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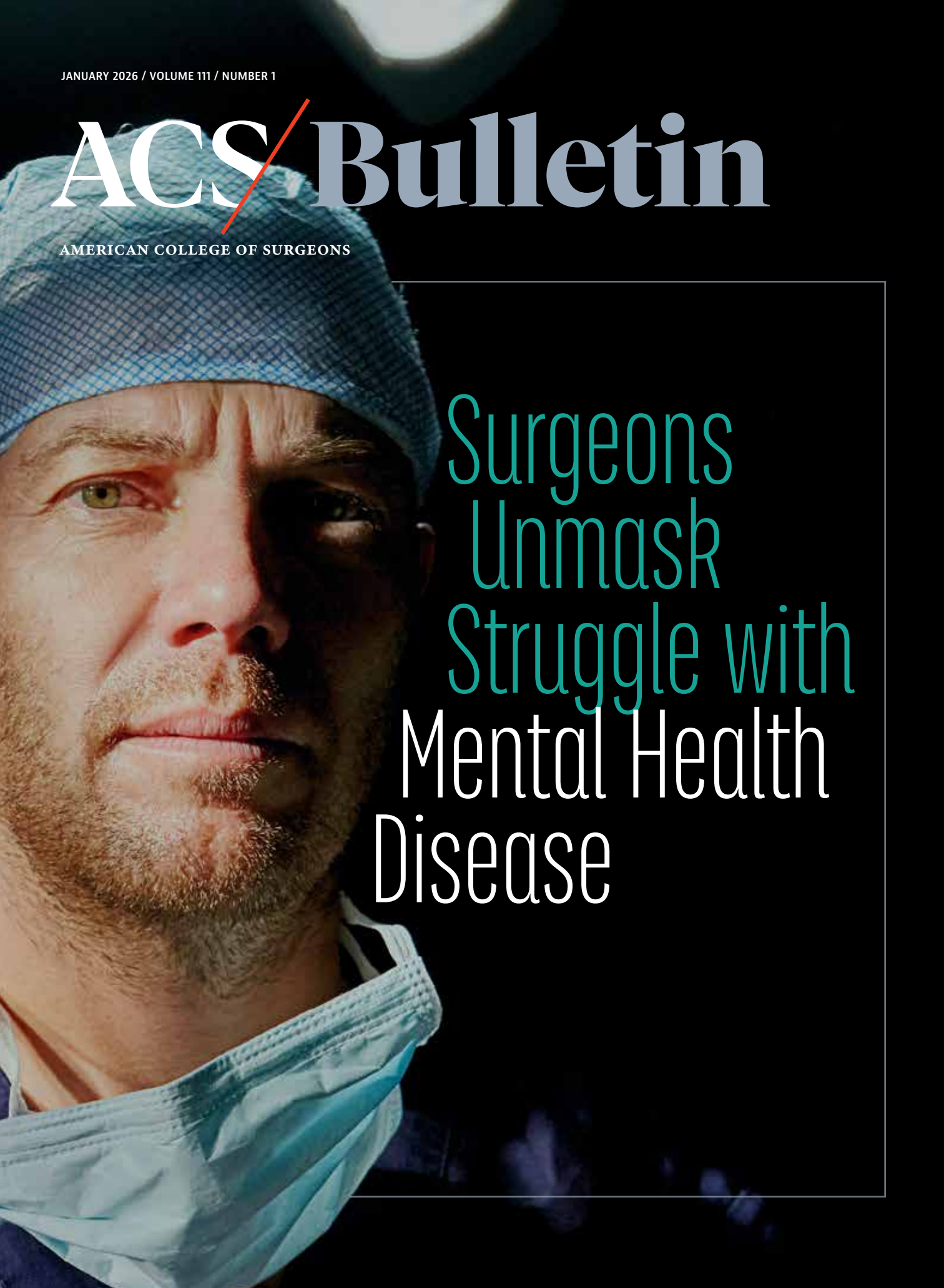
ACS Bulletin

AMERICAN COLLEGE OF SURGEONS



Surgeons Unmask Struggle with Mental Health Disease

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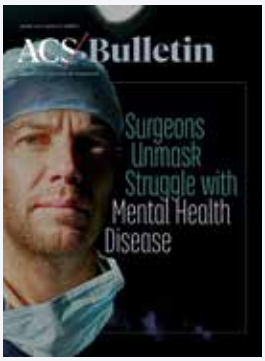

Letters to the Editor should be sent with the writer's name, address, email address, and daytime telephone number via email to jbagley@facs.org. Letters may be edited for length or clarity. Permission to publish letters is assumed unless the author indicates otherwise.

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How We're Transforming ACS Clinical Data

Patricia L. Turner, MD, MBA, FACS
executivedirector@facs.org

THE ACS IS TRANSFORMING the ways we collect and use surgical quality data.

ACS data registries contain more than 50 million patient records and receive more than a million new records each year. As financial and staffing pressures increase nationwide, we are prioritizing enhanced engagement with 2,000+ hospitals that participate in ACS Quality Programs by reducing data input time, improving usability, and automating data analysis with artificial intelligence (AI). Together, these changes will help ensure the benefits of our Quality Programs are easier for all hospitals, surgeons, and patients to access.

Our Goals

This multiyear modernization program is multifaceted. All elements focus on empowering hospitals and surgeons to use data insights more effectively to improve the quality of patient care.

- **Simplifying data collection:** Improved data collection with integrated AI will reduce data entry time and increase data completeness.
- **Improving insights:** Our new data platform will enable real-time analysis and integrated decision support at the point of care.
- **Adding tools:** Many existing offerings will migrate to the new data platform, and we will expand dashboards, analytical tools, and calculators.
- **Incremental change:** The project will incorporate modular improvements to minimize disruptions to those who rely on our registries.
- **Enhancing access:** ACS Quality Programs will ultimately be accessible to hospitals of all sizes, so a broad cross section of surgeons and patients can benefit from new data insights.
- **Strengthening data governance:** Our rigorous commitment to quality will incorporate stakeholder feedback, including existing hospital participants, new hospital systems, and surgeons.
- **Ensuring future growth:** Accessibility and interoperability across electronic health records platforms facilitate more substantive impact.

Next Steps

A core component of our success will be to develop a new data platform, which will be integrated with Epic and ultimately other EHRs, for use across ACS Quality Programs. We are in the initial stage of its creation, mandating that it have increased flexibility, better modularity, and AI integration.

In mid-2026, we will engage a small number of hospital participants in the Adult National Surgical Quality Improvement Program (NSQIP), NSQIP Pediatric, and the Metabolic and Bariatric Surgical Accreditation and Quality Improvement Program (MBSAQIP) as voluntary early adopters of this new platform.

By summer, these participants will have the first opportunity to access the new data platform early and explore its features for subsequent stages of development.

Our early adopter program will expand to include additional hospitals through 2026 and 2027. Updates, including instructional content, will become available as we reach those stages of the project.

Always Learning

The ACS is committed to modernizing our own data registries and helping surgeons from all career stages, practice types, and surgical disciplines to better understand AI, healthcare data, and quality. In other words, we aim to keep up with the pace of global change to ensure we help surgeons deliver the most modern care to our surgical patients.

Our offerings include an online course on the basics of quality improvement and two annual conferences focused on quality improvement: the **Quality, Safety & Cancer Conference** (QSCC; July 30–August 2 in Orlando, Florida) and **Trauma Quality Improvement Program Annual Conference** (TQIP; November 13–15 in Anaheim, California). Both conferences are deeply connected to our data registries and include sessions focused on improving clinical data use. Registration for these meetings will open later this year.

In addition, you may wish to access the recorded panel sessions on AI and data advancements from Clinical Congress 2025 (see sidebar). Several were among the most popular sessions at Clinical Congress this past year. They are available via the Clinical Congress virtual platform at *facs.org/clincon2025* to all registrants until February 23.

Finally, our website now features *facs.org/datastrategy*, a destination for further information on our clinical data strategy. Please stop there for regular updates.

Become an Early Adopter

Hospitals already participating in NSQIP, NSQIP Pediatric, or MBSAQIP are welcome to apply to become early adopters of the new data platform. Those interested in participating in or learning more about upcoming pilots can volunteer or sign up for updates at *facs.org/datastrategy*. Please direct any inquiries about program participation to clinicaldata@facs.org.

Clinical Congress 2025 Sessions on AI and Healthcare Data

These sessions are available to all Clinical Congress 2025 registrants until February 23.

- PS104. Using ChatGPT and AI for Beginners
- PS110. AI: Who Is in Control?
- PS129. Research Misconduct: Defending Scientific Integrity Against the Machine
- PS103. Correlating Video-Based Analytics with Surgical Outcomes
- PS301. Precision Surgical Education: Using Big Data for Targeted Learning

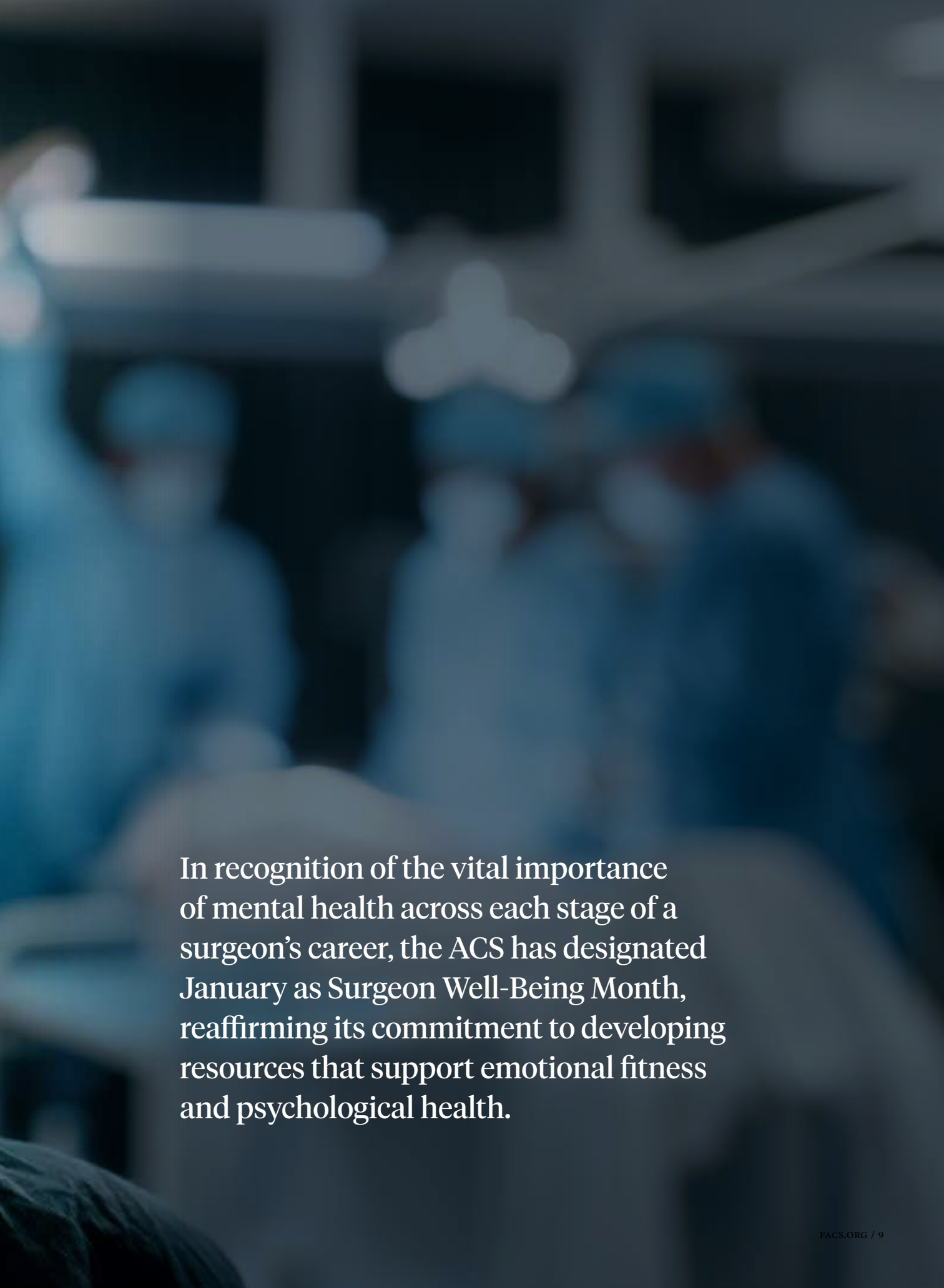
Leadership & Advocacy Summit

The ACS continues to advocate strongly for surgeons and surgical patients. Join us in the fight at the 2026 **Leadership & Advocacy Summit** in Washington, DC, this February 28 to March 2. In addition to 2 days of lectures and panels by prominent surgeons and Congressional leaders, we will visit Capitol Hill to share our insights with lawmakers. Register today at *facs.org/summit.*

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

Surgeons Unmask Struggle with Mental Health Disease

Tony Peregrin



In recognition of the vital importance of mental health across each stage of a surgeon's career, the ACS has designated January as Surgeon Well-Being Month, reaffirming its commitment to developing resources that support emotional fitness and psychological health.

AS MANY AS 50% of surgeons experience anxiety, depression, and other mental health challenges at some point in their careers, and it is estimated that as many as 400 physicians die by suicide in the US each year, with surgeons experiencing some of the highest rates among medical specialties. Of the 697 physician suicides reported to the Centers for Disease Control and Prevention's National Violent Death Reporting System between 2003 and 2017, 71 were surgeons, although the number of unreported cases could mean that number is actually much higher.

The key to mitigating the hidden emotional burdens carried by many surgeons is to first acknowledge their unprecedented role within the domain of healthcare.

Dr. Carrie Cunningham and a colleague take a moment after a successful day in the OR.

Discussing mental health issues among surgeons was taboo for decades, due to a culture that has traditionally placed a high value on traits like determination, drive, and, at times, super-human levels of resilience. Fortunately, that code of silence among surgeons is beginning to fade, with more individual physicians as well as organizations supporting transparency and targeted initiatives that normalize the treatment and discussion of mental health disease for surgeons at all levels.

A session at Clinical Congress 2025 in Chicago, Illinois, provided a candid forum for surgeons to discuss their own experiences with depression and suicide ideation and offered practical strategies to assist peers and trainees experiencing a mental health crisis.

Surgeons Reveal Stories of Struggle and Strength

Carrie Cunningham, MD, MPH, FACS, past-president of the Association for Academic Surgery (AAS), shared her experiences with depression and substance use disorder and described a pivotal moment along her journey to mental wellness that occurred as she delivered her AAS presidential address in February 2023.

"Beyond bringing my two children into the world, giving this address was the most important thing that I had ever done," she said. "From that day until now, I continue to receive emails, letters, and calls from those in crisis. I began my speech like this: 'Yes, I was a top junior tennis player at the age of 16, and I competed at Wimbledon five times. I am an associate professor of surgery at Harvard Medical School, and I am the president of the Association for Academic Surgery—and I am also human. I am a person with lifelong depression, PTSD, and now a substance use disorder. None of my professional successes have protected me against this.'"

The title of her 50-minute speech, "Removing the Mask," has generated more than 70,000 views to date on YouTube.

"My intention in continuing to tell my story is to provide a voice for those of you who suffer silently," explained Dr. Cunningham. "It has been shown time and again that experiencing a major medical error is something that we take home, we take it personally, and we rarely grieve. But there are

things that are under our control. Live with intent, with overarching principles and boundaries, and find people who inspire you and support you. Practice mindful self-leadership. As leaders and allies, I urge you to become as knowledgeable about mental health disease as you are about every other disease. Psychological first aid should be a requirement."

The key to mitigating the hidden emotional burdens carried by many surgeons is to first acknowledge their unprecedented role within the domain of healthcare. Surgeons perform in high-stakes environments in which they routinely manage life-and-death decisions and shoulder substantial accountability for patient outcomes.

"The unique and silent struggles of the surgeon include excessive workload, responsibility for patient outcomes, and a lack of a work-life balance—all of these can take a toll on a surgeon's mental health," said Kamal M. F. Itani, MD, FACS, session comoderator. "It is imperative that we acknowledge these challenges and have the resources to address these mental issue needs in order to protect our well-being."

Sangki Oak, MD, MPH, provided the resident perspective on maintaining mental wellness. Dr. Oak—a former Special Amphibious Reconnaissance Corpsman with US Marine Special Operations—served in multiple deployments in Afghanistan after 9/11.

"My name is Sangki Oak. I'm a fifth-year surgical resident at Brigham and Women's Hospital (BWH) in Boston, a combat military veteran, and I have a mental illness," said Dr. Oak. "My journey from the military to surgical residency has resulted in mental illnesses that have ended up severely affecting my life and my performance and have even led me to being held back in my program. I'm here because I want to help others avoid the same challenges I went through and that some have not survived."

Top:
Dr. Sangki Oak intubates a foreign fighter that was injured while ambushing a nearby unit in Bala Murghab, Afghanistan.

Above:
Dr. Sangki Oak operates with another resident on a patient at BWH.

Although the data can vary depending on specialty and other factors, one study found that 75% of general surgery residents demonstrated signs of burnout, and 40% exhibited symptoms of depression.

"When I got back from Afghanistan, I felt that I made it through my service relatively unscathed. I didn't have nightmares. I didn't jump at loud noises. I wasn't abusing drugs or alcohol. And I had a plan," said Dr. Oak. "But during the beginning of medical school, I started questioning my life, and I found that I missed the military, so I began developing suicidal ideation. There were several times when I sat at the edge of my bed with my pistol in my hand contemplating putting a bullet in my head."

The ABCs for Supporting Surgeons Experiencing Emotional Distress

Dr. Mary Brandt suggests mental wellness begins with discovering root causes for suffering and pain.

Dr. Oak started seeing a psychiatrist through Veterans Affairs, and he eventually matched in surgery at BWH in 2020.

"I've been asked by my fellow residents whether I found residency or the military harder. I tell them that, for me, general surgery residency has been harder than war. I felt a greater sense of camaraderie in the military. We relied on and trusted the person to your left and to your right and would do anything to protect them. And while I feel that patient care is a team effort, I've observed a culture in surgery that often dictates that 'I' am the only one who can save the patient, so we are bred to not trust anyone else."

Dr. Oak noted that while the miliary employs a "crawl, walk, run" approach to learn complex actions, like learning how to shoot a firearm, surgical residents are "thrown in the fire early in their training."

He also described how the concept of grit during residency training is a double-edged sword because, while it allows people to push farther, it also propels them to push past their limits. Grit, in this context, is often described as a deep commitment to achieving long-term goals, with an enduring ability to recover from failure, setbacks, and adversity.

