitarian work.”

Do It Now—Don’t Wait

When Dr. Epstein entered medical school, he was a few years older than the typical student. With that real-world experience under this belt came the desire to do something significant to enhance surgical patient care—and sooner, rather than later.

“I wanted to be able to do work that would make the world a better place,” he said. “And I remember thinking, ‘I’ve heard of so many doctors and surgeons who do that, but they do it at the end of their careers, after they’ve retired and that just seemed so limited. I figured ‘Well, why don’t I just start now? What’s the point of waiting until I’m at the end of my career?’”

Dr. Epstein decided to climb the learning curve, as he described it, as a “dumb med student, and subsequently, dumber resident.” He began organizing medical missions to some of the most dangerous hot spots in the world. “It just didn’t make sense for me to wait,” he said.

One of the reasons Dr. Epstein chose the University at Buffalo for his surgical residency is because the program offers the opportunity for residents to pursue their interests in addition to surgery. “If I hadn’t started the group, I probably would’ve burned out. And I think doing this from the get-go continuously showed me the light at the end of the tunnel because I was literally making the light.”

In reality, Dr. Epstein admits that medical students and residents looking to pursue research or, perhaps, another advanced degree while in training will inevitably sacrifice something, somewhere.

“For me it was sleep. I was getting up at 4:00 am and going to sleep at midnight every night, and I have been doing that through residency and med school. You’ve got to rise and grind,” he said, referring to an Instagram hashtag.

Dr. Epstein teaches Ukrainian physicians and medical students how to perform vessel ligations (March 2022).



“All I can say is—whatever you choose to take on in addition to your work—make sure it is your passion, and make sure that it is the life part of your work/life balance.”

—Dr. Aaron Epstein



“You’re not socializing, you’re not going to bars or taking vacations, and that’s your call. My friends are the guys and gals in this group,” Dr. Epstein shared. He said he views every GSMMSG trip as a vacation of sorts. “All I can say is—whatever you choose to take on in addition to your work—make sure it is your passion, and make sure that it is the life part of your work/life balance.”

Why Mentoring Matters

It is well-known that mentors can help boost a young surgeon’s career and professional development, not only in the domain of education and skills acquisition, but also in areas not necessarily included in a traditional curriculum format. A savvy and committed mentor can provide support for developing values, professionalism, and communication skills that can ultimately lead to enhanced recovery from burnout, improved resilience, and increased productivity.⁵

One of Dr. Epstein’s mentors was Sister Deirdre Byrne, MD, FACS, a retired colonel in the US Army Medical Corp and a board-certified general surgeon who provides pro-bono care for those in need in the Washington, DC, area, and through her missionary work in Haiti and Iraq.^{6,7}

“Working with Sister Dede when I was at Georgetown really opened my eyes to a lot of things that I think people in this country take for granted—drinkable water out of a sink, for example. The life we live in the US is pure luxury compared to most of the world,” he said.

When Dr. Epstein founded the GSMMSG, the group comprised approximately 15 friends with experience in international humanitarian work. Once he decided the group’s first mission would be to Iraq, that number dropped from 15 to two, including Dr. Byrne.

“Our trip was during the height of ISIS, but Sister Dede, without any hesitation said, ‘Okay, let’s go,’ he said. “So, we went and did a couple of surgeries, saw a bunch of patients, and got a real-deal assessment of what was needed in a situation like this from a surgical perspective.”

When Drs. Epstein and Byrne returned to the US, she confirmed to potential volunteers that the group was well organized and had security, housing, and other infrastructure in place overseas.

“It’s one thing to hear it from a brand-new med student, ‘Let’s go to Iraq and do surgery,’ but hearing that from a well-established surgeon like Sister Dede, who has such an impressive background, led to more and more people joining us; it just took off.”

Today, the GSMMSG has a roster of approximately 1,500 volunteers. “We literally went from 15 to 1,500,” he said.

With the game-changing humanitarian work the GSMMSG continues to provide, Dr. Epstein has transitioned from mentee to mentor.

“In terms of the advice I give people now, first—it goes back to developing an understanding of the larger context of what it is you’re trying to do. What I hear from a lot of friends who have done work with an NGO or other group, is that they find themselves buried in bureaucratic obstacles and hurdles. The unfortunate reality is that, in most parts of the world, doctors aren’t power players. They’re not the ones making decisions.”

He also advises that people should make sure that an international group or NGO aligns with their own values. “I have seen others somewhat blindly join an organization based on social media or public relations messaging without a real understanding

Dr. Epstein shows Ukrainian nontrauma physicians and medical students how to suture ligate bleeding vessels.



Left:
Dr. Epstein instructs a group of Ukrainians on how to apply a tourniquet within the protection of a bunker as Russian missiles land around the city.

Right:
The GSMSC surgical team treats patients in the Ukrainian capital of Kyiv (summer 2022).



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With the game-changing humanitarian work the GSMSC continues to provide, Dr. Epstein has transitioned from mentee to mentor.

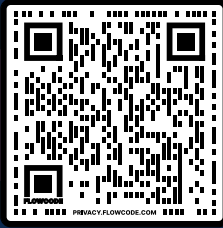
of what that organization is all about. They are ultimately disappointed after realizing they are being taken advantage of or used for an ulterior motive. You absolutely need to do your due diligence with whatever group you align yourself and expect that any serious organization will do the same in order to make sure you are a quality individual who will bring value to the group,” he said.

No matter what pathway a medical student or resident chooses to augment surgical training, Dr. Epstein emphasized the importance of conducting a rigorous self-assessment to determine ultimate goals, partnering with experienced physicians and mentors, and developing a keen business acumen in order to understand the nuances of whatever option is chosen. **B**

Tony Peregrin is Managing Editor, Special Projects, in the ACS Division of Integrated Communications in Chicago, IL.

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American College of Surgeons



Chen brothers



Gillaspie sisters



Dort twins

Sibling Surgeons Share Special Bonds over Their Career Choices

Jennifer Bagley, MA

Editor's note: This is the final installment of the *Bulletin* series on surgeon families. See the stories on father-son surgeons in the November 2021 issue, father-daughter surgeons in the July 2022 issue, and mother-daughter surgeons in the March 2022 issue.

While some research has examined the role of sibling relational influence on career exploration and decision-making, the road to cardiothoracic surgery was winding and somewhat separate for the Chen brothers—more coincidence than science in their “how did we get here” story.

Drs. Ed Chen and Fred Chen

Edward P. Chen, MD, FACS, FAHA, division chief of cardiovascular and thoracic surgery at Duke University Medical Center in Durham, NC, and Frederick Y. Chen, MD, PhD, FACS, chief of cardiac surgery at Tufts Medical Center in Boston, MA, are 3 years apart in age and shared similar memories of a “very grounded, down-to-earth childhood” in Athens, GA. They described riding bikes on wooded trails, messing around in the creeks, playing catch— “all that kind of fun stuff that kids did back in the 1970s when there were no devices,” said Dr. Ed Chen.

The Chen brothers explained that in addition to free play, their parents emphasized the importance of obtaining a good education. As young boys, they attended public schools in Georgia, where they studied hard and achieved good grades. They were

not required to attend summer school or take extra classes after school—which, according to Dr. Fred Chen, are common practices in Asian-American communities throughout the US. For this, Drs. Ed and Fred Chen, who are Taiwanese American, are grateful for not being made to completely focus on schoolwork.

“There was not that sort of incredible pressure cooker type of feeling that you hear about in certain families. Instead, our childhood was more balanced,” said Dr. Ed Chen.

So how did the Chen brothers go from easy-going, quiet childhoods to high-profile, high-impact careers as cardiothoracic surgeons?

For Dr. Ed Chen, it was the television show *The Body Human*—a series of specials in the late 1970s and early 1980s that he watched as a young boy. “In one show, the focus was the circulatory system where they were



Top:
While growing up in Georgia, young Ed (right) and Fred Chen did all kinds of “fun stuff” outside, including riding their bikes on wooded trails.

Bottom:
The Chen brothers credit their parents for a “very grounded, down-to-earth childhood” in Athens, GA.

able to use cameras to display the beating heart and red blood cells in the vessels. As a result, I became very fascinated with circulatory physiology,” he said.

The passion that Dr. Fred Chen had for surgery evolved from an initial interest in engineering and learning about Robert Jarvik—widely known as the inventor of the first permanently implantable artificial heart, the Jarvik-7. And, in the early 1980s, when William DeVries, MD, a Duke-trained cardiac surgeon from the University of Utah in Salt Lake City, performed the first implantation of the Jarvik-7 in patient Barney Clark, the interest of the young Dr. Fred Chen was piqued.

“I always considered myself an engineer,” he said. “But when I heard this story, I thought, ‘Gee, wouldn’t it be interesting to be both guys in one.’ For the longest time, I wasn’t quite sure if I was going to be a pure engineer or a cardiac surgeon. I did know, though, that I wouldn’t be a doctor if I wasn’t going to be a cardiac surgeon. That much was clear. Ultimately, I decided that I would be both.”

Dr. Fred Chen added that he inherently recognized surgery as one of the most challenging aspects of medicine—if not the most challenging—and since he is someone who “always wants to do the hardest thing,” that realization sealed the deal for him.

Although no one in their primary family worked in the field of medicine, there was some influence in the extended family. The brothers had several cousins in Taiwan who were studying to be doctors, as well two uncles who were physicians. When the young brothers visited Taiwan during summer vacation, they were able to see their cousins and uncle in their clinics and practices.

“We never felt pressure to pursue a career in the medical field, but we understood that medicine was a worthwhile endeavor,” said Dr. Ed Chen. “This is what I remember always wanting to do. No one goes into surgery if they’re forced to do it. The field is just too demanding.”

Dr. Ed Chen attended medical school at Duke University, and a few years later, Dr. Fred Chen went to Harvard Medical School in Boston, MA.

While surgery is known to be a highly competitive specialty, the Chen brothers said they’ve never been anything but supportive of each other. Through the years and their careers, they’ve certainly achieved individual professional successes, but also have felt elevated by each other’s accomplishments.

“There are certain things that you may not be comfortable with when deciding the best course of care for a patient until someone you know and trust—like my brother—tells you, ‘You can do this.’ I mean, you can read about it in the books, but it’s not the same.”

—Dr. Fred Chen

The brothers credit the happy household in which they grew up and their compassionate and encouraging parents who “were always fair and never made either of us feel inadequate.”

Their parents, Chia-Ming Chen, PhD, and Shu-Hsien Lai Chen, EdD, now in their 80s, live in Atlanta, GA.

Not everyone has a sibling who works in the same field, and Drs. Ed and Fred Chen recognize this, describing a certain convenience and specialness to having a brother who shares similar experiences and fully understands the pressure, expectations, and public scrutiny that come along with a career as a surgeon. According to Dr. Ed Chen, it can be difficult for people outside the field of medicine to comprehend what surgeons go through in terms of the training, commitment, and hours worked, as well as the physical and mental strain.

“In the middle part of my intern year, I was struggling. With the holidays coming up, I was really down. Fred came out to visit me, and we spent Christmas together in the Veterans Affairs Medical Center. That close-knit support from my brother meant a lot to me. In those tough times, we all need support and encouragement from people who care about us. That’s what we provide for each other,” he said.

The Chen brothers have not had many opportunities to directly work together, but the professional and personal respect between them is unmistakable. Dr. Fred Chen shared that he never hesitates to pick up the phone to call Ed when he needs advice or wants to talk through a tough case. “There are certain things that you may not be comfortable with when deciding the best course of care for a patient until someone you know and trust—like my brother—tells you, ‘You can do this.’ I mean, you can read about it in the books, but it’s not the same.”



Top:
In the late 1980s, Dr. Ed Chen (right) was in medical school and Dr. Fred Chen, who is 3 years younger, was in college. It was a time “when penny loafers were king,” Dr. Fred Chen said.

Bottom:
The professional and personal respect between Drs. Ed (left) and Fred Chen is unmistakable, shown here connecting at a recent meeting.





This page:
In her second year of fellowship at Vanderbilt University, Dr. Devin Gillaspie (right) was able to perform a VATS for a hemothorax with her sister.

Opposite page, from left:

The Gillaspie girls describe an “idyllic” childhood growing up in Canada.

Together, Drs. Erin (right) and Devin Gillaspie celebrate the joys of surgery—“the field that we’re lucky enough to be a part of.”

Drs. Erin (right) and Devin Gillaspie make time twice a year—on each of their birthdays—to take a trip and spend quality time together.

Drs. Erin Gillaspie and Devin Gillaspie

The “Gillaspie Girls”—as they are affectionately known—share the unique space occupied by a limited number of sibling-surgeon duos. But as women in the historically male-dominated field of surgery, their story is even more remarkable.

Erin A. Gillaspie, MD, MPH, FACS, assistant professor and head of thoracic surgery robotics in the Department of Thoracic Surgery at Vanderbilt University Medical Center in Nashville, TN, and Devin B. Gillaspie, MD, assistant professor in the Division of Trauma and Critical Care Surgery at The University of Tennessee in Knoxville, described an “idyllic” childhood growing up in Mississauga in Ontario, Canada, with loving and nurturing parents.

Just about every day, the girls spent time playing outside, riding their purple bikes outfitted with streamers and visiting the local candy shop and bookstore. Their mom also regularly brought young Erin and Devin to the library where she would read them “beautiful books with women heroines” like Meg Murry from *A Wrinkle in Time* and *Anne of Green Gables*.

“When our mom went back to work, she purposely chose to work for women CEOs so that Devin and I grew up knowing that women could do anything. We could be anything,” said Dr. Erin Gillaspie.

The Gillaspie childhood also was “messy,” but in a good way, according to the sisters. With a dad who was a “sort of mad scientist and loved to build things,” the girls were encouraged to constantly ask questions and do crazy experiments. In fact, Erin bought her first microscope when she was in first grade, and her dad would help her make slides out of things they found in the backyard.

