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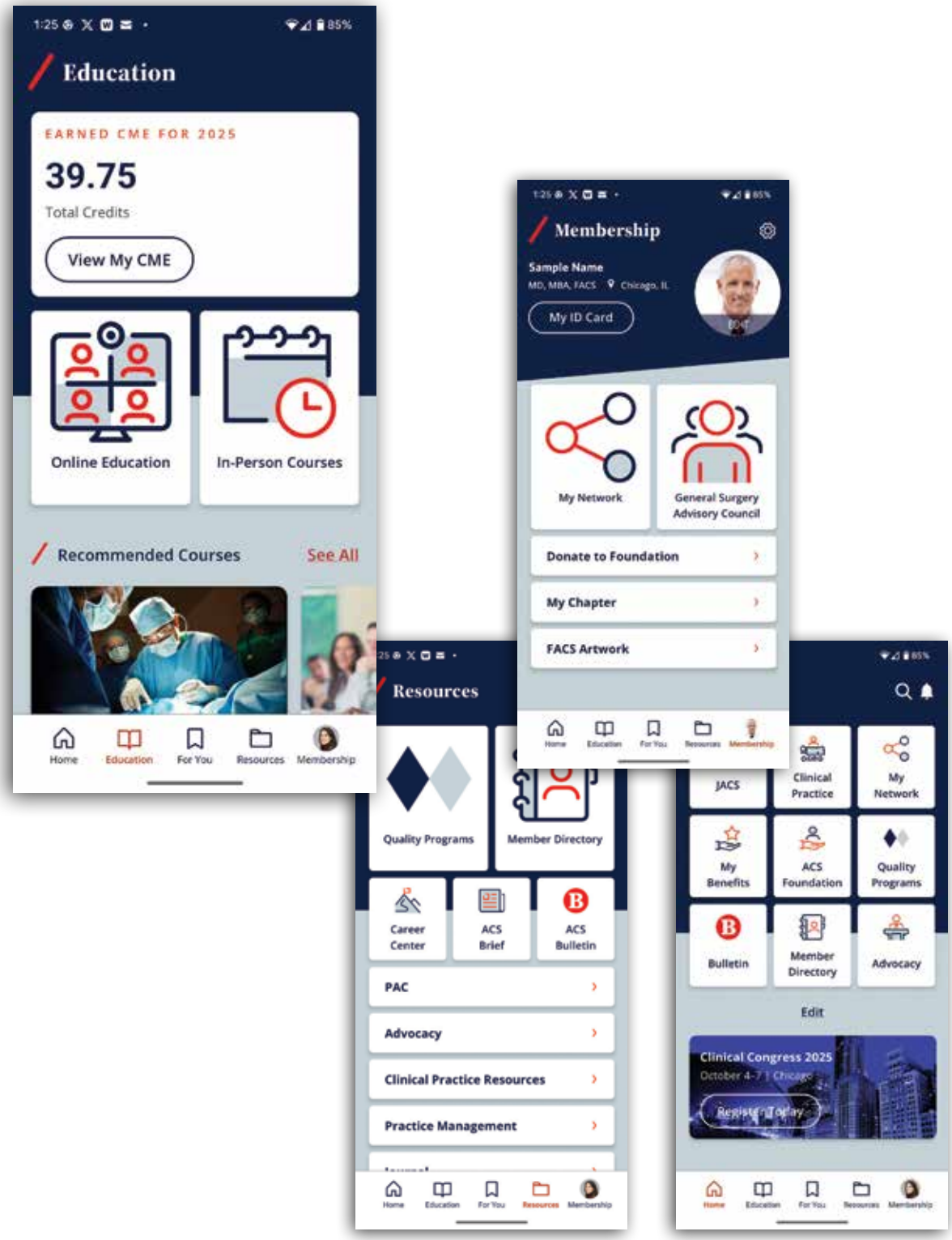

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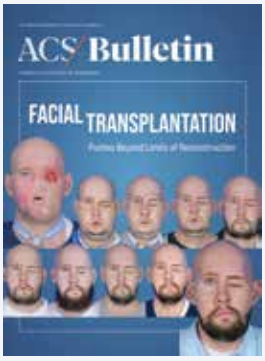

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A Year of New Resources for Surgeons

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

I often use this end-of-year column to highlight ACS resources and opportunities for members. The resources listed below also appear in our Annual Report, released on December 1, which includes many other notable ACS achievements from 2025.

Please access the resources that resonate with you. All offerings in this column are available now or soon to come in the new year.

For Trauma Surgeons Across Disciplines

- ***Best Practices Guidelines for Management of Chest Wall Injuries* and *Best Practices Guidelines for Management of Genitourinary Injuries:*** At this year's Trauma Quality Improvement Program Annual Conference, we released the newest ACS best practices guidelines for the management of chest wall injuries. Our guidelines document on genitourinary injuries was released earlier this year.
- **Updated *Resources for Optimal Care of the Injured Patient:*** In July, we released the 7th edition of this document, an important part of the ACS Trauma Verification, Review, and Consultation Program. If you are engaged with or interested in these standards, please download them today.
- **ATLS® 11:** This summer, we launched the 11th edition of our Advanced Trauma Life Support® (ATLS) program, including updates to the MyATLS app. Please learn more on the ACS website.
- **Bridging Forces: Military-Civilian Partnership Portal:** This web resource builds on ACS efforts to support military surgeons by helping trauma and military surgical departments establish partnerships. These connections can bolster learning, efficacy, and disaster readiness on both sides. See the full portal on *facs.org*.

For Surgical Oncologists

- ***Optimal Resources for Rectal Cancer Care:*** This year, the National Accreditation Program for Rectal Cancer® (NAPRC®) released a new version of these standards. New standards take effect in January and are available now for all interested in the NAPRC.
- **Complex Cancer Surgery Resource Guide:** This new resource expands on the benefits available to Commission on Cancer (CoC)-accredited hospitals and is available to accredited programs via our online portal.
- **New CoC accreditation options:** This year, CoC accreditation was expanded

to Canadian hospitals and pediatric hospitals. We also are establishing standards to accredit rural hospitals in the near future. I strongly encourage surgical oncologists engaged in quality improvement in these hospitals to connect with us.

- **Quality, Safety & Cancer Conference:** Beginning in 2026, we have combined the ACS Cancer Conference with the ACS Quality and Safety Conference, so attendees can receive the benefits of both conferences with a single registration. The integrated conference will now be known as the Quality, Safety & Cancer Conference (QSCC).

For Quality Improvement Teams

- **QSCC:** Surgical teams interested in quality improvement for any type of surgical patient are encouraged to attend QSCC (July 30-August 2, 2026, in Orlando, Florida). Registration will open in the new year.
- **Find a Hospital search feature:** Quality Program participants are highlighted in a search engine that facilitates patients and families finding hospitals verified by ACS Quality Programs. The search page contains contact information, maps, and information on Quality Program participation and will help patients and families feel confident about the care they receive.
- **ACS Quality Improvement Basics course:** Our experience with successful quality improvement programs has expanded worldwide. This year, we adapted the ACS Quality Improvement Course: The Basics for low- and middle-income countries. Our global surgery volunteer initiative, ACS Health Outreach Program for Equity in Global Surgery (ACS H.O.P.E.®), has presented the course in Rwanda, Zambia, and Ethiopia, via our three long-standing surgical teaching hubs.

For General Surgeons and General Surgery Trainees

- **Surgical Education and Self-Assessment Program (SESAP®):** SESAP, a premier educational resource, helps practicing general surgeons gain expertise through hundreds of case-based, multiple-choice questions. The new 19th edition is available now.

For All Surgeons

- **An online hub focused on optimizing surgeons' workplaces:** For the past several years, the ACS has maintained online Practice Management and Clinical Practice hubs as a convenient way for surgeons at all career stages to access meaningful information on these topics. In the new year, we will add a portal offering resources on unionization, collective bargaining, and workplace standards.
- **An opportunity to advocate:** The ACS advocates relentlessly for all US surgeons, and I urge you to join us in the fight. You can raise your voice year-round on local, state, and federal levels via the ACS advocacy center, SurgeonsVoice, our SurgeonsPAC, and other advocacy opportunities.

We need your voice right now. The 2026 Medicare Physician Fee Schedule included planned reductions to work relative value units and an inappropriate efficiency adjustment. The first reduction of 2.5% is slated to take effect on January 1. Please raise your voice by signing a letter asking your Congresspeople to rescind these cuts and protect surgeons' pay. We know ACS members' actions thus far are having an impact on members of Congress.

- **Annual Report:** Please read the entire Annual Report to see many more ACS accomplishments and offerings this year.

Resources for All Surgeons

What matters most to the ACS is what matters to you: helping to ensure the best possible care for our patients and enhancing opportunities for every surgeon to thrive. As this year draws to a close, I remind you that the ACS—The House of Surgery®—is your home as a surgeon, whatever your specialty, location, or practice type.

If there is more that we can do to make this true for you, please contact me directly. I welcome your voice, now and throughout the year.

Happy holidays.

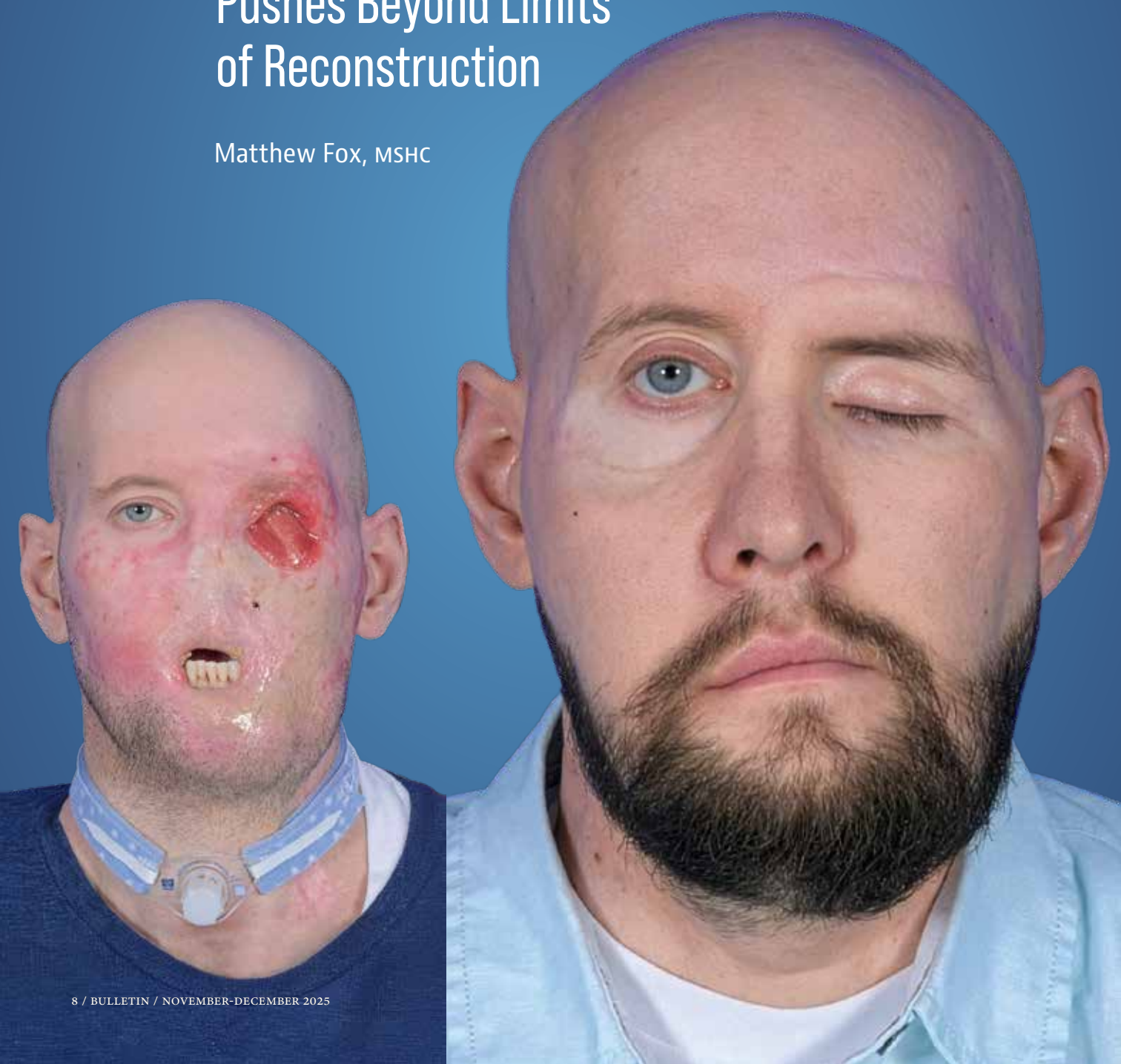
Dr. Patricia Turner *is the Executive Director & CEO of the American College of Surgeons. Contact her at* executivedirector@facs.org.

Read the 2024–2025 ACS Annual Report.

FACIAL TRANSPLANTATION

Pushes Beyond Limits of Reconstruction

Matthew Fox, MSHC



Biomedical and clinical advances are offering surgeons unprecedented opportunities to provide high-quality functional and aesthetically pleasing outcomes for patients with severe injuries.

THERE ARE LIMITS, HOWEVER, to what can be achieved with a purely reconstructive approach.

For individuals who have suffered high-grade facial injuries or disfigurement, lost a major part of their face, and experience extreme functional limitations, an option that is increasingly becoming feasible is facial transplantation.

Surgeons have been slowly but steadily amassing experience and outcomes data on face transplants—once a procedure that seemed more science fiction than clinical reality—since the first successful operation took place in 2005.

Although only 54 face transplants have been completed around the world over the past 20 years, the results of these limited cases have been largely positive. Patients are regaining functionality of their damaged facial subunits, with some limitations, and aesthetic outcomes are constantly improving.[1,2]

Because of the small number of completed facial transplants, each case represents a significant learning opportunity for surgeons and the transplant care team.

Broad Spectrum of Indications

As with a solid organ transplant, the process of a patient receiving a face transplant is extensive and lengthy, but the unique elements of facial transplant require additional layers of preparation.

A face transplant is a form of vascularized composite allotransplantation (VCA), requiring multiple tissue types including skin, fat, muscle, bone, nerves, and blood vessels.[3]

As such, "every case is absolutely unique, because the injury and what needs to be replaced is unique," according to Bruce E. Gelb, MD, FACS, a transplant surgeon and associate professor in the Department of Surgery and Transplant Institute at New York University (NYU) Grossman School of Medicine in New York City, who has served as a medical team leader for NYU Langone's high-profile face transplants for the last decade.