"I believe that the characteristics of smart, motivated, and driven people with high standards for themselves—traits that epitomize almost all surgical residents—can lead to constant denial of our mental state," explained Dr. Oak. "We tell ourselves that 'I'm okay. I'm fine' and put on a strong face to the rest of the world. Of course, since everyone has this strong façade, people think that everyone else is doing fine so I should be fine too. We then fool ourselves and just keep our heads down and survive because it's only a certain number of years of residency, and then it gets better. Though it's questionable if it really does."

Dr. Oak's dual background in military service and medical training has given him a unique vantage point to compare how each system addresses mental health.

"Surgical training is tough as it is, and the culture can make it tougher than it needs to be. It even ended up breaking a decorated, war-hardened, special operations veteran like myself," said Dr. Oak. "To those who know they're hurting, I implore you to find help before it gets worse. For those of you who think you're fine, I ask you to take a good, hard look at yourself and how you act in the OR and with others. You may be struggling more than you would care to admit. The first step to healing is acknowledging what is going on inside yourself. While my journey has been tough, I truly believe that in the end, I'll be a better provider, surgeon, and person because of all this."

Don't Medicalize Suffering, Humanize It

Surgeons can start their journey toward improved well-being by understanding the profound difference between pain—a physical sensation—and suffering—a broader emotional and psychological experience.

"Pain is a normal part of the practice of surgery," said Mary L. Brandt, MD, MDiv, FACS. "We experience physical pain from ergonomic injury or medical-related causes; we experience emotional pain from the suffering our patients endure; and we experience spiritual pain from

moral distress or the inability to find meaning."

Dr. Brandt suggested the surgical community adopt a person-centered approach for mitigating mental distress experienced by a colleague, which takes into account potential root causes for suffering and pain.

"What we tend to do as doctors, and it's completely understandable, is that we medicalize suffering, particularly in our colleagues. We want a diagnosis, we want a prognosis, we want to treat it, we want to know what the outcome is. We put it into the same box we put breast cancer," explained Dr. Brandt. "We medicalize suicidal ideation and say, 'If only they had gotten treatment and if only they had been on the right medication, this would have never happened.'"

To support surgeons in emotional distress, Dr. Brandt suggested following the ABC approach: Act if there is there is imminent danger to yourself or others; Be present (listen attentively and do not try to fix the situation); and let Compassion arise.

"How do you let compassion arise? Bear witness and don't look away. Choose to feel empathy—and then tolerate the discomfort that arises in response to your empathy. Any pain—physical, emotional, spiritual—that causes intense suffering can lead to the inability to see beyond that suffering," Dr. Brandt said, while also urging surgeons to help their colleagues determine the source of their pain.

"There comes a point where we need to stop just pulling people out of the river. We need to go upstream and find out why they're falling in," she said, quoting bishop and theologian Desmond Tutu.

Surgeons can start their journey toward improved well-being by understanding the profound difference between pain—a physical sensation—and suffering—a broader emotional and psychological experience.

Mental Health Maintenance Starts with Preventive Approach

Determining the root cause of emotional distress can help inform preventive mental healthcare.

"Surgeons, at our core, are helpers and healers, and because of that, we often need to suppress or compartmentalize our emotions," said Tasha Hughes, MD, FACS. "It's really important to stop and name your emotions: are you mad, are you sad, are you overwhelmed? Are you happy, are you proud? I think it's good to name all of them, and there are lots of ways to do this."

Some emotional self-assessment tools could include patient-facing validated screens such as the Patient Health Questionnaire, also known as the PHQ-2, or burnout scales such as the Utrecht Burnout Scale. Other assessments are designed specifically for physicians, including resources developed by the American Medical Association, the ACS, and other organizations.

Dr. Tasha Hughes underscores the importance of self-assessment tools to sustain emotional well-being.

Dr. Stanley Ashley emphasized the importance of integrating surgeon mental health into the C-suite leadership strategy.

Despite the strides taken to help surgeons overcome the stigma associated with mental distress, this cultural change continues to be a delicate undertaking for some.

Boundary setting is another essential component of preventive care. Executed correctly, establishing boundaries is a form of decision-making that should be revisited on a routine basis.

"Boundary setting is not a one and done action," she said. "It needs to be revisited monthly, quarterly, annually, because as we all know, in healthcare, the work is boundless. There is an unlimited number of patients, so therefore, you have to set boundaries because you are not limitless."

Dr. Hughes mentioned a colleague who has a quarterly alarm set on their calendar as a reminder to examine their current workload.

"The notification simply says 'reassess.' No one else is on the invite. It is an opportunity for this individual to review what is on their plate right now. Is it the right mix? Is it a mix that is making me happy? Is there something that needs to go away professionally so that I can prioritize my identity outside of surgery?"

Despite the strides taken to help surgeons overcome the stigma associated with mental distress, this cultural change continues to be a delicate undertaking for some.

"This is a professional shift, and it does feel uncomfortable for a lot of people," Dr. Hughes said. "Emotional self-regulation, for me, has been a big part of my breaking through those dark first years as a faculty member. Doing it for yourself is enough. Your health is enough. And we're also doing it so that we are here to take care of patients for the long haul."

Rethinking the C-Suite's Role in Sustaining Surgeon Mental Health

During his tenure as chief medical officer at BWH (2011–2019), Stanley W. Ashley, MD, FACS, helped develop the BWH Faculty/Trainee Mental Health Program to address increased concerns regarding physician burnout and its impact on mental well-being. The program, launched in 2017, offers a free 30-minute virtual consultation without notes in the electronic health record. If continuing care is requested, up to six virtual sessions with a psychiatric care provider or a referral to an outside provider are available to the individual.

"I think the program at the Brigham is something almost every academic institution should have," said Dr. Ashley, who also was vice chair of surgery at BWH 2003–2011.

"It behooves us to think about what we can do specifically to support surgeon mental well-being, and I don't think that can come from the C-suite, surgical chair, division chief, or the program director," he said, calling for new roles at large academic institutions, such as a surgical mental health officer or a peer support officer, to adequately support the needs of faculty, trainees, and staff.

He noted that programs that specifically address surgeon depression and suicide ideation should offer resources that describe "the continuum of distress, from depression to suicide, particularly by surgeons with experience."

Closing out the session, Timothy Mahoney, MD, FACS, mayor of Fargo, North Dakota, and the session's comoderator, presented a brief video highlighting the Fargo Police Department's Wellness Initiative, which supports the physical, mental, and emotional health of its officers and civilian staff through peer counseling, training, and other services. Dr. Mahoney cited the initiative as an example of the kind of unwavering and profound emotional support surgeons should provide to their colleagues experiencing burnout and emotional distress.

The ACS provides resources on mental health, emotional well-being, suicide prevention and awareness, and more: *facs.org/wellbeing/.*

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

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Dr. Timothy Mahoney calls for surgeons to support each other's wellness with the same vigor that members of police departments typically support one another.

CPT 2026

Delivers Important Coding Changes for General Surgery and Related Specialties

Megan McNally, MD, FACS
Jayme Lieberman, MD, FACS
Raeanna Adams, MD, FACS
Jan Nagle, MS

THE AMERICAN MEDICAL ASSOCIATION (AMA) Current Procedural Terminology (CPT)* code set is updated annually. This article describes CPT 2026 coding changes that are relevant to general surgery and related specialties.

Endoscopic Sleeve Gastroplasty

New code 43889, *Gastric restrictive procedure, transoral, endoscopic sleeve gastroplasty (ESG), including argon plasma coagulation, when performed*, was established to report endoscopic sleeve gastroplasty to reduce the volume of a patient's stomach to assist with weight loss. This new code was placed in the Stomach/Other Procedures subsection of the CPT codebook and has a 90-day global period assignment.

Percutaneous Irreversible Electroporation (IRE) of Liver Tumor(s)

Category III code 0600T was deleted and new Category I code 47384, *Ablation, irreversible electroporation, liver, 1 or more tumors, including imaging guidance, percutaneous*, was established to report ablation of liver tumor(s) using an IRE device. This new code was placed in the Liver/Other Procedures subsection of the CPT codebook and has a 0-day global period assignment.

Deletion of the Term Peritoneoscopy

In 1996, the term peritoneoscopy was deleted from all laparoscopy code descriptors because laparoscopy and peritoneoscopy meant exactly the same thing, and peritoneoscopy was an older, less-used term coined in 1920, based on a modified proctosigmoidoscope. However, the term was not deleted from parentheticals, guidelines, or images. For CPT 2026, all instances of the term peritoneoscopy have been removed from the CPT code set.

Lower Extremity Revascularization

The codes to report lower extremity revascularization (LER) underwent a significant change for 2026. Specifically, codes 37220-37235 were deleted and replaced with 46 new codes that are grouped into four "territories" and type of treatment. The new codes bundle all maneuvers necessary for accessing and selectively catheterizing the artery, crossing the lesion, and performing the endovascular intervention through a percutaneous and/or open surgical exposure, and all imaging for intraprocedural guidance including radiological supervision and interpretation directly related to the intervention performed, and imaging to document completion of the intervention and completion of the procedure. Closure of the arteriotomy by pressure and application of an arterial closure device or standard closure of the puncture by suture is included and not separately reportable. A straightforward lesion is defined as a stenosis and a complex lesion is defined as an occlusion. All codes are designated as unilateral. When a bilateral primary procedure is performed, append modifier 50. However, this modifier should not be appended to add-on codes with a ZZZ global assignment. Instead, the add-on codes should be reported twice. There are additional extensive new guidelines and instructional parentheticals throughout the code set that should be reviewed prior to reporting these codes. Table 1 (page 17) provides the new codes and global period assigned to each code.

*All specific references to CPT codes and descriptions are

Table 1. Coding Changes for Endovascular Revascularization of Lower Extremities for Arterial Occlusive Disease

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(37234 has been deleted. To report, see **37285**, **37287**)
(37235 has been deleted. To report, see **37293**, **37295**)

CPT Code	Descriptor	Global
	Iliac Vascular Territory	
37254	Revascularization, endovascular, open or percutaneous, iliac vascular territory, with transluminal angioplasty, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the angioplasty within the same artery, unilateral; straightforward lesion, initial vessel	000
+37255	straightforward lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37256	Revascularization, endovascular, open or percutaneous, iliac vascular territory, with transluminal angioplasty, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the angioplasty within the same artery, unilateral; complex lesion, initial vessel	000
+37257	complex lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37258	Revascularization, endovascular, open or percutaneous, iliac vascular territory, with transluminal stent placement, including transluminal angioplasty when performed, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the stent placement and angioplasty when performed, within the same artery, unilateral; straightforward lesion, initial vessel	000
+37259	straightforward lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37260	Revascularization, endovascular, open or percutaneous, iliac vascular territory, with transluminal stent placement, including transluminal angioplasty when performed, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the stent placement and angioplasty when performed, within the same artery, unilateral; complex lesion, initial vessel	000
+37261	complex lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
+37262	Intravascular lithotripsy(ies), iliac vascular territory, including all imaging guidance and radiological supervision and interpretation necessary to perform the intravascular lithotripsy(ies) within the same artery (List separately in addition to code for primary procedure)	ZZZ
	Femoral and Popliteal Vascular Territory	
37263	Revascularization, endovascular, open or percutaneous, femoral and popliteal vascular territory, with transluminal angioplasty, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the angioplasty within the same artery, unilateral; straightforward lesion	000
+37264	straightforward lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37265	Revascularization, endovascular, open or percutaneous, femoral and popliteal vascular territory, with transluminal angioplasty, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the angioplasty within the same artery, unilateral; complex lesion, initial vessel	000
+37266	complex lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ

Table 1 (continued)

CPT Code	Descriptor	Global
37267	Revascularization, endovascular, open or percutaneous, femoral and popliteal vascular territory, with transluminal stent placement, including transluminal angioplasty when performed, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the stent placement and angioplasty when performed, within the same artery, unilateral; straightforward lesion, initial vessel	000
+37268	straightforward lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37269	Revascularization, endovascular, open or percutaneous, femoral and popliteal vascular territory, with transluminal stent placement, including transluminal angioplasty when performed, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the stent placement and angioplasty when performed, within the same artery, unilateral; complex lesion, initial vessel	000
+37270	complex lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37271	Revascularization, endovascular, open or percutaneous, femoral and popliteal vascular territory, with transluminal atherectomy, including transluminal angioplasty when performed, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the atherectomy and angioplasty when performed, within the same artery, unilateral; straightforward lesion, initial vessel	000
+37272	straightforward lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37273	Revascularization, endovascular, open or percutaneous, femoral and popliteal vascular territory, with transluminal atherectomy, including transluminal angioplasty when performed, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the atherectomy and angioplasty when performed, within the same artery, unilateral; complex lesion, initial vessel	000
+37274	complex lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37275	Revascularization, endovascular, open or percutaneous, femoral and popliteal vascular territory, with transluminal stent placement, with transluminal atherectomy, including transluminal angioplasty when performed, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the stent placement, atherectomy, and angioplasty when performed, within the same artery, unilateral; straightforward lesion, initial vessel	000
+37276	straightforward lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37277	Revascularization, endovascular, open or percutaneous, femoral and popliteal vascular territory, with transluminal stent placement, with transluminal atherectomy, including transluminal angioplasty when performed, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the stent placement, atherectomy, and angioplasty when performed, within the same artery, unilateral; complex lesion, initial vessel	000
+37278	complex lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
+37279	Intravascular lithotripsy(ies), femoral and popliteal vascular territory, including all imaging guidance and radiological supervision and interpretation necessary to perform the intravascular lithotripsy(ies) within the same artery (List separately in addition to code for primary procedure)	ZZZ
	Tibial and Peroneal Vascular Territory	
37280	Revascularization, endovascular, open or percutaneous, tibial and peroneal vascular territory, with transluminal angioplasty, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the angioplasty within the same artery, unilateral; straightforward lesion, initial vessel	000
+37281	straightforward lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37282	Revascularization, endovascular, open or percutaneous, tibial and peroneal vascular territory, with transluminal angioplasty, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the angioplasty within the same artery, unilateral; complex lesion, initial vessel	000
+37283	complex lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ

Table 1 (continued)

CPT Code	Descriptor	Global
37284	Revascularization, endovascular, open or percutaneous, tibial and peroneal vascular territory, with transluminal stent placement, including transluminal angioplasty when performed, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the stent placement and angioplasty when performed, within the same artery, unilateral; straightforward lesion, initial vessel	000
+37285	straightforward lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37286	Revascularization, endovascular, open or percutaneous, tibial and peroneal vascular territory, with transluminal stent placement, including transluminal angioplasty when performed, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the stent placement and angioplasty when performed, within the same artery, unilateral; complex lesion, initial vessel	000
+37287	complex lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37288	Revascularization, endovascular, open or percutaneous, tibial and peroneal vascular territory, with transluminal atherectomy, including transluminal angioplasty when performed, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the atherectomy and angioplasty when performed, within the same artery, unilateral; straightforward lesion, initial vessel	000
+37289	straightforward lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37290	Revascularization, endovascular, open or percutaneous, tibial and peroneal vascular territory, with transluminal atherectomy, including transluminal angioplasty when performed, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the atherectomy and angioplasty when performed, within the same artery, unilateral; complex lesion, initial vessel	000
+37291	complex lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37292	Revascularization, endovascular, open or percutaneous, tibial and peroneal vascular territory, with transluminal stent placement, with transluminal atherectomy, including transluminal angioplasty when performed, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the stent placement, atherectomy, and angioplasty when performed, within the same artery, unilateral; straightforward lesion, initial vessel	000
+37293	straightforward lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37294	Revascularization, endovascular, open or percutaneous, tibial and peroneal vascular territory, with transluminal stent placement, with transluminal atherectomy, including transluminal angioplasty when performed, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the stent placement, atherectomy, and angioplasty when performed, within the same artery, unilateral; complex lesion, initial vessel	000
+37295	complex lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
	Inframalleolar Vascular Territory	
37296	Revascularization, endovascular, open or percutaneous, inframalleolar vascular territory, with transluminal angioplasty, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the angioplasty within the same artery, unilateral; straightforward lesion, initial vessel	000
37296	straightforward lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ
37298	Revascularization, endovascular, open or percutaneous, inframalleolar vascular territory, with transluminal angioplasty, including all maneuvers necessary for accessing and selectively catheterizing the artery and crossing the lesion, including all imaging guidance and radiological supervision and interpretation necessary to perform the angioplasty within the same artery, unilateral; complex lesion, initial vessel	000
37299	complex lesion, each additional vessel (List separately in addition to code for primary procedure)	ZZZ

Endovascular Repair of Thoracic Aortic Aneurysms

Endovascular repair of thoracic aortic aneurysms (TEVAR) received FDA approval in March 2005, and CPT codes were established in 2006. In May 2022, the FDA approved the use of a thoracic branch endoprothesis (TBE) during TEVAR procedures. This was the first new type of device to gain FDA approval within the TEVAR family since the codes were established in 2006. The 2026 changes to TEVAR coding includes new, revised, and deleted codes, with the following changes: (1) Catheter placement, radiologic supervision and interpretation, and all proximal extensions performed at the time of TEVAR are now bundled into the main procedure; (2) A new code has been created for the distinct work required for a TBE, which includes all the work of a TEVAR; and (3) There will no longer be separate codes for extra-anatomic bypass surgery performed in conjunction with TEVAR. In addition, there are significant revisions to the coding guidelines that should be reviewed in the CPT codebook. Table 2 (this page) provides the 2026 coding changes and global period assigned to each code.