“We had such a wonderful, rich childhood—growing up in an environment where intelligence was prized and curiosity was encouraged, and we

were loved unconditionally,” said Dr. Erin Gillaspie. “There was never a time when we doubted our ability to accomplish our goals or overcome a hurdle, which was brilliant.”

It was in those early years that Dr. Erin Gillaspie fell in love with the possibility of a career in surgery. While their grandfather was battling mesothelioma, she regularly saw the large scar on his side as they worked together in the garden. This is when her passion for medicine materialized.

“I remember seeing his scar and I’d ask, ‘Papa, why did they cut you in half?’ Unfortunately, just like cancer often does, it came back, and he didn’t have any more treatment options. Even at the end of his life, when he barely had any energy, he would pull me up onto his knee with all his might and share his Jell-O with me,” she said, adding that watching her Papa fight the disease “left an indelible mark” on her soul.

In her teen years, Dr. Erin Gillaspie’s fascination with the medical field continued. After the family moved from Canada to Florida, their mom took a job at a hospital. In order to spend more time with her, the sisters—who were just 13 and 11 years old at the time—started volunteering at the hospital. The girls were lucky enough to receive an offer from a surgeon that they could not refuse: Do you want to watch a surgery?

“Absolutely,” said Dr. Erin Gillaspie. “So, they put us in scrubs and told us if you’re going to pass out, hit the wall, not the patient. We had the biggest smiles on our faces. It was a total knee replacement with saws buzzing and bone fragments flying. We were enthralled. It was the most extraordinary thing.”

After that, young Erin asked permission to start regularly volunteering in the operating rooms, helping with room turnover, and in between, she’d get to watch surgeries. Eventually, she observed her first lung operation. “In that moment, I said, ‘This is what I’m going to do with my life. I’m going to be a lung surgeon so I can take care of people like my Papa and give little kids the gift of getting to know their grandparents,’” she shared.

For Dr. Devin Gillaspie, the realization that surgery was her future was not as direct. With an interest in bacteria, she studied microbiology for her undergraduate degree and later worked in a bacterial pathogenesis and immunology laboratory.



Dr. Devin Gillaspie loved it, so naturally she thought she was going to be an infectious disease doctor.

But during her surgery clerkship at the University of Miami Miller School of Medicine in FL, she worked with surgeons who were “great at teaching and involving the medical students.” Dr. Devin Gillaspie was a lucky

beneficiary of some of these hands-on lessons. During one operation, she was given the opportunity to make an incision and open the abdomen.

“I said, ‘Oh, my gosh, this is really great.’ I was so amazed that as a med student, I was allowed to do that. But also, having my hands in an abdomen was such a cool experience. I called Erin and told her, ‘I’m going to do surgery instead;” said Dr. Devin Gillaspie.

Both sisters agreed that they were fortunate from very early on—even before high school—to have wonderful mentors who were generous with invitations to learn alongside them in clinics and operating rooms. And from the “second we hit the doors of medical school, we had wonderful mentors at the resident and attending levels who just wanted us to love what they do as much as they did,” Dr. Erin Gillaspie said.

In her second year of fellowship at Vanderbilt University, Dr. Devin Gillaspie was able to work on some cases with her sister. There is one case—their first together—that she will never forget. When Dr. Devin Gillaspie learned that she would be performing a video-assisted thoracoscopic surgery (VATS) for a hemothorax, she called Dr. Erin Gillaspie, whose “happy place is the chest.” When the team suggested that they “call thoracic,” Dr. Devin

“We have the same mannerisms, and we think the same way. We didn’t have to talk to each other [when operating together] because we just knew what the other person was thinking. We were extremely well-choreographed and in the zone.”

—Dr. Erin Gillaspie

Gillaspie said, “I’ve already done that and requested a particular surgeon to help me out.”

“When I told the patient that my sister—who is a cardiothoracic surgeon and specializes in cases like his—would be helping me out in the OR, he was so excited, especially after he learned that he was the first person we’d ever worked on together,” said Dr. Devin Gillaspie. “One of the trauma faculty members hustled down to the OR to make sure he captured a photo of us operating together. He said, ‘Here’s your photo for your parents.’”

Dr. Erin Gillaspie joked that even though the sisters are not twins, they should have been, and that came to light more than ever during this operation. “We have the same mannerisms, and we think the same way. We didn’t have to talk to each other because we just knew what the other person was thinking. We were extremely choreographed and in the zone.”

Although women remain significantly underrepresented in surgery, the sisters are passionately involved in helping to share the joy of their profession with medical students and residents.

“We have to attract women to surgery in an intentional and meaningful way,” Dr. Erin Gillaspie said. “We try to inspire as many people as possible to choose this wonderful field because we truly have the best job in the world. The future is so bright.”



Drs. Jonathan Dort and Sean Dort

“Abbreviated.” That’s how Jonathan M. Dort, MD, FACS, and Sean D. Dort, MD, FACS, describe their childhood. The identical twin brothers graduated high school at 14 years old and college at 17.

While they had an affinity for science and math, no one expected them to speed through the school curriculum as quickly as they did. Their parents made sure the brothers understood how important it was to get a good education, but they never pushed them into fast-tracking through school.

“We just moved at our own pace and the next thing you know, we were at the end of the curriculum,” said Dr. Sean Dort, chief of surgery and trauma medical director at St. Rose Dominican Hospitals in Henderson, NV.

For the most part, the brothers felt supported by their teachers and classmates who were at least 4 years older than they were. Though, they recalled often being asked, “Are you old enough to be here?”

Drs. Jonathan and Sean Dort felt fortunate to share this experience with each other. “It helped not doing it alone and not feeling completely isolated,” said Dr. Jonathan Dort.

Besides those accelerated academic years, they describe their youth—half of which was spent in New York City and half in south Florida—as relatively normal and low drama. The brothers come from a working-class family, with a mom who stayed home and focused on the boys and a dad who worked various service-oriented jobs.

“We come from a long line of barbers, plumbers, and candy store owners, and our father was the first in the family to go to college,” said Dr. Jonathan Dort, director of surgical education and program director of the general surgery residency for the Inova Health System in Falls Church, VA.

While in college at Florida Atlantic University in Boca Raton, the brothers worked as laboratory technicians at the North Ridge Cancer Center, which offered them their first glimpse into the medical field. The rest is history.

Top to bottom:

Growing up in New York City, the identical twin Dort brothers recall laughing a lot during their “low-drama childhood.”

The Dort brothers—Jonathan (left) and Sean—started medical school when they were just 17 years old and residency in their early 20s.

During their chief resident year, Drs. Jonathan (left) and Sean Dort spent time together on a ski trip.

Drs. Sean (left) and Jonathan Dort attended a San Diego Padres playoff baseball game during Clinical Congress 2022.

“It’s a 24/7 hotline of very wise advice about everything and anything. It’s unfair in a way that I have someone who does what I do, who sees things the way I do, and I can reach any time of the day or night to say, ‘Hey, what do you think about this?’”

–Dr. Sean Dort

After earning their undergraduate degrees, the twins went to medical school, going their separate ways for the first time. Dr. Jonathan Dort attended the University of Miami Miller School of Medicine in Florida, and Dr. Sean Dort earned his medical degree from the Morsani College of Medicine at the University of South Florida in Tampa.

“At 17 years old, I marched off to Tampa and moved into a tiny apartment off the main street. There I was, walking to med school every day. I was unaware of just how strange that was,” shared Dr. Sean Dort.

During his first year of medical school, he ruptured his appendix and became very sick. After Dr. Sean Dort healed from his operation, the surgeon asked him “to come see things from his side of the table.” He accepted this invitation and was allowed as a first-year medical student to shadow the surgeon and observe his surgeries. “After working with and watching him for a short time, I was sold,” Dr. Sean Dort said.

The craziness of being such a young medical student hit 17-year-old Dr. Jonathan Dort when he was “dissecting cadavers and all that other intense work” during his first semester. And after working in the busy trauma center at the University of Miami, he said he was “hooked” on surgery.

“I had thought about internal medicine, and I did that rotation first. Without much exaggeration, 12 weeks later, my patient list was the exact same one I started with. I am wired to fix a problem on a shorter timeline. So, here I was in the trauma center, sewing up bullet holes and helping critically injured patients—many near death—and watching them walk out the door a few days later. There’s such a different dynamic to that than the treatment of chronic disease,” said Dr. Jonathan Dort.

Given the high-pressure nature of surgery, surgeons tend to be competitive-minded. In many ways, there’s competition throughout medical school, residency, and later in finding the ideal job. But over the years, for the Dort brothers, it’s been a relationship of trying to support rather than compete.

“When you’re in that environment of medical school or residency, you’re in total survival mode. Knowing that it was such a huge mountain to climb, we were supportive of each other and just trying to work through the common challenges and experiences,” said Dr. Jonathan Dort, adding how special it is to always have someone there and never feel alone.

His brother agreed that having a surgeon sibling definitely has its advantages. “It’s a 24/7 hotline of very wise advice about everything and anything,” explained Dr. Sean Dort. “It’s unfair in a way that I have someone who does what I do, who sees things the way I do, and I can reach any time of the day or night to say, ‘Hey, what do you think about this?’ We’ve been bouncing stuff off each other for almost 40 years.”

The future of surgery is exciting, according to the Dort brothers, especially when it comes to teaching the young surgeons-to-be. Dr. Jonathan Dort, who is the program director of the Inova general surgery residency, loves teaching so much he advises surgeons who think they’re experiencing burnout to find a teaching role.

“I love taking care of patients. I love operating. I love everything I do as a surgeon, but nothing rivals how much I love the mentorship relationship I have with the residents. It’s so refreshing to see the enthusiasm,” he said. “When they show up at the door, they’re 50% excited, 50% terrified. They go through 5 years of highs and lows, and then they’re surgeons. To go on that journey with them and then watch all the things they go out and accomplish—that’s the best thing for me.” **B**

Jennifer Bagley is the Editor-in-Chief of the Bulletin and Senior Manager in the ACS Division of Integrated Communications in Chicago, IL.





New 2023 CPT Coding Changes Impact General Surgery, Related Specialties

Megan McNally, MD, FACS,
Jayme Lieberman, MD, FACS,
and Jan Nagle, MS

The American Medical Association (AMA) Current Procedural Terminology (CPT)* code set is updated annually. This article describes CPT 2023 coding changes that are relevant to general surgery and its related specialties.

Anterior Abdominal Hernia Repair

Significant coding changes take effect in 2023 for reporting anterior abdominal hernia repair, including:

- Deletion of codes 49560–49590, which describe open repair of anterior abdominal hernias
- Deletion of codes 49652–49657, which describe laparoscopic repair of anterior abdominal hernias
- Deletion of add-on code 49568, which was reported for implantation of mesh for open ventral/incisional hernias and defects resulting from necrotizing soft tissue infection
- Twelve new codes (49591–49596 and 49613–49618) to report anterior abdominal hernia repair by any approach (i.e., open, laparoscopic, robotic), further by initial or recurrent hernia, further by total defect size, and further by reducible or incarcerated/strangulated
- Two new codes (49621–49622) to report parastomal hernia repair by any approach (i.e., open, laparoscopic, robotic), further divided by reducible or incarcerated/strangulated
- One new add-on code (49623) for removal of mesh/prosthesis at the time of initial or recurrent anterior abdominal hernia repair or parastomal hernia repair

Table 1, page 36, provides details about code selection. First, determine the total length (size); then choose the type of hernia (initial versus recurrent); and finally, choose the severity (reducible or incarcerated/strangulated). Keep in mind that if there are multiple hernias (i.e., “Swiss cheese”), the entire repair defaults to the highest severity of any of the defects.

These new anterior abdominal hernia repair codes will have a 0-day global assignment. All subsequent procedures and services performed starting the day after the operation need to be separately reported. For example, hospital and office evaluation and management (E/M) visits and suture and/or staple removal should be reported separately. An extensive discussion about these coding changes is available in the November-December 2022 issue of the *Bulletin*. In addition, a webinar that includes clinical scenarios can be viewed at facs.org/hernia-repair.

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**Table 1:
New 2023 CPT Codes for
Anterior Abdominal Hernia Repair**

Size	Type	Severity	CPT Code
<3 cm	Initial	Reducible	49591
		Incarcerated/Strangulated	49592
	Recurrent	Reducible	49613
		Incarcerated/Strangulated	49614
3-10 cm	Initial	Reducible	49593
		Incarcerated/Strangulated	49594
	Recurrent	Reducible	49615
		Incarcerated/Strangulated	49616
>10 cm	Initial	Reducible	49595
		Incarcerated/Strangulated	49596
	Recurrent	Reducible	49617
		Incarcerated/Strangulated	49618

Implantation of Mesh for Delayed Closure

Prior to 2023, add-on code 49658 was reported for mesh placement for open hernia repair or for closure of wounds from necrotizing soft tissue infection. This code will be deleted, and mesh placement will be included as inherent for all new anterior abdominal hernia repair codes. The remaining use of code 46958, (*closure of wounds from necrotizing soft tissue infection*), now will be reported with new code 15778, *Implantation of absorbable mesh or other prosthesis for delayed closure of defect(s) (i.e., external genitalia, perineum, abdominal wall) due to soft tissue infection or trauma*. Patients with necrotizing soft tissue infections typically result in a large, open wound that cannot be closed primarily. When the infection has resolved, absorbable mesh or other prosthesis is placed to allow healing by secondary intent until such time that a skin graft or skin closure can be accomplished. In contrast to add-on code 49658, new code 15778 has a 0-day global period and may be reported with or without other procedures performed at the same operative session.

Removal of Sutures and/or Staples “In the Office”

The 0-day global period assigned to the new anterior abdominal hernia repair codes required additional new codes for reporting services performed at postoperative E/M visits. For 2023, two new add-on codes were established for reporting suture and/or staple removal in conjunction with an E/M visit. Code 15853, *Removal of sutures or staples not requiring anesthesia (List separately in addition to E/M code)*, and code 15854, *Removal of sutures and*

staples not requiring anesthesia (List separately in addition to E/M code), may be reported with an appropriate E/M service for any procedure that has a 0-day global period, including the new anterior abdominal hernia repair codes.