Due to the limited data points on the technique, however, the indications to pursue a transplant are not firmly set and are up to a surgeon to decide.

"It starts with evaluating the surgical defect, and the team has to agree whether it is something that can be managed conventionally or not," said Bohdan Pomahac, MD, the Frank F. Kanthak Professor of Surgery (Plastics) and chief of the Division of Plastic and Reconstructive Surgery at the Yale School of Medicine in New Haven, Connecticut.

Dr. Pomahac also led the first face transplant performed in the US in 2011 while he practiced at Brigham and Women's Hospital and Harvard Medical School in Boston, Massachusetts; he has led the most face transplants of any surgeon in the world.

Beyond the surgical and medical indications, equally important are considerations into a patient's support system, as well as their economic and psychosocial position.

"A face transplant requires that the patient has adequate support. Through a face transplant, we often convert patients who are relatively physically healthy, despite their severe deformity, into somebody who, due to chronic immunosuppression, requires frequent physician visits and follow-ups," Dr. Pomahac said, which means a significant outlay of time for caregivers and money for copays, transportation, housing, and so on.

All organ transplant recipients work with social workers and psychiatrists to ensure they have the support and cognitive ability to receive the transplant and understand the steps needed to help ensure its function and their health. Face transplant recipients, however, are in the unique position of receiving a

Image at left shows a 46-year-old man who sustained a high voltage electrical injury underwent the world's first combined face and whole-eye transplant in 2023.

What drives an efficient and successful day of surgery are advances in technology as well as a strong, multidisciplinary team.

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transplant with a strong visual component that will influence not only their interactions with the outside world, but also their internal world.

"What I discuss with the patients is that when they come out of surgery, it may rekindle the emotional trauma from their original injury, because they may not be able to see, and they won't be able to talk or eat at first," Dr. Gelb said. "They're going to need to relearn a lot of things during the recovery, and they likely will be in the hospital for a long time."

Because the transplant recipients will need to be on immunosuppressive medication for the rest of their lives, they cannot opt out of their healthcare. Immunosuppression will almost certainly shorten a recipient's lifespan and cause medical complications, putting them at risk for diabetes, kidney disease, high blood pressure, and infections.

It is critical that patients understand that a face transplant represents a tradeoff in form and function against overall health. The ongoing logistical and emotional burden of a face transplant requires a strong personal will and commitment to success, as well as long-term mental health support.[4]

Rigorous Preparations

Once the recipient and care team are in accord on pursuing a face transplant, the significant work of preparing for the complex, lengthy procedure begins in earnest.

"We start by doing rehearsals in the OR on research cadavers. We'll have two rooms, and there'll be two cadaver heads, and one team will be removing the tissue to be transplanted, and the other team will be practicing removing the injured tissue in preparation for transplant," Dr. Gelb said.

One of the significant developments that has aided in these VCAs is increasingly specific advanced imaging and surgical guides, he added. CT imaging provides clear imaging of the bones, magnetic resonance neurography shows nerves, and venograms, arteriograms, and angiograms highlight vascular system of recipients, allowing surgeons to create a plan showing how the heterogenous tissues will be connected.

After months of preparation and rehearsals based on the recipient's case profile, once a donor face becomes available, the process accelerates quickly.

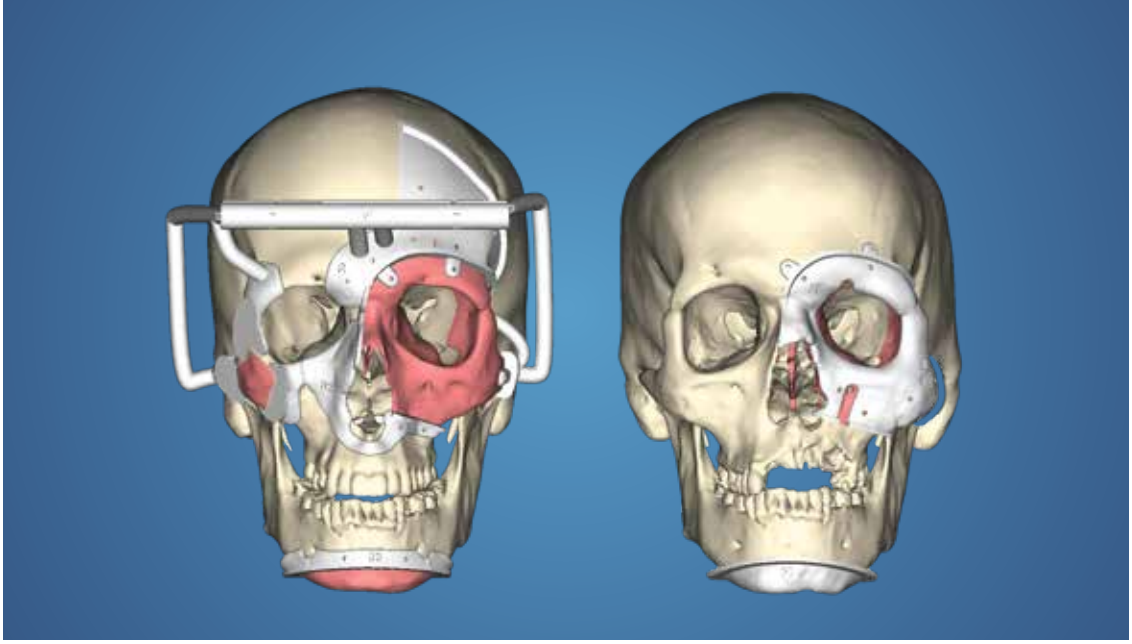
"We work up the donor similarly—very rapidly—and then from that, we know we're going to make our bony cuts on both donor and recipient, and we know the vascular anatomy necessary for a successful transplant," Dr. Gelb said.

But because no two faces are the same and everything must align correctly, part of the computerized surgical plan is creating 3D-printed guides. These are pieces of plastic that snap on so that surgeons know where to make the osteotomies on the donor and recipient.

"The recipient process is completed in advance. On the donor side, we perform the imaging, it gets uploaded, and then the 3D printing starts right away so that we have those cutting guides within a couple hours, and we can proceed with the surgery," Dr. Gelb said.

As an example of the utility of presurgical planning, Dr. Gelb described the preparation for a patient who underwent a combined partial-face and whole-eye transplant in May 2023 at NYU Langone.[5]

The 46-year-old patient experienced a high-voltage burn, where electricity entered the back of his head and conducted through the front. Resultantly, he had severe disfigurement on most of his face and lost his left eye. His mouth was fixed open, so he couldn't eat or drink and speech was severely affected, and his nose was lost.



A diagram shows the 3D-printed cutting guides used on the donor (left) and how they would fit into the recipient (right).

There was no conventional reconstruction approach that could come close to what a face transplant offered and, ultimately, achieved, Dr. Gelb said.

Showing how all severe facial injuries, underlying anatomy, and corrective options were unique, it was determined during the planning process that the patient would be best served with a whole-eye transplant—a historic first.

"Because it was an electrical injury that affected deep tissue and bone, we needed to transplant that whole area of the face—but there was a fistula between the eye socket and his nasopharynx. So, we had to fill that space with a transplant, and the only way to do that was to transplant the eye at the same time," Dr. Gelb said.

"We didn't start off intending to perform an eye transplant, but we had to replace the orbital box, and the safest way to do that is with the eyeball," he explained.

The patient was on the transplant list for about 4 months before a suitable donor was identified, but Dr. Gelb and the transplant team had started preparing before he was formally placed on the list. At least once a month, the surgical teams performed a rehearsal up until the time they did the transplant, which made for a total of 15 rehearsals over a yearlong period.

OR Advances in Technology and Teamwork

The intensive preoperative phase leads to a day of surgery that, while notably long, should proceed as planned. What drives an efficient and successful day of surgery are advances in technology as well as a strong, multidisciplinary team.

"Compared to 10 or 20 years ago, we do have more precise technologies, and robotics is one of them. Microsurgical tools allow us to perform the same task with greater accuracy, whether it's connecting the small blood vessels or nerve branches," Dr. Pomahac said.

"In the big picture, because there are so few of these operations, we have learned how to manage individual tissues to some extent. What do we do with glands that are in the allograft? How do we connect the nerves? How did we do in dissecting the donor's and recipient's bones?" he added.

These multiple tissue types necessitate a multidisciplinary team while in the OR, all applying their specialized care—care that, taken in isolation, isn't necessarily groundbreaking.

"It's very much a team of teams approach. Many of the individual things we're doing are not brand new," Dr. Gelb said. "It's not like xenotransplantation, where we're transplanting a pig organ into someone. It's using highly specialized and well-known areas within different specialties and having them work together."

Members of the surgical team alone may include plastic surgeons, craniofacial surgeons, microvascular free flap surgeons, oral surgeons for dentistry, and ophthalmologists if the eye is involved, in addition to an extensive nursing and technical support staff.

The multidisciplinary nature of the team extends far beyond the OR, including psychology, speech-language pathology, neurology, physical therapy, skin pathology, and radiology, as well as ethicists and patient navigators.[6]

The team effort is greatly enhanced by incorporating known techniques for improving team performance.

"We leverage a lot of high-reliability organization foundations in the OR, including deference to expertise. The surgical team is scrubbed in and focused, so we have people in the room who are

going to point out sterility, the need to change your gloves, and who should move where. It's like air traffic control to ensure safety," Dr. Gelb said.

This stands in stark contrast to historical conceptions of OR leadership, where providing suggestions to the operating team may not have been tolerated by the lead surgeon.

"We intentionally have things set up so that we all acknowledge that someone else is going to see something, and they're saying something if needed," he said.

But because facial transplant science and processes are still in their relative infancy and unique in several ways, there remains a need to improve the intraoperative experience for surgeons.

"I think what we still lack is a two-team approach that exists in other types of transplant surgery—a recovery team and a transplanting team. Right now, it's still one team, and these 24-hour-long operations are exhausting," Dr. Pomahac said.

Addressing Rejection

Effective pre- and intraoperative phases of any surgery are fundamental to long-term success, but facial transplantation presents unique challenges and opportunities with immunosuppression, and the field has seen steady advances in recent years.

"When the field started 20 years ago, transplant teams argued that for a non-lifesaving transplant, you shouldn't need as much immune suppression.

Dr. Eduardo Rodriguez prepares the partial-face and whole-eye transplant recipient for the procedure.

"I think what we still lack is a two-team approach that exists in other types of transplant surgery—a recovery team and a transplanting team. Right now, it's still one team, and these 24-hour-long operations are exhausting."

Dr. Bohdan Pomahac

The focus of the field was minimizing or potentially eliminating immune suppression altogether for face transplants," Dr. Pomahac said.

In a face transplant patient, the supposition at the time was that the rejection would be immediately noticed—unlike a solid internal organ like a kidney or heart—and that greater risks could be taken, such as single-agent therapy. This approach was not successful in solid organ transplantation, primarily because kidney rejection may only be discovered weeks or months after it starts.

Dr. Pomahac explained that the first line of rejection is in the T lymphocytes, and it's only after the rejection goes on for a while and the antigens and targets cells are identified that the B-cell lymphocytes are activated to destroy foreign tissue. However, they also create the memory cells that, like a vaccine, will "remember" and increasingly respond to the foreign tissue. A critical mass of memory cells can lead to loss of the transplant.

If patients let their physicians know they are having an issue—and can tell due to their face swelling or turning red—early intervention can be offered in T-phase rejection.

"What we have learned over the years is that to avoid most of the complications, the best approach is to immunomodulate by putting patients on at least three, but potentially four immunosuppressive medications," Dr. Pomahac said.

While this is a significant amount of immunosuppression, care teams can lower or adjust the dosages over time to minimize the side effects.

"In my mind, that's a huge accomplishment, because we are now learning that these transplants can survive for many years. The oldest face transplant is one of my patients, and she's out 14 and a half years without much sign of chronic rejection," he said.

Still, the possibility of rejection is a clinical reality even years after an initial successful surgery, and the care team will need to provide regular follow-up care to guard against it.[7]

Facing the Future

Dr. Gelb noted that his most recent patient, the whole-eye and partial-face transplant recipient, has made a strong recovery, restoring much function of his mouth and nose, as well as sensation to the transplanted tissue.

In addition, the whole-eye transplant has proven to be a remarkable scientific achievement that will provide the foundation for new research going forward. Previously, the widely accepted understanding was that once an optic nerve is cut, the eye will shrivel and lose form. However, the eye has maintained its health and shape, and the retina has even shown reactivity to light, though the sensation did not pass on to the brain. The optic nerve even showed early signs of trying to regenerate.

"He will never get vision, and the optic nerve has regressed on imaging since that time, but we saw some progress in the first couple months, and there's going to be all sorts of research that comes out of that for the feasibility of eye transplant in the future," Dr. Gelb said.

While this is an exciting time for the science and clinical outcomes of face transplantation, the immediate concerns for the future are more mundane, but no less critical.

First, funding is an issue. As stated earlier, these are expensive operations, and they entail permanent costs to patients and payers due to immunosuppression and ongoing medical needs.

But current funding for the operations comes from government grants or one-off approvals from insurers. To have facial transplantation covered as

The before and after views of a 2015 whole-face transplant—the most extensive ever performed at the time—by the NYU Langone facial transplant team.

a standard of care, it will need to move from being classified as experimental. To that end, stakeholders have come together to create standardized principles for the field.

Leadership in facial transplants were told by payers that they "need to know consensus on indications, consensus on outcomes, and the cost," Dr. Pomahac said.

Efforts to create international standards for face transplants have already seen success,[8] and US-based standards are now progressing as well.

The US Department of Defense (DoD) tasked the National Academies with creating standards for face and hand transplants—another type of VCA. The group published a report outlining principles and a framework for standardizing protocols in these VCA transplants, which was the foundation for the creation of the Clinical Organization Network for Standardization of Reconstructive Transplantation (CONSORT).[9]

Created at the request of the DoD, Dr. Pomahac is a lead researcher for CONSORT using data from every major face transplant center in the US.

"The goal of phase one is to develop the standards on indications, immune suppression management, outcomes, and then based on that, run a cohesive clinical trial on face and hand transplant," Dr. Pomahac said.