Table 2. Coding Changes for Endovascular Repair of Thoracic Aortic Aneurysms

2026 Status	CPT Code	Descriptor	Global
Revised	**33880**	Endovascular repair of thoracic aorta, including pre-procedure sizing and device selection, nonselective catheterization(s), all associated radiological supervision and interpretation; by deployment of an aorto-aortic tube endograft covering the left subclavian artery and all aortic tube endograft extension(s) proximally in the aortic arch and ascending aorta and distally to the celiac artery, when performed	090
Revised	**33881**	by deployment of an aorto-aortic tube endograft not involving coverage of the left subclavian artery origin and all endograft extension(s) placed from the level of the left subclavian carotid artery to the celiac artery	090
New	**33882**	Endovascular repair of the thoracic aorta by deployment of a branched endograft multipiece system involving an aorto-aortic tube device with a fenestration for the left subclavian artery stent graft(s) and all aortic tube endograft extension(s) placed from the level of the left common carotid artery to the celiac artery, including pre-procedure sizing and device selection, all target zone angioplasty, all nonselective catheterization(s) and left subclavian artery selective catheterization(s), and all associated radiological supervision and interpretation	090
Revised	**33883**	Delayed placement of proximal extension prosthesis(es) not involving coverage of the left subclavian artery origin, after endovascular repair of the thoracic aorta, including pre-procedure sizing and device selection, nonselective catheterization(s), all associated radiological supervision and interpretation, and treatment zone angioplasty/ stenting, when performed	090
Deleted	~~**+33884**~~	each additional proximal extension (List separately in addition to code for primary procedure) (33884 has been deleted. To report, use 33883)	ZZZ
Revised	**33886**	Delayed placement of distal extension prosthesis(es) from the level of the left subclavian artery to the celiac artery, after endovascular repair of descending thoracic aorta, including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation	090
Deleted	~~**33889**~~	Open subclavian to carotid artery transposition performed in conjunction with endovascular repair of descending thoracic aorta, by neck incision, unilateral (33889 has been deleted. For open subclavian to carotid artery transposition performed in conjunction with endovascular repair of thoracic aorta, by neck incision, use 35694)	000
Deleted	~~**33891**~~	Bypass graft, with other than vein, transcervical retropharyngeal carotid-carotid, performed in conjunction with endovascular repair of descending thoracic aorta, by neck incision (33891 has been deleted. For bypass graft, with other than vein, transcervical retropharyngeal carotid-carotid, performed in conjunction with endovascular repair of thoracic aorta, by neck incision, use 35602)	000
New	**35602**	Bypass graft, with other than vein; carotid-contralateral carotid (For open subclavian to carotid artery transposition performed in conjunction with endovascular thoracic aneurysm repair by neck incision, use 35694)	090
Deleted	~~**D75956**~~	Endovascular repair of descending thoracic aorta (e.g., aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption); involving coverage of left subclavian artery origin, initial endoprosthesis plus descending thoracic aortic extension(s), if required, to level of celiac artery origin, radiological supervision and interpretation	XXX
Deleted	~~**D75957**~~	not involving coverage of left subclavian artery origin, initial endoprosthesis plus descending thoracic aortic extension(s), if required, to level of celiac artery origin, radiological supervision and interpretation	XXX

Table 2 (continued)

2026 Status	CPT Code	Descriptor	Global
Deleted	~~D75958~~	Placement of proximal extension prosthesis for endovascular repair of descending thoracic aorta (e.g., aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption), radiological supervision and interpretation	XXX
Deleted	~~D75959~~	Placement of distal extension prosthesis(s) (delayed) after endovascular repair of descending thoracic aorta, as needed, to level of celiac origin, radiological supervision and interpretation	XXX

Baroreflex Activation Therapy

New codes have been established for CPT 2026 that describe treatment of resistant hypertension or heart failure using a baroreflex activation therapy (BAT) modulation system comprised of a lead implanted onto the carotid sinus, which is then tunneled and connected to a pulse generator placed in a subcutaneous pocket created in the pectoral region. Interrogation and programming of the BAT system is not separately reportable when performed during the operative session to implant or revise the system. There are additional new guidelines and instructional parentheticals that should be reviewed prior to reporting these codes. Table 3 (this page) provides the new codes and global period assigned to each code.

Table 3. Baroreflex Activation Therapy

CPT Code	Descriptor	Global
	Autonomic Nervous System Modulation	
64654	Initial open implantation of baroreflex activation therapy (BAT) modulation system, including lead placement onto the carotid sinus, lead tunnelling, connection to a pulse generator placed in a distant subcutaneous pocket (i.e., total system), and intraoperative interrogation and programming	90
64655	Revision or replacement of baroreflex activation therapy (BAT) modulation system, with intraoperative interrogation and programming; lead only	90
64656	pulse generator only	90
64657	Removal of baroreflex activation therapy (BAT) modulation system; total system, including lead and pulse generator	90
64658	lead only	90
64659	pulse generator only	90

Colon Motility Studies

Codes 91120 and 91122 were identified as being performed by the same physician on the same date of service greater than 75% of the time by the AMA RVS Update Committee. Although it was acknowledged that these procedures are distinct and nonoverlapping, it was also believed the code descriptors did not clearly reflect current services. Therefore codes 91120 and 91122 were deleted and two new codes established for reporting colon motility studies. Table 4 (this page) provides the new codes and global period assigned to each code.

Table 4. Colon Motility Studies

2026 Status	CPT Code	Descriptor	Global
Delete	~~91120~~	Rectal sensation, tone, and compliance test (i.e., response to graded balloon distention) (91120 has been deleted. To report rectal sensation, tone, and compliance study [e.g., barostat], use 91124)	XXX

Table 4 (continued)

2026 Status	CPT Code	Descriptor	Global
Delete	~~91122~~	Anorectal manometry (91122 has been deleted. To report anorectal manometry with rectal sensation and rectal balloon expulsion, when performed, use 91125)	000
New	**91124**	Rectal sensation, tone, and compliance study (e.g., barostat)	XXX
New	**91125**	Anorectal manometry, with rectal sensation and rectal balloon expulsion test, when performed	XXX

Category III Codes

A number of new CPT Category III codes have been established for 2026. Category III codes represent emerging technology, services, procedures, and service paradigms that allow data collection instead of reporting an unlisted code. These codes are contractor priced and may or may not be covered by Medicare and other payers. Table 5 (this page) provides Category III code relevant to general surgery and related specialties.

Table 5. New Category III Codes

CPT Code	Descriptor
0963T	Anoscopy with directed submucosal injection of bulking agent into anal canal
0967T	Transanal insertion of endoluminal temporary colorectal anastomosis protection device, including vacuum anchoring component and flexible sheath connected to external vacuum source and monitoring system
0970T	Ablation, benign breast tumor (e.g., fibroadenoma), percutaneous, laser, including imaging guidance when performed, each tumor
0971T	Ablation, malignant breast tumor(s), percutaneous, laser, including imaging guidance when performed, unilateral
0972T	Assistive algorithmic classification of burn healing (i.e., healing or nonhealing) by noninvasive multispectral imaging, including system set-up and acquisition, selection, and transmission of images, with automated generation of report
0973T	Selective enzymatic debridement, partial-thickness and/or full-thickness burn eschar, requiring anesthesia (i.e., general anesthesia, moderate sedation), including patient monitoring, trunk, arms, legs; first 100 sq cm
+0974T	each additional 100 sq cm (List separately in addition to code for primary procedure)
0975T	Selective enzymatic debridement, partial-thickness and/or full-thickness burn eschar, requiring anesthesia (i.e., general anesthesia, moderate sedation), including patient monitoring, scalp, neck, hands, feet, and/or multiple
+0976T	each additional 100 sq cm (List separately in addition to code for primary procedure)
0994T	Endovascular delivery of aortic wall stabilization drug therapy through a sheath positioned within an abdominal aortic aneurysm, with aortic roadmapping, balloon occlusion, imaging guidance, and radiological supervision and interpretation; percutaneous
0995T	open

Table 5 (continued)

CPT Code	Descriptor
1013T	Laparoscopy, surgical, implantation or replacement of lower esophageal sphincter neurostimulator electrode array and neurostimulator pulse generator or receiver, requiring pocket creation and connection between electrode array and pulse generator or receiver, including cruroplasty and/or electronic analysis, when performed
1014T	Laparoscopic revision or removal, lower esophageal sphincter neurostimulator electrodes
1015T	Revision or removal, lower esophageal sphincter neurostimulator pulse generator or receiver
1019T	Lymphovenous bypass, including robotic assistance, when performed, per extremity
1021T	Active thoracic irrigation (separate procedure)

Looking forward to CPT 2027[†]

The meeting cycle for the CPT 2027 code set has concluded, resulting in new codes and guidelines that will be effective for CPT 2027. Several changes that are important to general surgery and related specialties include:

Diaphragmatic Hernia Repair. Accepted addition of codes 39XX3-39X12 for repair of diaphragmatic hernia; addition of add-on code 39X13 for mesh implantation with diaphragmatic hernia repair; and revision of codes 39540, 39541 to reflect "via laparotomy" for diaphragmatic hernia repair.

Congenital Duodenal Obstruction Repair. Accepted addition of codes 44XX1, 44XX2 to report surgical treatment for congenital duodenal obstruction via an open and a laparoscopic approach; and revision of 44180.

Diaphragm Repair. Accepted addition of code 395X2 to report thoracoscopic plication of diaphragm for eventration or paralysis; and revision of code 39545 to identify open plication of the diaphragm.

Endoscopic Submucosal Dissection, Upper and Lower GI. Accepted addition of codes 4XX01, 4XX02 to report endoscopic submucosal dissection (ESD) procedures in the upper or lower GI tract, and addition of guidelines.

Skin Cell Suspension Autograft. Accepted addition of codes 15X19-15X22 for reporting skin cell suspension autograft (SCSA); revision of SCSA guidelines; and deletion of codes 15011-15018.

Maternity Care Services. Accepted addition of codes 59XX1-59X12 for reporting maternity care services with new guidelines for these codes; revision of maternity care guidelines; revision of codes 59412, 59051, 59300, 59898, 59899; and deletion of codes 59050, 59400, 59409, 59410, 59425, 59426, 59430, 59510, 59514, 59415, 59525, 59610, 59612, 59614, 59618, 59620, 59622.

Real-time Fluorescence Wound Imaging. Accepted addition of code 976XX for reporting real-time florescence wound imaging with clinical darkness; and deletion of codes 0598T, 0599T.

Open Irreversible Electroporation of Tumor, Pancreas. Accepted addition of 48XXX for reporting open irreversible electroporation (IRE) ablation of tumors of the pancreas; and revision of Category III code 0601T to describe open IRE ablation of tumors in organs other than the pancreas.

Microvascular Bypass, Lymphatic Vessels. Accepted addition of codes 38X03, 38X04 for microvascular anastomosis services; addition of microvascular lymphovenous bypass surgery guidelines; and deletion of code 1019T.

Learn More

As part of the ACS'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 prsnetwork.com/acshotline.

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[†]Summary of CPT Editorial Panel action documents accessed October 23, 2025, at www.ama-assn.org/about/cpt-editorial-panel/summary-panel-actions.

New Ambulatory Specialty Model Takes Effect in 2027

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The Centers for Medicare & Medicaid Services (CMS) finalized the Ambulatory Specialty Model (ASM)—a new alternative payment model set to begin on January 1, 2027, which will continue for 5 years.[1]

THE ASM, WHICH WAS FINALIZED in October 2025, will be mandatory for all clinicians within a given geographic area,* who have historically treated at least 20 heart failure or low back pain episodes per year as defined by the relevant episode-based cost measure (i.e., heart failure or low back pain), and be a CMS-designated specialty that commonly treats people with Original Medicare for low back pain or heart failure in an outpatient setting.** While the ASM initially focuses on heart failure and low back pain, it is critical that all surgeons remain informed of the model's requirements. Because the majority of surgical care is delivered in the outpatient setting, models targeting this setting are likely to expand.

The ASM heart failure cohort will include select clinicians who have been assigned a specialty code of cardiology on the plurality of their Medicare Part B claims. Physicians who treat low back pain, with the specialty type of anesthesiology, pain management, interventional pain management, neurosurgery, orthopaedic surgery, or physical medicine and rehabilitation are included in the low back pain cohort.

Once a provider is considered eligible, they remain an ASM participant for the duration of the model, even if they no longer satisfy the criteria. Providers in the ASM are exempt from Merit-Based Incentive Payment System (MIPS) reporting requirements for the duration of their participation in the model.

The ASM builds off the existing MIPS Value Pathway (MVP) framework. Model participants will be assessed on four ASM performance categories: quality, cost, improvement activities, and promoting interoperability. ASM participants will receive a final score based on their performance in each category; quality and cost categories are 50% of the final score, and improvement activities and promoting interoperability contribute to bonus points. While similar to MIPS, the model differs in multiple ways:

- ASM participants will be required to report as individual clinicians (and will not have the option of reporting through a group as they do under MIPS and MVPs).
- ASM participants will be required to report on a set of measures and activities meant to represent performance for the condition being evaluated and managed (and will not have the flexibility to select measures or activities as is the case with MVPs reported under MIPS).
- The ASM will compare performance of only those clinicians treating the same condition (whereas under MVPs, clinicians are scored against the entire pool of MIPS clinicians).

Most importantly, the ASM will use a different methodology than MVPs in calculating a final score and payment adjustment, placing more value on quality and cost performance. Under the ASM, quality and cost performance will make up 50% of the final score, with improvement activities and promoting interoperability contributing bonus points. Based on this final score relative to other providers within their cohort, participants will receive a positive, neutral, or negative payment adjustment 2 years later to their Medicare Part B claims. The negative payment adjustment under the ASM exceeds that of the MIPS program, with participants subject to a downside risk of up to -12% by the final year of the program, which is significantly greater than the -9% potential risk under MIPS.

While the ACS is supportive of the ASM's aim to look across episodes of care, the College strongly opposes the implementation of this model for several reasons, most importantly the misaligned incentive structure that focuses primarily on cutting costs rather than creating incentives that reward care teams for improvements in team-based,

*Each Medicare provider will be assigned to a core-based statistical area (CBSA) based on the ZIP code of the clinician's most common episode-level service location. CMS will randomly select approximately 25% of CBSAs to include in the model.

**CMS will determine specialties based on the specialty code indicated on the plurality of a clinician's Medicare Part B claims from the calendar year occurring 2 years prior to the performance year.

patient-centered care. A fundamental flaw of the ASM is that rather than rewarding high performers with the greatest possible incentive payments, CMS intends to withhold a portion of funds available for redistribution as savings to the Medicare program.

In addition, payment reductions under the ASM will be applied to all Part B services, not just those related to the episodes measured under the model. Thus, even if model participants see a relatively low volume of patients with the ASM-targeted conditions, all their Part B payments will ultimately be at risk. Finally, the maximum downside risk exceeds even the maximum negative adjustment under the MIPS program.

The ACS also strongly opposed the use of the CMS MIPS quality measurement framework as well as the Acumen cost measure methodology as the basis for this model. The MIPS framework uses a one-size-fits-all approach to measurement and perpetuates care silos by focusing on adverse events and measuring quality at the individual clinician level, while the Acumen cost measure methodology used in the ASM is very narrowly defined. The spotty cost coverage of a few common procedures does little to promote a surgeon's or team's attentiveness to cost and is not consistent with a patient-centered framework for measuring and improving the value of care. Instead, the ACS advocates for quality measurement frameworks that look at the full care journey and the embedded care pathways to focus on shared accountability across the entire care team.

In its September 12, 2025, comment letter,[2] the ACS laid out these concerns and advocated that a total overhaul of the ASM in both quality and cost metrics is necessary, but despite these efforts, CMS finalized the model as proposed. The ACS continues to align its advocacy around the ASM and other clinician-focused models, urging CMS to look beyond the failed MIPS and MVP framework. Instead, the ACS recommended that the CMS institute a new value-based care framework that truly incentivizes surgical care improvement and cost reduction by incorporating patient goals of care, risk-adjusting cost at the episode level, tracking major adverse event avoidance, and verifying care for the condition. Despite these efforts, CMS finalized the model as proposed. B

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How Will the 2026 MPFS Affect Your Practice?

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New payment policy, coding, and reimbursement changes set forth in the calendar year (CY) 2026 Medicare Physician Fee Schedule (MPFS) final rule took effect on 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 on September 12, 2025, in response to the CY 2026 MPFS proposed rule issued by CMS earlier in the year.[1] Some provisions in the final rule, released October 31, 2025, incorporate the College's recommendations.[2] Although the final rule includes important policy changes that impact all physicians, this article focuses on those that are particularly relevant to general surgery and its related subspecialties.

Efficiency Adjustment

CMS finalized a so-called "efficiency adjustment" to the work relative value units (RVUs) and corresponding intraservice times of nearly all non-time-based services. In 2026, this efficiency adjustment is cutting work RVUs by 2.5%, and additional reductions are expected every 3 years indefinitely.

The adjustment is based on CMS's erroneous belief that physician time and work complexity decrease as providers develop expertise in their services. However, recent research published in the *Journal of the American College of Surgeons* has demonstrated that this assumption is inaccurate. Rather, operative times have increased by more than 3% since 2019, as have all measures of patient complexity.[3]

There are many implementation concerns with this policy as well. The adjustment applies to nearly all non-time-based codes, even if they have been recently revalued or are low volume. (CMS is exempting newly created codes from this policy, based on ACS comments.) Additionally, the policy further devalues global codes, which already did not

receive the corresponding adjustments to evaluation and management (E/M) services applied in 2021 and 2023, while at the same time exempting E/M codes, even though the same factors that CMS states drive efficiency in non-E/M services apply equally to E/M services.

Finally, the adjustment will surely have unintended consequences. For patients, it risks safety, given that it rewards fast, rather than high-quality surgeries. For physicians, there will be severe consequences regarding physician compensation. Many physician employment contracts are based on work or total RVUs, and reductions in these values will decrease reimbursement despite no reduction in work.

In addition to the ACS comment letter opposing the proposal, the College is actively lobbying Congress to undo the harmful effects of this policy. ACS staff is advancing a comprehensive grassroots strategy and spearheading a coalition of surgical and physician organizations.

Practice Expense Methodology

CMS finalized its proposal to reduce the portion of practice expense (PE) RVUs based on work RVUs allocated to facilities to half that of non-facilities. CMS cited concerns that equal allocation of PE RVUs between settings may no longer be correct due to the growing number of employed physicians whose overhead costs may be carried by their facility.

The ACS strongly opposed this change for several reasons. For one, hospitals, rather than physicians, are the beneficiaries of this perceived imbalance, so the MPFS is the wrong approach by which to address it. Further, the policy applies to all facility services, even if delivered by a nonemployed physician who has no employer to pay their overhead costs. This change will thus incorrectly overhaul an extremely large and fundamental portion of the MPFS.

The ACS urged CMS to withdraw its proposal and instead provide real data on how indirect costs for physician services change when delivered by an employed physician. The ACS also provided two alternative policies that would better enable CMS to address its concerns:

- Employed physician modifier and PE RVU adjustment factor
- Employed physician modifier and third PE RVU component

However, despite the ACS's advocacy-related efforts, the change in PE methodology was finalized.

Valuation of Surgical Services

The ACS made numerous recommendations to CMS regarding new or revised values for surgical Current Procedural Terminology (CPT)* codes for CY 2025. In particular, the ACS advocated for increased reimbursement for PE inputs related to lower extremity revascularization, and the College's comments were incorporated into the final rule.

Conversion Factor

Beginning in 2026, two separate conversion factors apply: one for items and services furnished by a qualifying Alternative Payment Model participant (QPs) and another for items and services furnished by non-QPs. The final CY 2026 MPFS conversion factor for QPs is $33.57, which is a 3.77% increase relative to the CY 2025 conversion factor of $32.35. The final CY 2026 MPFS conversion factor for non-QPs is $33.40, which is a 3.26% increase relative to the CY 2025 conversion factor. B

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Are Graduating Surgical Residents Ready for Practice?

Eric Lazar, MD, MBA, FACS
Saunders Lin, MD, MPA, FACS
Shaneeta Johnson, MD, MBA, FACS

In our data-driven world, surgeon educators have searched for that elusive outcomes measure that demonstrates the success of our training programs.

THE ACCREDITATION COUNCIL for Graduate Medical Education (ACGME) relies heavily on first-time board pass rates as the primary outcome measure for evaluating the preparedness of graduating residents for independent practice, but surgeon educators are acutely aware that passing the boards alone does not make one "practice ready."