These new add-on suture/staple removal codes do not have physician work relative value units (RVUs) assigned because they are for practice expense reimbursement only (i.e., clinical staff time, disposable supplies, and use of equipment). Prior to 2023, the practice expense was embedded in the payment for the deleted 90-day global hernia repair codes. Keep in mind that these codes may be reported multiple times, but only once per day. For example, on postop day 3 after a 0-day global procedure is performed, code 15853 can be reported for suture removal related to drain removal. Then, on postop day 10, code 15853 can be reported again with an appropriate E/M for staple removal. Because codes 15853 and 15854 are add-on codes to be reported with an E/M code, no modifier should be appended to the E/M code.

Removal of Sutures or Staples “Under Anesthesia”

While reviewing the issue of reporting suture and/or staple removal for codes with a 0-day global period, the ACS CPT advisors discovered unusual reporting of code 15851 that previously described removal of sutures or staples “under anesthesia other than local.” Specifically, more than 80% of the Medicare claims were office-based even though the intent of this code was for reporting a facility-based procedure. The ACS recommended revision of code 15851 to describe

While reviewing the issue of reporting suture and/or staple removal for codes with a 0-day global period, the ACS CPT advisors discovered unusual reporting of code 15851 that previously described removal of sutures or staples “under anesthesia other than local.”

suture or staple removal, specifically requiring general anesthesia or moderate sedation (for example, removal of sutures on the face of an infant). For 2023, code 15851, *Removal of sutures or staples requiring anesthesia (i.e., general anesthesia, moderate sedation)*, will be priced only in the facility setting. For suture or staple removal in the office setting, new add-on codes 15853 or 15854 should be reported. In addition, with the revision to code 15851, code 15850, (*suture/ staple removal “same” physician*), was deleted with a parenthetical reference added to report code 15851.

Percutaneous Arteriovenous Fistula

Two new codes have been created to report percutaneous arteriovenous (AV) fistula creation in the upper extremity via a single access of both the peripheral artery and peripheral vein (36836, *Percutaneous arteriovenous fistula creation, upper extremity, single access of both the peripheral artery and peripheral vein, including fistula maturation procedures [e.g., transluminal balloon angioplasty, coil embolization] when performed, including all vascular access, imaging guidance and radiologic supervision and interpretation*), and via separate access sites of the peripheral artery and peripheral vein (36837, *Percutaneous arteriovenous fistula creation, upper extremity, separate access sites of the peripheral artery and peripheral vein, including fistula maturation procedures [e.g., transluminal balloon angioplasty, coil embolization] when performed, including all vascular access, imaging guidance and radiologic supervision and interpretation*). Previously, there were only codes for AV fistula creation via an open approach. Please

note that percutaneous AV fistula creation in any location other than the upper extremity should be reported with the unlisted vascular surgery procedure code 37799.

Intragastric Bariatric Balloon

Two new endoscopic bariatric treatment codes will be available in 2023 to report esophagogastroduodenoscopy (EGD) deployment and removal of a bariatric balloon device; code 43290, *EGD, flexible, transoral; with deployment of intragastric bariatric balloon*, and code 43291, *EGD, flexible, transoral; with removal of intragastric bariatric balloon(s)*.

Delayed Creation Site for Embedded Intraperitoneal Catheter

In the final rule for 2022, the Centers for Medicare & Medicaid Services (CMS) received a public nomination that code 49436, *Delayed creation of exit site from embedded subcutaneous segment of intraperitoneal cannula or catheter*, can be safely performed in the office setting, but the code was not priced in this setting. CMS agreed that if this service were to be performed in an office, there may be an ease in the burden to the provider and patient, when trying to coordinate access with the current public health emergency facility restricted schedules. Although CPT did not change the code descriptor for 49436, this procedure was reviewed by the American Medical Society/Specialty Society Relative Value Scale Update Committee to add practice expense details for office reimbursement. Beginning in 2023, the nonfacility practice expense RVUs have increased to

Table 2:
Time Threshold for Reporting HCPCS and CPT Add-On Prolong Services Codes

Primary E/M Service and Typical Time (minutes)	CMS HCPCS Code	HCPCS Threshold Time (minutes)	AMA CPT Code	CPT Threshold time (minutes)
99205, Initial office/outpatient visit	G2212	89	99417	75
99215, Subsequent office/outpatient visit	G2212	69	99417	55
99223, Initial inpatient/observation visit	G0316	105	99418	90
99233, Subsequent inpatient/observation visit	G0316	80	99418	65
99236, Inpatient/observation, same-day admit and discharge	G0316	125	99418	100

HCPCS G2212, Prolonged office or other outpatient evaluation and management service(s) beyond the maximum required time of the primary procedure which has been selected using total time on the date of the primary service; each additional 15 minutes by the physician or qualified healthcare professional, with or without direct patient contact (List separately in addition to CPT codes 99205, 99215, 99483 for office or other outpatient evaluation and management services).

HCPCS G0316, Prolonged hospital inpatient or observation care evaluation and management service(s) beyond the total time for the primary service (when the primary service has been selected using time on the date of the primary service); each additional 15 minutes by the physician or qualified healthcare professional, with or without direct patient contact (List separately in addition to CPT codes 99223, 99233, and 99236 for hospital inpatient or observation care evaluation and management services).

CPT 99417, Prolonged outpatient evaluation and management service(s) time with or without direct patient contact beyond the required time of the primary service when the primary service level has been selected using total time, each 15 minutes of total time (List separately in addition to the code of the outpatient evaluation and management services).

CPT 99418, Prolonged inpatient or observation evaluation and management service(s) time with or without direct patient contact beyond the required time of the primary service when the primary service level has been selected using total time, each 15 minutes of total time (List separately in addition to the code of the inpatient and observation evaluation and management services).

account for the office clinical staff time, disposable supplies, and use of office equipment.

Modifier 93 Synchronous Audio-Only Telemedicine

Representatives of several state insurance providers, including Medicaid, received approval for the new modifier 93, *Synchronous Telemedicine Service Rendered Via Telephone or Other Real-Time Interactive Audio-Only Telecommunications System*, which will be appended to select codes to indicate when a service is provided via an audio-only technology (primarily via telephone). This modifier will help third party payers collect data to distinguish service modalities (audio-only, audio-video, traditional face-to-face) and allow for monitoring and evaluation of the frequency of use and clinical efficacy of these delivery methods to inform future policies and payment. In addition to the new modifier, CPT has added

the list of applicable codes in the new Appendix T in the codebook. CMS has accepted application of modifier 93 for some telehealth services during the public health emergency (PHE) and for a specified number of days after the PHE ends. The list of Medicare-approved telehealth services can be accessed at: [cms.gov/medicare/medicare-general-information/telehealth/telehealth-codes](https://www.cms.gov/medicare/medicare-general-information/telehealth/telehealth-codes).

E/M Services Guidelines

For 2023, the E/M code families that are based on “levels” (i.e., straightforward, low, moderate, high) were updated to integrate the revisions that were made to the office/outpatient E/M services codes in 2021, and the E/M services guidelines were revised to standardize reporting of all E/M codes. These revised guidelines provide new definitions for problems addressed and expanded guidelines about using time to select a level of service. It is important that surgeons who report E/M services take the time to

Keep in mind that although the revised CPT code descriptors state that a medically appropriate history and/or exam will be required, surgeons should be aware of the documentation needed to meet requirements for billing services.

review the revised E/M services guidelines in the CPT codebook to understand correct reporting of these services beginning in 2023.

Collapsing of Codes for Inpatient and Observation Care E/M Services

Observation care E/M codes (99217–99220, 99224–99226) have been deleted, and the descriptors for the hospital inpatient E/M codes (99221–99223, 99231–99239) and inpatient consultation codes (99252–99255) have been revised to include observation care services. With the changes from reporting levels of history and exam to performing only medically required history and exam, along with code selection based on medical decision-making or time, there no longer was a need for separate reporting of inpatient and observation care services.

Keep in mind that although the revised CPT code descriptors state that a medically appropriate history and/or exam will be required, surgeons should be aware of the documentation needed to meet requirements for billing services under the inpatient prospective payment system or documented information in accordance with hospital conditions of participation, which requires completion and documentation of a history and physical exam for each hospital patient within a specified timeframe of admission. A discussion of these coding changes can be found in an article in the October 2022 issue of the *Bulletin*.

Prolonged E/M Services

For 2023, prolonged E/M services codes 99354–99355 have been deleted and replaced with add-on code 99417 to report increments of 15 minutes of “outpatient” E/M prolonged services. Similarly, codes 99356–99357 have been deleted and replaced with add-on code 99418 for additional increments of 15 minutes of “inpatient” prolonged E/M services. These codes are reported with the highest level of code in each family of E/M services when the level of E/M code is reported using total time. However, since the establishment of code 99417 in 2021, CMS has

disagreed with the CPT instructions regarding the point in time at which the prolonged codes should apply. Thus, CMS created Healthcare Common Procedure Coding System (HCPCS) Level II codes G2212 and G0316 to be reported instead of CPT Category I codes 99417 and 99418 for prolonged office/outpatient, and inpatient/observation services provided to Medicare patients. Table 2, page 38, compares correct reporting of CMS HCPCS codes and CPT Category I codes.

Learn More

The ACS collaborates with KarenZupko & Associates (KZA) on courses that provide the tools necessary to increase revenue and decrease compliance risk. These courses are an opportunity to sharpen your coding skills. You also will be provided online access to the KZA alumni website, where you will find additional resources and frequently asked questions about correct coding. Information about the courses can be accessed at karenzupko.com/general-surgery.

In addition, as part of the College’s ongoing efforts to help members and their practices submit clean claims and receive proper reimbursement, a coding consultation service—the ACS Coding Hotline—has been established for coding and billing questions. ACS members are offered five free consultation units (CUs) per calendar year. One CU is a period of up to 10 minutes of coding services time. Access the ACS Coding Hotline website at tprsnetwork.com/acshotline. **B**

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How Will the 2023 MPFS Affect Your Practice?

Lauren M. Foe, MPH

NEW PAYMENT POLICY, coding, and reimbursement changes set forth in the calendar year (CY) 2023 Medicare Physician Fee Schedule (MPFS) final rule took effect January 1. The MPFS, which the Centers for Medicare & Medicaid Services (CMS) updates annually, lists payment rates for Medicare Part B services and introduces or modifies other policies and regulations that affect physician reimbursement and quality measurement.

The ACS submitted comments September 6, 2022, in response to the CY 2023 MPFS proposed rule issued by CMS earlier in the year.* Some provisions in the final rule, released November 1, 2022, incorporate the College's recommendations. Although the final rule includes important payment and policy decisions that affect all physicians, this article focuses on updates that are particularly relevant to general surgery and its related specialties.

E/M Services

After revising the office and outpatient evaluation and management (E/M) code sets in CY 2021, CMS finalized refinements to coding and documentation requirements for hospital inpatient, observation, and some other E/M visits for 2023 to align with the 2021 changes. A discussion of these coding changes can be found in an October 2022 *Bulletin* article entitled "What Surgeons Should Know: 2023 Changes to Reporting Inpatient and Observation Evaluation and Management Services."[†]

Split (or Shared) Services

CMS previously finalized changes to its policies for split (or shared) E/M visits. Such changes, applicable to a facility-based visit by a physician furnished in conjunction with a nonphysician practitioner (NPP) and originally set to begin January 1, 2023, allowed

Table 1: Definition of Substantive Portion for E/M Visit Code Families

E/M Visit Code Family	2023 Definition of Substantive Portion	2024 Definition of Substantive Portion
Other outpatient*	History, or exam, or MDM, or more than half of total time	More than half of total time
Inpatient/observation/hospital/nursing facility	History, or exam, or MDM, or more than half of total time	More than half of total time
Emergency department	History, or exam, or MDM, or more than half of total time	More than half of total time
Critical care	More than half of total time	More than half of total time

*Office visits will not be billable as split (or shared) services.

Table 2: Calculation of the 2023 MPFS Conversion Factor

CY 2022 Conversion Factor	\$34.6062
Conversion Factor without CY 2022 Protecting Medicare and American Farmers from Sequester Cuts Act	\$33.5983
Statutory Update Factor	0.00%
CY 2023 RVU Budget Neutrality Adjustment	-1.60%
CY 2023 Conversion Factor	\$33.0607

the practitioner—either the physician or NPP—who provided the “substantive portion” of the visit to bill for the services furnished. As part of this policy, a substantive portion was to be defined by comparing the time spent by each clinician and determining who spent more time with the patient. CMS will delay implementation of this policy until 2024, and in 2023, providers who furnish split/shared visits will continue to select the billing practitioner either by (a) who provided the history, physical exam, or medical decision-making (MDM); or (b) who spent more than half of the total time on the service.

In 2024, unless CMS revisits the policy, the substantive portion will be defined as more than half of the total time that the physician and NPP spent performing the split (or shared) visit (see Table 1, page 40).[‡] The substantive portion may include time spent with or without direct patient contact.

Telehealth Services

In accordance with the Consolidated Appropriations Act, 2022 (CAA), CMS will allow certain services added during COVID-19 to the Medicare telehealth covered services list to remain on the list for 151 days after the expiration of the public health emergency (PHE). The CAA also enacted additional flexibilities for the 151-day post-PHE period and expanded the scope of telehealth originating sites to include any site in the US where the beneficiary is located at the time of the telehealth service, including an individual’s home.

Colorectal Cancer Screening Services

To broaden access to colorectal cancer (CRC) screening, CMS modified coverage and payment limitations of certain CRC screening tests to begin at age 45 instead of 50. The regulatory definition of CRC tests also was expanded to include follow-up screening colonoscopies after a Medicare-covered non-invasive, stool-based CRC screening test returns a positive result. Such tests include guaiac fecal occult

blood tests, immunoassay fecal occult blood tests, and Cologuard™ Multitarget Stool DNA tests. CMS will pay for follow-up colonoscopies as screening tests—rather than diagnostic tests, for which patients would be billed—thereby eliminating coinsurance and deductibles for these services and reducing out-of-pocket costs for Medicare beneficiaries.