At the conclusion of the trial, the hope is that the data provided to insurance companies will allow the procedures to be covered alongside other transplant surgeries. The research derived from the trial already is credited with leading to the world's first face and bilateral hand transplant,[10] which was led by Eduardo D. Rodriguez, MD, DDS, FACS, director of the NYU Langone Face Transplant Program and the NYU Langone Laura and Isaac Perlmutter Cosmetic Plastic Surgery Center. Dr. Rodriguez is the lead surgeon on face transplants performed at NYU Langone.

The second challenge is related to referrals for face transplants. Many surgeons, much less patients, are not aware that a facial transplant is even a possibility for a severe injury or disfigurement, Dr. Gelb said.

"If you think of it on the continuum of treating devastating facial injuries, a face transplant is the last resort. What tends to happen is that patients are treated for an injury in a trauma center, they're stabilized, and then there are many attempts at reconstructive surgery—all of which makes it even harder to do the transplant, because you need to undo all that work," he said.

Early referral to face transplant centers or surgeons then becomes critically important to ensure that the appropriate patient has access to the care when it would make the most impact.

As Dr. Gelb noted, his team often is approached by potential candidates based on self-referrals.

"They might see an article on a face transplant in *People* magazine, and then they call the center. Needless to say, your primary referral source should not be a magazine," he said, adding that members of the field seek to establish a formal referral network accessible to surgeons and patient alike.

Ultimately, in these still early days of remarkable growth and achievement in facial transplantation, the

goal is to make severely injured patients aware that this option exists, and that it can profoundly affect their lives by returning them to acceptable form, adequate function, and a normal life.

"We as surgeons say this is a life-changing procedure, not necessarily a lifesaving one," Dr. Gelb said. "But almost all the patients who have a face transplant say, no, this is lifesaving, because they were not really living with the injury they had."

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

References

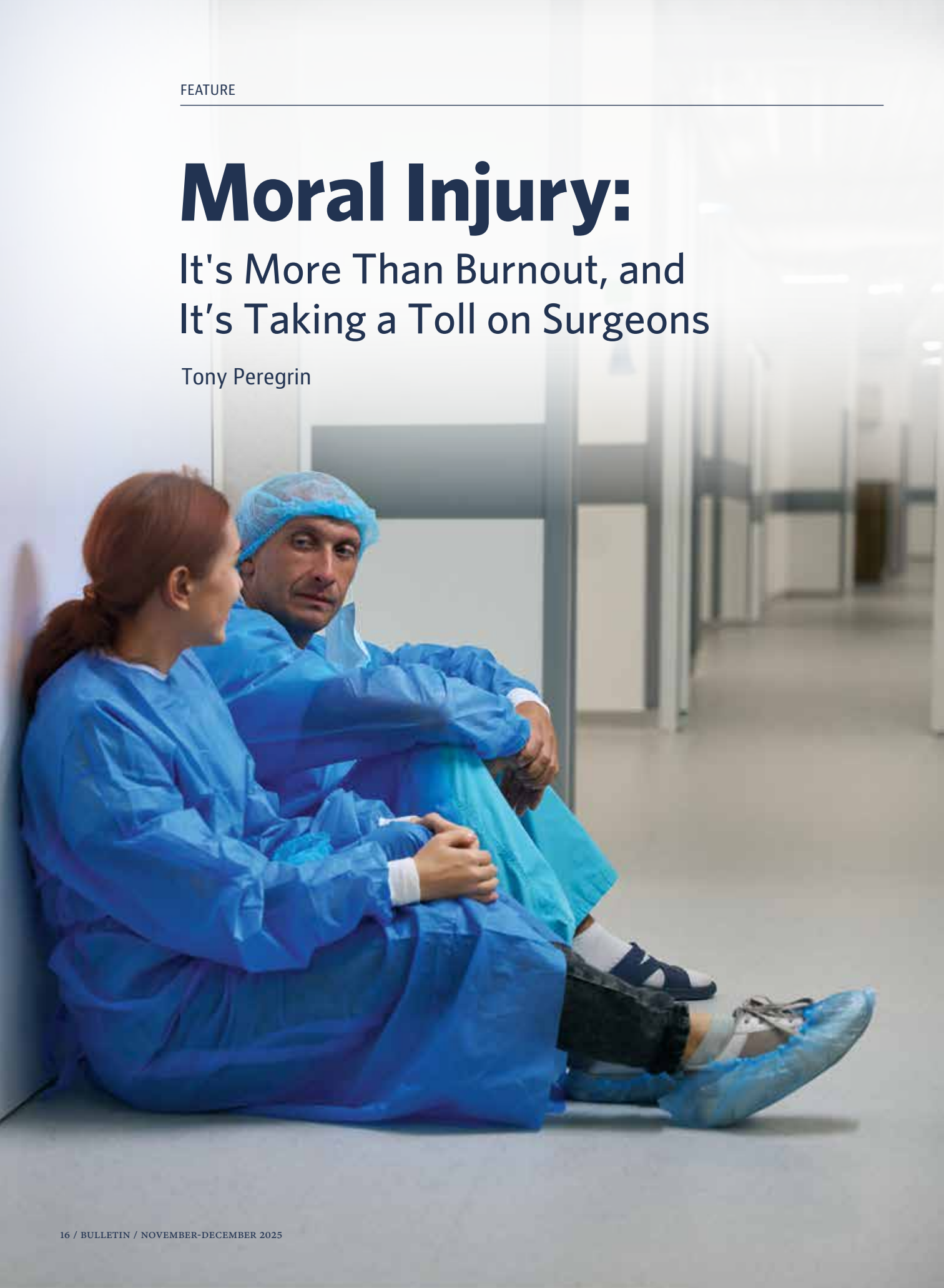
1. Homsy P, Huelsboemer L, Barret JP, et al. An update on the survival of the first 50 face transplants worldwide. *JAMA Surg.* 2024;159(12):1339-1345.
2. Cavaliere A, Rega U, Grimaldi S, et al. Long-term outcomes, and future challenges in face transplantation. *J Plast Reconstr Aesthet Surg.* 2024;92:87-103.
3. Henderson ML. The landscape of vascularized composite allograft donation in the United States. *Curr Opin Organ Transplant.* 2019;24(6):699-704.
4. Huelsboemer L, Stögner VA, Hosseini H, et al. Update on long-term mental health outcomes in eight face transplant recipients from a single center. *Int J Psychiatry Med.* 2024;59(5):583-594.
5. Ceradini DJ, Tran DL, Dedania VS, et al. Combined whole-eye and face transplant: Microsurgical strategy and 1-year clinical course. *JAMA.* 2024;332(18):1551-1558.
6. Bueno EM, Diaz-Siso JR, Pomahac B. A multidisciplinary protocol for face transplantation at Brigham and Women's Hospital. *J Plast Reconstr Aesthet Surg.* 2011;64(12):1572-1579.
7. Huelsboemer L, Kauke-Navarro M, Boroumand S, et al. Ten-year follow-up after face transplantation-A single-center retrospective cohort study. *Am J Transplant.* 2025;25(3):611-622.
8. Longo B, Alberti FB, Pomahac B, et al. International consensus recommendations on face transplantation: A 2-step Delphi study. *Am J Transplant.* 2024;24(1):104-114.
9. National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Health Sciences Policy; Board on Health Care Services; Committee on Principles and Framework to Guide the Development of Protocols and Standard Operating Procedures for Face and Hand Transplants, Cooper R, Kizer KW, eds. *Advancing Face and Hand Transplantation: Principles and Framework for Developing Standardized Protocols.* Washington (DC): National Academies Press (US); May 28, 2025.
10. Ramly EP, Alfonso AR, Berman ZP, et al. The first successful combined full face and bilateral hand transplant. *Plast Reconstr Surg.* 2022;150(2):414-428.

The large surgical care team members perform their dedicated roles during a transplant surgery.

Moral Injury:

It's More Than Burnout, and It's Taking a Toll on Surgeons

Tony Peregrin



Moral injury can occur when surgeons fail to prevent or witness an act that conflicts with their professional values, typically when circumstances result in negative patient outcomes.

THE PSYCHOLOGICAL TRAUMA following these events can lead to second victim syndrome, characterized by guilt and diminished confidence, and if not addressed, can progress to burnout, a condition marked by emotional exhaustion, reduced job satisfaction, and a detached attitude toward patient care.

The concept of "moral injury" was introduced by psychiatrist Jonathan Shay, MD, PhD, in the 1990s to describe the ethics-related psychological damage experienced by Vietnam veterans. In 2009, psychologist Brett T. Litz, PhD, and colleagues formalized this concept, distinguishing it from post-traumatic distress syndrome by emphasizing guilt, shame, and other behaviors stemming from moral conflict rather than just fear.[1]

"The term 'moral injury' captures our attention because it signifies injury. It's hurt; it's harm," explained Sunil K. Geevarghese, MD, MSCI, FACS, medical director of transplant perioperative services and professor of surgery, radiology, and biomedical engineering in the Division of Hepatobiliary Surgery and Liver Transplantation at Vanderbilt University Medical Center in Nashville, Tennessee, and a renowned educator and national lecturer on surgical wellness and moral injury. "But part of the challenge here is that we might be upset about any number of things in our lives that do not constitute moral injury, which at its highest level, threatens the surgeon's identity and his or her relationships with others."

In fact, moral injury goes beyond mere job-related stress and involves high-stakes ethical conflicts that can result in significant psychological harm.

"I think individuals sometimes use the terms 'moral injury' and 'moral distress' interchangeably," said Katherine Fischkoff, MD, FACS, chief of general surgery at NewYork-Presbyterian/Columbia University Irving Medical Center in New York City. "Moral distress is usually a specific incident where you feel that your values are not aligned with whatever the circumstances are in that moment."

She shared an example of a patient's family insisting on continuing full care, even though the patient is dying. The surgeon may find that to be morally distressing because they must come in every day and take care of a patient who is suffering and unable to make decisions.

"Moral injury is the bigger, broader piece, where you have multiple events of moral distress that add up to cause a larger, existential misalignment with your job," said Dr. Fischkoff, who is coauthor of "How Should We Understand Regret as a Moral Psychological Experience that Can Influence Clinical Decision-Making?," published in the *AMA Journal of Ethics*.

Moral Distress Among Surgeons

The reported prevalence of moral distress among surgeons and other physicians is inconsistent and varies by specialty.

A survey of neurosurgeons conducted in 2022 revealed that nearly half of those surveyed (47.7%) reported "significant moral distress within the past year," and managing critical patients without a clear treatment plan was found to be the leading contributing factor for experiencing this

psychological anguish.[2] "Neurosurgical distress is at its greatest intensity when a neurosurgeon feels obligated to perform futile surgery because of family insistence, surrogate indecisiveness, or medicolegal concerns," note the study's authors. Moral distress was linked to 9.8% of neurosurgeons leaving a position, with 26.6% of respondents contemplating their departure from the role.

In a study published in 2020, researchers evaluated data from a mailed survey completed by 2,161 surgeons representing multiple specialties. Using the revised Moral Distress Scale, a tool that measures moral distress in clinicians, the study authors found that 34% of respondents experienced moral distress related to perceived pressure to perform surgery with no clear patient benefit.[3]

More than half of survey respondents (58%) indicated that they are sometimes or often asked to perform nonbeneficial surgery. The study authors suggested institutions enhance "communication skills that effectively support the emotional needs of patients and families [to] improve the ability to attend to these needs without surgery" in an effort to reduce the incidence of nonbeneficial surgery and moral distress among surgeons.

On the other hand, data quantifying moral injury are scarce, although research suggests it is an emerging issue with profound implications, particularly for surgeons.

"I would be surprised if many surgeons have experienced moral injury," said Dr. Fischkoff. "I would guess that most surgeons feel very good about what they do, and they feel a great deal of satisfaction when an operation is done well with a good outcome—which is the whole point of our jobs. It's why we do this. What is important is to figure out how to learn from a bad outcome rather than let it become destructive."

In fact, adverse patient outcomes can be a significant trigger for surgeons experiencing moral injury.

"One of the most powerful examples of a major complication that could result in moral injury is interoperative death, meaning a death in the midst of an operation, whether it is an emergent case, trauma case, or an elective procedure," said Dr. Geevarghese. "There are most certainly complications in every surgeon's career that could have this kind of effect but may not be as stark as death. It could be bleeding after an operation; it could be liver failure after a liver resection; it could be the failure of whatever the intent of the procedure is that you are doing. I think it's important to realize the common denominator is that the complication itself can happen even if you do the right thing for the right reason at the right time."

In addition to adverse patient outcomes, institution-driven constraints that limit the provision of optimal care and observing unethical conduct by colleagues can also result in moral injury, especially if there is a pattern of these events and behaviors.

"I think it is important to realize that moral injury isn't a diagnosis," he said. "It is not codified as a psychiatric disorder by the American Psychiatric Association in the DSM-5-TR [*Diagnostic and Statistical Manual of Mental Disorders,* Fifth Edition], but it is most certainly an event that occurs and has a major impact on our psyche."

While many healthcare providers grapple with moral distress and moral injury, surgeons are uniquely positioned to experience the psychological repercussions of these events due to the invasive nature of their work.

Why Are Surgeons Vulnerable to Moral Injury?

While many healthcare providers grapple with moral distress and moral injury, surgeons are uniquely positioned to experience the psychological repercussions of these events due to the invasive nature of their work.

"As surgeons, we enter into these unspoken, high-risk contracts with our patients to provide high-quality care," explained Dr. Fischkoff. "And unlike other specialties, I would argue, surgeons have a different connection to their patients in that we have a direct impact on their outcome. We are one of the few specialties where we are, if something goes wrong on our end, directly responsible for that outcome."

In an article cowritten by Dr. Fischkoff and published in the November 2023 issue of the *Journal of the American College of Surgeons*, the authors noted: "Surgeons live and practice an intense form of applied ethics. Several unique features of the surgeon-patient relationship distinguish surgical ethics from general medical ethics. These include the relational proximity of surgeons to their patients, the harm inflicted on patients as part of surgery, and the surgeons' unique power to rescue patients."[4]

More recently, in an article published in the *AMA Journal of Ethics*, Dr. Fischkoff described the psychological distress experienced by surgeons within the framework of regret: "Surgeon regret is a powerful experience that shapes a surgeon's sense of self, future interactions with patients, and intraoperative decision-making. While all physicians are exposed to complex and formative moral experiences, surgeons have a unique exposure to regret and moral injury, given the invasive nature of their relationship with their patients and the highly interdependent "surgical contract" they form with their patients."[5]

Dr. Fischkoff concluded the article by noting that while regret is an unavoidable experience for surgeons, it is beneficial to view these episodes as an opportunity for professional growth.