Many of our colleagues have raised concerns over whether our national training efforts are producing confident, capable, and practice-ready surgeons.

Mattar and colleagues articulated these concerns in 2013,[1] after a survey of fellowship program directors (PDs) in minimally invasive surgery, bariatric, colorectal, hepatobiliary, and thoracic specialties demonstrated that nearly 40% of first-year fellows in these specialties lacked clinical preparedness and a sense of ownership for their patients. Further, 43% of fellowship PDs suggested that incoming fellows could not independently or safely complete 30 minutes of a basic operation such as a laparoscopic cholecystectomy.

While these findings were not necessarily the first to raise the alarm regarding this issue, the report did receive significant attention and initiated a lot of activity with the goal of understanding the contributing factors leading to this lack of practice-ready surgeons.

The ACS surveyed members of the Board of Governors (representing more seasoned surgeons) and the Young Fellows Association (reflecting more recent surgical attendings) regarding their impressions of graduating residents' readiness for practice.[2]

The majority (90%) of younger surgeons suggested that they were prepared for attending practice. However, nearly 60% had completed fellowships after residency, and 20% of those indicated that not feeling prepared to practice was part of the reason for doing a fellowship.

The more senior surgeons, 70% of whom had recently hired a new surgeon, responded that more than 50% of their younger colleagues were not prepared for their attending role. Nearly 80% of senior surgeons supported the concept of a transition-to-practice opportunity for recent graduates.

This report and others raised concerns about the reasons why residents choose fellowship and brought the question of confidence into the foreground. Confidence is not easy to measure, and there are conflicting definitions in the literature. The author concluded that graduating general surgery residents had low confidence in their abilities, though the relationship between confidence, competence, and autonomy is complicated and poorly studied.[3]

The American Board of Surgery (ABS) examined the readiness of general surgery residents in a large prospective study of the defined core procedures.[4] It concluded in 2017 that general surgery residents are not universally ready to independently perform core procedures at the end of training and that opportunities for autonomy during training were limited. The study's authors speculated that the lack of autonomy may be the precipitating factor in being underprepared for independent practice.

We wanted to understand the context for these concerns regarding resident readiness and explore the role of advocacy in creating an environment where some of these factors can be alleviated or modified.

Trainees, Faculty Voice Concerns Regarding Readiness

Both surgical residents and teaching faculty have expressed concerns regarding the preparation of graduating surgical residents for independent practice.

Concerns Raised by Residents

A common sentiment shared by many graduating residents is the perception that appropriate autonomy has not been granted by teaching faculty, whether in the OR or clinical setting.

A recent publication noted significant variability in senior resident and fellow level of supervision during surgical oncology cases. In breast and soft tissue, thyroid, and/or hepatobiliary cases, less than 50% of trainees achieved a practice-ready or better performance as rated by their faculty. More importantly, the

Figure. Legislative Policies with Effect on Resident Autonomy[7]

Legislative policy	Effect on resident autonomy
Omnibus Budget Reconciliation Act of 1989: Increased reimbursement focus on relative value units	Attending surgeons experience pressure to expedite operative time and increase operative load, often at the expense of resident involvement in surgical cases
Bell Commission of 1989: Prompted New York State Department of Health Code S405 and ACGME Duty Hour Restrictions in 2003	Attending surgeons increase supervision, leading to residents having less time in the hospital and OR, reduced clinical exposure, and opportunity for autonomy
CMS Physician Billing in Teaching Setting, Section 100.1.8 of 1997: Created "GC" and "GE" modifiers for billing involving resident care	More attending surgeons are involved in directing care and documentation, instead of the resident learning to navigate system independently; note some third-party payers may not recognize the modifiers and fail to reimburse if resident has seen the patient and provided services
CMS 2002 mandate: Required attending surgeon presence in "critical" portions of case	Potential intraoperative autonomy for residents and hands-on exposure to critical portions of a case are reduced

study also showed that those trainees who performed at a practice-ready or exceptional level received the lowest level of supervision in less than 25% of cases.[5]

Nonclinical but essential tasks that constitute part of the clinical care of patients, otherwise known as "scut" work, also may affect the clinical and operative opportunities for surgical residents. These include, but are not limited to, acquiring outside medical records, verifying prescriptions through different pharmacies, filling out large volumes of electronic documentation, scheduling outpatient follow-up appointments, and coordinating complex hospital discharges. These tasks are neither part of the general surgery curriculum defined by the ABS nor are they indicative of the essential skills taught in medical school.

This burden of patient care often falls directly upon the residents to complete, particularly in their early years. Unfortunately, these tasks typically occur in direct conflict with clinical and operative opportunities, and, as result, younger residents may be forced to forego opportunities in straightforward cases or to double scrub with their more senior peers. This reality may limit time and familiarity with attendings, resulting in decreased autonomy during surgical cases or in future years on the same surgical service.

A study published in the *Journal of Surgical Education* may support this assertion. The authors demonstrated that a substantial time of a resident's workweek involved electronic health record (EHR) usage and documentation. In this study, second-year residents had the highest median usage per week (28.9 hours) and had a significant negative correlation with operative case logs ($r = -0.2$, $p = 0.038$). Throughout all 5 clinical years, 30% of the 80-hour workweek was focused on documentation and EHR work.[6]

Concerns Raised by Faculty

Surgical faculty may have a different perspective regarding the readiness of the new generation of graduating surgical residents.

Legal Challenges

The first barrier to appropriate autonomy may be in the legal landscape surrounding an attending's own ability to grant such autonomy. As highlighted in a 2018 ACS *Bulletin* article, the legal statutes surrounding the role of the resident are well defined by the US Centers for Medicare & Medicaid Services (CMS), Bell Commission of 1989, and the Omnibus Budget Reconciliation Act of 1989.[7] (see Figure, this page).

80-Hour Workweek

Although implemented 20 years ago, the impact of the 80-hour resident workweek policy may still have some effect on faculty perceptions regarding the preparedness of the graduating resident. First introduced in 2003, the effects of the change in duty hours on various aspects of

patient care and surgical training have been studied extensively.

A meta-analysis published in the *Annals of Surgery* found no definitive improved patient safety after the implementation of duty-hour restrictions nor increased resident satisfaction.[8] And while faculty members might assume that the change to the 80-hour workweek had a negative impact on the number of resident or chief operative cases, this assumption is not entirely accurate.

A meta-analysis by Ashraf and colleagues found no substantial correlation between the institution of duty-hour restrictions and operative case volume. Of the 26 studies included, 11 studies (61%) demonstrated a neutral or positive effect, while seven studies (39%) demonstrated a negative effect on total operative numbers.[9]

Lifestyle and Generational Aspirations for Work-Life Balance

Seasoned attending surgeons may hold the perception that residents and graduating chiefs "didn't experience the same residency training they did." Other perceptions from this group might find this generation "softer" or "not as dedicated to the profession."

Recently, an article in *The Wall Street Journal,* "Young Doctors Want Work-Life Balance. Older Doctors Say That's Not the Job," highlighted personal anecdotes throughout the US regarding the differences in mindset between senior and junior medical faculty in a variety of specialties.

This article included top-ranked institutions such as Johns Hopkins, where younger medical staff advocated for more sick leave and freedom to take days off, which resulted in a doubling of the number of on-call physicians to achieve adequate coverage.[10]

Studies regarding the attitudes of the Millennial and Gen-Z workforces in the business and technology sectors reveal similar views. According to one such study by Sanchez-Hernandez and colleagues, Millennial and Generation Z workers understand the need for work-life balance and give it greater importance than previous generations.

Millennials prioritize factors related to promoting a suitable work-life balance, specifically vacation and free time, and work flexibility. This is counter to the views of older Baby Boomers, who mainly sought stability and security in their work, and Generation X, who assigned more importance to work relations over other variables.[11] Although a work-life balance approach may prevent burnout for young physicians, this mindset may may lead to fewer hospital hours, resulting in decreased residency clinical experiences for new attendings.

By assessing competency rather than adhering to a predetermined time for training, graduating residents will have achieved specific mandatory competencies to successfully and effectively care for patients.

Empowering New Surgeons Through Targeted Programs

What solutions can The House of Surgery® offer to aid in the preparation of new attendings? We highlight a few advocacy strategies and programs to help address the issues described in this article.

Entrustable Professional Activities

The Entrustable Professional Activities (EPAs) represent a significant shift in the assessment of surgical trainees introduced by the ABS in July 2023.[12] The EPA framework was incorporated into general surgery residency programs by the ABS in collaboration with other surgical bodies, including the ACS, Association of Program Directors in Surgery, and the ACGME Surgery Review Committee.[13]

These EPAs aim to transition the assessment model from time-based training to a competency-based approach, prioritizing the achievement of specific competencies necessary for providing effective patient care.[13] By assessing competency rather than adhering to a predetermined time for training, graduating residents will have achieved specific mandatory competencies to successfully and effectively care for patients. Evaluation of the efficacy and resultant competency-based resident assessment of these EPAs is a key consideration in the perceived readiness of graduating residents to enter surgical practice. Support from other professional societies, such as the ACS, and evaluation of quality outcomes are essential for full incorporation.

Debt Relief

Many residents enter surgical training carrying a significant burden of debt incurred during their undergraduate and medical education. This debt, which is more than $230,000 on average, excluding premedical undergraduate and other educational expenses, affects approximately 73% of medical school graduates.[14]

The weight of this debt can exert undue pressure on residents to prioritize the shortest possible path to becoming an attending physician in order to repay their loans. This pressure may discourage them from pursuing additional training or opportunities, such as fellowships and transition-to-practice programs, which could enhance their skills and career prospects.

The financial burden of education-related debt not only affects the well-being of residents but also has potential implications for patient care. Limiting the number of physicians pursuing advanced or additional training may contribute to a shortage of specialists in certain fields and reduce the quality and availability of healthcare services.

Addressing the issue of education-related debt can contribute to a more diverse and inclusive healthcare workforce. Individuals from socioeconomically disadvantaged backgrounds may be disproportionately affected by educational debt, limiting their ability to pursue medical careers. By reducing the financial burden on residents, we can encourage learners to pursue their training

goals without compromising their well-being or the quality of patient care.

Advocating for policies to reduce educational debt is crucial to address this issue. This may include measures such as increasing the availability of need-based financial aid, expanding loan forgiveness programs, and providing more affordable options for medical education.

The ACS has endorsed two pieces of legislation aimed at addressing the financial burden of medical education. The Resident Education Deferred Interest (REDI) Act (S 942/HR 2028), introduced by Senators Jacky Rosen (D-NV) and John Boozman, OD (R-AR), and Representatives Brian Babin, DDS (R-TX), and Chrissy Houlahan (D-PA), would allow borrowers in medical or dental internships or residency programs to defer student loan payments without interest until the completion of their programs.

The Specialty Physicians Advancing Rural Care Act (S 705/HR 2761), introduced by Senators Rosen and Roger Wicker (R-MS) and Representatives Joyce and Deborah Ross (D-NC), would establish a new loan repayment program allowing specialty physicians who agree to practice in a rural area for 6 years to have up to $250,000 of their student loans forgiven. The ACS Division of Advocacy and Health Policy is working with lawmakers to advance both bills.

Video-Based Assessment and Certification

Video-based assessment and certification opportunities are increasingly more common with the advancement of technology. These pathways allow residents to receive mentorship and evaluation from experts on surgical skills, ensuring competency and providing valuable feedback.[15,16] Residents can benefit from ongoing feedback during their training, allowing for the assessment of their competency and readiness for graduation. Additionally, post-training video assessments can evaluate residents' long-term skill retention. Advocating for a Health Insurance Portability and Accountability Act-compliant and a bias-free platform and framework are essential for the use of this technology in this context.

Impact of Surgeon Shortages

The US is facing a severe shortage of surgeons in general surgery and several surgical specialties, particularly in rural communities, and the number of surgeons is expected to continue to decline in the future.[17] The surgeon shortage has several potential consequences, including longer wait times for surgery, which can lead to delays in diagnosis and treatment and result in serious health consequences. Additionally, long travel distances to receive surgical care can be a burden for patients in rural or medically underserved areas, who may have limited access to transportation or other means of access to care.

Ensuring graduating residents are prepared to enter the workforce is essential as they may require broad expertise to practice in rural or underserved communities. Previous studies have demonstrated that 75% to 80% of general surgery graduates pursued fellowship training due in part to concerns about attaining an adequate breadth of expertise needed for community practice.[17] A competency-based assessment of surgical skills rather than a time-based assessment may allow more residents to enter practice and meet these gaps.

With looming surgeon shortages and increasing numbers of surgical specialists, concerns arise about the readiness of general surgery residents to enter practice. The question remains whether our residency training programs, as currently outlined, can prepare trainees for practice in a rapidly evolving surgical landscape.

Disclaimer

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

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Surgical Innovation During War Advances Care for All

In this special section of the *Bulletin*, three surgeons who have treated war-related injuries describe some of their successes, struggles, and lessons learned.

WITH WAR AND ARMED CONFLICTS UNDERWAY in many parts of the world (Cambodia, Colombia, Ethiopia, Haiti, Mali, Mexico, Middle East, Myanmar, Nigeria, Niger, Pakistan, Russia, Sudan, Thailand, Ukraine, and Yemen, among others), these surgeon experiences should be of benefit to medical professionals who have boots on the ground, treating casualties of war.

Additional insight is offered by Col. (Ret.) Jeremy W. Cannon, MD, SM, FACS, Past President of the Excelsior Surgical Society, and Girma Tefera, MD, FACS, Medical Director of the ACS Health Outreach Program for Equity in Global Surgery (ACS H.O.P.E.®).

Military Surgeon Perspective
Dr. Jeremy Cannon

Surgeons possess a skillset uniquely suited to healing the wounds of war. Yet many may wonder: Must I join the military to serve in this way? And for those already in uniform: Am I truly prepared for the extreme demands of combat surgery? These articles illustrate how both civilian and military surgeons contribute meaningfully to the care of the combat wounded and others caught up in war's violent mechanism.

Today, both civilian and military surgeons routinely use teleconsultation to guide far-forward colleagues in their decision-making. At my institution, we do this weekly with multiple hospitals treating combat casualties in Ukraine. For surgeons in uniform, forward deployment can become a defining professional experience—one that tests your clinical judgment, technical facility, and emotional resilience. To meet this challenge, both training and mental preparation are paramount. Relying on trusted colleagues and senior mentors is also invaluable. During my own deployments, that preparation—and access to experienced surgeons—proved essential as I encountered many conditions I had only read about: post-injury tension bilothorax, a massive echinococcal cyst, and neonatal omphalitis.

Ultimately, surgery is more than a technical discipline—it is a powerful force for good. In the world's darkest places, surgeons can offer dignity, hope, and healing. Surgical diplomacy can change minds and instill goodwill in even the most fraught circumstances. If given an opportunity to serve in this way, take it without hesitation. You may find your sense of purpose and personal well-being uplifted and perhaps even radically transformed.

Humanitarian Surgeon Perspective
Dr. Girma Tefera

In most countries that are severely under-resourced—both in terms of material supplies and trained healthcare professionals—the healthcare landscape is often like that of natural disasters or war zones. There is a scarcity of essential medications, inadequate surgical and diagnostic equipment, limited access to anesthesia and blood products, and large patient volumes. In addition to the material shortages, the human resource gap further compounds the crisis. A small number of physicians, nurses, and allied health professionals are often responsible for serving large populations.

In the College of Surgeons of East, Central, and Southern Africa, the surgeon-to-population ratio was reported at 1:200,000. Humanitarians and volunteer surgeons from high-income countries provide support and help fill this gap. Moreover, as in disaster zones, the burden of trauma, preventable deaths, and untreated conditions is disproportionately high. In fact, 80%-90% of trauma-related death occurs in low- and middle-income countries.

In many ways, working in low-resource environments requires resourcefulness, adaptability, and creativity to provide lifesaving services to underserved communities.

The following articles describe the ingenuity and tenacity of a few of our surgeon members. B

A recent episode of *The House of Surgery* podcast provides perspective on how modern surgical practice has been shaped by military surgical history and how history can provide surgeons with a deepened appreciation for the events that have transformed patient care. Dr. Jeremy Cannon leads the discussion with Gordon L. Telford, MD, FACS, Justin Barr, MD, PhD, and Karina Hiroshige, a medical student.

Listen to *The House of Surgery* episode.

Trauma Telemedicine Saves Lives Through Real-Time Consultations

Osaid Alser, MD, MSC(OXON)

BORN IN GAZA TO A FAMILY OF REFUGEES who fled their village of Hamama in 1948, I carry a refugee status that has shaped my understanding of both loss and resilience in the face of ongoing conflict.

Practicing Medicine Under Siege

I studied, practiced, and taught medicine in Gaza's hospitals, working in facilities like Al-Shifa, Nasser, Al-Aqsa, and the European Gaza hospitals. These experiences taught me the art of practicing medicine with minimal resources—often lacking basics like IV fluids and skin staplers. Even gauze, ironically first made in Gaza, was frequently in short supply.

Despite these challenges, my mentors—dedicated and passionate professors of medicine and surgery—communicated to me not just clinical knowledge but also wisdom and the importance of being tenacious and exhibiting an unwavering commitment to patient care.

The constraints of practicing medicine in Gaza have always demanded innovative solutions. When I left in 2017 to pursue surgery abroad, I knew the best way to care for my people was to gain expertise that could bridge the growing gaps in medical care.

During my postgraduate studies at Oxford in 2018, I co-founded OxPal 2.0, an online, tele-educational platform supporting medical schools in the occupied Palestinian territory with high-quality teaching in clinical subjects and research.

The military operation in Gaza that began in October 2023 resulted in the destruction of healthcare infrastructure and loss of life. It drove us, out of necessity, to create our most innovative initiative yet. As hospitals came under attack and healthcare workers were killed or detained, the situation became increasingly dire.

According to the United Nations Office for the Coordination of Humanitarian Affairs, more than 1,700 healthcare workers have been killed in Gaza since October 2023. Healthcare Workers Watch reported in its October 2024 report the names of at least 13 surgeons or surgical trainees and 37 medical students who were killed. Among them were people I knew personally, dedicated professionals like Professor Omar Ferwana, the former dean of my medical school, and Dr. Medhat Saidam, a plastic and burn surgeon, who had inspired my own career path.

We also lost promising young colleagues like Dr. Israa Al-Ashqar, an anesthesia resident, and Dr. Ibtihal Al-Astal, an outstanding intern. The loss of these healthcare workers created a double tragedy: the immediate crisis of fewer hands to heal and the long-term void of missing the very educators needed to train future physicians and surgeons. Selfless medical students stepped up to fill the positions of their clinical mentors and faculty who were missing or killed.

Professor Mads Gilber (Norway) and Dr. Osaid Alser try to soothe a pediatric patient who went to the hospital without his family after sustaining a fracture to one of his legs following an airstrike on their house in 2014.