Conversion Factor

Absent Congressional intervention, the 2023 MPFS conversion factor (CF)—which is the amount Medicare pays per relative value unit—is \$33.0607, an approximate 4.5% decrease from last year’s CF of \$34.6062. This decrease reflects the expiration of a one-time 3% cut avoidance that Congress provided for the CY 2022 MPFS CF and an additional 1.6% reduction due to 2023 budget neutrality requirements (see Table 2, this page). **B**

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*American College of Surgeons. CY 2022 Medicare Physician Fee Schedule Comment Letter. Available at: <https://www.facs.org/media/5vldhdae/acs-cy-2023-mpfs-comment-letter.pdf>. Accessed November 28, 2022.

†Nagle J, Romano T. What Surgeons Should Know: 2023 Changes To Reporting Inpatient And Observation Evaluation And Management Services. *Bull Am Coll Surg*. 2022;107(10):44-46.

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What's New for the Quality Payment Program in 2023

Haley Jeffcoat, MPH, and Jill Sage, MPH

The Centers for Medicare & Medicaid Services (CMS) finalized several updates to meet 2023 participation requirements for year 7 of the Quality Payment Program (QPP). There are two ways to participate in the QPP—report via the Merit-Based Incentive Payment System (MIPS) or sufficient participation in an Advanced Alternative Payment Model (APM).

Table 1: MVPs Available for Reporting in 2023

Advancing Cancer Care	Optimal Care for Kidney Health	Optimal Care for Patients with Episodic Neurological Conditions
Supportive Care for Neurodegenerative Conditions	Promoting Wellness	Patient Safety and Support of Positive Experiences with Anesthesia
Optimizing Chronic Disease Management	Adopting Best Practices and Promoting Patient Safety with Emergency Medicine	Advancing Care for Heart Disease
Improving Care for Lower Extremity Joint Repair	Advancing Rheumatology Patient Care	Coordinating Stroke Care to Promote Prevention and Cultivate Positive Outcomes

BEGINNING IN 2023, CLINICIANS ELIGIBLE FOR MIPS may choose to participate through a MIPS Value Pathway (MVP), which is a new, alternative reporting pathway to traditional MIPS. Whether you participate via traditional MIPS or an MVP, your score will continue to be calculated based on the following MIPS performance categories:

- **Quality:** Aims to measure the quality of the care delivered
- **Improvement Activities (IA):** Includes an inventory of activities that assesses how clinicians improve care processes, enhances patient engagement in care, and increases access to care
- **Promoting Interoperability (PI):** Focuses on the use of certified electronic health record (EHR) technology (CEHRT) to manage patient engagement and the electronic exchange of health information
- **Cost:** Evaluates a clinician’s total cost of care during the year, a hospital stay, or a specific episode of care for attributed patients (CMS automatically calculates the cost category using Medicare claims.)

An MVP includes a subset of measures and activities across the quality, IA, and cost performance categories focused on specific specialties, conditions, or patient populations. The framework also incorporates PI measures and a foundational set of population health-focused administrative claims-based quality measures that are foundational elements of all MVPs. For the 2023 performance year, clinicians can choose from 12 MVPs (see Table 1, this page).

The current MVP framework relies on siloed performance categories and other restrictive elements of MIPS. However, the College continues to work with CMS to develop MVPs that reflect a more comprehensive quality framework, much like the ACS Quality Programs that focus overarchingly on the care of the patient, including the goals and outcomes important to the patient, while also valuing the infrastructure, resources, and processes needed to deliver optimal care and improvement.

MVP Reporting Requirements

MVPs are constructed with quality measures, IAs, and cost measures that align across an episode of care or clinical condition. As described in Table 2 (see page 44), if a surgeon chooses to participate in an MVP, he or she must select quality and IAs from the MVP to report. The cost measures associated with the MVP will be calculated by CMS using administrative claims measures, if the clinician or group has attributed enough patients under the measure (like traditional MIPS).

MVPs also incorporate population health measures and the PI performance category as a foundational layer. Similar to the cost measures, clinicians and groups are scored only on population health measures if a sufficient number of patients has been attributed (see Table 3, page 45).

How MVPs Are Scored

MVP scoring largely aligns with traditional MIPS. The performance category weights will remain consistent with what has been finalized for MIPS in 2023. The same reweighting policies also will be applied to MVPs.

Subgroup Reporting

Beginning in 2023, subgroup reporting will be an option for those reporting MVPs. Through subgroup reporting, multispecialty groups will have the option to create subgroups to report performance information that is relevant to specific specialists or care teams within the larger group. Although subgroup reporting is initially voluntary for MVP participants, beginning in 2026, multispecialty groups will be required to form subgroups to report MVPs.

Some stakeholders are concerned about the potential classification of a group with a single clinical focus as a multispecialty group and have asked how this impacts the requirement for

Table 2: Reportable MVP Quality, IA, and Cost

Quality Requirements	IA Requirements	Cost Requirements
MVP participants should select four quality measures from the MVP measure inventory.	MVP participants must select: Two medium-weighted IAs	CMS calculates an MVP participant’s cost score using the cost measures that are included in the MVP based on administrative claims data.
One of the measures they select must be an outcome or high priority measure.	OR One high-weighted IA OR Participate in a certified or recognized patient-centered medical home or comparable specialty practice	Each MVP only includes cost measures relevant to the topic. There is no reporting requirement for the category and CMS will only calculate their cost scores based on the measures in the MVP.

multispecialty groups to form subgroups.

The ACS has advocated for CMS to use subgroup reporting to recognize team-based care. However, the College has opposed making subgroup and MVP reporting mandatory until physicians have had enough time to re-engineer how they report quality, determine the necessary structures and processes, incorporate safety and outcome measures, and make the business case for participating in MVPs and as a subgroup.

At this time, CMS has not yet proposed any limits on the composition of a subgroup other than restricting an individual clinician to only one subgroup within a group. The agency is exploring options for allowing clinicians to participate in multiple subgroups in the future. CMS also will provide additional guidance as appropriate in the future and consider additional policies to ensure that subgroups best represent clinical coherence.

MIPS Scoring Policies for 2023

Many MIPS scoring policies—which apply to both traditional MIPS and the new MVP framework—will remain the same from the 2022 performance period to the 2023 performance period. For 2023, the performance threshold, or the number of overall MIPS points required to avoid a payment penalty for the 2025 payment year, remains set at 75 points. However, beginning with the 2023 performance year, the exceptional performance bonus is no longer available. The performance category weights also are unchanged. Quality and cost both contribute 30% to the MIPS overall score, PI contributes 25%, and IA remains at 15%. Surgeons should refer to the ACS QPP resources for more details about the 2023 MIPS policies.

Note that MIPS-eligible clinicians will receive the highest final score that can be attributed to their Taxpayer Identification Number (TIN)/National Provider Identifier combination from any reporting option (traditional MIPS, APM Performance

Pathway, or MVP) and participation option (individual, group, subgroup, or APM Entity), with the exception of virtual groups. Clinicians who participate as a virtual group always will receive the virtual group’s final score.

All surgeons should use the QPP Participation Status Lookup tool (qpp.cms.gov/participation-lookup) to determine if they are required to participate in MIPS in 2023, and if they fall into any special status categories (qpp.cms.gov/mips/special-statuses) such as facility-based, which could alter their reporting requirements.

New Policies for the Quality Category

CMS previously finalized the following policies, which will go into effect with the 2023 performance period:

- Removal of the three-point floor for quality measures with a benchmark. Measures with a benchmark (unless surgeons are in their first 2 years of the MIPS program) will be worth between one and 10 points.
- Measures without a benchmark will no longer be eligible for three points. If surgeons report a measure without a benchmark, they will receive zero points, unless the measure is new to the program or the surgeon is part of a small practice.
- Measures that do not meet the case minimum (at least 20 patients) will no longer be eligible for three points. If surgeons report a measure that does not meet the case minimum, they will receive zero points, unless the measure is new to the program or the surgeon is part of a small practice.

CEHRT Changes for the PI Category

The PI category focuses on how clinicians use CEHRT to manage patient engagement and the electronic exchange of health information. To receive a score in this category, use of technology that is

Table 3: Foundational Layer

Population Health Measures	PI Requirements
MVP participants must select one population health measure. The results of the population health measure are added to their quality performance score.	The PI requirements for MVPs are the same as traditional MIPS, unless the MVP participant qualified for automatic reweighting or has an approved hardship exception.

certified under the Office of the National Coordinator for Health IT’s certification program is required.

Beginning this year, MIPS-eligible clinicians and groups must use EHR technology to report PI that is updated to meet the requirements of the 2015 Edition Cures Update (healthit.gov/topic/certification-ehrs/2015-edition-cures-update-test-method). To find out if your EHR is federally certified in compliance with this update, search the Certified Health IT Product List (chpl.healthit.gov/#/search).

Maximum Payment Adjustments

As determined by the Medicare Access and Children’s Health Insurance Program Reauthorization Act of 2015 (MACRA), the maximum negative payment adjustment for the 2025 payment year based on 2023 performance is -9%. Because MIPS is a budget-neutral program, the total amount of funding available for positive payment adjustments cannot be determined until CMS knows the total amount of negative payment adjustments in any given year. It is important to keep in mind that the maximum positive payment adjustments to date have not exceeded 2.5% (payment adjustments were 1.88% in 2019, 1.68% in 2020, 1.79% in 2021, and 2.33% in 2022).

Advanced APMs

Clinicians who receive a substantial portion of their reimbursement or see a substantial number of patients under what CMS designates as an advanced APM are considered qualifying participants (QPs).

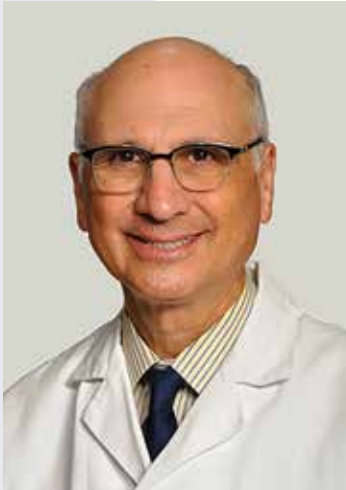
Advanced APMs bear more than nominal risk and must have a certain percentage of their participating clinicians using CEHRT. For 2022, QPs are exempt from MIPS and instead qualify for a lump sum bonus payment in 2024, based on 5% of their Part B allowable charges for covered professional services in 2023 (across all TINs they may practice under, which can result in a substantial bonus).

However, under MACRA, the 5% incentive

payment ends after the 2022 performance year (2024 payment year). Going forward, QPs instead will be eligible for a larger annual base conversion factor update under the Medicare Physician Fee Schedule (0.75%) compared to non-QPs (0.25%), who also may be eligible for MIPS payment adjustments.

Starting in 2023, the payment and patient thresholds to qualify as a QP also increase, which will make it more challenging for clinicians to qualify for this track of the QPP. The ACS continues to push Congress for an extension of the 5% APM incentive payment and to maintain the current thresholds. **B**

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Dr. John Alverdy

Surgical M&Ms Need a Scientific Lexicon of “Necessary and Sufficient”

John C. Alverdy, MD, FACS

SOME HAVE OBSERVED that the surgical morbidity and mortality (M&M) conference is a place where we learn from the ignorance of experts. Here the term “ignorance” is not intended to reflect its pejorative meaning but rather its more literal meaning, which, according to the Merriam-Webster Dictionary, is “lack of knowledge, education, or awareness.” This viewpoint is intended to shed insight into the reasoning used at surgical M&M conferences in comparison to the logic used in basic science, through the perspective of a surgeon-scientist.

For example, to causally link a gene, protein, or metabolite to an expressed phenotype, it must be demonstrated to be both “necessary” and “sufficient” to the full expression of the phenotype. This often is achieved through the use of knockout and complementary gene constructs. The same

I will attempt to reconcile why it is that basic science holds itself accountable to provide molecular-level evidence in support of a proposed claim while during a typical M&M conference, this level of rigor is neither required, available, nor encouraged.

reasoning process also could be applied to claims made at a surgical M&M conference to explain a given complication. In other words, if one states that a complication is due to an “error in surgical technique,” it would be expected that the identified error be demonstrated as both necessary and sufficient to cause the complication. As we are all aware, this is often impossible clinically, given that the physical evidence needed to support such a causal inference is not available.

During my more than 30 years of attending M&M conferences, I have noticed that takebacks for bleeding, anastomotic leaks, and many other complications often are claimed to be “errors in surgical technique” in the complete absence of any physical evidence that an actual error was committed. Using the logic of *res ipsa loquitur* (Latin for “the thing speaks for itself”) and claiming, “what else could it be” without presenting plausible evidence for the actual error, this leaves trainees with the feeling that the post-hoc analysis failed to advance their understanding of why it occurred in the first place so that it might be prevented in the future (i.e., the stated purpose of the M&M).

In this viewpoint, I will attempt to reconcile why it is that basic science holds itself accountable to provide molecular-level evidence in support of a proposed claim while during a typical M&M conference, this level of rigor is neither required, available, nor encouraged.

As a young scientist, I worked on an early project with an aim to demonstrate the mechanism by which *Pseudomonas aeruginosa* (*P. aeruginosa*) caused lethal gut-derived sepsis in mice. This goal was especially important given that *P. aeruginosa* is one of the most frequent organisms to cause lethal sepsis among burn patients, the critically ill, and those undergoing lifesaving bone marrow transplants and major surgery. We developed a model in which direct introduction of the organism into the gastrointestinal track resulted in lethal sepsis. To accomplish this,

we created a novel model of infection (i.e., overnight starvation, surgical injury in the form of a 30% bloodless hepatectomy, and direct cecal injection of live strains of *P. aeruginosa*).¹

However, rather than focus on the host factors that might be causal to this lethal preparation, such as gut barrier function, activation of inflammation, and so on, we focused on the microbe itself. Results indicated that the three-hit model led to the release of host-derived bacterial signaling molecules (i.e., opioids, norepinephrine, and ischemic end-products) into the cecum that activated virulence genes in *P. aeruginosa* such that its phenotype shifted from that of an indolent colonizer to a virulent pathogen.