"The only surgeon who never has complications is a surgeon who never operates," wrote the authors, quoting a common aphorism. "By confronting regret, surgeons can develop the resilience needed to continue providing compassionate, confident care in the face of inevitable challenges."

Early career surgeons are particularly susceptible to experiencing moral injury due, in part, to their limited clinical experience and a lack of fully developed coping mechanisms. In an article published in the *Annals of Surgery* earlier this year, Dr. Geevarghese and colleagues conducted a literature review of moral injury in healthcare, along with an analysis of surgical career pathways and outcomes reporting data.[1]

Based on their findings, the authors suggested that "protective equity" accumulates over the duration of a surgical career, while vulnerability follows an M-shaped curve with peaks in both early and late careers. Protective equity in this context refers to the respected and often distinguished professional reputation of a senior surgeon based on a consistent pattern of successes and positive outcomes.

"Early in your career—when you haven't developed all the credibility that you will have at the mid-career stage—is a period of vulnerability, when you are more vulnerable to moral injury," explained Dr. Geevarghese. "As you develop protective equity, which you might think of as a kind of 'bank

account' of credibility driven by great outcomes, your esteem within the practice and within your referral base grows. This protective equity can shield surgeons from experiencing the adverse effect of morally injurious events."

Unfortunately, protective equity can fade over time, leaving later career surgeons feeling as vulnerable as their early career colleagues. "Concerns regarding cognitive and technical competence arise resulting in a second peak of vulnerability, resulting in the potential for increased sensitivity to moral injurious events," said Dr. Geevarghese.

Cultivating Emotional Fortitude Through Peer Support

Regardless of career stage, the authors of the *Annals of Surgery* article suggested that building resilience should begin during surgical training and that early career surgeons should be paired with senior faculty members trained in peer support methodologies that could perform "moral injury primary care provider roles."

In this approach, it is recommended that junior surgeons be required to check in with their mentors twice a year for the first 5 years of practice, "similar to asking patients to undergo a preventative screening colonoscopy."

Check-ins would address the surgeon's clinical development and any associated moral injury or distress. At the health system level, medical center administrators are encouraged to provide resources that offer guidance on ethical decision-making and to "foster a culture of accountability without blame."

"The tagline for my presentations on this topic is 'moral injury happens, second victim syndrome and burnout do not have to happen'—and peer support can help prevent this cascade of events," said Dr. Geevarghese. "Just as multiple hits of acute kidney injury can develop over time into kidney failure, the aggregation of moral injury over time can have a devastating effect on surgeons and lead to second victim syndrome and burnout."

According to The Joint Commission and other sources, it is estimated that nearly half of all healthcare providers could experience second victim syndrome at least once during their career. A 2014 survey of 1,755 international physicians found that most physicians had been involved in a serious safety event and most admitted to experiencing second victim effects.

Interestingly, The Joint Commission notes there is currently "disagreement about the use of the term [second victim syndrome]," which was originally conceived by Albert Wu, MD, MPH, in 2000—although alternative terminology has not yet been widely introduced.[6]

"I don't necessarily appreciate the idea that the surgeon is a victim, but I appreciate the idea that there is an acknowledgment of the emotional and professional impact that these events can have on a

Strategies for building moral resilience include institutional support, such as policies that address the blame and stigma sometimes associated with negative outcomes, and targeted interventions like peer support programs.

surgeon as well as the patient," said Dr. Fischkoff. "The typical surgeon who, in the course of their career, makes mistakes needs to be supported. So, I think I would do away with that term altogether and enhance the concept that is part of our job, and we need mechanisms in place to help manage experiences related to regret, moral distress, and moral injury."

Strategies for building moral resilience include institutional support, such as policies that address the blame and stigma sometimes associated with negative outcomes, and targeted interventions like peer support programs.

"Peer support is a very powerful way to destigmatize emotional and moral distress," said Dr. Geevarghese. "I would argue that—as surgeons—all of us are vulnerable and that we need to develop a willingness to be helped."

The ACS offers many resources to help manage the challenges related to moral injury and moral distress, including ACS Colleague Connection—a member benefit that offers confidential peer-to-peer support. For more information, visit: *facs.org/for-medical-professionals/membership-community/acs-colleague-connection.*

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References

1. Vimalathas P, Gordon E, Nieuwsma JA, Meador K, et al. From moral injury vulnerability to protective equity: The voyage every surgeon must take. *Ann Surg*. 2025;281(6):903-905.
2. Mackel CE, Alterman RL, Buss MK, Reynolds RM, et al. Moral distress and moral injury among attending neurosurgeons: A national survey. *Neurosurgery*. 2022;91(1):59-65.
3. Zimmermann CJ, Taylor LJ, Tucholka JL, Buffington A, et al. The association between factors promoting nonbeneficial surgery and moral distress: A national survey of surgeons. *Ann Surg*. 2022;276(1):94-100.
4. Char S, S Prager K, Dugdale L, Fischkoff K. Surgeon perspectives on daily presentation of ethical dilemmas: A qualitative study. *J Am Coll Surg*. 2023:237(5):751-761.
5. Spaulding SL, Fischkoff K. How should we understand regret as a moral psychological experience that can influence clinical decision-making? *AMA J Ethics*. 2025;27(3):E222-E226.
6. The Joint Commission. Supporting Second Victims. *Quick Safety Issue 39*. January 22, 2018. Available at: https://www.jointcommission.org/en-us/knowledge-library/newsletters/quick-safety/issue-39. Accessed October 3, 2025.

Smarter Tools, Culture Shift Are Reshaping Surgical Ergonomics

Jim McCartney

Growing awareness of musculoskeletal strain among surgeons has brought new meaning to the old proverb, "Physician, heal thyself."

PHYSICIANS, ESPECIALLY SURGEONS, are finding that if they do not take precautions, they may end up in pain, debilitated, and even in a shortened career.

By spending long hours in static positions performing repetitive, highly precise tasks over many years, more than 80% of surgeons have suffered from a work-related injury or illness.[1] Most of these injuries consist of musculoskeletal pain involving the neck, back, shoulders, and arms that can impact the surgeon's ability to operate and could lead to spine surgery and early retirement.[2]

This problem traditionally has been ignored for a variety of reasons, including an intense focus on the patient and an unyielding surgeon culture.

"In the past, of course the patient's comfort was always the most important thing, but it was to the exclusion of all else," said Susan Carter, MD, FACS, executive director of the Office of Simulation in Medicine and Surgery at Rocky Vista University in Parker, Colorado. "You were just supposed to suck it up, and if you're uncomfortable, that's okay because it's only about the patient."

There is a growing realization, however, that when surgeons are in pain, they are not at their best, and that may not only hurt them but also could compromise the safety of their patients.

"To help our patients, we need to be at the top of our game," said David J. Welsh, MD, MBA, FACS, a private practice surgeon and ACS Regent in Batesville, Indiana.

Attendees at Clinical Congress 2025 in Chicago, Illinois, participated in an ergonomic stretching routine.

As new technology and equipment often exacerbate the physical strain of being a surgeon, the resulting injuries and early retirements have become hard to ignore.

"There are a significant number of surgeons who actually have to curtail their careers because of back problems or back and neck issues," said cardiothoracic surgeon Tom C. Nguyen, MD, FACS, chair of the Department of Cardiovascular Sciences at Florida International University Herbert Wertheim College of Medicine, chief medical executive of Baptist Health Heart & Vascular Care, and the Barry T. Katzen Endowed Chair and director of minimally invasive valve surgery at Miami Cardiac & Vascular Institute, all in Miami, Florida.

Dr. Welsh said he has "close colleagues and friends who have been decimated" by ergonomic issues, including an interventional radiologist who had his first neck surgery in his 30s.

Work-related injury can take a personal toll on surgeons, negatively impacting their quality of life and contributing to burnout. When it cuts a surgeon's career short, the financial and emotional consequences can be devastating.

"Surgeons love to operate, and they love their patients. To take away their life goal—something that fulfills them and makes them happy—is just a shame," Dr. Welsh shared.

In addition, early retirements as a result of ergonomic issues can stress a healthcare system already facing a shortage of surgeons.

Equipment and Instruments

Outdated design of surgical equipment forces surgeons to acclimate to a potentially unsafe working environment.

For example, the "one-size-fits-all" approach to instrumentation and other OR equipment can harm those who are outside the established "norm"—a trend that has increasingly surfaced as more women have joined the ranks of surgeons.[3]

Female surgeons can face ergonomic challenges in the OR due to equipment design, operating table height, and lifting requirements, which can lead to increased musculoskeletal injuries and discomfort. There is often a mismatch between standard surgical tools and the physical characteristics of many female surgeons, such as smaller hand sizes and lower overall muscle mass.

"The equipment is not for someone who is 5'6" and 135 pounds; it's designed for someone who is 6'0" and 190 pounds with proportionately sized hands," Dr. Welsh said.

Significantly more female than male surgeons report operation-related musculoskeletal injury, according to one study.[4] For example, Dr. Welsh said he knows a female ear, nose, and throat specialist whose operating career was shortened by 20 years due to the debilitating strain of wearing a loupe and headlight.

Advances in surgical technology—particularly minimally invasive techniques such as laparoscopy—also can place surgeons in ergonomically challenging positions that strain the neck, back, and extremities.

"Robotic surgery improves things because you're sitting in a neutral position to perform surgery versus standing up in an awkward position."

Dr. Tom Nguyen

Notably, research shows that 60% of surgeons report neck pain 12 months after open surgery,[5] and 87% report pain after regularly performing minimally invasive surgery.[6]

Specialties that require longer operative times, surgical loupes, and awkward positioning are growing in practice. As minimally invasive surgery becomes more common, so do contorted hand and limb positions and uncomfortable neck angles.[7] As a result, minimally invasive surgeons are three to five times more likely to experience neck and shoulder pain than those performing open surgery.[8]

"We need to partner with industry to develop new tools that will allow us to avoid these weird operating configurations," Dr. Welsh said, adding that ergonomics can be an issue for other OR personnel as well—from anesthesiologists to nurses to x-ray technicians.

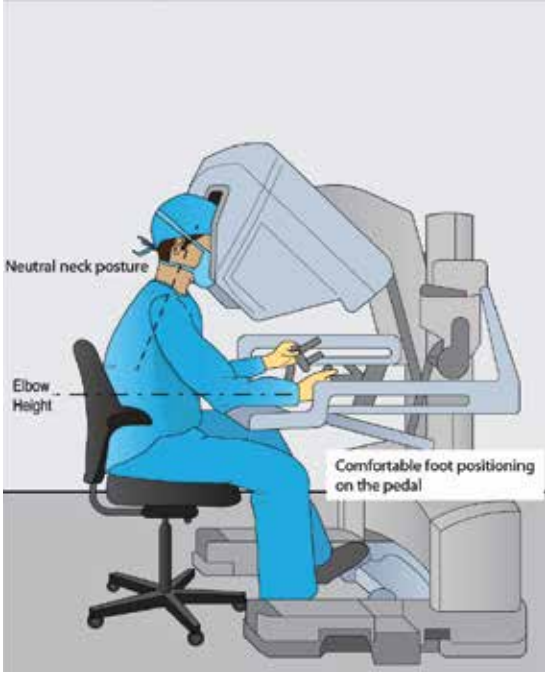
"We have to look at ergonomics for the whole system," he explained.

Ergonomic Innovations in the OR

Numerous ergonomic innovations, including equipment that is voice-controlled, adjustable, or comes in various sizes; customized OR reconfigurations like multiple monitors and adjustable table heights; and even wearable sensors and exoskeletons, have been developed and evaluated over the years. Hospitals, especially rural hospitals, may use ergonomic-friendly setups and instruments to recruit women surgeons, Dr. Welsh said.

A big advance has been robotic-assisted surgery, which allows surgeons to operate while sitting in a workstation that can be adjusted to their personal specifications, making it ergonomically superior to open and laparoscopic surgery, according to Dr. Carter. Other benefits, like improved visualization and enhanced dexterity, also can lead to reduced physical and mental fatigue.

"Robotic surgery improves things because you're sitting in a neutral position to perform surgery



(Left) The illustration shows optimal armrest, seat, and pedal positioning for robotic surgery. (Right) Gyusung I. Lee, PhD, explains the importance of maintaining correct posture and reducing musculoskeletal strain while sitting at a robotic console.

versus standing up in an awkward position," Dr. Nguyen said.

Still, despite its benefits, rates of physical strain remain significant among surgical robotics operators and should be addressed by formal ergonomic training and adequate console familiarization.[9]

"As technology has advanced, ergonomic challenges have varied," Dr. Carter said. "The sitting position offers different overuse issues, such as stress on the upper back and neck."

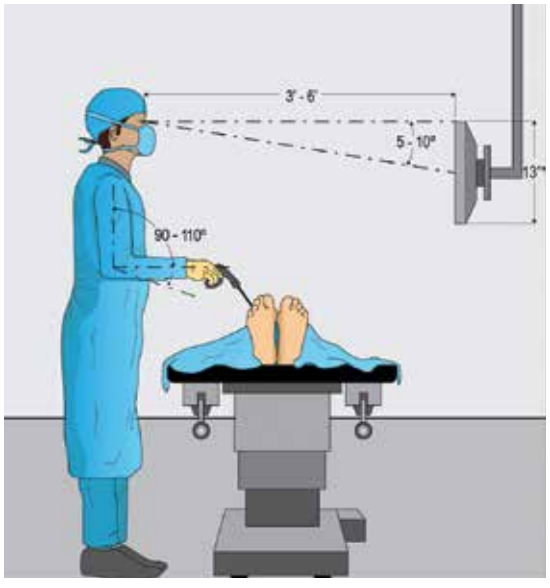
Emerging trends in ergonomics innovation include:

- **Next-generation instrument design:** This design approach includes lighter, better-balanced, and more intuitive tools. For example, loupes are now angled to allow the head and neck to stay upright, eliminating the tension from bending the neck, Dr. Nguyen said.

  Many headlights now use LED lighting and are less heavy, reducing neck strain, while some laparoscopic instruments are specifically sized. "Instruments have been made with smaller handles to reduce hand fatigue and improve precision and with lighter weight material so they're not as heavy and clunky as they used to be," Dr. Carter said, noting that she would like surgical instruments, including laparoscopic instruments, to be available in a variety of sizes.
- **Laparoscopic and robotic system refinements:** These improvements feature improved console ergonomics, arm support systems, and haptic feedback technology.
- **Customized OR configurations:** This design approach could include adjustable table heights, modular OR furniture, and repositionable monitors for optimal posture. Rather than depend on one scope, which requires some awkward bending and twisting, minimally invasive surgeons can now use multiple screens throughout the OR to keep their gaze horizontal and their heads and necks erect, Dr. Carter said. Table heights can be moved up and down or even tilted.