Innovation Amid Devastation

Along with the recently graduated Dr. Khaled Alser, the sole remaining general surgeon at Nasser Hospital in southern Gaza, we recognized the urgent need for a new approach to trauma care. In this moment of crisis, we turned to technology to bridge the devastating gap in surgical expertise, creating an innovative virtual network that would connect isolated doctors with global surgical expertise. In essence, we created the territory's first comprehensive telemedicine initiative for trauma care.

The heart of our innovation was surprisingly simple yet transformative: A WhatsApp group chat grew to more than 1,000 healthcare workers worldwide, including surgeons from various specialties, intensivists, and emergency providers.

Setting up this network presented unique challenges. We had to establish protocols for patient privacy, develop systems for rapid response times, and create guidelines for sharing critical information despite unreliable internet connections. The platform evolved to include standardized templates for case presentations, ensuring that local doctors could quickly communicate essential details even in crisis situations.

This digital lifeline became especially useful for recent graduates suddenly thrust into managing complex trauma cases. Many of these young doctors, though well-trained in basic medicine, had never handled the types of injuries they were facing daily.

Through our network, they could receive real-time guidance from surgeons who had worked in similar conflict zones around the world. These experienced practitioners didn't just offer medical advice, they also shared practical solutions for working around resource limitations and improvising with available materials.

The success of this approach was demonstrated through numerous cases, but one particularly stands out as an example of the innovation it fostered.

A 35-year-old OR nurse at Nasser Hospital sustained a gunshot wound to the chest while on duty. The patient needed a chest tube for a hemopneumothorax, but the hospital lacked wall suction, leading to dangerous desaturation episodes.

Through our telemedicine network, a trauma surgeon from South Africa and an ER physician from Canada suggested a creative solution: creating an improvised one-way flutter valve using surgical gloves. This simple yet ingenious adaptation worked remarkably well, stabilizing the patient's respiratory status.

The impact of our telemedicine initiative extended far beyond individual cases. Our study, presented at ACS Clinical Congress 2024 and published in the August 2024 issue of *The Lancet*, analyzed 12 representative cases from Nasser Hospital.

The patients ranged from 3 to 70 years old, with more than 90% presenting with penetrating injuries. In each case, the global surgical community provided crucial guidance that influenced treatment decisions and improved patient care.

These cases revealed patterns of innovation that would prove valuable for future crisis response. For instance, when traditional wound closure materials were unavailable, surgeons shared techniques for using alternative materials safely. When standard monitoring equipment failed due to power outages, the network suggested manual assessment techniques that could provide reliable patient monitoring. Each challenge became an opportunity for collaborative problem-solving, with solutions documented and shared across the WhatsApp group for future reference.

Beyond immediate patient care, the initiative became a platform for sharing knowledge about resource-conscious medicine. Experienced surgeons taught techniques for conserving scarce supplies, methods for sterilizing and reusing certain materials safely, and approaches to triage that could maximize limited resources.

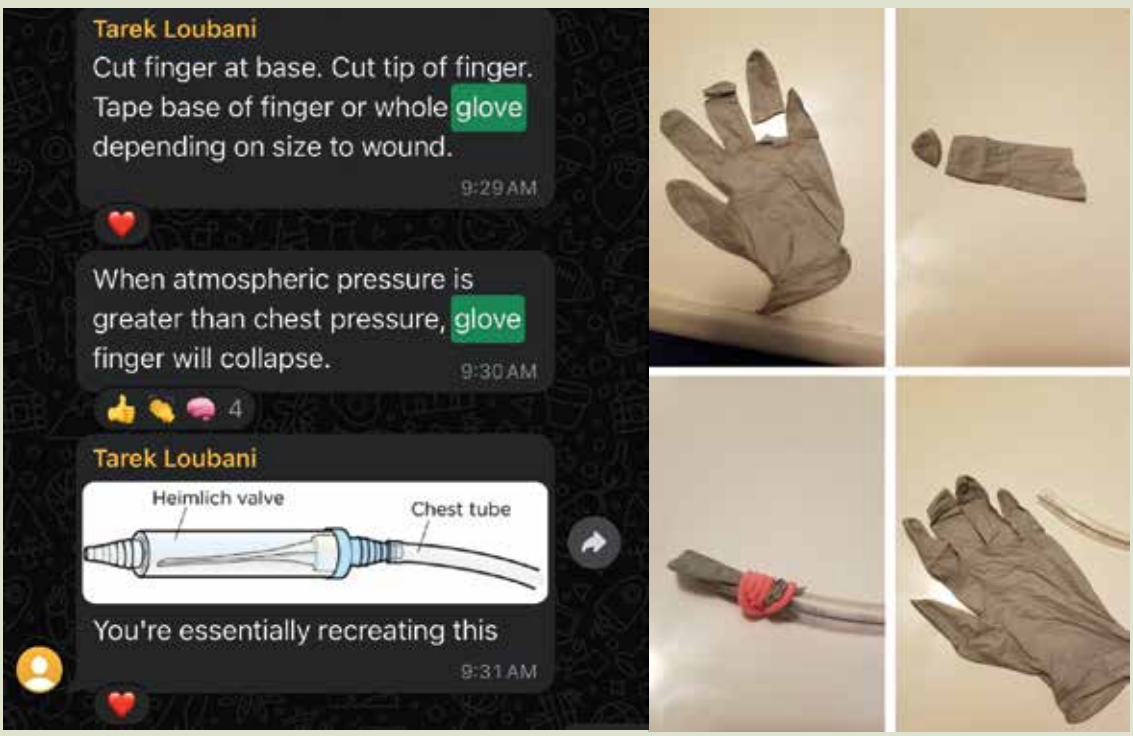
This knowledge exchange went both ways, as local doctors shared their innovations for practicing medicine under extreme constraints, contributing valuable insights to the global surgical community.

Our experience has shown that creative solutions often can be found in settings with limited resources. We've learned to adapt standard protocols, develop improvised medical devices, and create simplified decision-making algorithms for complex trauma cases. Perhaps most importantly, we've demonstrated that meaningful surgical education and support can continue even in the most challenging circumstances through remote mentorship.

Building a Future Through Collaboration

Looking ahead, we see immense potential in expanding this model. We're working to develop standardized protocols for remote surgical consultation and create a comprehensive database of improvised medical solutions for resource-limited settings.

This database will include detailed instructions for creating emergency medical devices from locally



A screenshot from the telemedicine group chat shows a crafty method where a cut gloved finger can be used as a one-way valve for a chest tube shared by surgeons.

The success of our telemedicine initiative highlights a crucial truth—that even in the most difficult circumstances, innovation and collaboration can save lives.

available materials, protocols for adapting standard procedures to austere conditions, and guidelines for maintaining surgical standards despite severe resource constraints.

We're also developing a formal curriculum for "crisis innovation" in medicine and surgery, drawing on the lessons learned through our telemedicine network. This program will teach healthcare workers not just medical procedures, but also creative problem-solving skills essential for working in resource-limited environments. Topics will include improvising medical devices, adapting standard protocols for crisis situations, and maintaining effective communication networks during emergencies.

Most urgently, we're working to establish a comprehensive remote medical education platform—from undergraduate fundamentals through graduate surgical training—that can function while Gaza's physical infrastructure is rebuilt. We cannot afford to wait.

Patients will still need emergency cesarean sections and acute appendectomies tomorrow, regardless of the state of these buildings. Their survival depends on our ability to train the next generation of healthcare providers now, with a particular focus on trauma care.

Furthermore, we're establishing partnerships with medical institutions worldwide to create a more permanent infrastructure for remote surgical support. This approach includes developing secure digital platforms for medical consultation, creating standardized templates for case presentation and discussion, and building a network of volunteer specialists willing to provide remote consultation in crisis situations.

The success of our telemedicine initiative highlights a crucial truth—that even in the most difficult circumstances, innovation and collaboration can save lives. As surgeons and healthcare providers, we have a fundamental duty to uphold the mission of the ACS, which is to improve the care of surgical patients and safeguard standards of care.

In Gaza and beyond, we're proving that the spirit of surgical innovation can flourish even in the most challenging circumstances, powered by global collaboration and the unwavering dedication of healthcare workers worldwide.

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Disclaimer

The thoughts and opinions expressed in this column are solely those of the author and do not necessarily reflect those of the ACS.

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Surgeon Describes Realities of Conflict in War-Torn Country

James R. Stone, MD, MBA, CMI-V, FACS

"The world will not be destroyed by those who do evil, but by those who watch them without doing anything."
–ALBERT EINSTEIN

IN 2021, I WAS APPROACHED to volunteer for Global Response Medicine (GRM), a nongovernmental organization (NGO) founded in 2017 to provide humanitarian aid to victims of natural disasters, conflicts, and war. GRM, a 501(c)(3), has conducted operations in 13 countries including Ukraine, where efforts began at the outbreak of the war in February 2022. GRM's mission statement is clear—Save Lives. Period.

My first deployment was with a forward surgical team in Bakhmut, Ukraine. In 2023, I returned as the lead surgeon under a World Health Organization (WHO) educational grant. What I saw, what I did, what I learned, and what I felt likely will resonate with every surgeon.

Team 6 consisted of two special forces (SF) medics and me, with more than 38 years of combined experience in acute care, general surgery, critical care, emergency medicine, and administrative medicine. I was a reservist in the US Army Medical Command for 4 years.

Upon arriving in Bakhmut, we observed extensive destruction, deserted streets, and shuttered schools, churches, and businesses. We operated out of a small, community hospital located 6 miles from the Russian front in three directions.

The hospital campus consisted of four buildings. Our quarters were on the third floor of the hospital that was used for storage and housing hospital staff. Plumbing was archaic; the shower flooded due to poor drainage, and hot water was unavailable a third of the time. Used toilet paper was disposed of in trash bins.

Our beds were World War I vintage metal frames; the linen was not changed during our time there. Meals consisted of buckwheat porridge for breakfast, soup or borscht for lunch, and borscht or pasta for dinner. A nearby small restaurant run by two 80-plus-year-old sisters provided relief. When asked about their plans if Russia invaded, they resolutely replied, "We will never leave." (Two translators were assigned to Team 6 to enhance communication with the locals.)

Patient Care

Daily patient volumes ranged from eight to 84 individuals in need of care. The hospital did not have an emergency room—the concept of emergency medicine as a specialty did not exist. Most of the providers were assigned by the military under martial law and lacked experience with war-related injuries. As a first-level receiving hospital, our objective was to assess, stabilize, and transfer to a second-level hospital as the patient's condition allowed. Transfer was by ground and involved a 5-hour trip.

The patients arrived by ground ambulance from the battlefront and were triaged in the entrance

hallway by an anesthesiologist who led the trauma team. A static x-ray machine was housed next to the hallway, but portable units did not exist. A computed tomography scan required patients to be transferred to another building and was rarely used.

The resuscitation room was a cramped two-bed unit. Staff roles during resuscitations were poorly defined, and the anesthesiologist did the emergency procedures (i.e., chest tubes, central lines, intubations). A surgeon was only called when surgical intervention was needed. Resuscitation fluids were primarily crystalloid; blood products, albumin, and fresh frozen plasma were limited. A central venous line was the primary route for fluids, and bedside ultrasound was not routinely used.

Our team brought two portable units and conducted multiple exams per day for teaching, demonstrating, and as part of the patients' exams.

Surgery suites were on the third and fourth floors accessible by winding, narrow stairs presenting significant challenges for intubated patients. Only one elevator existed, and power was out frequently. No electrocardiogram monitoring was available during surgery. A C-arm image intensifier was available but could only be used by the orthopaedic staff.

GRM addressed these gaps early on by funding $600,000 for the purchase of equipment for multiple facilities.

Surgery cases predominantly involved blast injuries from artillery, mortars, land mines, and rockets rather than gunshot wounds. Amputations were guillotine with revision and closure deferred to the secondary facility. There was no Veterans Affairs-like resource available.

We received a 22-year-old soldier who was hit by mortars. He and his fellow soldier laid in the mortar crater for 3 hours before they could be evacuated. The other soldier managed to crawl over to him to place tourniquets: one on the upper right arm, the other at the proximal left thigh.

He arrived 11 hours after the injury with the tourniquets in place. He underwent a right arm amputation at the shoulder and a left mid-thigh amputation. We petitioned Army command to get access to a specialized prosthetic rehabilitation program, and he was sent to Sweden.

The ICU had basic hemodynamic monitoring, but we were not doing ultrasound volume assessment or focused assessed transthoracic echocardiography exams. The ICU consisted of six beds that were always filled. Patient information from the field was minimal. There was a neurosurgeon available, but intracranial pressure monitoring was rare.

Three days after our arrival, we were privileged to meet with Gumeniuk Konstantyn, MD, PhD, commanding colonel of all Ukraine military surgeons. He asked about our approach to injuries and complications. Dr. Konstantyn's goal was to extend training and education for his surgeons and develop protocols for common war injuries.

The hospital census was continually changing due to the walking wounded being transferred, discharged, or kept for another 24 to 48 hours. The tourniquets' time of application was not recorded. The nursing staff ratio was 1 to 10 or 20 patients. Families were required to provide a variety of patient care activities every day.

Team 6 (left to right): Andres (Ranger SF Medic), Luke (Green Beret SF Medic), Dr. Konstantyn, Dr. Stone, Bohdan (interpreter), and Serhig (interpreter)

GRM Operations – Ukraine

Forward Surgical Team

- Patient care to assist with military/civilian casualties

Medivac

- Transport teams to evacuate casualties

Frontline Education

- Forward providers education for Tactical Combat Casualty Care and US point of care

Long-Term Emergency Medicine, Civilian/Military Acute Care Surgical Education

- First EM fellowship, surgical curriculum and exchange training, collaborative training

Red area denotes Russian-held zone. Black arrow shows location of GRM Team 6—located 6 miles (10 km) from the Russian front.

In 2022, GRM was the only NGO authorized to provide direct patient care in this country, and as a result, our team witnessed an extensive array of injuries such as our very first patient. This individual was a 20-year-old female with a gunshot wound to her left leg and left chest with a sucking chest wound, large avulsion laceration of her right triceps, a comminuted right humerus fracture, and a comminuted right tibia/ankle fracture.

Tube thoracostomy with vented dressing of the wound was done, and she was hemodynamically stable. We provided a Focused Assessment with Sonography in Trauma exam, which was negative, and she was brought to the OR for external fixation and wound debridement. And so, cases like this came and went for 19 days, sometimes all day and night.

Change of Objective

By 2023, the Ministry of Health and Defense deemed forward positions too dangerous for non-combatants. GRM shifted focus to surveying providers' medical needs and developing training programs supported by a WHO grant. These initiatives included emergency medicine training program for Ukrainian providers, frontline provider training, and a surgical mini-fellowship program addressing pressing educational topics.

GRM collaborated with the Department of Emergency Medicine at Temple University in Philadelphia, Pennsylvania, to create a condensed curriculum for 25 Ukrainian providers who would train other providers.

The pilot surgical fellowship delivered focused and essential training in Lviv, Dnipro, and Kyiv. While I was the lead surgeon for the entire deployment, Lori Rhodes, MD, from the Temple Burn and Trauma Program, led most of the teaching for burns. The participants completed precourse and post-course evaluations. Instructors and trainees made daily rounds from 9:00 am until 12:00 pm, followed by a didactic 2-hour presentation with case discussions. Most participants had the post-course perspective that experiencing our system in action helped enhance their course work.

GRM constructed a 2-week observational rotation for the Dnipro team at The University of Chicago Medical Center (UChicago) in Illinois. The Dnipro team was very impressed with the UChicago Trauma Department, and they were excited to return to Ukraine to model their system. GRM arranged similar rotations for five more teams. GRM is continuing to work with the frontline medical community in innovative ways.

Implications of War

In June 2022, we witnessed daily artillery barrages throughout the city. The evening prior to our departure, artillery struck a nearby building, causing damage to the hospital and prompting an evacuation order.

By 2023, air raid sirens, artillery, rockets, and drones became a daily reality across Ukraine. Even in cities such as Kyiv, alerts to seek shelter were frequent, underscoring the nation's transformation into a battlefield. Bakhmut was eventually overrun by what has been referred to as "the bloodiest battle of the 21st century" and "some of the fiercest urban combat in Europe since World War II."

Impact of the War on Ukraine and Civilians

UKRAINE

- Surge in nationalism and unity
- Innovative aid from the citizens
- Acceptance and trust
- Belief in victory
- Higher cause—world vision of democracy
- Meeting human and materials demand

CIVILIAN LIFE

- Cessation of routine, everyday life with curfew
- Loss of male presence and family disruption
- Financial hardship
- Risk of harm
- Loss of structures, neighborhoods

The war's implications for counter-terrorism medicine extend to the potential for hybrid warfare within the US—an advanced strategy in which near-peer adversaries employ multiple forms of warfare simultaneously. Most Ukrainians feel the war started in 2014 with the Russian invasion of Crimea. From 2014 to 2019, approximately 25% of deaths in Ukraine's conflict were civilians. In comparison, from 1950 to 2019, civilian deaths accounted for 13% to 86% of total fatalities in major military conflicts worldwide.

Ukraine experienced a 9% to 12% population displacement. If such an attack occurred on US soil, similar levels of displacement would affect 29 to 39 million people. This kind of military conflict also would result in tens to hundreds of thousands of patients, stressing our trauma care as well as the civilian/military co-management (which is the major take-home message for the US healthcare system).

The Ukraine response to this war highlights its resilience despite limited resources and an underdeveloped medical infrastructure. The country's reliance on NGOs like GRM, WHO, and international entities, exemplifies its determination to prevail. Despite limited resources, an immature trauma and mass casualty system, critical shortages of personnel and supplies, and severe financial constraints, Ukrainian providers delivered exceptional care with skill and dedication. B

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Except where noted, the interpretation and opinions of this article are those of the author and do not reflect the official interpretations or opinions of the ACS, US military, GRM, or the governments of the US or Ukraine. No financial conflicts of interest were disclosed.

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Combat Casualty Care Exemplifies Humanitarian Service

Col. (Ret.) Richard A. Watson, MD, FACS

Should combat casualty care be considered a humanitarian service?

THIS QUESTION AROSE when I was retiring from clinical practice as a urologist. I was ending a career that started at Georgetown University Medical School in Washington, DC, in 1964. A colleague wondered whether this milestone might serve as an occasion for me to be considered for an upcoming humanitarian service medical award.

Admittedly, experience in the field of combat casualty care might not be considered by many as a humanitarian endeavor. However, I challenge anyone to offer a more impressive instance of humanitarian care than the lifesaving support provided by military doctors, nurses, medics, and other healthcare professionals to our severely wounded soldiers, sailors, Marines, and Air Force personnel. Military medical personnel serve heroically, often risking their own lives to provide this care to critically injured troops. Perhaps their sacrifices should not be limited to acknowledgment from military medical systems.