We identified the *P. aeruginosa* quorum sensing-dependent virulence gene that was activated (*lecA*) in vivo and then demonstrated that it was both “necessary” and alone “sufficient” to cause lethal sepsis in this model.² To do this required making mutants cured of their ability to express *lecA* and then demonstrating that the mutants did not express the lethal phenotype in vitro nor kill the mice in vivo.

Finally, to show that *lecA* was alone “sufficient,” we added extrachromosomal plasmids to the knockout mutants to re-express *lecA*, making sure that our *lecA* deletion did not inadvertently knock out any related genes, but rather only the *lecA* gene. Results indicated that *lecA* alone was “sufficient” to express the lethal phenotype both in vitro and in vivo. These studies displayed fidelity to the molecular Koch’s postulates of infection pathogenesis as put forth by the preeminent microbiologist Stanley Falkow, PhD.³ Unlike the original Koch’s postulates, he proposed that the mere presence of a strain cannot be claimed to be causative to the disease process unless its disease-producing phenotype (a biphasic response) can be demonstrated to be expressed in vivo.

Thus, to apply this line of reasoning to surgical complications, it is not the mere presence of a soft gland, or small duct, an older patient, “dog ears”⁴ or ischemia at the anastomotic site that alone is

“necessary” (or deterministic) for a complication to occur, but rather how those factors operate in vivo over the course of healing such that the phenotype expressed (e.g., the complication) can be determined to be alone “sufficient” to cause its actual occurrence.

In this quest for truth, there are those who believe that “black box” technology—whereby all visual and audio feed for a given operation can be captured and stored—will solve the much-needed evidence to identify root causes (or necessary and sufficient evidence) of postoperative complications.⁵ As I see it, there is a fundamental shortcoming with video capture of an operation or act.⁶ To illustrate this, I played two videos of separate esophagojejunostomies that I personally constructed following a laparoscopic gastrectomy for CDH1 mutation. I explained to an audience of surgeons that the video on the left leaked while the one on the right side of the screen healed without incident. I then asked them to offer their commentaries.

Knowing that the one on the left leaked, many constructive comments, including aspects of my technique, areas of ischemia, the concern over “dog ears,” and so on were made. Once they finished commenting, I informed them that I had reversed the images. The video of the anastomosis on the left did not leak, whereas the one on the right was the anastomosis that actually leaked. This was a good demonstration of hindsight bias⁷ and the lack of accounting for the process of biologic healing that occurs following surgery, and the reason that makes technique itself “forgiving” to use a common phrase among surgeons.

Pancreaticojejunostomy after pancreaticoduodenectomy leaks presents another such example. In my experience, remarks at M&M conferences have included observations such as “Well, it was a soft gland with a very small duct.” Yet all of the other soft gland/small duct pancreaticojejunostomies that did not leak were dismissed, leaving this

comment as a probabilistic assessment of the occurrence rather than a deterministic one.

Such comments and our lack of the ability to continuously monitor biologic healing in vivo over the course of recovery show us that our inability to apply the scientific lexicon of “necessary and sufficient” prohibits us from causally linking our hindsight explanations to the root cause of our complications. It may be for this reason that common complications (e.g., bleeding, leaks, infection) seem to repeatedly surface at M&M conferences. This reality should make us take pause and consider whether we are sufficiently advancing the science of understanding our complications based on our analyses and comments at these meetings such that we are preventing them from occurring in the future. In addition, the examples described in this article should support the assertion that video/audio assessment of intraoperative events likely will suffer from hindsight bias and may fail to provide sufficient evidence that allows us to claim that a specifically viewed image or video is causative to a complication.

Preventing Complications in the Future

Leadership in surgery will surely abjure when confronted with the idea that most expert explanations at an M&M conference are ineffective at preventing the same complications from occurring in the future. Some leaders may argue that expert discussions at M&Ms are useful to trainees so that they can learn from the complications of others. Yet, one might imagine that continuing to hear that anastomotic leaks performed by high-volume expert surgeons are due to an “error in surgical technique”—without actually demonstrating any physical evidence for it—seems incomprehensible when hearing the same argument while the same complication continues to surface over and over.

Similarly, discussions surrounding postoperative bleeding requiring a takeback to the operating room as the operative team declares it was “dry when we closed,” also must seem redundant and ineffective

Leadership in surgery will surely abjure when confronted with the idea that most expert explanations at an M&M conference are ineffective at preventing the same complications from occurring in the future.

at clearing up why this complication continues to occur. The same could be said for many other complications, including prolonged ileus, delay in diagnosis, and so on. At least to this surgeon-scientist, intraoperative video capture alone, without some type of mechanistic understanding of the biology of events occurring before, during and after surgery, will not provide the evidence needed to change surgical practice such that common complications can be avoided in the future. These include the ever-recurring complications of surgical site infections, anastomotic leaks, bleeding, and delays in diagnoses.

How Can We Do Better?

If a post-M&M questionnaire was required that included the following with a Likert-type scale for answers, perhaps the current format might change.

- Were the appropriate cases among the list of M&M complications chosen for discussion?
- Did the discussion address the root cause of the complication with sufficient evidence to prevent it from occurring in the future?
- Was the discussion balanced, and conclusions made, based on solid, verifiable evidence?

Given that the stated purpose of M&Ms is to openly discuss our complications so that others can learn from and avoid them in the future, a change in format may be needed. To achieve this, a task force should be established to examine how complications are discussed at a typical M&M conference and how the structure and format can be improved. **B**

Disclaimer

The thoughts and opinions expressed in this article are solely those of Dr. Alverdy and do not necessarily reflect those of the ACS.

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Today's National Cancer Database Is Key to a Better Tomorrow

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The National Cancer Database (NCDB) was created in 1989 as a joint effort between the ACS Commission on Cancer (CoC) and the American Cancer Society. Over the past 37 years, the NCDB has amassed data from more than 45 million cancer patients dating back to 1985 to become one of the largest cancer registries in the world.

There is perhaps no better way to understand the impact of the NCDB than to consider the breadth and depth of studies that have leveraged NCDB data.

THIS DATABASE CAPTURES MORE THAN 230 unique data items for each patient, which translates into 10 billion pieces of data covering 72% of newly diagnosed cancer patients in the US.

In 2009, the NCDB initiated a Participant Use Data File (PUF) initiative designed to put data in the hands of researchers. The PUF program, which includes de-identified, case-level data from 70 different primary tumor sites, was opened to all CoC programs in 2013. Since that time, the NCDB has become one of the most frequently leveraged data resources to improve the quality and safety of cancer care. Thus far, more than 1,500 PubMed indexed studies have been published using NCDB data, with approximately 350 new studies published annually.

There is perhaps no better way to understand the impact of the NCDB than to consider the breadth and depth of studies that have leveraged NCDB data. In this article, we have attempted to demonstrate the possible range of contributions using the NCDB by highlighting a few studies that have considered a variety of clinically relevant and high-impact questions.

One of the guiding motivations for the NCDB PUF program is quality assurance. As a result, the NCDB examines each of the six principal domains for high-quality care that were defined by the Institute of Medicine:

- Safe
- Effective
- Patient-centered
- Timely
- Efficient
- Equitable

Several studies that have examined the safety of cancer care have focused on the environment in which the care was provided. Concerns have been raised over the safety of complex oncologic resections completed in hospitals in which these procedures are performed infrequently. These concerns have led to important questions regarding minimum standards and regionalization of specialty surgical oncology care.¹

In one NCDB study by Chiu and colleagues, the investigators suggested that regionalization

based on a hospital's surgical safety record—rather than surgical volumes—could save twice as many lives by moving half as many patients compared with regionalizing based on surgical volumes.² Other attributes found to predict short- and long-term outcomes in the NCDB include academic affiliation and status as a top-ranked hospital by *US News & World Report*.³

The NCDB has been used to conduct a multitude of comparative effectiveness research studies. These studies represent real-world perspectives by examining the benefits of specific treatments in the general patient population outside the clinical trial setting. A broad range of topics have been covered, including the role of operative versus nonoperative therapy,^{4,5} the role of adjuvant therapy versus observation,⁶ and the benefit of minimally invasive surgical approaches compared with traditional open resection.⁷ In one study, investigators incorporated the NCDB variable, “reason for no surgery,” in the study design to remove inoperable patients from a comparison of operative and nonoperative treatment of patients with lung cancer.⁸

Although the impact of the NCDB on the clinical care of patients in the US is difficult to capture, the NCDB has been leveraged to assess practice implementation. For example, one study that found twice-daily radiation therapy for small cell lung cancer—although effective—was rarely administered, likely because of the profound logistical challenges that frequent treatment administration places on patients and caregivers.⁹

With respect to the timeliness of care, several studies have examined the impact of delays in cancer treatment, finding that postponements in operative treatment of breast cancer appear to compromise survival.¹⁰ Similar findings also have been shown in lung cancer.¹¹ Efficiency of care was investigated through the number of days required to administer a course of radiation, suggesting that more efficient delivery may be associated with superior outcomes for anal squamous cell and lung cancer.^{12,13}

Finally, the NCDB has been leveraged in the quest to provide equitable care, having been queried for disparities in care delivery

and utilization. Several studies have identified important disparities in treatment delivery across modalities—including radiation, surgery, and chemotherapy—across a wide range of tumor types.^{14,15,16} Matthews and colleagues took a different approach and examined NCDB data to assess the likelihood that adjuvant chemotherapy was recommended to patients after ovarian cancer resection.¹⁷ Cole and colleagues examined disparities in care across the patient mix by treating hospitals and focused likelihood on palliative treatment, which is discernable in the NCDB.¹⁸

In conclusion, the NCDB has been increasingly leveraged by some of the country's brightest minds in quality improvement and research and provides an invaluable perspective to improve cancer care in the US. We are in a better position at present, and the future is potentially brighter, because of the registrars, physicians, and institutions that have thoughtfully and creatively engaged with this rich and impactful dataset. **B**

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Blood Product Stewardship May Improve Trauma Patient Outcomes

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In response to the growing violence in Baltimore and understanding the importance of community engagement and equity in the marginalized communities, LifeBridge Health has committed to building hope.

IN 1910, A BLACK YALE LAW SCHOOL GRADUATE purchased a home in Baltimore, MD, which at the time was in an all-White neighborhood. Soon after, the Baltimore City government enacted one of the nation's first residential segregation ordinances,* restricting Black Americans to designated neighborhoods.

Justifying the policy, Baltimore's mayor proclaimed, "Blacks should be quarantined in isolated slums in order to reduce the incidence of civil disturbance, to prevent the spread of communicable disease into the nearby White neighborhoods and to protect property values among the White majority."[†]

This deep-seated segregation continued to impact Baltimore throughout its history.

The 1910 ordinance was a precursor to redlining—a disinvestment practice started in the 1930s by the Home Owners' Loan Corporation (HOLC). This practice withheld resources and funding in select neighborhoods that were deemed as high risk. To this day, Baltimore neighborhoods that were redlined have lower rates of homeownership, worse health outcomes, and higher rates of poverty and violent crime.

Sinai Hospital in Baltimore, a traditionally Jewish hospital and Level II trauma center, which initially opened its doors in 1866 to ostracized and marginalized communities, is uniquely situated near many of these historically underserved areas. In 2022, Baltimore had its largest increase in homicide and Sinai Hospital sits on the frontlines, tasked with meeting the significant demands for skillful trauma care and health services.

Blood Product Stewardship and Resource Use

To review current resuscitation and blood product allocation practices in trauma patients at Sinai Hospital, we performed a retrospective review of all trauma patients who required massive transfusion

protocols when they presented to the emergency department between January 2018 and December 2021. The patients' subsequent trauma resuscitation and clinical outcomes were reviewed through the electronic health record (EHR) system.

Demographic and clinical outcomes data were obtained, including injury severity scores, blood product transfusions, thromboelastography analyzer system (TEG 6S) utilization, tranexamic acid (TXA) administration, and morbidity and mortality rates. Among the 84 patients in the study, the majority were Black men, and the average age was 40 years old. The mortality rate was 48%—greater than the predicted 9% mortality rate, which was calculated based on survivability probability according to the initial presenting respiratory rate, Glasgow Coma Scale, systolic blood pressure, and associated injury severity scores. Within 24 hours of arrival to the trauma bay, 72.6% of patients underwent an operation. Only 7% of patients received TXA according to protocol and 6% received TEG. As such, a comparative analysis of those who received TXA and TEG was limited due to sample size.

The most impactful findings showed:

- TEG monitoring and TXA administration were seldom used among massive transfusion patients
- Systems integration within the EMR ordering system and improvements in interdisciplinary care coordination may improve this usage

Analyses on blood product ratios showed a clear skew toward packed red blood cells (PRBC) (10:4:1, PRBC, plasma, platelets) for the entire study population, rather than the recommended 1:1:1 ratio cited in current trauma literature.[‡] This likely relates to the use of coagulation panel labs (PT, APTT) and their potentially incomplete hematologic picture in guiding product administration. Results also showed that injury severity scores likely underestimate the lethality of the associated traumatic injuries, equating to lower predicted mortality rates than actual mortality rates.

A multidisciplinary and collaborative team was created with representatives from the departments of surgery, anesthesia, and pharmacy, in addition to the hospital administration. The group worked on identifying actionable items related to the study results in the hope of developing clinical practice protocols to better care for trauma and acute care surgery patients.

Tangible gains from this research study include identifying trauma patients who require massive transfusion protocols as a population that



routinely would benefit from TXA and TEG and using that population to guide trauma resuscitation and blood product requirements.

We anticipate that improvements in blood product stewardship likely will reduce the overall volume of blood product administration, along with related ramifications such as decreased hospital costs and reduced transfusion-related allergic reactions, immunosuppression, and trauma-diversion time related to nationwide blood product shortages.