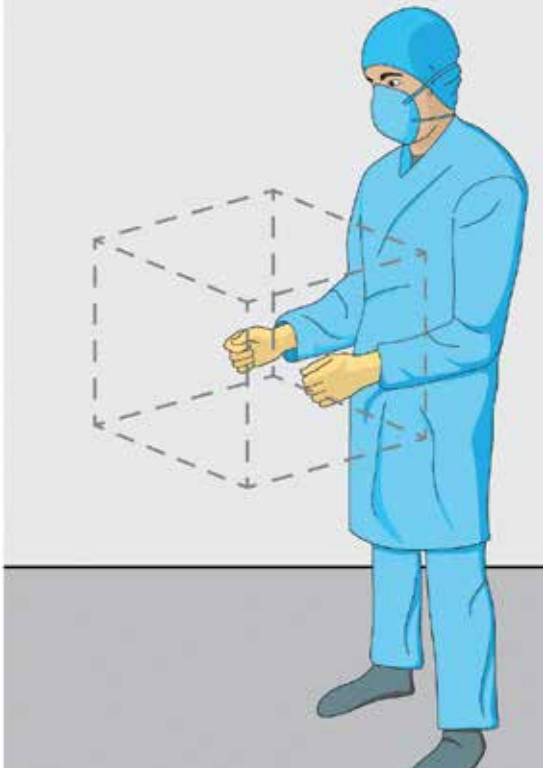
The question is—will hospitals invest in these new approaches? While Dr. Carter asserted that most "hospitals and hospital systems make an effort to improve the ergonomics," Dr. Welsh said he believes such decisions will "come down to what can be incorporated in a cost-effective manner."

Dr. Nguyen suggested that the case for investing in these new approaches will advance once motion studies demonstrate their benefits and ergonomics



(Left) For laparoscopic surgery, the operating table should be at a lower height than open surgery to keep the hands near or below elbow height or elbows at an angle of 90-110 degrees. (Right) A Clinical Congress 2025 attendee visits the Exhibit Hall and learns how a step stool in the OR can be crucial to helping surgeons avoid awkward postures and strain.

Ergonomic training also may include a focus on positioning techniques and instrument handling skills.



The ergonomic recommendation to "work inside the box" suggests that surgeons maintain a neutral, comfortable posture, keeping their wrists straight and elbows near a 90-degree angle, and avoiding crossing their arms.

become an integral part of quality improvement and workforce sustainability.

Wearables and Data-Driven Ergonomics

Researchers are conducting motion studies to identify ergonomic weak points and opportunities to create ergonomic breakthroughs.

For example, wearable sensors and posture-tracking devices are being used to monitor surgeon movement and strain, and potentially integrate these data into training and workflow optimization.

"We can use sensors to track what some of the issues are and find ways to correct them," said Dr. Nguyen, who is conducting such a study.

The first part of this study will measure when things derail, and the second will be interventional—the sensor will buzz to let the surgeon know they need to correct their posture or movements.

Sensors and posture tracking devices will become common in OR simulation training as well.

Meanwhile, data from these wearable sensors can be analyzed using artificial intelligence (AI) to provide real-time feedback on posture, muscle load, and OR fatigue metrics. Surgeons also can leverage AI-powered motion analysis tools to assess their ergonomics and receive detailed feedback on areas that deviate from optimal posture or technique.

Training Surgeons to Move Smarter

More data-based research may lead to better training, helping to overcome a lack of awareness about the ergonomics problem.

Surgeons significantly underreport the incidence of work-related injuries. In some cases, surgeons may not report mild symptoms; in others, they fear that reporting symptoms could lead to missed work or be perceived as a sign of weakness.[10]

However, awareness of the ergonomic risks within the OR is spreading among residents, younger surgeons, and leaders of professional surgical associations, Dr. Welsh said. As a result, surgical training is shifting from ignoring stress and discouraging conversations about well-being and burnout to fostering surgeon wellness, including preventing work-related pain, injury, and burnout.[7]

Ergonomic training also may include a focus on positioning techniques and instrument handling skills. Microbreaks—brief pauses during which surgeons check their posture, relax their shoulders, and reset their positioning at the console—also are important, according to Dr. Carter.

Simulation has become an increasingly important component of surgical training, extending to ergonomics and posture awareness.

"A simulator is a perfect way for surgeons to recognize and develop self-awareness of their ergonomic deficits," Dr. Carter said.

The ACS has brought surgeons and engineers together to discuss surgical simulation. Among the topics the College is exploring: using AI-driven sensors to develop feedback for surgeons about what they're doing incorrectly and how to feel more comfortable.

"The robotic simulator feels remarkably close to the real thing," Dr. Carter said. "You quickly realize how certain movements or postures can create extra strain on your joints and muscles."

Upper trapezius stretching and the passive wrist extension with straight elbow are recommended between-cases exercises for surgeons.

Ergonomics training can ingrain good ergonomic habits early that could extend surgeons' careers, she added.

Cultural Shift: From Stoicism to Wellness

Surgeon ergonomics will improve not just through better training and equipment, but also by changing the cultural belief that enduring pain is a mark of toughness. Ergonomics must be recognized as part of surgical professionalism.

In fact, the hesitancy to seek help, compounded by long work hours, poor nutrition, lack of sleep, and poor conditioning, creates the perfect storm for injury.

"Stop suffering in silence," Dr. Nguyen said. "Ergonomics should be discussed and studied, not stigmatized. Surgeons need to shift from stoicism to proactive self-care, and we should view and treat ourselves as athletes. It's how you practice, rest, and recover that wins the game. But we surgeons are not very good at that."

Similar to high-performance athletes, surgeons need to train intently, and be ready to execute precise movements, avoid errors, and maintain excellence. They need to build strength and flexibility to perform well even in the face of fatigue and inadequate hydration.[11]

A taekwondo enthusiast, Dr. Welsh said some of his warmup exercises—which focus on maintaining core strength and staying limber—also are recommended for surgeons by the ACS Surgical Ergonomics Committee (he and Dr. Carter are members).

In addition, stretching, deep breaths, microbreaks, shrugging shoulders, and flex extensions are all simple moves that surgeons can do before, during, and after they operate, Dr. Carter shared.

The Surgical Ergonomics Committee recently published *Surgical Ergonomics Recommendations,* featuring general suggestions (e.g., optimal OR table height) that are applicable across different surgical disciplines, along with surgical technique-specific recommendations (e.g., optimal monitor positioning for laparoscopic surgery). The document also includes different stretching exercise protocols that can be implemented in the OR, between cases, or at home. Various subject matter experts, including experienced surgeons, physical and cognitive ergonomics and human factors researchers, an industrial and systems engineer, occupational safety scientist, health design architect, and physical therapist, contributed to these best practice recommendations, which are available on *facs.org.*

Surgeon ergonomics will improve not just through better training and equipment, but also by changing the cultural belief that enduring pain is a mark of toughness.

What's Next?

Future ergonomics developments in surgical equipment and environments include adaptive OR setups, exoskeletons, voice-controlled interfaces, and AI-guided motion coaching.

- **Exoskeletons**, which are frequently used in industry, are being increasingly adopted in surgery to mitigate musculoskeletal strain. These wearable devices support the arms, shoulders, and back, and can help reduce pain, fatigue, and improve precision during long and demanding surgical procedures. Studies have shown that exoskeletons can lead to decreased muscle activation and improved posture for surgeons.[12]
- **Surgical instrument sensors and connectivity** are poised to significantly enhance surgeon ergonomics by providing a more comfortable, intuitive, and efficient surgical experience. These smart instruments can recognize different tissue types, temperatures, and tactile pressures, and offer real-time feedback, such as warning surgeons not to get too close to an organ, vessel, or nerve, Dr. Carter said.
- **Personalized ergonomics**, including advanced materials and 3D printers, could help tailor instruments and OR setups to individual surgeon profiles.
- **Better imaging**, such as more precise resolution on OR monitors, allows surgeons to zoom into minute areas of the body with amazing clarity. In addition, surgeons can expect augmented reality, 3D visualization, and rotational vision.

According to Dr. Welsh, surgeons who recognize that ergonomics is fundamental to surgical safety, efficiency, and career sustainability can "help ourselves, help each other, and help our patients."

Jim McCartney *is a freelance writer.*

References

1. Schlussel AT, Maykel JA. Ergonomics and musculoskeletal health of the surgeon. *Clin Colon Rectal Surg.* 2019;32(6):424-434.
2. Hemmati P, Nguyen TC, Dearani JA. Ergonomics for surgeons by surgeons—posture, loupes, and exercise. *JAMA Surg.* 2022;157(9):751-752.
3. Jacovides CL, Guetter CR, Crandall M, McGuire K, et al. Overcoming barriers: Sex disparity in surgeon ergonomics. *J Am Coll Surg.* 2024;238(5):971-979.
4. Tran M, Kortz MW, Johnson B, Janis JE. Operation-related musculoskeletal injuries among United States surgeons: A gender-stratified national survey. *Plast Reconstr Surg Glob Open.* 2022;10(2):e4142.
5. Epstein S, Sparer EH, Tran BN, et al: Prevalence of work-related musculoskeletal disorders among surgeons and interventionalists: A systematic review and meta-analysis. *JAMA Surg.* 2018;153:e174947.
6. Park A, Lee G, Seagull FJ, et al: Patients benefit while surgeons suffer: An impending epidemic. *J Am Coll Surg.* 2010; 210:306-313.
7. Dairywala MI, Gupta S, Salna M, Nguyen TC. Surgeon strength: Ergonomics and strength training in cardiothoracic surgery. *Semin Thorac Cardiovasc Surg.* 2022;34(4):1220-1229.
8. Tetteh E, Wang T, Kim JY, Smith T, et al. Optimizing ergonomics during open, laparoscopic, and robotic-assisted surgery: A review of surgical ergonomics literature and development of educational illustrations. *Am J Surg.* 2024;235:115551.
9. Wee IJY, Kuo LJ, Ngu JC. A systematic review of the true benefit of robotic surgery: Ergonomics. *Int J Med Robot.* 2020;16(4):e2113.
10. Barrios EL, Polcz VE, Hensley SE, Sarosi GA, et al. Surgical operations. *Surgery* 2023;174(2):214-221.
11. Hamilton B, Dairywala M, Nguyen TC. Ergonomics in surgery—The athlete in the operating room. The Society of Thoracic Surgeons. Published March 16, 2021. Available at: https://www.sts.org/blog/ergonomics-surgery-athlete-operating-room. Accessed June 1, 2025.
12. Nutz E, Jarvers JS, Theopold J, Kleber C, Osterhoff G. Effect of an upper body exoskeleton for surgeons on postoperative neck, back, and shoulder complaints. *J Occup Health.* 2024;66(1):uiae020.

Surgeons Lead State Efforts to Protect Patients, Profession

Catherine Hendricks

In a political climate that is more challenging than ever, one thing remains consistent—lawmakers are receptive to the voice of their constituents.

WHEN LEGISLATORS want to understand the effects of policies and issues, they depend on constituents to explain the problem and offer solutions. Therefore, it is imperative that surgeons use their voices when it comes to matters related to the medical profession and the care of their patients.

Although some might find the thought of becoming an advocate intimidating, surgeons only need a desire to make an impact, according to Amy Liepert, MD, FACS. "Advocacy is teaching," she said. "It's using your training, expertise, and influence as a respected member of society."

ACS members often hear about advocacy initiatives at the federal level; the College is also very active at the state level.

In 2025, the ACS tracked approximately 1,500 state bills. The following is a summary of activities.

State Advocacy Days

In 2025, ACS chapters planned and participated in state advocacy days in California, Delaware, District of Columbia, Florida, Indiana, New York, Tennessee, Virginia, and Wisconsin. Surgeons met with legislators at state capitol buildings about issues affecting their practices, patients, and businesses.

"Advocacy is a natural extension of our professional responsibility as surgeons. Just as we strive to achieve the best outcomes for our patients in the operating room, we must also stand up for our patients and profession at State houses across the country to ensure safe, timely, and equitable surgical care through policymaking and sustained advocacy," said Kevin Koo, MD, MPH, FACS.

Prior Authorization

137 bills tracked
38 enacted

Improving health insurance prior authorization requirements to ensure timely access to care for patients remains a priority for the ACS. Prior authorization requirements interrupt care, divert resources from patients, and complicate medical decision-making.

The Texas "Gold Card" law made headlines when it was enacted in 2021 and again this past spring when the Texas Department of Insurance released a report showing only 3% of healthcare professionals received the prior authorization gold card.[1] To achieve gold card status, health insurers must approve at least 90% of prior authorization requests. Texas enacted a law this year to extend the evaluation period for prior authorization exemption eligibility from 6 months to 1 year, and it requires health insurers to release an annual report detailing how many exemptions they have granted or denied.

At least nine other states enacted gold card laws.[2] However, making the process more transparent and efficient on the insurer side would allow physicians to see their progress in trying to achieve gold card status.

Most prior authorization bills introduced in states share the following provisions:

- Prohibit or limit the use of artificial intelligence in denying prior authorization
- Establish shorter timeframes for insurers to respond (24 hours for urgent care, 48 hours for nonurgent care)
- Require the reviewing physician be licensed in the same state and have relevant experience with the specific medical condition
- Prohibit retroactive denials if care was pre-authorized and services were provided
- Make prior authorization valid for at least 1 year or the length of treatment for a chronic condition
- Require public release of prior authorization data to a state agency or on the insurer's website (i.e., total number of monthly prior authorization requests, the number of prior authorization requests approved/denied per month)
- Require electronic submission or an online portal for prior authorization requests

Several states passed multiple prior authorization bills this year. For example, Montana enacted four pieces of legislation that:

- Prohibit a health insurer from rescinding prior authorization once the medical service is provided
- Require health insurers to use a state-licensed physician with a specialty relevant to the condition under review to make adverse determinations and grievance reviews
- Ensure approvals for chronic conditions last for the duration of the condition
- Require health insurers to honor prior authorizations for

at least 90 days when enrollees switch plans

This piecemeal legislative approach suggests legislators are willing to take incremental steps to change their prior authorization laws.