Witnessing the Cost of War

My introduction to combat casualty care began in 1968, with my internship at Walter Reed Army Medical Center in Washington, DC, which coincided with the massive Tet offensive during the Vietnam War. The combat was gruesome. Loss on the American side was more than 1,500 casualties.

At Walter Reed, we were halfway around the world, but because the US had air dominance, we were routinely receiving wounded soldiers in large numbers. These patients were being evacuated by air transport (air vac'd), often within less than a week of their injury. Many were seriously wounded, and not all of them survived. Walter Reed was the destination for many of the war wounded because the injured were transported to the medical center closest to their state-side family home. We were one of only three such centers east of the Mississippi.

Students carry an injured mannequin during a mass casualty exercise for the C4 at Joint Base San Antonio–Camp Bullis. (*Credit: US Air Force photo by Melissa Hydrick)*

Sometimes a more delayed transfer troop would arrive with foul-smelling green pus exuding from his leg cast. This was a bad sign—melioidosis, which is a serious infection caused by the bacterium Burkholderia pseudomallei (rare, but endemic to Southeast Asia). Other times, small, wiggling white worms (maggots) would be found crawling inside the cast. This was actually a good sign because maggots only ate dead or infected tissue, leaving the wound efficiently debrided.

A life-changing experience for me occurred late one night, when a planeload of newly arrived wounded soldiers were lined up in stretchers along the hallway. As an intern, it was my duty to expedite their admission and disposition. One patient, while stable, had sustained a significant cervical spine injury. The option for admission was between the orthopaedics and neurosurgery services. Residents from both services arrived and engaged in an exchange, arguing over whose turn it was to admit this patient.

In typical, albeit regrettable resident banter, one resident was telling the other that it was not their turn to take "this dump." The patient was not awake, and I alone overheard the comment. However, the soldier's family members were speeding there on the way from their home in Northern Virginia in order to be at the side of their badly wounded son. And it entered my mind then to hope that they would never hear their son referred to as a "dump."

I thought to myself then, without ever realizing how it would later affect my life, that I also hoped that there might come a day when residents would argue for the privilege of providing their best care for those who, like this wounded young man, would be paying a grim price of defending our liberty.

Answering the Call to Serve

Years later, as a urologist on staff at Letterman Army Medical Center in San Francisco, California, I would periodically volunteer to serve, just short term for an occasional weekend, as an instructor at the tri-service Combat Casualty Care Course (C4) Task Force in San Antonio, Texas.

C4 students were young physicians, dentists, and other military healthcare professionals from across the country, coming from all services, 120 students at a time, every 2 weeks. They would be required to spend a week in the foothills of South Texas, living in small tents ("under canvas") in squads of 12 students each, in order to simulate the hands-on care that would be expected of them, if they were ever called upon to provide frontline medical care in time of combat.

My role as a volunteer instructor was to spend only the first weekend with these C4 students, along

The resuscitation bay training—performed at Joint Base San Antonio–Camp Bullis—serves as a field training lane at the C4, helping students hone their trauma management skills on high-fidelity patient simulators. *(Credit: US Air Force photo by Melissa Hydrick)*

with other volunteer instructors, and provide them with training in the Advanced Trauma Life Support® (ATLS®) course. They received this instruction at Fort Sam Houston in San Antonio, prior to heading out to the rough terrain of Camp Bullis, several miles to the north, for a field training experience.

During one of these sessions, I spent a while chatting with the commander of the operation, who happened to be a fellow urologist (Navy Captain Sam Steele Jr., MD). He told me it was time for him to turn over the reins to a new commander. In fact, US Department of Defense officials were right then deciding in Washington on a candidate. I asked him who he thought would do the best job. He surprised me by saying he thought it should be me. Dr. Steele strongly encouraged me to volunteer.

The idea certainly caught me by surprise. But my thoughts turned back to that wounded soldier on a gurney at Walter Reed. Arriving back home in San Francisco, my wife advised me that, if I really felt called, she would not want me to spend the rest of my life wondering what I had missed. With her support, we packed up, along with our six young kids and headed to the Lone Star State.

For 3 years, I was the commander of the C4 Task Force. Every 2 weeks, a new contingent of 120 students arrived. My first challenge was related to motivational speaking, specifically to connect with these students who were not enthusiastic about being pulled abruptly from their first-class medical centers during their training. My goal was to convince them, "You need to be here!"

Addressing all the students, but the physicians in particular, I reminded them that at the core of our profession is our lifetime commitment to trustworthiness. I also asked these students to imagine themselves one day serving at a combat support hospital.

"In this setting, a field ambulance pulls up, carrying a badly wounded soldier and his buddy. The companion soldier turns to you and says, 'Please, doc, I know he doesn't look like much right now, but he's my buddy, and I promised him I would see that he gets good care. I've got to go back to the front now.' With that, the soldier entrusts the care of his companion to you. The trust he places in you is a prize more greatly valued than any other. In this light, you are here now at C4 to learn more capably the combat medical skills you will need then."

After that introduction, I would spend the remainder of the week with them at Camp Bullis. The students trained in field conditions with the temperature often ranging from boiling heat to frigid cold. At the end of the course, despite all the privations, the students would give us a standing ovation. They were especially

Whether it be in a civilian or military capacity, be ever on the lookout for opportunities to serve others selflessly.

impressed by the several active-duty Marines who each had served as a leader for one of the individual squads. While the students found field conditions challenging, these young Marines talked about how easy this duty was for them due to the real cots to lie on and canvas overhead.

Serving my tour as commander of the C4 Task Force was a major milestone in my life. Looking back, I am so grateful for that chance moment of inspiration that had captured my attention, standing beside the stretcher of a wounded troop at Walter Reed.

Humanitarian Heart of Military Medicine

Combat casualty care has richly earned the right to be considered eligible for humanitarian medicine awards, outside as well as within military medicine channels. A long history of selfless sacrifice on the battlefield underwrites current efforts to provide the best possible care to those most in need and to advance treatment standards, both in war and peacetime. Ongoing achievements exemplify award-worthy dedicated service on the part of many.

This personal testimony highlights justification for choosing a career in military medicine. I would strongly encourage all physicians and other healthcare professionals to seriously consider volunteering in a branch of our Armed Forces—either short term or as a career, either on active duty or reserve. Be ready, should the need arise, to serve those wounded in battle.

More broadly, whether in war or peace, in civilian or military service, all physicians have a unique opportunity to impact lives through their dedicated care. We should be eager to embrace opportunities to serve humanity selflessly, reflecting the highest ideals of our profession.

Looking back now, at the end of my medical career, I recall that transformative moment at a chance fork in my life's path, when I chose the higher, less-traveled road. And that made all the difference. I would strongly encourage young medical personnel to be open in their professional lives to choosing an option outside of the ordinary.

Upholding the tradition of the dedicated combat medical heroes who have gone before us, honor your Hippocratic commitment to self-sacrificing care. Whether it be in a civilian or military capacity, be ever on the lookout for opportunities to serve others selflessly. Always be open, should a chance in your life ever arise, to take on the challenge.

You only have one life. Live it large.

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Surgeon Emerges as Renaissance Man in Blue Jeans

Tyler G. Hughes, MD, FACS

FATHER, HUSBAND, FARMER, cowboy, scientist, clinician, technical surgeon, pharmaceutical executive, inspirational leader.

Meet John Lee, MD, FACS, who currently is the only otolaryngology–head and neck surgeon in Pierre, South Dakota, and the surrounding 300 miles. He's on call 24 hours, 7 days a week, and yet, his service extends beyond treating patients in the community.

Dr. Lee played a key part in changing the course of treatment of the most rapidly growing forms of head and neck cancer. He truly is a man for all seasons—a modern-day Leonardo da Vinci.

Pierre (rhymes with cheer) is a surprising place. With 14,091 individuals inhabiting the town, it is the capital of South Dakota. One often imagines this part of the US as a flat plain and semi-arid, but the area surrounding Pierre is astoundingly beautiful with broad vistas, beautiful fields of farmland, untouched prairies, and a majestic river flowing through the town.

The state capitol building lies near the center of town as does the governor's mansion. Across the street from the governor's residence, under the shade of lovely trees, sits an unassuming, elegant house where Dr. Lee and his wife, Kim, reside. It might seem an unlikely place to find Dr. Lee, who grew up on a dairy farm in Minnesota.

Surgeon Guided by Skill and Compassion

Dr. Lee is an instantly likable individual. He is soft-spoken with a ready smile and quick to laugh at himself and the ironies that led him through an extraordinary career. Upon meeting him, you think you'd like to have him as a friend.

After talking to him for a while, you would hope he would be your doctor if you were seriously ill. Dr. Lee is a person who believes patient-centric care is the essence of being a surgeon. He is technically skilled as evidenced by a series of thyroid surgeries extending over 5 years and some 500 cases—without a single nerve or parathyroid injury.

However, the reason Dr. Lee went into medicine was to make a positive impact on the human condition, not just to be a superlative technician of the profession.

As a young man, Dr. Lee flirted with earning a doctor of philosophy degree, but as he studied, he quickly learned that funding was limited, and the possibility of having a high impact was remote.

Note from Dr. Hughes: Talking about the "average" surgeon is like referring to an "average" astronaut. Every story is unique; there is no average. In this article series, I will feature surgeons of different specialties, backgrounds, ages, and practice types. Some of the surgeons you may know well, while others have worked in near obscurity. As surgeons, they serve all with skill and trust. If you are an ACS member and would like to meet with me to share your experiences, contact bulletin@facs.org.

Medicine offered both the chance to be a true scientist and translate that research quickly into improving outcomes for many people. So, he instead chose to attend medical school at the University of Minnesota in Minneapolis. Fate and his native intelligence landed him in the otolaryngology residency at The University of Iowa (Iowa) in Iowa City, where he learned both general ear, nose, and throat (ENT) surgery and advanced head and neck procedures.

He fell in love with cancer. That may seem odd to many nonsurgeons. To the general public, the word "cancer" has only negative connotations. It is death, battle, survivorship; not something to be loved. So why does Dr. Lee love cancer?

"It is life or death," Dr. Lee explained, adding that the stakes are high, but there also are rules and clear outcomes that other fields lack. In addition, he could have long-term relationships with patients. Cancer surgery is complex, delicate, anatomically complicated, and constantly challenging. No individual cancer patient nor their tumor is exactly the same when under the knife.

At the time he did his early training, cancer of the head and neck was clearly not being cured by surgery—except in rare instances. That was the challenge, and Dr. Lee pursued developing his own lab at Iowa and later at the University of South Dakota (USD) in Sioux Falls, at a time when a divergence of tumors was being recognized. Instead of the typical heavy-drinker, heavy-smoker patient, ENT surgeons saw a rapidly growing set of patients without those typical carcinogenic factors, marked by the rise of human papillomavirus (HPV)-associated squamous cell cancer.

In the lab, Dr. Lee studied homogenic mice in which he could reliably reproduce this tumor. He developed and became an expert in murine tonsillectomy for mouse tonsillar cancers. Through his murine research, he compared results of immunocompetent and immunoincompetent mice to HPV cancer treatments that eventually led to the discovery of immunomodulating therapies that have revolutionized the treatment and prognosis of this tumor.

Actor Michael Douglas is one of the most famous individuals often associated with HPV-induced cancer and a survivor likely because of research originating in Dr. Lee's lab.

Dr. Lee described the experience of one of his early patients who, after receiving immunomodulator therapy prior to other treatment, said his tumor was tingling. Dr. Lee remembers that moment well and the fact that this patient's tumor was undetectable by the time he was eligible for traditional surgery and chemoradiation after the immunotherapy was remarkable.

Running labs and sharing results with multiple centers around the world (he once had two R01

Dr. John Lee and his wife, Kim, spend time farming their land in South Dakota.

Left:
Meeting with a patient, Dr. John Lee discusses treatment options.

Right:
Dr. Lee plans to continue practicing in Pierre while enjoying the ranch managed by his wife, Kim.

grants at the same time) led to him being recruited to take these therapies to market with a publicly funded pharmaceutical company. For 5 years, Dr. Lee became the chief medical officer of that company guiding the process of transforming laboratory findings into a drug that could help millions of patients who had what was previously considered a near-fatal disease.

Having accomplished a lifelong goal, he returned to the operating table. However, 20+ years of operating on head and neck tumors had left its mark on his own cervical spine. He could no longer tolerate the long hours required to perform the surgery.

He was still young, in his 50s, and wanted to finish his career taking care of a small community similar to his hometown in Minnesota. Having worked at USD for many years, Dr. Lee was familiar with Pierre and its ENT needs. So, he began his general ENT practice within this rural community—the sole specialist performing head and neck surgery in the area.

Dr. Lee looks quizzical when asked about work-life balance. He reflects and then says he really can't distinguish where work and "life" begin and end. He has incorporated them into a single unit that serves both.

Father of two successful adult children (mechanical engineer and registered nurse), he feels they always got their share of dad. Perhaps not as much as if he had chosen another career path, but it worked. His wife is supportive and proud of Dr. Lee's inspirational nature to all those around him. Dr. Lee plans to continue practicing in Pierre and enjoy the ranch that Kim manages.

To meet Dr. Lee is to be struck by how ingenious, dedicated, and humanitarian some members of our profession are. His advice to others in medicine or planning a career in medicine is to approach the work with the goal of having a positive impact. Everything else will fall into place. B

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Dr. Tyler Hughes *is a retired Kansas rural surgeon. Born in Texas, he trained in Dallas but spent most of his career working as a surgeon in McPherson, Kansas. In retirement, Dr. Hughes is traveling the world in search of surgeon stories.*

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AI Avalanche Is Forcing Healthcare to Reimagine Future of Surgery

Lenworth M. Jacobs Jr., MD, MPH, FACS

Artificial intelligence (AI) is an avalanche heading for the healthcare industry.

THE USE OF AI in healthcare settings is growing rapidly, with the technology being leveraged or considered for everything from medical charts and visit notes to assistive diagnosis and AI-enabled robotic surgery.

According to a 2025 American Medical Association survey, physicians' use of AI for certain tasks nearly doubled in just 1 year, with 66% of physicians surveyed reporting use of AI in 2024—a 78% increase from those who said they used it in 2023. With the fervor surrounding AI technologies, these numbers will only grow.

In the face of this incoming AI surge, healthcare practitioners have a decision to make: step aside and hope to avoid it, get swept under by the momentum, or learn to navigate this new era of healthcare and lead the path to an exciting and productive future.

Promise of AI in Surgery

For today's surgeon, AI offers a unique opportunity to transform the way complex care is delivered. From preoperative diagnostics to intraoperative guidance and postoperative monitoring, AI can integrate multiple clinical domains simultaneously into a coordinated system. Rather than operating in silos, these domains can be woven together to form a seamless, real-time response that

can reduce delays and streamline critical decision-making.

In the OR, advanced imaging can provide rapid 3-D reconstructions, while robotics paired with AI analytics can allow for more detailed assessments of surgical technique and performance. Beyond the OR, AI-driven simulation environments enable trainees to practice on lifelike cases, benchmark their performance against national databases, and carry those lessons back into clinical care.

This type of data capture and outcomes measurement can enable continuous refinement of best practices, inform training protocols, and ultimately improve outcomes for trauma patients and surgical populations alike.

The use of AI is already being studied and realized across the surgical field. In the October 2025 issue of the *Bulletin of the American College of Surgeons*, Dominic Emerson, MD, FACS, director of robotic cardiac surgery at Cedars-Sinai Medical Center in Los Angeles, California, highlighted the continued advancement and clinical integration of robotic cardiac surgical techniques, while Husam H. Balkhy, MD, FACS, director of robotic and minimally invasive cardiac surgery at The University of Chicago Medicine in Illinois, reported that robotic endoscopic mitral valve procedures have demonstrated excellent 30-day surgical outcomes, reinforcing the growing role that minimally invasive robotic systems can play in complex cardiac operations.

In July 2025, AI systems, trained on 17 hours of video showing gallbladder removals, conducted the first realistic surgery performed autonomously by machine. Dr. Balkhy also moderated what is considered to be the world's first intercontinental robotic cardiac telesurgery. The procedure, an atrial septal defect closure, was conducted remotely from a facility in Strasbourg, France, to an OR in Indore, India.

These dramatic accomplishments represent pivotal moments in the evolution of surgical practice and indicate a future that will be very different from the past.

New Infrastructure for New Era of Healthcare

While the promise of AI is clear, it is uncharted territory. There currently are no established guidelines or guardrails that standardize its use or establish governance for how it should be implemented. AI is not without risk, and how it will be used in healthcare settings, especially when patients' lives are on the line, raises important questions about accountability and responsibility. If a critical negative event occurs, who is responsible? Is it the manufacturer, the software, the hospital, or the surgeon? If a patient in India is being operated on remotely from France, which country's laws take precedence?

Just like with the evolution of transportation, AI in healthcare requires entirely new infrastructure and oversight. A century ago, the transition from horse-drawn carriages to motor vehicles demanded not just faster transportation but also the creation of roads, fueling systems, mechanics, and safety regulations. Without these updates, adoption would have been slow, and motor vehicles would not have been able to function safely or efficiently. Fast forward and the introduction of autonomous vehicles also required new infrastructure and governance, this time related to the complex network of sensors, algorithms, and regulatory frameworks that come with a vehicle no longer operated by a human driver.

AI is following a similar trajectory, and proper implementation requires rethinking the entire framework of clinical care, from data capture and integration to governance and accountability. It requires data integrity, real-time access, robust networks, and meaningful clinical integration—and the establishment of systems and governance to support its uses that includes broad stakeholder buy-in.

Moving Toward Industry Guidance and Frameworks

The establishment of industry standards and governance developed by trusted leaders and experts in healthcare quality, safety, and AI systems will be

Surgeons have an opportunity to be informed stewards of this technology and must take the time to understand how these systems work, lean into the ways AI can help deliver better care, and identify the areas where it is falling short.

critical to navigate this new era of healthcare. Aligning objectives among stakeholders and establishing responsible use of AI frameworks can help evaluate what works, what is scalable, and what best serves the patients.

Institutions such as Joint Commission, with its global reach and work helping to drive healthcare quality and safety for more than 22,000 healthcare organizations in the US, are well-positioned to lead this effort. The Joint Commission's Responsible Use of Health Data™ certification program is already helping healthcare organizations manage data ethically and transparently by providing a framework for responsible data use, as well as guidance for how to harness the value of this data to advance treatments, improve outcomes, and safeguard privacy through consistent, risk-mitigating practices. Similar guidance for AI is essential as these technologies are increasingly integrated into healthcare delivery.

AI guidance that considers the perspectives of all stakeholders, from the C-suite to the surgeons performing procedures in the OR, can be used by healthcare organizations of all sizes looking to set policies for procuring, implementing, and using AI, with considerations for governance, privacy, transparency, data security, and quality. More importantly, it's a starting point for determining the standards and frameworks needed around ethics, responsibility, and utility to help ensure responsible adoption.