We have integrated TXA administration into an EMR PowerPlan to streamline ordering medication and improve administration rates. In addition, we have worked with Haemonetics representatives to improve TEG analyzer use within the operating suite by streamlining operative accessibility and processing. Plans for developing educational programming for surgeons, anesthesia technicians, nurse anesthetists, and anesthesiologists on the TEG6S assay also are in development. We are confident that these practice changes will advance trauma care at our institution and serve as a guide for other hospital systems navigating processes for integration of the new TEG6S analyzer system.

In response to the growing violence in Baltimore and understanding the importance of community engagement and equity in marginalized communities, LifeBridge Health has committed to building hope. The new Jill Fox Center for Hope is a collaborative space located near Sinai Hospital that provides comprehensive programs designed to foster positivity, safety, and success within the local community. Center programs focus on case management, advocacy sessions, and prevention programs for child abuse, domestic and street violence, and prevention initiatives for elder and child abuse.

Importantly, Sinai Hospital's trauma programs have taught multiple STOP THE BLEED® courses for neighborhood schools and religious congregations in an ongoing effort to decrease mortality and optimize the golden hour for victims of traumatic injury.

We remain dedicated to serving the communities inside and outside the hospital. With the motto, "Care Bravely," we look to support our local communities to the best of our abilities while continuing to break down longstanding healthcare and social disparities. **B**

Dr. Garyn Metoyer is a postgraduate third-year general surgery resident at Sinai Hospital in Baltimore, MD.

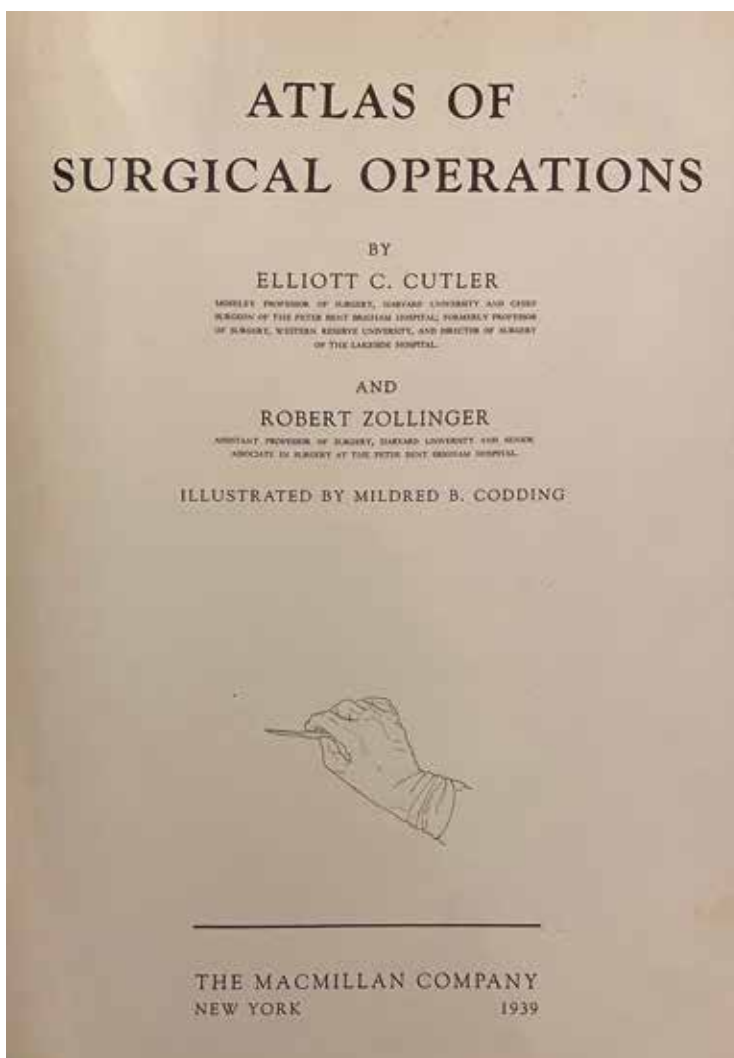
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Atlas Is Still Embraced after More than 80 Years

Aron D. Wahrman, MD, MBA, MHCDS, FACS



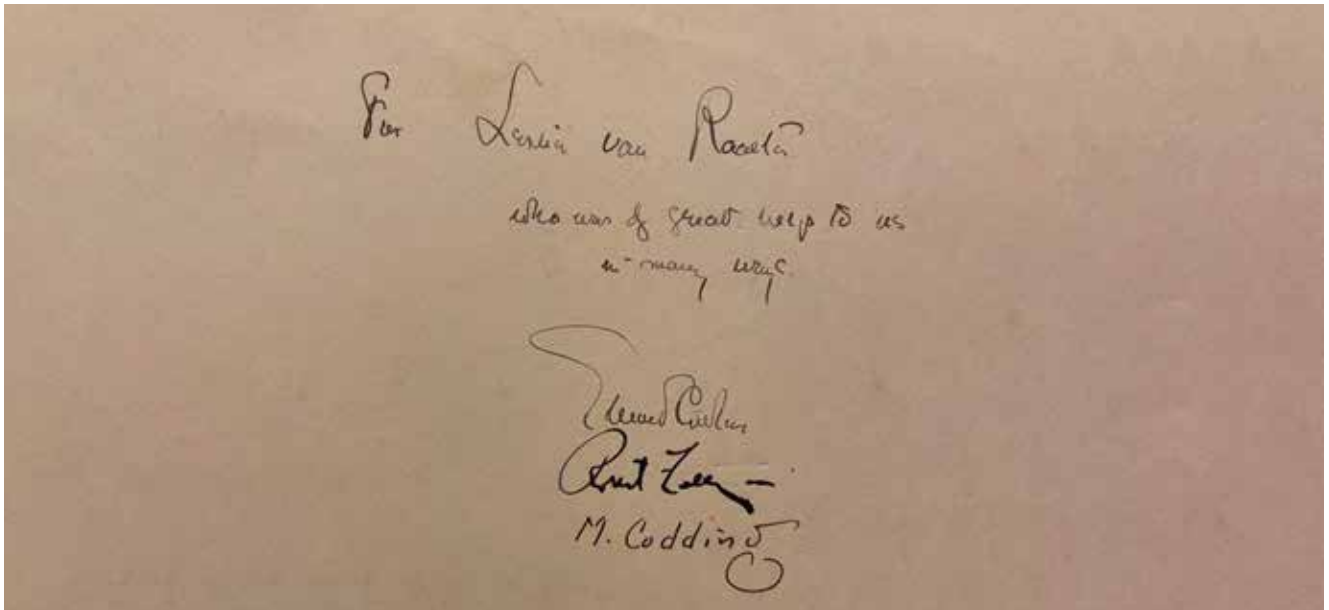
IN 2003, THE AMERICAN JOURNAL OF SURGERY published a series of special articles to honor the birth centennial of the late Robert Milton Zollinger, MD, FACS (1903–1992), chair of surgery at The Ohio State University in Columbus, and Past-President of the ACS.

One of the papers was a revelatory piece by the honoree's son, Robert M. Zollinger Jr., MD, FACS, detailing the genesis of the Cutler-Zollinger *Atlas of Surgical Operations*, first published in 1939.

Now in its 11th edition, this gold-standard reference for learning how to perform the most common surgical procedures has been renamed *Zollinger's Atlas of Surgical Operations*. Replete with many more chapters, illustrations, and procedures (including laparoscopic and robotic), it also has been published in several languages.

Besides the senior Dr. Zollinger, the original authors of the *Atlas of Surgical Operations* included Elliott Carr Cutler, MD, FACS (1888–1947), and illustrator Mildred Codding (1902–1991). All were seemingly connected by their relationships to neurosurgeon Harvey Williams Cushing, MD, FACS (1869–1939). Dr. Cutler trained under Dr. Cushing at the Peter Bent Brigham Hospital (now Brigham and Women's Hospital in Boston, MA) and served with him overseas during World War I.

Dr. Zollinger, a graduate of Ohio State and its medical school, was one of Dr. Cushing's last interns in Boston. He became a resident under Dr. Cutler at Lakeside Hospital in Cleveland before both returned to the Brigham in 1932 when Dr. Cutler



succeeded Dr. Cushing as chief of surgery and Moseley Professor at Harvard in Boston, MA.

Codding attended Wellesley College, MA (1924), and after receiving a masters degree from Columbia University in New York, NY, she became a medical illustrator, studying under the legendary Max Brödel at The Johns Hopkins School of Medicine in Baltimore, MD. There, she became acquainted with Dr. Cushing, Brödel's longtime friend and colleague. Dr. Cushing also was an excellent artist in his own right, and despite the growing popularity of photography in clinical use, he felt that good medical illustrations still could be a superior teaching medium.

The target audience of that first atlas was not only practicing surgeons and trainees, but also general practitioners who were still performing operations, despite the establishment of the American Board of Surgery certification in 1937. The atlas was inspired by the popular animal laboratory courses that had been organized by Drs. Cutler and Zollinger.

Dr. Zollinger Jr. refers to the clarity of Codding's illustrations and the purposeful use of a distinctly large format with text facing the drawings. The size made the book easy to read and find among a pile of other books. Those original illustrations would be used in subsequent editions.

Many of us may recall seeing a worn copy of a "Zollinger" near the operating rooms or in the doctors' lounge, a reassurance for that last-minute peek before a case—in contrast with the present-day instantaneous access to digital content.

The first edition is not a particularly rare book due to its use in training military personnel in the

years leading up to World War II. In addition, Drs. Cutler and Zollinger served with distinction in the European theatre during the conflict, while also creating the *Manual of Therapy for the European Theater of Operations* for the United States Army, a pocket-sized book illustrating the principles of emergency care and the treatment of traumatic injuries.

My recently acquired copy is inscribed by the three principals and apparently was a Christmas gift nearly 80 years ago to an unknown recipient whose help the authors graciously acknowledged in the book. This treasured volume represents a unique collaboration and lasting legacy to surgical education. **B**

Dr. Aron D. Wahrman is section chief of plastic surgery at the *Corporal Michael J. Crescenzo Department of Veterans Affairs Medical Center, associate professor of clinical surgery at the University of Pennsylvania Perelman School of Medicine, and senior fellow at the Leonard Davis Institute of Health Economics, all in Philadelphia.*

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Opposite page: Title page of the *Atlas of Surgical Operations*, first published in 1939 and considered a gold-standard reference for the most common surgical procedures.

This page: Dr. Wahrman owns an early edition of the *Atlas of Surgical Operations*, signed by authors Drs. Robert Zollinger and Elliott Carr Cutler and illustrator Mildred Codding.

Dr. Timothy Eberlein Is Elected Chair of ACS Board of Regents



Dr. Timothy Eberlein

TIMOTHY J. EBERLEIN, MD, FACS, a surgical oncologist from St. Louis, MO, was elected Chair of the ACS Board of Regents (BoR) following the conclusion of the ACS Clinical Congress 2022 in San Diego, CA.

Dr. Eberlein is the Spencer T. and Ann W. Olin Distinguished Professor, director of the Alvin J. Siteman Cancer Center, and senior associate dean for cancer programs at Washington University School of Medicine and Barnes-Jewish Hospital in St. Louis, MO.

In his 1-year term, Dr. Eberlein will work closely with ACS Executive Director and CEO Patricia L. Turner, MD, MBA, FACS, and chair the Regents' Finance and Executive Committees. The College's 24-member BoR formulates policy and ultimately is responsible for overseeing the affairs of the ACS.

Dr. Eberlein has been an ACS Fellow since 1988 and a member of the ACS BoR since 2015. He has served as Editor-in-Chief of the *Journal of the American College of Surgeons (JACS)* since 2004. Under his editorial leadership, the impact factor of *JACS*—which indicates the influence of a journal by

measuring the frequency with which the average article has been cited in a particular year—is at a record high 6.532. *JACS* now ranks 14th among the 211 journals in the surgery category.

A member of the ACS Academy of Master Surgeon Educators® since 2019, Dr. Eberlein's service to the ACS has been extensive. He served on the ACS Board of Governors (2004–2010) as a specialty society Governor from the Society of Surgical Oncology, has been a member of the ACS Commission on Cancer since 1995, and was Vice-Chair of the ACS Committee for the Forum on Fundamental Surgical Problems (2000–2004). He also was extensively involved in the ACS Oncology Group (now the Alliance for Clinical Trials in Oncology) and the ACS Surgical Research and Education Committee, for which he served as Chair (2000–2002). Beyond his considerable work with the ACS, Dr. Eberlein has been an active member of several other specialty healthcare organizations.

In 2004, Dr. Eberlein was elected to the National Academy of Medicine and as a Fellow of the American Association for the Advancement of Science

in 2018. He also holds multiple honorary fellowships.

Dr. Eberlein's research interests include tumor immunology and immune therapies using T-cells and T-cell subpopulations, tumor/lymphocyte interactions and their role in tumor rejection, identification of tumor-associated antigens, identification of the co-stimulatory molecules and pathways in human solid tumors, and clinical aspects of therapy for breast cancer. He is author or coauthor of nearly 200 peer-reviewed articles and has been the recipient of numerous awards throughout his career.

Dr. Anthony Atala Is Vice-Chair

Anthony Atala, MD, FACS, a pediatric urologist in Winston-Salem, NC, was elected Vice-Chair of the BoR.

Dr. Atala currently is the George Link Jr. Professor and

director of the Wake Forest Institute for Regenerative Medicine and the W. H. Boyce Professor and chair of urology at the Wake Forest University School of Medicine, both in Winston-Salem, NC.

Dr. Atala also is a researcher, professor, and mentor who is renowned for developing foundational principles for regenerative medicine research, which holds great promise for people who require tissue substitution and reconstruction. Dr. Atala and his team successfully implanted the world's first laboratory-grown bladder in 1999. He received the prestigious 2022 ACS Jacobson Innovation Award earlier this year for his ongoing revolutionary work in regenerative medicine.