Medical Liability Reform

110 bills tracked
14 enacted

Trial attorneys put surgeons on defense again this year with legislation seeking to remove caps on noneconomic damages and allowing more plaintiffs to join in a malpractice action. Many bills were defeated, and a few states were able to enact tort reforms this year.

The ACS Florida Chapter strongly opposed a bill removing a prohibition on recovery of noneconomic damages in medical negligence cases by the decedent's children 25 years of age and older, as well as parents of a deceased child who was 25 years of age or older at the time of death. Chapter leaders successfully lobbied Governor Ron DeSantis (R) to veto the bill on June 2.

Georgia enacted a bill addressing how and when noneconomic damages can be introduced in court, limiting the recovery of special damages to the actual cost of medical expenses paid and allowing bifurcation of the trial. Bifurcation in medical malpractice trial means that first the jury decides if the defendant's negligence caused the injury, then it decides how much compensation the injured party should receive. Governor Brian Kemp (R) signed the bill into law on April 21.

For the third year in a row, the Grieving Families Act failed to pass in New York. This legislation would expand the type of damages recoverable in a wrongful death action. The ACS New York Chapter and the College worked together using SurgeonsVoice to encourage surgeons to send emails to their state legislators opposing the bills. Governor Kathy Hochul (D) vetoed the bill again, but it is expected to be reintroduced.

Utah legislators enacted a law requiring plaintiffs to submit an affidavit of merit in professional liability cases. Many states require an affidavit of merit be filed early in a medical malpractice lawsuit to ensure there is a legitimate basis for the claim before it proceeds. This bill also capped the total amount of damages a claimant can receive to $1 million, except in cases involving death. Governor Spencer Cox (R) signed the bill into law on March 27.

Noncompete/Restrictive Covenants

34 bills tracked
4 enacted

Restrictive covenants are used to protect an employer's interests by restricting when and where the employee can relocate for work, limiting a physician's ability to practice medicine within a specified time period and geographic area.

Legislators in Arkansas, Indiana, and Wyoming enacted laws voiding restrictive covenant agreements in physician contracts entirely. In Texas, the law limits restrictive covenants to 1-year post employment, within a 5-mile radius from the former employer's primary practice location, and includes a buyout option.

International Medical Graduates/Foreign-Trained Physicians

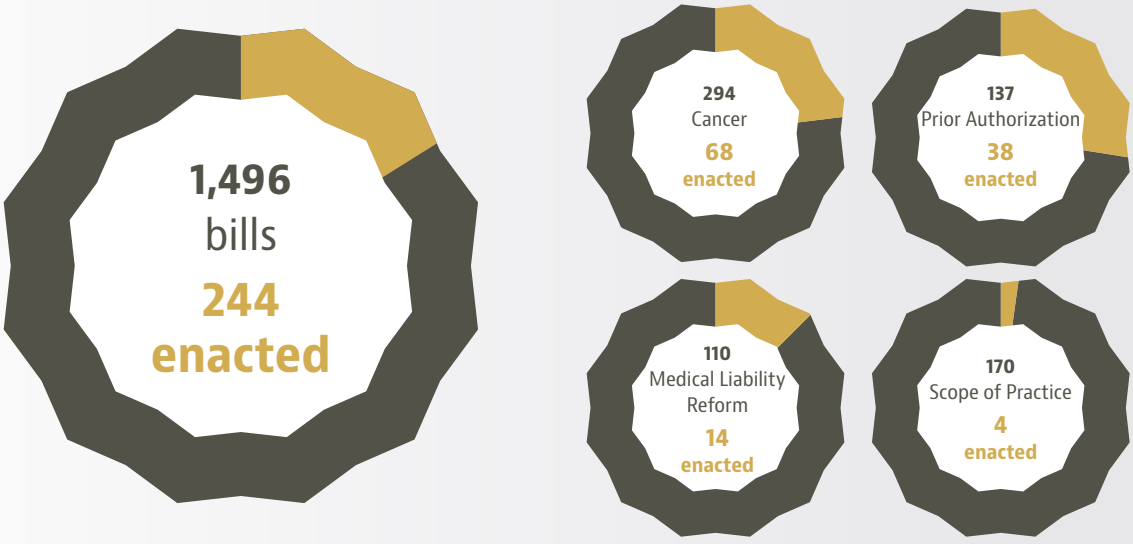
32 bills tracked
12 enacted

State legislators are researching ways to provide licensure pathways for internationally trained physicians (ITPs) and international medical graduates (IMGs). According to the Federation of State Medical Boards (FSMB), 18 states enacted legislation allowing qualifying ITPs to receive full licensure without accredited postgraduate training (PGT), and three states have licensure pathways for limited licensure without any additional graduate medical education.[3]

Several states enacted laws allowing ITPs to be licensed without completing PGT, and most states offer a limited license with the potential to convert to a full, unrestricted license.

The Advisory Commission on Additional Licensing Models—co-chaired by the FSMB, Accreditation Council for Graduate Medical Education, and Intealth—was established in December 2023 to guide and advise state policymakers.[4] ACS staff continue to monitor state and federal requirements for IMGs and ITPs.

The ACS is tracking bills involving several different issues; these are the categories with the most bills.



Violence Against Healthcare Professionals

30 bills tracked
4 enacted

Violence against healthcare workers is escalating, and states across the country are increasingly attempting to address the growing problem.

Ohio enacted a bill requiring each hospital system to establish a security plan for preventing workplace violence and managing aggressive behaviors. The plan must involve a team that includes healthcare employees who provide direct patient care. Governor Mike DeWine (R) signed the bill into law on January 8.

Virginia enacted a bill classifying verbal threats against a healthcare provider as a Class 1 misdemeanor. The commonwealth also enacted legislation making a verbal threat to discharge a firearm in a healthcare setting a Class 1 misdemeanor. Governor Glenn Youngkin (R) signed both bills into law on March 24.

Scope of Practice

170 bills tracked
4 enacted

Scope of practice is primarily determined by state law, and the number of scope bills the ACS tracked in 2025 increased by 60% over last year. The College sent position letters and provided action alerts to several states opposing scope expansion efforts. The ACS and state chapters continued to support other physician specialties in opposing scope of practice expansion state bills, including physician supervision of certified registered nurse anesthetists (CRNAs), optometrists, physician assistants (PAs), and advanced practice nurse practitioners (APRNs).

CRNAs

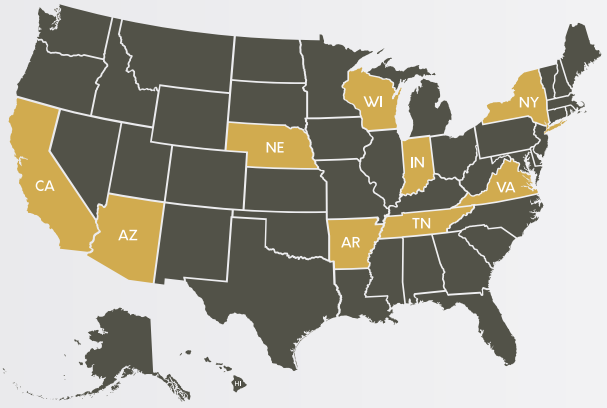
26 bills tracked
2 enacted

CRNA scope of practice varies by state, with some states allowing CRNAs to work without supervision. In 2025, the ACS sent letters opposing state bills attempting to allow for CRNA independent practice in Maine, Mississippi, and West Virginia.

New Mexico enacted Senate Bill 78 allowing CRNAs to operate independently without supervision to provide anesthesia care and related services. They also are allowed to prescribe and administer therapeutic measures, including controlled substances. In addition, the law provides for a 30-day expedited licensure process for CRNAs licensed in other states who want to be licensed and practice in New Mexico.

West Virginia enacted a bill to allow CRNAs to administer anesthesia in cooperation with physicians and other healthcare providers. The bill included an interesting provision absolving physicians from liability for "any act or omission" of a CRNA who orders or administers anesthetics.[4]

Ten states introduced anesthesiologist assistant (AA) bills. Most bills defined how



an AA works under the direct supervision of an anesthesiologist, and five states introduced bills to provide a pathway to licensure in their state. Tennessee enacted legislation providing a pathway for AAs to be licensed in the state.

Optometrists

18 bills tracked
2 enacted

A growing number of states considered permitting optometrists to perform certain surgical procedures, particularly laser surgeries, and the ACS is tracking 18 bills seeking to allow optometrists to perform laser and scalpel surgeries around the eye, as well as provide injections. Currently, 10 states allow optometrists to perform laser surgeries: Alaska, Arkansas, Colorado, Kentucky, Louisiana, Mississippi, Montana, Oklahoma, South Dakota, and Wyoming.

Working with the American Academy of Ophthalmology, the ACS sent letters opposing this gross expansion of scope. In 2025, Montana enacted laser and in-office surgical procedures for optometrists. The law specifically excludes penetrating intraocular surgery, intravitreal injections, and refractive surgery. Optometrists may only perform laser surgical procedures if certified by the state board of optometry, which requires completion of additional didactic and clinical training from an accredited optometry school or college.

Virginia enacted legislation to allow optometrists with pharmaceutical agent certification to prescribe and administer Schedule II hydrocodone with acetaminophen, and Schedules II-V controlled substances.

Committee on Trauma

Stop the Bleed

36 bills tracked
8 enacted

The ACS campaign for Stop the Bleed continues to gain support across the country. In 2025, bills in Connecticut, Maine, Missouri, and Virginia were enacted. Four states adopted resolutions recognizing May 22 as Stop the Bleed Day.

The Connecticut law requires bleeding control training and kits in state-owned buildings and integrates bleeding control training into existing requirements for first responders, school staff, and local employees. Governor Ned Lamont (D) signed the bill into law on June 6.

Maine enacted a bill that was signed by Governor Janet Mills (D), requiring state-owned buildings with 50 or more employees to have at least one bleeding control kit. The legislation also allocated funds to purchase and install the kits.

Missouri enacted legislation requiring schools to develop a bleeding control protocol and place Stop the Bleed kits in schools. Schools must designate a staff member to receive annual training in Stop the Bleed techniques. The bill provides Good Samaritan protections for school staff who use the kit in good faith. Governor Mike Kehoe (R) signed the bill on July 9.

Virginia legislation mandates bleeding control programs and kits in all public elementary and secondary schools and provided funding for the purchase of these kits. The original version of the bill required school board employees to receive training in Stop the Bleed techniques and Good Samaritan protections, but the Senate removed those provisions prior to passage. The ACS Virginia Chapter is currently working with state legislators and reviewing their options on how to amend the new law with training language. Governor Glenn Youngkin (R) signed the bill into law on July 1.

Commission on Cancer

294 bills tracked
68 enacted

The ACS Commission on Cancer (CoC) supports efforts to advance legislation on cancer priorities, which include: expanding health insurance coverage for breast, prostate, lung, and colorectal cancer screenings; seeking no-cost sharing (no out-of-pocket costs to the patient) cancer screenings; biomarker coverage; step therapy and proton beam therapy bills.

Breast Cancer

88 bills tracked
13 enacted

Breast cancer is the second most common cancer and the second-leading cause of cancer death in women. Many bills provide for no cost-sharing screening and imaging services, including improving standards for breast density classification, supplemental testing, and examinations. Seven states passed legislation eliminating cost-sharing for diagnostic and supplemental breast examinations.

Prostate Cancer

22 bills tracked
7 enacted

The ACS is tracking 22 bills related to prostate cancer, as well as working as part of a coalition led by ZERO Prostate Cancer. To date, the District of Columbia and Virginia enacted no cost-sharing screening bills, which prohibit health insurers from imposing deductibles, coinsurance, co-payments, or other cost-sharing requirements for prostate cancer screenings.

Lung Cancer

19 bills tracked
9 enacted

Lung cancer remains the leading cause of death in the US for both men and women diagnosed with cancer. Arkansas and Nevada enacted laws to require health insurers to provide no-cost-sharing lung cancer screenings and follow-up healthcare services. Both legislatures recognize the critical need for lung cancer screenings in the state and emphasize the need for early detection through low-dose computed tomography, especially in rural areas of their state.

Colorectal Cancer

27 bills tracked
5 enacted

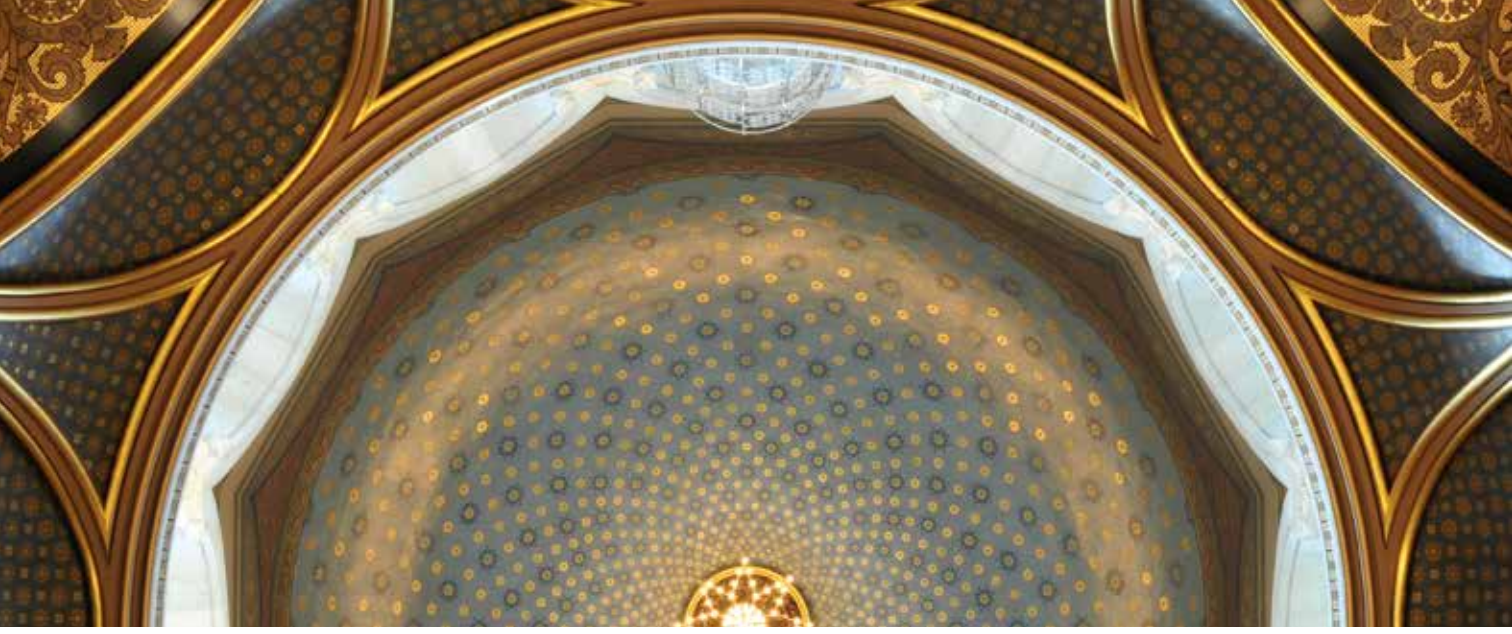
Alabama passed a law requiring Medicaid to cover noninvasive colorectal cancer screening tests and mandates coverage for a colonoscopy if a positive result is obtained. The act will be sunset in 2 years. Governor Kay Ivey (R) signed the bill into law on May 21.