Looking Ahead

A surgeon's responsibility is always to the patient—not the algorithm, not the speed, not the financial margins. Fastest and cheapest are not always best, especially when considering that the priority of patients and their families is the desired outcome. AI is not, and should never be, a replacement for clinical judgment, but if used and developed wisely, it can be used as a tool to enhance surgical skills and aid decision-making.

Surgeons have an opportunity to be informed stewards of this technology and must take the time to understand how these systems work, lean into the ways AI can help deliver better care, and identify the areas where it is falling short.

Data out are only as good as the data in, and by getting involved now, the surgical community can take the lead in training these tools on everything from broader datasets that incorporate more diverse patient populations to testing limits on diagnostics.

By taking the lead and advocating for a clinical AI governance structure rooted in ethics and transparency, the surgical community can ensure the future of AI in healthcare prioritizes quality patient outcomes over all else. With careful stewardship, AI can help build a healthcare system that is safer, smarter, and more equitable—but it must be designed that way.

For more information about the Joint Commission's work on the responsible use of data, visit: *www.jointcommission.org/en-us/about-us/key-initiatives/ai-data-analytics-research.*

Disclaimer

The thoughts and opinions expressed in this column are solely those of Dr. Jacobs and do not necessarily reflect those of the Joint Commission or the ACS.

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CoC Operative Standards Drive Improvements in Cancer Surgery

Christina M. Fleischer, MD, MBA
Alison S. Baskin, MD
Judy C. Boughey, MD, FACS
Lesly A. Dossett, MD, MPH, FACS

APPROXIMATELY 60% OF PATIENTS diagnosed with cancer in the US undergo surgery to treat or stage their disease.[1] By achieving complete primary resection and accurate lymph node staging to guide adjuvant therapy, high-quality cancer surgery can improve oncologic outcomes. Despite these core approaches to treatment, variation in the technical quality of cancer surgery persists, potentially contributing to differences in survival across hospitals and patients nationwide.

To help reduce variation in cancer surgery and improve oncologic outcomes, the ACS published the first of its three-volume series of *Operative Standards for Cancer Surgery* manuals in 2015. This series includes 134 standards for high-quality cancer operations based on the best available evidence.[2]

In 2020, the ACS Commission on Cancer (CoC) incorporated six of these operative standards into its national accreditation process. Standards 5.3-5.8 address either primary resection and/or lymph node staging for cancers of the breast, cutaneous melanoma, colon, rectum, and lung (see Table, page 61). Compliance with these standards is determined during accreditation site visits, in which trained CoC site reviewers randomly select up to 15 eligible patient cases and review the operative or pathology reports. Since 2023, CoC-accredited sites have been required to achieve 80% compliance with each of these six standards.

The CoC includes 1,400 accredited hospitals nationwide, which collectively treat more than 70% of cancer cases. As such, the CoC Operative Standards have broad potential to impact patients and surgeons across the country. It is therefore essential to determine whether adherence to these standards improves oncologic outcomes to guide future surgical cancer quality improvement efforts.

Multi-Institutional Study Assesses CoC Operative Standards

The National Cancer Institute (NCI) has funded the Assessing the Effectiveness and Significance of the Operative Standards Program (AESOP) study. AESOP is a 5-year, multi-institutional initiative led by co-principal investigators Lesly A. Dossett, MD, MPH, FACS, from the University of Michigan in Ann Arbor, and Daniel J. Boffa, MD, MBA, FACS, from the Yale School of Medicine in New Haven, Connecticut, in collaboration with co-investigators

Table. CoC Standards 5.3-5.8

CoC Standard	Cancer Type	Operative Standard
5.3	Breast	All sentinel nodes for breast cancer are identified using tracers or palpation, removed, and subjected to pathologic analysis.
5.4	Breast	Axillary lymph node dissections for breast cancer include removal of Level I and II lymph nodes within an anatomic triangle comprised of the axillary vein, chest wall (serratus anterior), and latissimus dorsi, with preservation of the main nerves in the axilla.
5.5	Melanoma	Wide local excisions for melanoma include the skin and all underlying subcutaneous tissue down to the fascia. Clinical margin width is selected based on original Breslow thickness.
5.6	Colon	Resection of the tumor-bearing bowel segment and complete lymphadenectomy is performed en bloc with proximal vascular ligation at the origin of the primary feeding vessel(s).
5.7	Rectal	Total mesorectal excision is performed for patients undergoing radical surgical resections of mid and low rectal cancers, resulting in complete or near-complete total mesorectal excision.
5.8	Lung	For any primary pulmonary resection performed with curative intent, lymph nodes must be resected from the mediastinum (≥3 nodal stations) and ≥1 hilar station.

Ronald Weigel, MD, PhD, MBA, FACS, Medical Director of the ACS Cancer Programs, Judy C. Boughey, MD, FACS, Chair of the ACS Cancer Research Program, Samantha Hendren, MD, MPH, FACS, from Indiana University in Bloomington, and Tina Hieken, MD, FACS, Chair of the ACS Cancer Surgery Standards Program.

The AESOP grant seeks to evaluate the implementation and impact of the CoC Operative Standards through three primary aims: (1) evaluate compliance with the CoC Operative Standards across cancer and hospital types, (2) assess guideline- and organizational-level barriers and facilitators of implementation, and (3) determine the impact of the CoC Operative Standards on oncologic outcomes, such as 2-year cancer recurrence (see Figure, page 62).

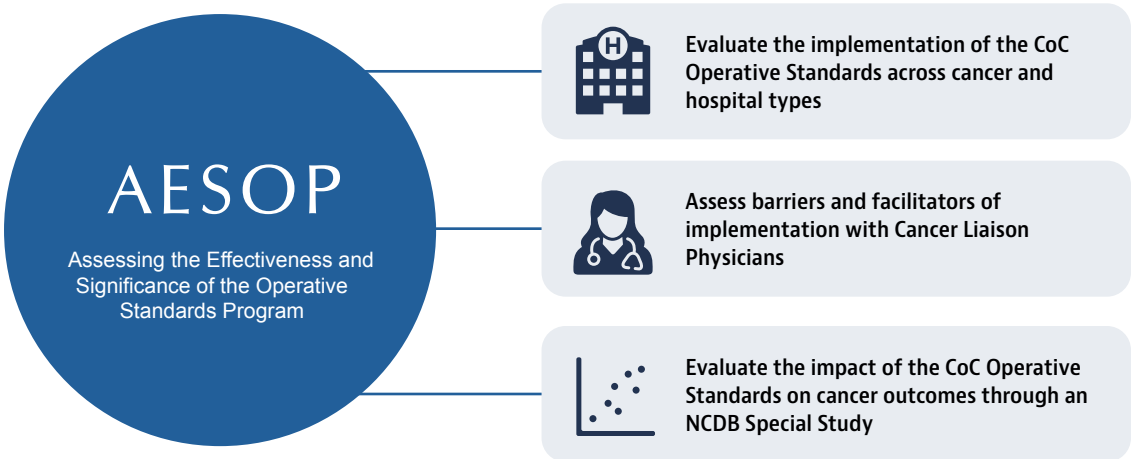
In the first 18 months of funding, the AESOP study team focused on the grant's first aim by evaluating facility-level compliance data gathered during scheduled CoC accreditation site visits. For example, in *The Journal of Thoracic and Cardiovascular Surgery,* the team reported that in the first 2 years of implementation (2022 and 2023), only 54% of hospitals were compliant with CoC Standard 5.8 on lymph node sampling for lung cancer.[3]

Further, they revealed that compliance rates varied across different CoC site designations, with NCI-designated comprehensive cancer center programs having the highest percentage of compliance (72%), which was significantly more compliant than community cancer programs (41%). These data were in concordance with another recently published study in the *Annals of Surgery* which evaluated the initial compliance rates across all six standards.[4] Our ongoing analyses will similarly assess associations between compliance and hospital characteristics, including program type and surgical case volume.

Future Work Will Examine Underlying Causes of Variation in Compliance

While these preliminary studies have elucidated variation in compliance rates across institutions, future work will focus on understanding the etiologies of this variation. A qualitative study by the AESOP team analyzed semi-structured interviews with CoC site reviewers surrounding perceived barriers to compliance with the operative standards.[5]

Figure. AESOP Primary Aims



The second aim of the grant will expand on this initial work and probe more deeply into the barriers to program uptake through surveys and interviews with Cancer Liaison Physicians (CLPs). Each CoC-accredited site designates a CLP who serves as a leader on their cancer committee and is responsible for monitoring their program's performance on CoC quality measures.

Beginning in early 2026, the AESOP study team will survey and interview CLPs to identify factors contributing to variation in compliance with the CoC Operative Standards. Survey results will be linked to accreditation performance and analyzed to identify common roadblocks to implementation. Similarly, compliance data from the first aim will inform the selection of interview participants to ensure a range of experiences is captured. As frontline leaders in implementing the CoC Operative Standards, the CLPs offer unique perspectives that are expected to reveal key factors influencing hospital compliance.

For the third aim, the AESOP study team will evaluate the impact of the CoC Operative Standards on cancer outcomes, including 2-year cancer recurrence, using the CoC Special Study mechanism. Using the ACS National Cancer Database® (NCDB) and in collaboration with the CoC, the study team will collect data from all 1,400 CoC-accredited programs to compare outcomes among patients treated before and after implementation of the operative standards. A pilot study will launch in 2026 with plans for the full national evaluation to follow in 2027.

With these aims and with the support of the ACS, the AESOP study seeks to generate valuable insights into how implementation of the CoC Operative Standards influences cancer surgery practices and oncologic outcomes. Ultimately, the goal is that these findings will help guide future quality improvement efforts in cancer surgery and beyond.

Questions may be submitted to AESOP@facs.org.

Dr. Christina Fleischer *is a general surgery resident at the University of Michigan in Ann Arbor and an ACS Designated Scholar.*

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15 Years of TQIP Excellence Fuels a Future Driven by Teamwork

Tony Peregrin

The 15th anniversary of the Trauma Quality Improvement Program (TQIP) and its Annual Conference held November 8-10 in Chicago, Illinois, commemorated the trauma community's long-standing commitment to providing exceptional patient care and improving outcomes.

THE CONFERENCE—which featured impactful trauma survivor stories alongside expert presentations on implementing clinical best practices and advancing quality improvement initiatives—drew 2,640 registrants, with 2,161 in person and approximately 500 for the virtual program. On-demand registration is open until **April 10, 2026**.

Dr. Avery Nathens describes the evolution of the TQIP program, which now includes 955 trauma centers.

TQIP Update

What started as a pilot program 15 years ago, TQIP now includes 955 trauma centers, with more than 1.4 million records collected and analyzed every year. As it stands today, the program is a pillar of optimal trauma patient care.

"We officially started TQIP in 2010, with 65 hospitals—and we have learned a lot from all of you, specifically how your teams solve complex problems in order to provide the highest level of care for your patients," said Avery B. Nathens, MD, PhD, MPH, FACS, FRCSC, Medical Director of ACS Trauma Quality Programs, to a packed opening ceremony crowd.

Prior to TQIP, the traditional approach to trauma quality improvement activities included identifying sentinel events, comparing the current year's performance to the previous year, and a focus on case reviews—but these factors fell short of providing insights into maintaining quality of care, which at that time, simply reflected consistency rather than high levels of performance.

"This was the context under which we developed TQIP. Before that, these were patients who had no choice and no voice," he said, noting that with valid, standardized data, risk-adjusted performance measurement, and other key components of TQIP, patient care was poised to improve.

"Our goal, when we started, was to really understand how we could help centers that were struggling to improve the quality of care they delivered," he said, which included examining what Dr. Nathens called "unwitting innovators."

"These were very high-performing centers that had no idea they were doing something unique and special to enhance trauma care—and we made sure you had, and continue to have, access to that information so that you can do the best for your patients," he explained.

Dr. Nathens introduced the conference theme, "Team Works," by posing a question to the audience: "What do slime molds, starlings, and seals have in common?" He noted that slime molds (microscopic organisms) "demonstrate remarkable teamwork through decentralized, self-organized behavior in response to an adverse environment."

Notably, these organisms do not have a leader. "So, it's like having a team of players where each individual instinctively knows what to do. Imagine if we had trauma teams like that."

Starlings are another example of teamwork in the form of a collective intelligence because they achieve complex, coordinated movements to evade predators through trust, the ability to adapt, and rapid flow of information (signaling) allowing them to move as a single, synchronized unit.

US Navy SEALs—an elite special operations force trained for sea, air, and land missions—exemplify trust built on shared challenging training experiences and a team-based approach that prioritizes character and commitment over individual performance.

"The individuals who are high performers with low

> "Our goal, when we started, was to really understand how we could help centers that were struggling to improve the quality of care they delivered."
>
> Dr. Avery Nathens

Access related video content online.

trust are toxic individuals. It might be tempting to include them, but they are ultimately going to undermine overall team performance," explained Dr. Nathens, citing evidence that supports trust in teams as a driver of resilience and, for patient care teams, improved patient outcomes.

"Slime molds, starlings, and SEALs all represent the fact that the whole is greater than the sum of its parts—they all have greater impact working together," he said.

Dr. Nathens also focused on TQIP program updates, beginning with new developments concerning trauma activation fees. He noted that it costs approximately $10 million per year for a Level I trauma center to ensure preparedness and that trauma activation fees cover about 72% of the costs for these centers.

In June 2024, the ACS released a Statement on Trauma Activation Fees, which calls for these fees to be public and transparent and applied only to designated/verified trauma centers, among other stipulations.

In September 2025, the Office of Inspector General (OIG), with the US Department of Health and Human Services, issued a report examining hospital compliance with federal requirements for trauma activation fees. Dr. Nathens outlined future recommendations issued by the OIG and the response to each proposed action item from the Centers for Medicare & Medicaid Services (CMS).

The ACS Committee on Trauma (COT) is in agreement with two CMS responses: CMS will review guidance for trauma team activation, and the agency will review the need for additional education regarding federal requirements.

In the area of performance improvement and patient safety, he provided updates to the Trauma Protocols Repository (blunt splenic injury, nutritional support, and sedation/analgesia are all currently in development), Mortality Reporting System, and Best Practices Guidelines (BPG), including Chest Wall Injuries Management guidelines, released in November 2025, which address:

- Surgical stabilization of rib fractures
- Multimodal pain management
- Optimal timing for surgery
- Special Populations (including older adult trauma patients and patients who have sustained multiple traumatic injuries)
- Postoperative and rehabilitation care

A new BPG addressing transfusion in trauma is expected to be released in 2026.

A key priority for the ACS COT continues to be rural trauma care. Injury-related mortality is up to five times greater in rural communities, and rural patients are 40% more likely to die within the first 24 hours after surgery. "Where you live determines whether you live or die after injury," said Dr. Nathens.

After conducting a rural needs assessment (interviews, focus groups, and a web-based survey), ACS COT leaders are focusing on three key areas: hospital standards/guidelines, performance improvement, and education. A key component of educating and supporting rural trauma providers will be the fifth edition of the *Rural Trauma Team Development Course,* which emphasizes a systemic, team approach in the initial assessment and stabilization of the injured patient.

The January 2 episode of *The House of Surgery®* podcast features the TQIP Update presentation from Dr. Avery Nathens.

Peak Performance Takes Center Stage

This year's annual conference featured presentations with different perspectives and approaches for achieving optimal performance and sustaining long-term wellness.

In his keynote address, coach Donnie Campbell—the real-life inspiration for the television character Ted Lasso—urged attendees to discover their "MVP," which is their mission, values, and principles, in order to harness the potential of both the individuals and teams with which they work.

With 36 years of coaching experience, Coach Campbell developed championship teams and mentored future NBA stars by exhibiting an authentic leadership style driven by empathy and the ability to hold others accountable for their actions both on and off the court.

"What does it mean to be a true coach or a true leader? For me, it's someone who sees the potential in others and does everything they can to guide, inspire, and motivate the team to be successful," said Coach Campbell. "When I first started coaching, I didn't know that. I was focused on one thing only—winning. I want you to think of the toughest coach you ever had and multiply that by 10, because that was me. I worked those kids long and hard. No one was going to keep us from that state title. And after getting them so prepared for that first season, I led our team to a 3 and 18 record. That season didn't go very well."

The first step to finding success after failure, according to Campbell, is to act like a goldfish.

"You know what the happiest animal on Earth is? It's a goldfish. You know why? It's got a 10-second memory. Be a goldfish," he said, quoting a line from Ted Lasso. "I did not invent this quote—they've got better writers than me on the show. But I always told my players to handle mistakes by recognizing them, admitting them, learning from them, and then moving on."

Learning from past mistakes can enhance how trauma teams work together, as can developing shared values that are tethered to treating others with respect, he said.

"You can develop anybody in the ER to be really skilled at what they do, as I did with my basketball players, but that doesn't mean they are going to work well together. If you develop your team to be good people first, then that will sustain success," Campbell shared.

Strategic Team Building for Lasting Results

Developing a sustainable team framework is a wise investment that supports cost-effective and quality-based trauma care.

"There are objective metrics that can help establish teamwork," said Patricia L. Turner, MD, MBA, FACS, ACS Executive Director and CEO. "Team familiarity and the time the team has worked

Donnie Campell discusses how to build a winning culture based on experiences gleaned from his coaching career.

Kimberli Bruce describes the expanding role of APPs in trauma programs, noting that 88% of US trauma centers now employ APPs.

together, the number of words exchanged between teammates, and perception of teamwork, belonging, and satisfaction have all been assessed as markers for effective teamwork."

After building an effective team, there are measurables that can help determine how well the team is actually performing, including:

- Time from patient presentation to OR
- Case length
- Team preparedness
- Complication rates
- Length of stay
- Costs

Dr. Turner outlined multiple scales that have been developed recently that provide quantifiable assessment of nontechnical skills in the OR, including Observational Teamwork Assessment for Surgery, Non-Technical Skills for Surgeons, Scrub Practitioners' List of Intraoperative Non-Technical Skills, and others.

"Strong, healthy teams are essential for what we do. Everyone in our OR is a teammate, and everyone's role is critically important," said Dr. Turner. "The more we acknowledge and lean into that kind of conversation, the better off we are."

Paula Ferrada, MD, FACS, from Inova Fairfax Medical Campus in Woodburn, Virginia, described the impact that TeamSTEPPS—an evidence-based program designed to improve patient safety and care quality—has had at her institution.

"We know from the literature that blaming and shaming others is inversely proportional to accountability," she said. "TeamSTEPPS is a proven system that builds a culture of safety where you're safe to speak up and say what you believe, feel, and think."

The five principles of TeamSTEPPS are team structure, communication, leadership, situation monitoring, and mutual support. These principles are designed to enhance team collaboration and patient safety, particularly within healthcare settings.

"When you are in a setting where there's less judgment and more curiosity and more humility, we can help each other grow and keep the patient at the center. Alone, we can do so little. But together, we can do so much," she said.