Additional biographical information about the 2022-2023 Regents and Officers is available in the November-December 2022 issue of the *Bulletin*. **B**



Dr. Anthony Atala

Deadline Is Approaching to Apply for Surgical Ethics Fellowships

IN CONJUNCTION WITH THE MACLEAN CENTER for Clinical Medical Ethics at The University of Chicago, IL, the ACS is offering fellowships in surgical ethics.

Since the inaugural fellowship in 2015, participants have included attending surgeons, as well as surgical residents and fellows nationwide.

This fellowship program provides the opportunity for motivated individuals to obtain the specialized knowledge, skills, and training required to become leaders in the field of surgical ethics. The fellowship requires approximately 25% of a fellow's academic time, enabling fellows to spend 75% of their time completing current academic work in their respective fields.

Beginning with a 5-week, full-time course in Chicago during July and August 2023, the fellowship will prepare surgeons for careers that combine clinical surgery with scholarly studies in surgical ethics. From September 2023 to June 2024, fellowship recipients will meet weekly for a structured ethics curriculum. In addition, fellows will participate in an ethics consultation service and complete a research project.

Application materials are due **January 16, 2023**. For additional information about this fellowship, visit The MacLean Center website at macleanethics.uchicago.edu/fellowship/surgical_ethics or contact Patrice Gabler Blair, MPH, at pgblair@facs.org. **B**

Dr. Avery Nathens opens the conference with an overview of TQIP initiatives and milestones from the past year.



2022 TQIP Annual Conference Informs and Inspires Trauma Care Providers

Tony Peregrin

“After 2 years of remote conferences, the energy in the general session room was palpable,” said Avery B. Nathens, MD, PhD, MPH, FACS, FRCSC, Medical Director of ACS Trauma Quality Programs, describing the 2022 Trauma Quality Improvement Program (TQIP®) Annual Conference, which took place December 11–13 in Phoenix, AZ.

“Like an extended family coming together for a reunion after several years apart, everyone was excited to come back together to learn, connect with each other, and take back valuable and actionable lessons back to their centers,” said Dr. Nathens. “Our theme, Leadership Promoting Wellness: Taking Care of Your Team to Take Better Care of Patients, showed through in our program, providing inspiration for all.”

The conference drew 1,711 in-person and 908 virtual registrants, and featured educational content aimed at helping trauma teams improve their responses to traumatic injuries and provide better outcomes for patients.

TQIP Update

Dr. Nathens opened the conference by providing an overview of TQIP initiatives and milestones from the past year, including the 100-year anniversary of the Committee on Trauma, which he called a continuous “quest for excellence” driven by the power of data,

performance improvement, quality, and advocacy.

Focusing on the wellness theme, Dr. Nathens noted significant staffing shortages in healthcare, resulting, in part, from pandemic-related stressors and burnout. “With burnout, we have disengaged staff, and this is a real problem,” he said, adding that burnout also leads to “blunted and distant emotions, a sense of helplessness, diminished motivation, and feelings of depression.”

Citing a 2021 article published in *JAMA Network Open*, Dr. Nathens revealed that among nurses who reported leaving their current employment in 2018, 31.5% said it was because of burnout; a stressful work environment, inadequate staffing, and insufficient leadership were listed as the driving factors for those who reported leaving or considering leaving their positions due to burnout.

As for physicians and burnout, Dr. Nathens cited a 2022 *Journal of Patient Safety* article that evaluated 13 studies of more than 20,000 physicians and residents.

In this review, researchers found that there were three times more errors among physicians and residents who reported burnout.

“The good news is it doesn’t take much to improve the wellness of staff if we have the support [at the systems level],” Dr. Nathens said, noting that “compassion is critical” because it can have a mediating effect on feelings of burnout and, potentially, patient safety. “We need to address burnout because it is the right thing to do for our staff and our patients.”

In terms of process improvement, Dr. Nathens said sustainable change is possible by “holding the gains and evolving as required” and by supporting “spread,” which occurs when learning in any part of the organization is actively shared and acted upon across the organization. “QI [quality improvement] is like raising a child—prior success does not guarantee future success, and past experience and expert advice are only a starting point,” he noted.

He summarized TQIP resources that are intended to



Barbara Martin (left) and Dr. Brad Dennis offer expert advice on managing unruly conduct and creating a psychologically safe environment.

guide QI efforts, including the soon-to-be-released ACS QI framework and toolkit, as well as the ACS Quality Improvement Course: The Basics, released last year, which features content on data measurement and analysis, change management, and other related topics.

Dr. Nathens concluded his presentation with an overview of TQIP program updates with a specific focus on the December 2022 version of *Resources for Optimal Care for the Injured Patient*, a new edition of the standards released in March 2022. The December version was based on user requests for clarifications, and instead of publishing a separate clarification document, a new edition of the manual was published at the end of year. Notable updates included clarifications related to standard 2.8, Trauma Medical Director Requirements; standard 2.11, Trauma Program Manager Reporting Structure; and 4.22, Ophthalmology Services.

All site visits scheduled to occur on or prior to August 31, 2023, will be reviewed based on the 2014 standards, while visits scheduled to occur on or after September 1, 2023, will be reviewed based on the 2022 standards.

Managing Disruptive Behavior

In a well-attended session titled, “A Few Bad Apples or a Rotten Barrel?,” Barbara J. Martin, RN, MBA, and Brad Dennis, MD, FACS, both from Vanderbilt University Medical Center in Nashville, TN, provided strategies for managing unruly conduct, particularly when exhibited by leadership.

“Organizational culture, which are the beliefs, values, and norms shared by the healthcare staff, determines behaviors that are rewarded, supported, expected, and accepted,” Martin said, noting that this culture exists “from the C-suite to the bedside.”

Disruptive behavior can surface at any time, but particularly in high-stakes settings such as the trauma bay. Challenges for providers working in this area include getting access to information, communicating information with the care team, and managing multiple tasks and processes. To curb disruptive behavior in the trauma bay and beyond, it is important to create an organizational culture that is based on teamwork and clarity of roles, according to Martin.

“Create [an environment] that is psychologically safe

with intentional debriefing, vulnerability from team leaders, [where] there are no secrets in the trauma bay, and where everyone is a safety officer. We all have the right and responsibility to speak up if we see something that is not right for the patient,” she said.

“Unprofessional or disruptive behavior undermines a culture of safety. It’s not about you—it’s about the patient,” added Dr. Dennis, noting that there are three types of disruptive behavior:

- Aggressive (yelling, threatening gestures, intimidation, public criticism)
- Passive aggressive (intentional miscommunication, sarcasm, condescending tone)
- Passive (absence, tardiness to meetings, lack of engagement, apathy)

In the healthcare setting, all three types of disruptive behavior can result in incomplete handovers or documentation and failure to adhere to safety and quality guidelines.

Dr. Dennis also underscored the importance of providing constructive criticism in a reasonable manner to colleagues and staff. “Absolute harmony is unrealistic but engaging in

feedback that is respectively delivered is the goal,” he said.

As for unprofessional conduct as experienced by the patient, he outlined a behavior assessment tool, the Patient Advocacy Reporting System (PARS), that allows patients to make observations about their care. “What we know, based on the data, is that patient complaints are non-randomly distributed; surgeons with many complaints have poorer surgical outcomes, and clinicians with many complaints are at risk for lawsuits,” he said. According to Dr. Dennis, using data from PARS, interventions on 2,550 high-claims risk physicians at 175 sites across the US resulted in improved delivery of care for 82% of those assessed.

Pediatric Trauma Survivor: Kaden’s Story

The 2022 Trauma Survivor Session featured the annual conference’s first pediatric patient story, which described the systems of care that led to a remarkable and inspiring outcome.

Kaden Olsen was just 4 years old when he was run over by a tractor at his grandparents’ home in a rural California town 3 hours north of San Francisco. Riding along with his father and siblings, the tractor was moving down a bumpy hill when Kaden fell out and was run over by the left side of the tractor. As members of any trauma team are well aware, time is critical during these events. Considering the remote location of the farm, Kaden’s father Karl was compelled to drive down



a country road with his son in order to meet the emergency medical services team.

“I was blindsided by emptiness—a feeling I hope to never feel again,” said Karl Olsen. “It’s that feeling that the three kids we have now, become two.”

Kaden’s mother Kristy added, “I watched everything happen, and in my mind, I thought that I was losing my whole family all at once. As I was holding him, I could see that he was gurgling blood and blood was coming out of his ears.”

In fact, Kaden had suffered a broken femur, pelvis, and both arms. He also had crushed ribs and a significant amount of internal damage, including severely damaged lungs.

The trauma team at Ukiah Valley Medical Center, now Adventist Health Ukiah Valley, rushed into action.

“We walked into the emergency room, and those double doors

opened up and there were 30 people waiting for us, ready to help,” said Karl Olsen.

“I said, ‘I’m the dad,’ and they went right to work...during the next couple of hours they were God’s hands to us.”

Jenna Szymczak, RN, one of the members of Kaden’s trauma care team, described the moments after he arrived, “I was looking at this beautiful little boy...and I had to put my big girl boots on and fall back on the training that I had and the team that I trusted so much.”

Dozens of providers treated Kaden and supported his family, from emergency medical services in the field, to the Level IV trauma center at Adventist Health Ukiah Valley and Ziad Hanna, MD, FACS.

“The first time I saw him in the emergency room, I thought there was a 50% chance that he would not make it,” said Dr. Hanna via a video presentation during the session. “You can’t imagine how

The Olsen Family is joined by Dr. Aaron Jensen (back row, center) at the TQIP Annual Conference.



Dr. Stephen Trzeciak presents the TQIP Keynote Address on compassion.

much pressure I had inside of me... What happens if he does not make it? How can you live with it? But at some point, you have to do what you believe is right, which [in Kaden's case] was an emergency splenectomy."

Incredibly, Dr. Hanna was able to successfully remove Kaden's spleen in 6 minutes before the young patient was transported via helicopter to the University of California-San Francisco Benioff Children's Hospital Oakland (UCSF BCHO), a Level I pediatric trauma center equipped to handle Kaden's severe condition.

Aaron R. Jensen, MD, MEd, MS, FACS, a pediatric and trauma surgeon with UCSF BCHO, moderated the session. In describing the severity of Kaden's case, Dr. Jensen underscored the importance of pediatric readiness, noting that a key component is "provider competence and confidence."

When asked by Dr. Jensen to comment on Kaden's continuity of care, Karl Olsen said his son's healthcare providers continued to make Kaden and his family feel like "someone still saw us, cared about us, brought us donuts, even after Kaden was moved to another floor."

Trust also was a key component of Kaden's care. At one point, when the family asked about Kaden's condition, Dr. Jensen informed them that Kaden was not stable. "He told us the truth. So, a few days later, when Dr. Jensen said Kaden was going to make it, I knew I could trust him," said Karl Olsen.

Keynote Describes How Caring Makes a Difference

Stephen W. Trzeciak, MD, MPH—a physician scientist who studies the scientific effects of compassion on patient care—presented the Keynote Address.

"We are at a pivotal time in history. We're in a pandemic combined with an epidemic of burnout...and this topic is more important now than ever before," said Dr. Trzeciak, chief of medicine at Cooper University Health Care and professor and chair of medicine at Cooper Medical School of Rowan University in Camden, NJ. "Compassion is an emotional response to another's pain or suffering involving an authentic desire to help," he said, noting that compassion is a combination of empathy and action. "I am amazed by trauma folks' technical skill and their compassion."

Neuroscience researchers have used magnetic resonance imaging to link feelings of empathy with activity in the pain center of the brain, according to Dr. Trzeciak. They found that acting in a compassionate manner activates the reward center of the brain and is associated with positive emotion. "It feels good to help people," he said.

"Human connection can modulate how a person experiences pain," added Dr. Trzeciak, coauthor of an article published in *Intensive Care Medicine* (2019) that revealed patient perception of greater healthcare provider compassion during a life-threatening medical emergency is independently associated with lower risk of developing symptoms of post-traumatic stress disorder (PTSD).

Summarizing data culled from several studies outlined in his book, *Compassionomics: The Revolutionary Scientific Evidence that Caring Makes a Difference*, Dr. Trzeciak noted that communicating compassion to a patient takes anywhere from 40 to 60 seconds, although some physicians may think these interactions take longer than they actually do.

Not only is compassionate behavior a key component in providing enhanced patient care, it also is an important element in maintaining healthcare team engagement. Similar to the 2018 study cited by Dr. Nathens regarding the nursing profession and burnout, Dr. Trzeciak mentioned a 2022 study published by McKinsey &

Company that found having caring and trusting teammates was high among factors affecting nurses' decisions to remain in their current roles.

“You can have psychological safety [in the workplace] and accountability. It's not an either/or,” he said, urging healthcare providers to strive for developing a “fearless team,” where everyone feels “comfortable sharing concerns and mistakes without fear of embarrassment or retribution,” and where team members are “confident they can speak up and won't be humiliated, ignored, or blamed.”

At the TQIP Annual Conference, Dr. Avery Nathens connects with members from the trauma team at Sunnybrook Health Sciences Centre.

Best Practices Guidelines: Mental Health Disorders and Substance Use

The ACS Trauma Quality Programs Best Practices Guidelines series provides recommendations for managing patient populations or injury types with special considerations for trauma care providers. The new manual—*Best Practices Guideline for Screening and Treating Mental Health Disorders and Substance Use and Misuse in the Acute Trauma Patient*—was unveiled during a special session at the 2022 TQIP Annual Conference.

“Alcohol and substance use problems are prevalent and increasing among trauma patients,” said Karen J. Brasel, MD, MPH, FACS, professor and vice-chair of the Department of Surgery at Oregon Health & Science University in Portland. “More than 50% of hospitalized trauma patients have reported an alcohol and/or drug use diagnosis during their lifetime. At the time of admission, 20% have met the diagnostic criteria for an alcohol or drug use problem.” Substance misuse increases the likelihood of complications, mortality,



According to Dr. Brasel, SBIRT helps trauma care providers determine which patients are at no/low risk, moderate risk, or severe risk for substance misuse.

an extended length of stay, and the need for critical care.