Kentucky enacted House Bill 421, which requires health insurers to provide no-cost-sharing colorectal cancer screenings for individuals aged 45 and older, or those under 45 at high risk, and includes US Food and Drug Administration (FDA)-approved bowel preparation without prior authorization or cost-sharing for services from participating providers. Governor Andy Beshear (D) signed the bill into law on April 2.

Ovarian Cancer

4 bills tracked

Routine ovarian cancer screening is not typically recommended or covered by insurance for women at average risk. In high-risk and symptomatic women, ovarian cancer screening tests would be considered diagnostic and are typically covered by insurance. Genetic counseling and testing for BRCA mutations, which increase the risk of ovarian cancer, are often covered under the Affordable Care Act for eligible women.



Step Therapy

26 bills tracked
10 enacted

Claiming to control drug costs, step therapy is a specific type of prior authorization requiring patients to try less expensive medication before the health insurer will consider covering the cost of more expensive medication. Step therapy is typically used for chronic conditions where there might be multiple medication options.

Alaska enacted legislation prohibiting the use of step therapy for patients with Stage 4 advanced metastatic cancer. The bill became law without Governor Mike Dunleavy's (R) signature on July 30.

Maine and Tennessee enacted legislation prohibiting health insurers from requiring an enrollee to fail step therapy protocols before covering a drug approved by the FDA for the treatment of metastatic cancer. Governor Janet Mills (D) signed the bill into law on July 1. A similar bill in Montana was vetoed by Governor Greg Gianforte (R), and the veto override attempt failed on July 14.

New Jersey, North Dakota, and Oklahoma enacted laws to provide exceptions to step therapy protocols when a required drug is contraindicated, likely to cause adverse reactions, or expected to be ineffective based on a patient's clinical characteristics. The issue is trending and expected to draw greater attention in the 2026 legislative session.

Biomarker Testing

29 bills tracked
2 enacted

Both Maine and New Jersey enacted legislation this spring requiring health insurers to provide coverage for biomarker testing for diagnosis, treatment, management, or disease monitoring. Biomarker testing will certainly be back on the docket for state legislatures in the future.

The ACS State Affairs team is available to answer questions and provide background information regarding state issues and policy programs. State advocacy resources, including the weekly legislative update, are available at *facs.org/advocacy/state-legislation*. For more information, contact state_affairs@facs.org. B

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References

1. Huff C. State-mandated 'gold card' programs to ease prior authorization burdens offer little relief, experts say. *Medscape Medical News.* July 7, 2025. Available at: https://www.medscape.com/viewarticle/state-mandated-gold-card-programs-ease-prior-authorization-2025a1000hw9. Accessed October 13, 2025.
2. Federation of State Medical Boards. States with enacted and proposed additional licensure pathways. Available at: https://www.fsmb.org/siteassets/advocacy/policies/states-with-enacted-and-proposed-additional-img-licensure-pathways-key-issue-chart.pdf. Accessed October 13, 2025.
3. Federation of State Medical Boards. Advisory Commission on Additional Licensing Models releases second set of draft preliminary recommendations for public comment. Available at: https://www.fsmb.org/advisory-commission-comment-period/. Accessed October 13, 2025.
4. West Virginia SB 810, (d) A physician, a dentist, a podiatrist, an advanced practice registered nurse, and/or a physician assistant is not liable for any act or omission of a certified registered nurse anesthetist who orders or administers anesthetics under this section.

Dr. Harriet Austin

Dr. Michael Farrell

Is Tradition Slowing Transition from Laparoscopy to Robotics for Appendicitis?

Harriet Austin, MD
Michael Farrell, MD, MS, FACS

Appendectomies are one of the most common procedures performed each year.

A STUDY ANALYZING the National Hospital Discharge Survey data for the years 1979–1984 found that an estimated 250,000 appendicitis cases occurred annually.[1] During this period, the approximated lifetime risk of undergoing an appendectomy was 12.0% for men and 23.1% for women.

The surgical approach has changed significantly over the past century. In 1893, Charles McBurney, MD, introduced the gridiron (McBurneys) incision for open appendectomies, which remained the standard approach for more than a century. Kurt Semm, MD, performed the first laparoscopic appendectomy in 1981, but it wasn't until 2017, when 95% of appendectomies were performed using this technique, that it became widely recognized as the standard approach.[2]

Interestingly, while it took many years to develop the laparoscopic technique that ultimately overtook the open appendectomy, robotic-assisted technology was being used before laparoscopic appendectomies became standard. In fact, the first robotic appendectomy was performed incidentally during an elective gynecologic surgery in 2008, with the first robotic-assisted appendectomy for acute appendicitis completed in New Jersey in 2013.[3]

Today, laparoscopic appendectomy remains the preferred approach due to strong evidence demonstrating cost-effectiveness, shorter hospital stays, and improved patient outcomes when compared to open approaches.

Nevertheless, the potential advantages of robotic-assisted laparoscopic appendectomy should not be overlooked simply because of a paucity of studies for a newer approach. As robotic surgery continues to grow in emergency general surgery and more residency programs incorporate robotic training, further research will help clarify its role alongside established techniques.

Comparing Patient Outcomes

Given the fact that laparoscopic appendectomy is a very common procedure, often completed with easily accessible equipment, a common concern for many surgeons is that robotic-assisted appendectomy may not offer a significant difference in outcomes but would potentially use limited robotic availability or potentially add unnecessary costs to the patient. While there are ongoing prospective research studies that examine this supposition, we will review two retrospective studies in this article.

In a single-center study comparing laparoscopic and robotic-assisted appendectomies performed over 2 years by two experienced surgeons with equal proficiency in both techniques, researchers assessed outcomes data that included operative duration, length of hospital stay, conversion to open surgery, and 30-day readmission rates.[3] There was no significant difference in operative time between the two approaches.

However, robotic-assisted appendectomies were associated with significantly shorter hospital stays. Conversion to open surgery occurred in 0.91% of laparoscopic cases, while no robotic cases required conversion. Readmission rates were comparable between both groups.

A second study using the ACS National Surgical Quality Improvement Program database from 2016 to 2021 analyzed 49,850 patients who underwent minimally invasive appendectomy.[4] Of these, 49,800 underwent laparoscopic and only 50 underwent robotic-assisted appendectomy, highlighting the rarity of robotic use during this period. The limited adoption of robotic appendectomy may be attributed to the longstanding efficacy and optimization of traditional laparoscopic techniques, which have reduced the perceived need for newer approaches.

The study authors found that robotic-assisted appendectomies were associated with longer operative times, but reduced hospital stays by 14.4 hours, with no difference in readmission rates. Notably, robotic cases showed a higher 30-day mortality rate, which may be influenced by variability in surgeon proficiency. While robotic procedures may appear costlier due to longer operating room time, the reduced length of stay could offset these costs, suggesting potential overall economic balance if performed by experienced surgeons.

Both studies described here demonstrate that robotic-assisted appendectomies are associated with shorter hospital stays and comparable readmission rates. However, a key distinction involves the impact of surgical skill due to the fact that outcomes in robotic cases are closely tied to the surgeon's proficiency. The true value of robotic surgery in appendectomies cannot be accurately assessed without experienced, well-trained surgeons performing the procedures.

The evolution of appendectomy techniques, from open to laparoscopic to robotic, reflects ongoing surgical innovation tempered by practical constraints such as cost, training, and experience.

Just as open appendectomy was once the standard before laparoscopic techniques became widely accepted and refined, robotic-assisted surgery has the potential to emerge as the next advancement. This reality underscores the need to train a new generation of surgeons with early and consistent exposure to robotic techniques during residency, which will help ensure continued progress in surgical care.

Integration of Robotics Training in General Surgery Curricula

Developing a robust robotic surgery training experience for residents presents many challenges, particularly due to high costs, limited availability of equipment, and faculty comfort levels.

Current training often incorporates many of the same steps recommended by robotics companies for faculty training, such as online modules, dry and wet lab simulations, bedside assistance, and supervised console time. While dual-console systems offer advantages, such as allowing faculty to guide residents during procedures, their implementation requires significant investment, limiting widespread adoption and slowing formal curriculum development. As a result, many general surgery programs lack a standardized robotics curriculum.

A survey distributed to members of the Southwestern Surgical Congress received 28 responses, with 89% of programs reporting some form of robotics training; however, only approximately 53% of residents completed the full training, highlighting a lack of emphasis on comprehensive robotic education.[5]

This training shortage is further reflected in current certification standards. While the American Board of Surgery requires completion of the Fundamentals of Laparoscopic Surgery to qualify for board certification, and the Accreditation Council for Graduate Medical Education (ACGME) mandates a minimum of 175 laparoscopic cases during residency, there currently are no equivalent requirements for robotic-assisted surgery.

A separate survey sent to ACGME-accredited general surgery program directors yielded 20 responses from a mix of academic, hybrid, and community programs, primarily with medium-sized residency classes.[6] Among these, 74% reported having a formal robotic surgery curriculum. However, program directors perceived a lower institutional interest in incorporating such training, which may contribute to limited efforts toward curriculum improvement. Common barriers to developing a structured robotic surgery training program included limited funding, faculty availability, simulation access, and protected training time.[6]

Ultimately, the evolution of appendectomy techniques, from open to laparoscopic to robotic, reflects ongoing surgical innovation tempered by practical constraints such as cost, training, and experience. While robotic-assisted appendectomy may offer advantages for some patients, its broader adoption into practice depends not only on further research to establish its comparative benefits but also on the development of structured, accessible training pathways.

Future Directions

The need for systematic education is especially important given the shifting context in which robotic-assisted surgery is now being taught. Upon their debut, robotic surgery techniques were primarily adopted by fully trained surgeons with a strong foundation in core surgical principles, enabling robotics to be incorporated as an advanced extension of their existing skillsets. In contrast, today's residents are exposed to robotic technology much earlier, often while still learning fundamental surgical techniques, creating a dual learning curve. At

the same time, attending surgeons are adapting to a new role as robotics educators, often without having received formal training in how to teach this evolving modality. Together, these dynamics underscore the importance of thoughtful curriculum design and mentorship models to support the next generation of robotic surgeons. B

Disclaimer

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

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References

1. Addiss DG, Shaffer N, Fowler BS, Tauxe RV. The epidemiology of appendicitis and appendectomy in the United States. *Am J Epidemiol.* 1990;132(5):910-925.
2. Schildberg C, Weber U, König V, et al. Laparoscopic appendectomy as the gold standard: What role remains for open surgery, conversion, and disease severity?: An analysis of 32,000 cases with appendicitis in Germany. *World J Emerg Surg.* 2025;20(1):53.
3. Rifai AO, Rembetski EM, Stutts LC, et al. Retrospective analysis of operative time and time to discharge for laparoscopic vs robotic approaches to appendectomy and cholecystectomy. *J Robot Surg.* 2023;17(5):2187-2193.
4. Becker T, DeLeon G, Rao V, Pei KY. A comparison of outcomes between laparoscopic and robotic appendectomy among ACS-NSQIP hospitals. *Laparosc Endosc Rob Surg.* 2023;6(2):39-42.
5. Jeffery CS, Stewart KE, Hayhurst JL, Hall CM, et al. Survey shows all surgical residents have exposure to robotic surgery yet no formalized curricula exist amongst programs: A Southwest Surgical Congress survey. *Am J Surg.* 2023;226(6):878-881.
6. George LC, O'Neill R, Merchant AM. Residency training in robotic general surgery: A survey of program directors. *Minim Invasive Surg.* 2018. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC5964613/. Accessed October 14, 2025.

It's Time to Finish Standardizing the Medical Record and Address the Problem of Incomplete Clinical Documentation

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Heidi Nelson, MD, FACS
Bryan E. Palis, MA
Judy C. Boughey, MD, FACS

THE MEDICAL RECORD has come a long way in the past 3 decades. It has transitioned from hand-written notes in a paper chart, stored remotely, and plagued by documentation compliance shortcomings, to an electronic health record (EHR) that is more readily interpretable and accessible.

Clinical reports are now distributed in near real-time so professionals can view them at workstations, while patients simultaneously can view them using smartphone applications. Unsurprisingly, as the medical record has evolved, so have expectations regarding the purpose and functions of the record.

Indeed, it is increasingly expected that the medical record will support the patients' needs related to healthcare information no matter when, where, or with whom they seek care.

The EHR has largely become the primary source of professional communication across outpatient, inpatient, and emergency room practices.[1] In addition to being the primary source of clinical information and integral to clinical decision-making, the EHR now fulfills several other important functions (see Table on next page).

To serve these functions well, the gains in timeliness and accessibility will have to be matched by comparable gains in the quality of the content within the clinical record. Current studies suggest incomplete clinical documentation remains a critical quality gap.

Incomplete Clinical Documentation

A recent publication on the quality of cancer recurrence documentation brings to light some of the ongoing challenges associated with achieving reliable recording of even key critical information such as cancer recurrence.[2]

Table. Common Uses of the Medical Record

Clinical Decision-Making	Documentation of history, examination, diagnostics, clinical reasoning, treatments, and clinical outcomes
Communication	Information sharing with patients and other healthcare professionals
Medical-Legal	Documentation of risk management and compliance with standards; malpractice evidence
Administrative	Practice management, billing, and utilization review
Quality and Safety	Performance monitoring, policy and standards compliance, and quality improvement
Education and Research	Teaching, case studies, epidemiology, and clinical trials

The study published by Chan and colleagues demonstrates that while rates of data missingness improved since the introduction of the EHR, inconsistent clinical documentation of recurrence is still a significant problem. When surveyed, staff trained in gathering cancer recurrence information from the record disclosed that "no evidence of disease" and "recurrence" were not well-documented at rates of 67.8% and 50.5%, respectively.