In a presentation that outlined strategies for building optimal trauma staffing models, Stephanie Bonne, MD, FACS, urged attendees to consider the "one-size-does-not-fit-all approach to staffing," and that all such models should be data driven.

Dr. Bonne noted that "divisional productivity should be the goal," referring to a concept that optimizes the mix of medical professionals (i.e., surgeons, physicians, nurses and others) to effectively meet patient demand.

The final presentation approached sustainable team building through the recruitment and retention of advanced practice providers (APPs).

Kimberli Bruce, ACNP-BC, a trauma nurse practitioner, described the expanding role of APPs—nurse practitioners and physician assistants—in trauma programs, noting that 88% of US trauma centers now employ APPs. Read the October 2025 *Bulletin* article, "APPs Play Critical Role in Supporting Trauma Teams," for more insight on this topic.

Bruce noted wide variation in this role's integration, training, and professional development

within the trauma setting, and called for enhanced, formalized onboarding policies and standardized trauma education and certification to ensure baseline competencies.

Beyond clinical duties, she advocated for APP involvement in leadership, education, and quality improvement to foster engagement and retention. "Once you account for recruiting fees, paying overtime to the rest of the crew, and other costs, replacing one APP can cost between $50,000 and $90,000, which is why investing in trauma-specific professional development for this role pays for itself," said Bruce.

Trauma-Informed Care Through Patient Storytelling

This year's trauma survivor address was presented by Bri Scalesse, a content creator, disability advocate, and fashion model who survived a motor vehicle crash at the age of 6 that killed her mother and left her with a complete T12 spinal cord injury.

"This is a story about my body," said Scalesse. "From the moment my small body was pulled out of the car and transported to Connecticut Children's Medical Center [in Hartford] in April 2001, my body was no longer mine—it was the hospital's body. The 74 days that followed felt like an endless stream of men and women in colorful scrubs," she said, noting that she wished someone would pay attention

"Everyone in our OR is a teammate, and everyone's role is critically important."

Dr. Patricia Turner

Dr. Patricia Turner outlines metrics for gauging team performance, including complication rates, length of stay, and costs.

Compassionate behavior can be learned, and the art (compassion) and science (clinical care) of medicine function optimally when they are employed in tandem.

to what she wanted, not simply what her body needed.

Through a combination of her own resilience and the unwavering support of her healthcare providers, Scalesse began to appreciate how her recovery was made possible.

"My favorite nurses were so gentle, kind, and silly," she said, later adding that these individuals "tried to make it fun for me—which might sound trivial to people who do this kind of work every day—but being able to play my boom box, play with Barbies, have butterflies on the wall above me—all of those things were so meaningful to me as a 6-year-old girl who just needed a sense of play, some sense of normalcy."

During the session Q&A—moderated by Brendan Campbell, MD, MPH, FACS, who was her physician for many years—Scalesse pointed out that adult trauma patients yearn for an emotional connection as much as pediatric patients do.

"Take a second and just breathe," she said, addressing the trauma care providers in the room. "Say to yourself, 'I'm going to take this moment with them. I'm going to show up. I'm going to try and understand where they are with all of this.'"

Unable to find any representation of disabled individuals like herself in the mass media, Scalesse eventually pursued a modeling career, and in 2020, participated in the *Project Runway* finale during New York Fashion Week. She has since appeared in advertisements for Nike, Skims, Victoria's Secret, and other companies. She also holds a bachelor's degree in English from Trinity College in Hartford, Connecticut, and a master of fine arts degree in nonfiction from Columbia University in New York City.

Scalesse admitted her favorite experiences as a model have little to do with the allure and excitement of the fashion world: "One of my favorite moments was when a teenage girl wrote to me to tell me how much seeing one of my ads meant to her. 'Your visibility is one of the biggest reasons why I started to feel a relationship with my disabled body. Representation isn't just about inclusion. It's about young people being able to see what is possible for their own lives.'"

Family-Centered Trauma Care

A panel featuring a mother and daughter who overcame a domestic violence situation was the focus of the other trauma survivor session. Organized in collaboration with the Trauma Survivors Network (TSN), this session offered strategies for how trauma teams can more effectively integrate patients' families into care and recovery.

In September 2011, Erin Cobb was shot twice by her ex-husband. The bullets shattered her jaw and pierced her carotid artery, leaving a lung partially collapsed and causing paralysis from the chest down.

Erin's mother, Janet Andersen, managed her daughter's recovery, which included multiple jaw surgeries, pressure-related wounds, and an exhaustive rehabilitative care plan.

The Trauma survivor speaker Bri Scalesse provides insights on caring for pediatric trauma patients.

"When I first showed up at hospital, the doctor said, 'We think she is paralyzed,' and then he disappeared," said Andersen. "My ex-husband and I looked at each other [in stunned silence]… we were left to figure things out on our own."

While both mother and daughter relied heavily on each other for emotional support, trauma survivor peer support also helped them navigate the rehabilitation process.

"The whole trauma survivors system was such a gift," added Andersen. "Although, it would have made a huge difference in the recovery of my daughter had we known about these services earlier. I think it would have cut off an entire year of her recovery." Today, Andersen is a volunteer for the TSN and the Reeve Foundation Peer & Family Support Program.

Karen Macauley, DHA, Med, BSN, TCRN, CEN, director of the pediatric trauma program at Johns Hopkins All Children's Hospital in St. Petersburg, Florida, described how trauma care providers, through acts of compassion, can empower patients and families to determine their goals for recovery.

"It takes less than 40 seconds to be kind," she said, citing the book *Compassionomics: The Revolutionary Scientific Evidence that Caring Makes a Difference*. "The research shows that compassion improves patient outcomes, reduces healthcare costs, and helps prevent healthcare provider burnout."

She also shared that compassionate behavior can be learned, and the art (compassion) and science (clinical care) of medicine function optimally when they are employed in tandem.

According to panelist Jessie Levy, LCDW, trauma support services program manager at Atrium Health in Charlotte, North Carolina, up to 48% of parents experience post-traumatic stress disorder after a child is injured, and as many as 42.6% of family members experience moderate to severe anxiety and depression after such an event.

In an effort to reduce caregiver stress, Levy said caregivers require an honest prognosis, daily updates, and reassurance and hope. She emphasized the benefits of peer-support connections brokered by TSN and other organizations that can help family members manage distress and adjust to their new roles as caregivers.

The 2026 TQIP Annual Conference will take place November 13–15, in Anaheim, California.

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

Surgeons Will Unite to Strengthen Leadership Skills, Champion Health Policy

Jennifer Bagley, MA

THE ACS LEADERSHIP & Advocacy Summit kicks off later next month, taking place at the Grand Hyatt Washington, DC hotel, February 28–March 3. The meeting will be in person only; no virtual option will be available.

This event—designed for ACS members—will provide tools to strengthen leadership capabilities, advance healthcare policy, and influence the future of surgery.

Registration for the 2026 summit is now open at *facs.org/summit.*

Leadership Summit, February 28–March 1

The Leadership Summit—open to all US and international ACS members and nonmembers—begins Saturday evening, February 28, with a networking event, followed by a full day of sessions on Sunday, March 1. ACS members may attend the Leadership Summit for free.

The summit will offer comprehensive programming designed to strengthen the leadership capabilities of surgeons across all stages of their careers, while also bringing together distinguished faculty and emerging leaders to dissect the evolving demands of surgical leadership.

The morning will open with Amy Vertrees, MD, FACS, from Maury Regional Health in Columbia, Tennessee, presenting on business leadership principles. She will emphasize how cultures of trust and excellence can be intentionally cultivated within surgical teams and institutions. Douglas E. Wood, MD, FACS, FRCSEd, from the University of Washington in Seattle and Vice Chair of the ACS Board of Regents, will follow with a presentation in which he will highlight strategies for enhancing leadership effectiveness and team performance.

Additional morning programming will include a Resident and Associate Society–sponsored presentation on how early career surgeons can establish themselves as leaders and another session on navigating rapid technological change—an increasingly essential competency for modern surgical leaders. Participants also will hear from Dhiresh Rohan Jeyarajah, MD, FACS, from Methodist Health System in Richardson, Texas, on leadership within community practice settings.

Later in the day, Caprice C. Greenberg, MD, MPH, FACS, from The University of North Carolina at Chapel Hill, will address the shifting expectations for surgical leaders—such as the need to navigate data-driven decision-making, multidisciplinary care, and complex organizational environments—and will offer practical guidance on carving out leadership opportunities at any career stage.

The afternoon will continue with a thought-provoking panel—led by Susan Moffatt-Bruce, MD, PhD, MBA, FACS, from Lahey Hospital & Medical Center in Burlington, Massachusetts, exploring how surgeons will influence the future of healthcare, followed by an update from ACS Executive Director and CEO Patricia L. Turner, MD, MBA, FACS.

Throughout the day, attendees will have opportunities to exchange best practices, interact with ACS leaders, and strengthen professional relationships with colleagues. Residents and trainees also will participate in the Advocacy and Health Policy Abstract Competition.

Khuaten Maaneb de Macedo, MD, a general surgery resident from Boston Medical Center in Massachusetts, described attending the 2025 Leadership Summit as "a truly incredible

experience." She said: "It was an honor to have a seat at the table and engage in important conversations shaping the future of healthcare. It was refreshing to hear from speakers who emphasized the importance of leading with humility, foresight, empathy, and emotional intelligence. These qualities are essential in fostering effective systems, and I found the discussions thought-provoking."

Two preconference, in-person-only workshops will be held on Saturday. These include:

- Leadership in Action: Making the Most of Your Communications Opportunities—From Published Research to Media Interviews
- Building Your Leadership Brand to Increase Impact

Preregistration for the workshops is required, and there is a fee for each.

Advocacy Summit, March 1–3

By bringing critical healthcare issues directly to lawmakers, surgeon champions help shape policy that improves patient care and expands the ACS's influence in Congress. Active involvement from ACS members at the Advocacy Summit is a powerful driver of the College's mission and long-term impact, and it allows members to elevate their collective voice and effect meaningful change.

Open only to ACS members in the US, the Advocacy Summit begins Sunday evening, March 1, with a welcome reception and keynote dinner featuring Bret Baier, *Fox News* chief political anchor, co-anchor of the network's election coverage, and anchor and executive editor of *Special Report with Bret Baier*. Since joining the network in 1998, he has traveled to more than 70 countries to interview foreign leaders and cover major historical events.

A full day of action-focused panels, training, and programming is scheduled for Monday, March 2; in-person meetings with members of Congress and congressional staff will be on Tuesday, March 3.

The Monday program will begin with a warm welcome and introductions, setting the stage for a purposeful day concentrated on strengthening advocacy skills and deepening legislative awareness. The day's agenda will feature several informative panels and educational sessions with expert moderators and panelists who will share insights into the most urgent health policy challenges, real-world strategies, and the ever-changing role of surgeons in public policy.

Importantly, attendees also will receive comprehensive advocacy training, which will equip them with best practices for effective engagement with lawmakers during the following day's Capitol Hill visits. Participants will learn how to structure and conduct impactful meetings with legislators and gain a deeper understanding of the inner workings of Congress, including the challenges of capturing their attention amid competing priorities. In addition, staff members from the ACS DC office will detail the "asks" and provide background information in preparation for in-person visits to the Congressional offices.

"Going to Capitol Hill… to meet directly with legislators and policymakers was such an empowering experience," said Kevin Koo, MD, MPH, MPhil, FACS, a urologist from Rochester, Minnesota, following the 2025 Advocacy Summit. "Over and over, we heard from members of Congress that the voices of frontline physicians are more relevant than ever in policy discussions."

Several members of Congress also are expected to speak during the summit, sharing their thoughts on the important role surgeons play in advocating for their patients and informing federal healthcare policy.

"When we stand up for The House of Surgery®, it not only becomes more stable, stronger, higher, and better, but remains surefooted on the foundation of its members," said David S. Shapiro, MD, MHCM, FACS, a general surgeon from Connecticut. "This summit should be attended at least once by every surgeon."

More information is available at *facs.org/summit*. Share updates or follow the Leadership & Advocacy Summit on X, LinkedIn, Facebook, and Instagram using #ACSLAS26.

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

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

THE 2026 ACS NOMINATING Committee of the Board of Regents (NCBR), Nominating Committee of the Board of Governors (NCBG), and Nominating Committee of the Fellows (NCF) are accepting nominations through **February 13, 2026,** for leadership positions in the College.

The nominating committees recognize the importance of achieving representation of all who practice surgery and encourage consideration of women and other underrepresented minorities for all leadership positions.

Any attempt by a candidate or on behalf of a candidate to contact or influence members of the NCBR, NCBG, or NCF will be viewed negatively and may result in disqualification.

Officers-Elect Candidates

The 2026 NCF will select nominees for three Officer-Elect positions of the ACS:

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

Learn more about the roles, duties, and time commitment involved for these Officer positions at *facs.org/about-acs/governance/get-involved/officers.*

Criteria for Consideration

The NCF will consider the following when evaluating candidates:

- ACS membership
- Demonstration of outstanding integrity and an unquestioned devotion to the highest principles of surgical practice
- Leadership qualities, such as service and active participation on ACS committees or in other areas of the College

All nominations must include:

- A letter of nomination
- A current curriculum vitae
- One personal letter of support is required; a maximum of three is allowed

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.

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

Nominations must be submitted by **Friday, February 13, 2026,** to officerandbrnominations@facs.org.

For more information about Officers-Elect nominations, contact Emily Kalata at 312-202-5360 or ekalata@facs.org.

Secretary Candidates

The 2026 NCBR will select nominees for the ACS Secretary position.

Secretary Responsibilities

The responsibilities of the Secretary include:

- Serving a 3-year term
- Serving on the ACS Insurance Trust Committee
- Overseeing the minutes of the Annual Business Meetings of the Members, giving notices in accordance with the provisions of law and the Bylaws, keeping the records and corporate seal, and performing such other duties as may from time to time be assigned by the Board of Regents (BoR)

- Working with designated staff members to ensure that the official minutes of meetings accurately reflect the discussion of the BoR
- Having the co-responsibility with the Executive Director or Chief Executive Officer to provide such oversight

Criteria for Consideration
The NCBR will consider the following when evaluating candidates:

- ACS membership
- Demonstration of outstanding integrity and medical statesmanship, along with impeccable adherence to the highest principles of surgical practice
- Leadership qualities that might be reflected by service and active participation on ACS committees or in other areas of the College

All nominations must include:

- A letter of nomination
- A current curriculum vitae
- A personal statement from the candidate detailing ACS service and interest in the position
- Name of one individual who can serve as a reference

The deadline for submitting nominations is **Friday, February 13, 2026,** via an online form at *www.surveymonkey.com/r/Secretary26.*

Applications submitted without the requested information will not be considered.

For more information about Secretary nominations, contact Ken Puttbach at 312-202-5763 or kputtbach@facs.org.

Board of Regents Candidates

The 2026 NCBG will evaluate applications for election and reelection to the BoR. The NCBG will select nominees for two vacancies on the BoR to be filled at Clinical Congress 2026.

For information only, the current members of the BoR who will be considered for reelection to their second or third terms are (all MD, FACS): Francoise P. Chagnon, Annesley (AJ) W. Copeland, Daniel L. Dent, Liane S. Feldman, and David J. Welsh.

Learn more about the roles, duties, and time commitment involved for Regent positions at *facs.org/about-acs/governance/get-involved/regent.*

Criteria for Consideration

The NCBG will consider the following when reviewing candidates for potential nomination to the BoR:

- ACS membership
- Demonstration of outstanding integrity and an unquestioned devotion to the highest principles of surgical practice
- Leadership qualities such as service and active participation on ACS committees or in other areas of the College

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. Consideration will be given in this nomination cycle to the following disciplines:

- Acute care surgery (trauma surgery and emergency general surgery)
- Burn and critical care surgery
- Cardiothoracic surgery
- Gastrointestinal surgery
- General surgery
- Surgical oncology
- Transplant surgery

Nominations not meeting these criteria will be accepted for review by the NCBG in the event of an unexpected vacancy.

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
- One personal letter of support is required; a maximum of three is allowed.

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, and a description of their selection process, along with the total list of applicants reviewed.

Nominations must be submitted by **Friday, February 13, 2026,** to officerandbrnominations@facs.org.

For more information about BoR nominations, contact Emily Kalata at 312-202-5360 or ekalata@facs.org.

Disciplinary Actions Taken in 2025

THE BOARD OF REGENTS of the ACS took the following disciplinary actions at its 2025 meetings on February 7, June 6, and October 3, in Chicago, Illinois:

- One Fellow was admonished.
- The following Fellows were placed on suspension with terms and conditions for reinstatement:
  - Nadiv Shapira, MD, Newark, DE
  - David Greuner, MD, New York, NY
  - David Hartman, MD, Dover, OH
  - Brett Cordes, Lafayette, LA
  - David Webb, DDS, Pocatello, ID
  - Francis Herrbold, MD, Albany, GA
- The following Fellows were placed on probation with terms and conditions for reinstatement:
  - Daniel Smith, MD, Park Rapids, MN
  - Luis Vinas, MD, West Palm Beach, FL
- The following Fellows were expelled from the College:
  - Aravind Sankar, MD, Austin, TX
  - Lawrence Sherman, MD, Shelby Township, MI
  - James Kaufman, Hurst, TX
  - Yongsoo Kwon, Chicago, IL
  - Garrison Morin, Purcellville, VA
  - Bruce Pierce, Millstone Township, NJ
  - Peter George, Bopolu, Liberia

DEFINITION OF TERMS

The following are the disciplinary actions that may be imposed for violations of the principles of the ACS:

- **Admonition:** A written notification, warning, or serious rebuke.
- **Censure:** A written judgment condemning the Fellow's or Member's actions as wrong. This is a firm reprimand.
- **Probation:** A punitive action for a stated period of time, during which the Member: (a) loses the rights to hold office and to participate as a leader in College programs; (b) retains other privileges and obligations of membership; (c) will be reconsidered by the Central Judiciary Committee periodically and at the end of the stated term.
- **Suspension:** A severe punitive action for a period of time, during which the Fellow or Member, according to the membership status: (a) loses the rights to attend and vote at College meetings, to hold office, and to participate as a leader, speaker, or panelist in College programs; (b) is subject to the removal of the Member's name from the public listing and mailing list of the College; (c) surrenders his or her Fellowship certificate to the College, and no longer explicitly or implicitly claims to be a Fellow of the American College of Surgeons; (d) pays the visitor's registration fee when attending College programs; and (e) is not subject to the payment of annual dues. When the suspension is lifted, the Fellow or Member is returned to full privileges and obligations of Fellowship.
- **Expulsion:** The certificate of Fellowship and all other indicia of Fellowship or Membership previously issued by the College must be forthwith returned to the College. The surgeon thereafter shall not explicitly or implicitly claim to be a Fellow or Member of the American College of Surgeons and may not participate as a leader, speaker, or panelist in College programs.

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facs.org/clincon2025