Two primary objectives for trauma healthcare providers treating these patients are to improve outcomes and reduce recurrent traumatic injury. These aims may be achieved through substance use screening and intervention protocols such as the Screening, Brief Intervention, and Referral to Treatment (SBIRT) approach. According to Dr. Brasel, SBIRT helps trauma care providers determine which patients are at no/low risk, moderate risk, or severe risk for substance misuse. Depending on the results of the assessment, patients can be given a brief intervention, brief treatment (onsite or via referral), or referral for specialty treatment.

In a presentation that addressed postinjury mental healthcare such as PTSD, Terri A. deRoon-Cassini, PhD, MS, professor of surgery, psychiatry, and behavioral medicine at the Institute for Health & Equity in the Medical College of Wisconsin in Milwaukee, acknowledged that patients “with unaddressed mental health issues and prior trauma are at increased risk for readmission and injury recidivism.”

When screening for mental health disorders, Dr. deRoon-Cassini urged trauma care providers to select screening

measures that have been “validated for the population with the traumatic injury” and to ensure that a positive screen “triggers a patient referral to a mental health professional.” Validated screening tools for PTSD and depression in adults include the Automated PTSD Screen, Injured Trauma Survivor Screen, Patient Health Questionnaire, and Peritraumatic Distress Inventory.

She underscored the importance of educating healthcare providers on best practices for trauma-informed care, and she urged support for hospital-based violence intervention programs as approaches for improving patients’ mental health recovery after injury.


“This guideline will bring all the pieces of the puzzle together so that you can decide how you want to do this in your facility,” said Jorie Klein, MSN, MHA, BSN, RN, director of the EMS-Trauma Systems Section at the Texas Department of State Health Services in Austin. She summarized practical steps for implementing the Best Practices Guidelines, which include:

- Create an interdisciplinary stakeholder workgroup
- Conduct a gap analysis to evaluate current practices
- Develop an action plan timeline
- Establish educational priorities
- Integrate the Best Practices

Guidelines into the current Trauma Performance Improvement Patient Safety Plan

- Report metrics to trauma operations committee
 - Identify opportunities for improvement
- Implementing the Best Practices Guidelines at the hospital or systems level begins with wide dissemination of the guidelines, advised Klein, and should include buy-in from trauma leaders and others involved in quality and performance improvement initiatives. The PDF of the *Best Practices Guideline for Screening and Treating Mental Health Disorders and Substance Use and Misuse in the Acute Trauma Patient* may be accessed at facs.org/media/nrcj31ku/mental-health-guidelines.pdf.

All TQIP General Sessions were recorded and will be available for on-demand viewing this month. Look for an announcement via email and on the ACS website.

The 2023 TQIP Annual Conference will take place December 1–3, in Louisville, KY. 

Tony Peregrin is Managing Editor, Special Projects, in the ACS Division of Integrated Communications in Chicago, IL.



Sudan Mandates STOP THE BLEED Training for Drivers

THE ACS STOP THE BLEED® (STB) program, which empowers members of the lay public to save lives in a bleeding control emergency through education and training, has been a remarkable success.

More than 2.4 million individuals around the world have been trained to date, and STB currently has more than 100,000 instructors in 135 countries.


As the importance of bleeding control principles spreads, some cities, states, and even countries are taking steps to increase access to STB kits and make training mandatory to improve public health. This expansion includes

Sudan, where trauma advocates have worked with the government to require STB training for any individual applying for a driver's license.

According to Dia Ageib, MD, a trauma surgeon in Sudan who initiated the Advanced Trauma Life Support Program® (ATLS®) in his country, he and a group of advocates were able to work through the challenges of government instability and initiate the training requirement in October 2022. Now, everyone who applies for a driver's license must attend a STB course before taking the driving test. This training initiative in Sudan marks

the first time that a country has required STB training as part of driver education.

For now, the course is being taught by ATLS instructors until the police department is adequately trained in the course and ready to teach. Sudan's Code Blue Medical Training Center, the country's ATLS headquarters in Khartoum, is providing the necessary equipment and instructors free of charge.

STB training also has been rolled out to several major corporations including Amazon, Tesla, and Verizon. 

High-ranking members of Sudan's traffic police force attend the first STB class session in Sudan.

Dr. Julius H. Jacobson II, Pioneering Vascular Surgeon and Philanthropist

Michael L. Marin, MD, FACS



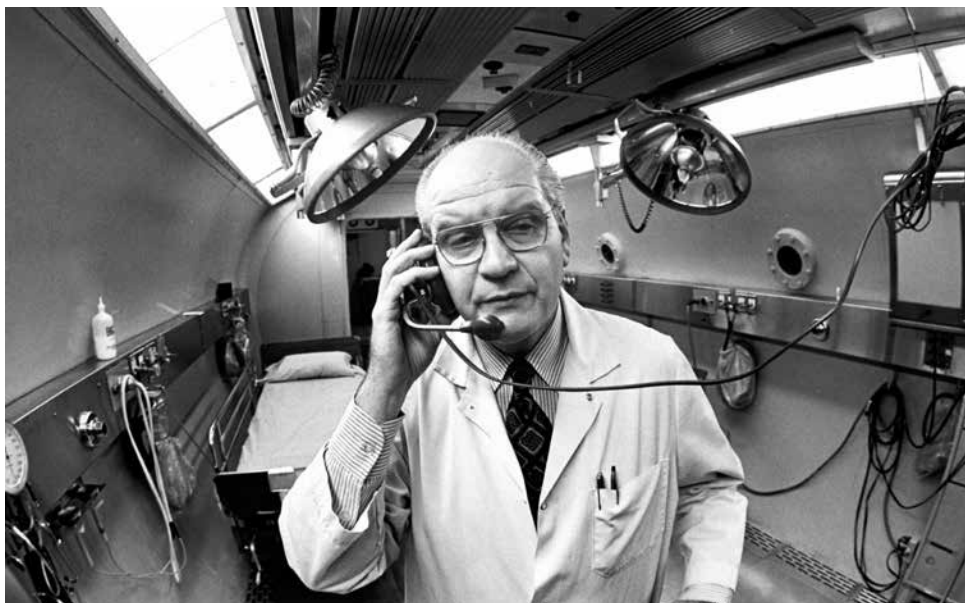
ON DECEMBER 4, 2022, Julius H. Jacobson II, MD, FACS, passed away at the age of 95.

Professor Julius (Jack) H. Jacobson II loved Cuban cigars. Like most cigar smokers, he invariably derived some simple pleasure from the use of tobacco; but for Jack it was more. The precision by which the cigar was made. The exactness of the cigar's hand-rolled fabrication. Each cigar, permissive of just the correct amount of air passing through the tobacco leaves. And so it was with Julius H. Jacobson II, always thinking, always observing, always analyzing, and forever creating.

Born in Toledo, OH, Jack moved to Manhattan at 8 years old and entered the New York City public school system. Graduating high school at 15, he had the credentials but not the finances to access an Ivy League education, so off he went to The University of Toledo, where he worked his way through college as an amateur photographer.

He enlisted and served in the US Navy during World War II. After the War, Jack completed his medical degree at The Johns Hopkins University School of Medicine in Baltimore, MD, and then went to NewYork-Presbyterian Medical Center (Columbia University campus) for general surgery training. It was at Columbia that Jack evolved his interests in vascular surgery, working on the service of Arthur H. Blakemore, MD. Jack marveled at the experiments searching for a durable treatment for aortic aneurysms and gravitated toward the investigative process.

As generous as he was with his knowledge and wonderfully animated stories, he also shared his wealth with many important causes.



He joined the staff at NewYork-Presbyterian Hospital for 2 years before being recruited to the University of Vermont College of Medicine in Burlington as director of surgical research. It was in Vermont where his research creativity expanded. Approaching a number of experiments requiring anastomosing exceedingly small blood vessels, Dr. Jacobson conceived and developed the two-headed operating room microscope (diploscope), ushering in the field of microvascular surgery and garnering him the title of “the father of microvascular surgery.” His first prototype sits at the National Museum of American History within the Smithsonian Institution in Washington, DC.

Everything interested Jack. He created many inventions from specialized microsurgical instruments, to the first combined walker and sitting stool to assist patients in rehabilitation, to a simple device to hold one’s necktie in place so it did not “dangle on a patient’s bed during a physical exam.” His nonmedical interests were equally broad, from his exquisite personal collection of modern art to his writing of an in-depth volume on classical music for all to appreciate.

As generous as he was with his knowledge and wonderfully animated stories, he also shared his wealth with many important endeavors: endowed professorships at the Icahn School of Medicine at Mount Sinai in New York City, Johns Hopkins, Hebrew University Hadassah Medical School in Jerusalem, Israel, University of Toledo, and the Harvard School of Public Health in Boston, MA; the Jacobson Promising Investigator and Jacobson Innovation Awards, granted annually by the ACS; and the Jacobson Complex Aortic Disease Center at Mount Sinai, founded in 2016.

Jack moved back to New York City in 1962 to practice vascular surgery and remained on staff at Mount Sinai Hospital for 54 years. He was an exceptional man who led an extraordinary life. We miss you, Dr. Jacobson, cigars and all! **B**

Dr. Michael Marin is *The Julius H. Jacobson II, MD, Professor of Vascular Surgery and chair of the Department of Surgery at the Mount Sinai School of Medicine, as well as surgeon-in-chief at the Mount Sinai Health System in New York.*

Left:
Dr. Jacobson and his late wife Joan were philanthropists, shown here at the 2007 Jacobson Innovation Award ceremony.

Right:
Dr. Jacobson works in a hyperbaric chamber (1981).

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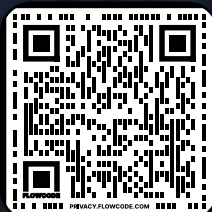
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How is your hospital developing and implementing continuous improvements in surgical quality and safety? How are quality improvement practices impacting patient outcomes? What lessons have you learned through your work on quality initiatives? The ACS Quality and Safety Conference is now accepting submissions for the July 10-13 meeting in Minneapolis, MN.



Submit your 250-word abstract for poster and/or podium presentation **by February 28, 2023**. Abstracts must use data from one or more ACS quality programs.

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Call for Nominations for ACS Officers-Elect and Board of Regents

THE ACS 2023 NOMINATING Committee of the Fellows (NCF) and the Nominating Committee of the Board of Governors (NCBG) will accept nominations for leadership positions in the College.

Call for Nominations for ACS Officers-Elect

The 2023 NCF will select nominees for three Officer-Elect positions of the ACS:

- President-Elect
- First Vice-President-Elect
- Second Vice-President-Elect

The deadline for submitting nominations is **Friday, February 17, 2023**.

Criteria for consideration

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

- Loyal members of the College who have demonstrated outstanding integrity and an unquestioned devotion to the highest principles of surgical practice
- Demonstrated leadership qualities such as service and active participation on ACS committees or in other areas of the College

The ACS encourages consideration of women and

underrepresented minorities for all leadership positions.

All nominations must include:

- A letter of nomination
- A current curriculum vitae
- A maximum of three personal letters of support (optional)

In addition, nominations for President-Elect must include a personal statement from the candidate detailing their ACS service, interest in the position, and vision for the College's future.

Further Details

Entities such as surgical specialty societies, ACS Advisory Councils, ACS committees, and ACS chapters that wish 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 or influence members of the NCF by a candidate or on behalf of a candidate will be viewed in a negative manner and may possibly result in disqualification. Applications submitted without the requested information will not be considered.

Learn more about the roles, duties, and time commitment involved for these Officer positions at facs.org/member-services/leadership/get-involved/officers.

The deadline for submitting nominations is **Friday, February 17, 2023**. Nominations must be submitted to officerandbrnominations@facs.org. For more information, contact Emily Kalata at 312-202-5360 or ekalata@facs.org.

Call for Nominations for ACS Board of Regents

The 2023 NCBG will select a nominee for one vacancy on the Board of Regents (BoR) to be filled at Clinical Congress 2023. Please note this Regent vacancy is a Bylaws-designated Canadian seat, and therefore, only Canadian Fellows will be considered.

For information only, the current members of the BoR who will be considered for re-election to their second or third terms are (all MD, FACS) Francoise P. Chagnon, Annesley (AJ) W. Copeland, Gary L. Timmerman, David J. Welsh, and Douglas E. Wood.

Criteria for Consideration

The following guidelines are used by the NCBG when reviewing candidates for potential nomination to the BoR:

- Loyal members of the College who have demonstrated outstanding integrity and

an unquestioned devotion to the highest principles of surgical practice

- Demonstrated leadership qualities such as service and active participation on ACS committees or in other areas of the College

The ACS encourages consideration of women and underrepresented minorities for all leadership positions.

Only individuals who are currently, and are expected to remain, in active surgical practice for their entire term (up to three 3-year terms) may be nominated for election or reelection to the BoR.

The NCBG recognizes the importance of the BoR 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. Note that in the event of an unexpected vacancy, the NCBG will accept nominations from Fellows regardless of country of practice.

All nominations must include:

- A letter of nomination
- A personal statement from the candidate detailing their ACS service and interest in the position
- A current curriculum vitae
- A maximum of three personal letters of support (optional)

Further Details

Entities such as surgical specialty societies, ACS Advisory Councils, ACS committees, and ACS chapters that wish to provide

a letter of nomination must provide at least two nominees, a description of their selection process, and the total list of applicants reviewed.

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

The deadline for submitting nominations is **Friday, February 17, 2023**. Nominations must be submitted to officerandbrnominations@facs.org. For more information, contact Emily Kalata at 312-202-5360 or ekalata@facs.org. **B**



- 2023 -

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House of Surgery, *The Operative Word*, and *Surgical Readings from SRGS* are available on Apple Podcasts, Spotify, Podbean, iHeartRadio, or wherever you listen to your podcasts.

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- Abstract and video specifications and guidelines available at facs.org/clincon2023