Although inconsistent documentation requirements play a role, the problem also is attributed to the absence of a standardized process for determining disease-free status. Despite the high value placed on cancer recurrence information as a key cancer outcome, the authors concluded that further work is required to improve the quality of the data before recurrence information is publicly reported.

Given the greater reliance on the EHR for communication, particularly asynchronous communication, gaps in documentation of important clinical information takes on a new level of significance and urgency.[1]

The omission of noncritical information may be inconsequential, but the absence of critical information can adversely impact downstream patient care and outcomes. It should be pointed out that this problem is not unique to oncology. In fact, at least four healthcare specialties already have started addressing the problem by developing and implementing standardized synoptic reports.

Standardized Synoptic Reporting Improves Clinical Information Completeness

The narrative report has been used for decades to document the story of the patient, their medical findings, and their care. Narrative reports are typically dictated as free-text prose and because they are not standardized, they are well-suited for capturing nuance, reasoning, and contextual detail for each individual patient.

Conversely, because they are not standardized, these narrative reports are, unfortunately, prone to featuring significant omissions. Since medical records are a primary vehicle for communicating findings with patients and professionals, omitting key information in the record can jeopardize downstream clinical decision-making. Indeed, the introduction of synoptic reporting has brought to light the inadequacies of narrative reporting.

Synoptic reports are standardized and structured templates that capture predefined fields of information and emphasize completeness and consistency. Systematic assessments demonstrate that

Now would seem like a good time for all healthcare stakeholders to lean in and take the record to a new level of completeness and quality.

synoptic operative reports are more complete and often are more efficient and faster to finish than narrative reports.[3]

Colorectal cancer studies have shown that synoptic reporting captures 50% more information, including vital cancer information such as level of vascular ligation, distal margins, en-bloc resection, and cancer resection completeness.[4] As mentioned previously, downstream decisions, such as the administration of adjuvant chemotherapy, made in the absence of key information (e.g., complete staging information), risk compromising patient outcomes, which limited studies support.[4]

It should be clarified that the narrative report has not been completely abandoned. In fact, most standardized templates are technically hybrid reports. Most standardized EHR templates achieve completeness by requiring synoptic responses to items considered part of quality-critical reporting standards, and they capture unique complications, judgment calls, unusual anatomy, or findings by including plenty of brief narrative options.

Another additional benefit of synoptic reporting is its capability to provide information succinctly and in a standardized manner for research, clinical trials, and quality improvement projects that are important for continued practice advancement and improvement.

Specialty Societies Support Synoptic Reporting

The greatest support for standardized synoptic reporting has come from the professional societies representing medical specialties, including gastroenterology, pathology, radiology, and surgical oncology.

This support is driven by the fact that specialty societies often establish evidence-based guidelines, best practices, quality programs, and research platforms. Accordingly, for each medical condition, these societies are well-positioned to provide guidance on key clinical information to be used as part of documentation standards and for inclusion in synoptic reporting templates.

In return for supporting synoptic reporting, specialty societies are afforded new opportunities for monitoring the implementation of their best practice standards and/or quality measures, such as what has been done with operative standards.[5,6]

The incentives and developmental pathways are ready and waiting for more specialty societies to get on board with supporting standardized documentation practices. This approach is the logical next step for any society wishing to monitor how their guidelines, best practices, and quality programs are being adopted in the real world. The standardization path forward for medical conditions requiring diverse specialty engagement is beyond the scope of a single specialty society and, as such, it necessitates greater national support.

National Efforts to Support Medical Record Standardization Across Specialties

In order to address the gap in documentation for multispecialty oncology practices, it will require two distinct efforts. The first effort would focus on developing and implementing synoptic cancer status reporting, similar to how operative standards documentation requirements evolved.[6] Developing and implementing reporting requirements and technical solutions would likely meet resistance across oncologic practices and yet this solution would be the simpler effort.

The second effort would focus on establishing a standardized manner for establishing disease-free status and distinguishing recurrence from progression and

from a new primary. Creating a single acceptable set of definitions for recurrence will require harmonization across disciplines where there is already some measure of discordance.[2]

Fortunately, this is not the first time the cancer care community has had to come together to solve common taxonomy and definitional problems. Indeed, the American Joint Committee on Cancer (AJCC) has for decades been successful at assembling diverse cancer stakeholders to produce, distribute, and support a single uniform cancer staging system.

Since improving the accuracy of cancer status reporting is an important key for further advancing cancer practices, a multidisciplinary team representing national stakeholders, including the AJCC, is meeting regularly to standardize cancer status definitions. Federal efforts under the Office of the National Coordinator for Health Information Technology that is focused on standardizing the healthcare record will hopefully accelerate the cancer recurrence harmonization work.

National efforts to standardize healthcare records and enable seamless sharing of patient records across systems are focused on creating common information/data formats, terminology, and exchange frameworks.

To ensure consistent clinical concepts representation, it is important to note the following the International Classification of Diseases, Eleventh Revision (ICD-11) provides a global standard for diagnoses; Systematized Nomenclature of Medicine—Clinical Terms (SNOMED CT) offers a comprehensive clinical terminology for diseases, procedures, and findings; and the Logical Observation Identifiers Names and Codes system standardizes laboratory and clinical observation results.

For reference, the AJCC staging system is linked to SNOMED CT and, as such, serves as a national standard. The US Core Data for Interoperability establishes a standardized set of health data elements (e.g., allergies), which must be shared across EHR systems.

The goal of the medical record is to support the healthcare information needs of patients no matter where, when, or with whom they seek medical care. Transitioning from paper charts to the EHR has improved the timeliness and accessibility of clinical information and, not coincidentally, the EHR has taken on greater importance as the primary source of clinical communication for healthcare professionals and patients.

Recent studies report that despite the widespread implementation of the EHR, there remain significant quality gaps in clinical documentation, even for such notable factors as cancer recurrence. Standardized synoptic templates have been used across a number of medical specialties to close information gaps and better support downstream decision-making.

Given the proven benefits of clinical documentation standardization and the progress made and being made on multiple fronts, now would seem like a good time for all healthcare stakeholders to lean in and take the record to a new level of completeness and quality. B

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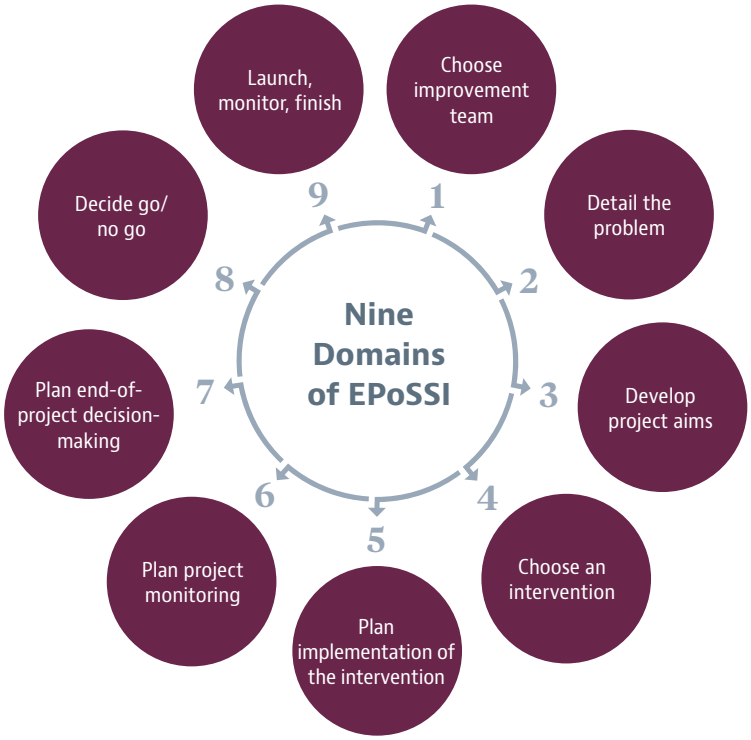
References

1. Amano A, Brown-Johnson CG, Winget M, et al. Perspectives on the intersection of electronic health records and health care team communication, function, and well-being. *JAMA Netw Open.* 2023;6(5):e2313178.
2. Chan K, Palis BE, Cotler JH, et al. Quality of cancer recurrence data in the National Cancer Database: A reappraisal of reporting readiness. *Ann Surg Oncol.* 2025;32(3):1553-1564.
3. Stogryn S, Hardy KM, Abou-Setta AM, Clouston KM, Metcalfe J, Vergis AS. Advancement in the quality of operative documentation: A systematic review and meta-analysis of synoptic versus narrative operative reporting. *Am J Surg.* 2019;218(3):624-630.
4. Bidwell SS, Merrell SB, Poles G, Morris AM; Synoptic Operative Report Study Group. Implementation of a synoptic operative report for rectal cancer: A mixed-methods study. *Dis Colon Rectum.* 2020;63(2):190-199.
5. American College of Surgeons Clinical Research Program; Alliance for Clinical Trials in Oncology; Nelson H; Hunt KK. *Operative Standards for Cancer Surgery. Vol 1: Breast, Lung, Pancreas, Colon.* Philadelphia, PA: Lippincott Williams & Wilkins; 2015.
6. Katz MH, Francescatti AB, Mullett TW, et al. First national effort to optimize the performance of cancer surgery by the American College of Surgeons Commission on Cancer and Cancer Surgery Standards Program: Early results after implementation of the operative standards. *Ann Surg.* 2025;282(3):371-381.

EPoSSI Tool Refines QI Project Planning

Samantha Kipley, RN, BSN
Karen Pollitt, CPHQ



QUALITY IMPROVEMENT (QI) efforts are a cornerstone in evolving and elevating patient care. Hospital teams are continuously planning and carrying out QI projects with the goal of improving processes related to improving patient outcomes.

The ACS has numerous quality programs, and as part of the verification process, QI projects are to be initiated annually.

To aid in planning these projects, the ACS along with the THIS Institute, have created the Early Planning of Small-Scale Surgical Improvement Projects (EPoSSI) Tool. The term "small-scale" can be ambiguous, and for the purposes of this tool, the term refers to local QI efforts, as opposed to national projects.

The tool helps provide structure for the project, align team members, and avoid poor planning. This is the first tool to specifically focus on the early planning phase of a project. While working through the nine domains of EPoSSI, the tool offers suggestions to guide decision-making. The domains span key areas of planning: choosing the team, choosing the interventions, planning end-of-project decision-making, and other areas in between.

For each domain, there are columns titled "Must Do" and "Considered Helpful." (See Figure on next page.) The first domain, "Choose improvement team," has two action items in the "Must Do" column:

- Select team members and assign roles and responsibilities
- Ensure sufficient time availability

The "Considered Helpful" column also has two action items:

- Keep team size small and nimble
- Choose at least one person with QI experience

Each action item is intentionally succinct, which makes them easier to follow and execute.

There also is a column describing items team members should "Try NOT to" do. For example, in the first domain, the "Try NOT to" column lists: Include members with minimal engagement.

"I've used the Quality Framework from the ACS for my QI projects. Does EPoSSI replace that framework?"

The ACS has a Quality Framework Toolkit, which is a set of free tools and resources for planning, conducting, and documenting a QI project. The toolkit includes a framework, notetaking tool, project charter, data plan, and communication plan.

The Quality Framework comprises eight components designed to help ensure the QI project is comprehensive and effective. This framework can be used in conjunction with EPoSSI, or it can be used on its own. If using the Quality Framework and EPoSSI together, start with EPoSSI, and then work through components four through eight of the Quality Framework. The first three components of the Quality Framework focus on planning, just like the EPoSSI Tool.

"We've completed our QI project. Now what?"

After completing a QI project, users are encouraged to submit their project for consideration to be included in the ACS Quality Improvement Case Study Repository. The repository is a collection of projects implemented by participants of the ACS Quality Programs. Showcasing your project and allowing others to learn from your experiences can inspire ideas for QI, as well as generate positive change across organizations.

Projects in the repository come from all quality programs the ACS offers, and many are applicable to numerous programs. All types of hospitals are represented in the Case Study Repository, including community, Department of Defense, rural, academic, and international. Data within the projects can be sourced from registries offered by the ACS or internally at the hospital. There also are projects from collaboratives, which represent many hospitals coming together. The Case Study Repository is always expanding and is a valuable resource to periodically review for updates.

If you are interested in participating in this initiative, email qualityresources@facs.org.

Samantha Kipley *is a Quality Resource Specialist in the ACS Division of Research and Optimal Patient Care in Chicago, IL.*

Figure. EPoSSI Framework Guidance

Domain	Must Do	Considered Helpful	Try NOT to
1 Choose improvement team	☐ Select team members and assign roles and responsibilities ☐ Ensure sufficient time availability	☐ Keep team size small and nimble (less can be more) ☐ Choose at least one person with improvement experience	☐ Include members with minimal engagement
2 Detail the problem	☐ Learn about the problem (where it lies, why it exists, its impact, etc.) ☐ Ensure the problem exists locally (is there data?) ☐ Understand the problem from people who know the relevant process	☐ Collect input from team and stakeholders when detailing the problem (and defining aims)	☐ Work on problems that require more resources than exist or are too complex to fix
3 Develop project aims	☐ Identify project aims using a SMART approach	☐ Describe patient benefits ☐ Obtain leadership support when addressing an organisational priority	☐ Create aims that require much more than 12 months to attain

Clinical Congress 2025 Highlights

ACS Clinical Congress 2025 in Chicago, Illinois, provided surgeons, residents, medical students, and other healthcare professionals from around the world with opportunities to advance their surgical skills and knowledge and interact with their peers, ACS leaders, and staff.

APPROXIMATELY 11,600 INDIVIDUALS participated, with 10,559 in-person registrants and another 1,019 individuals registering for the on-demand program. All registrants can view on-demand content and claim continuing medical education credits through **February 23, 2026,** and registration remains open for new participants.

This article summarizes some of the meeting highlights.

Convocation

This year, 2,122 surgeons from 93 countries—1,293 domestic and 829 international—were initiated into ACS Fellowship following an inspiring procession of ACS leaders and invited guests. Secretary Sherry M. Wren, MD, FACS, presented the Great Mace.

During the hour-long program, seven international surgeons were conferred Honorary Fellowship, and several prestigious awards were presented. 2024–2025 ACS President Beth H. Sutton, MD, FACS, led the installation of new officers, including Anton N. Sidawy, MD, MPH, FACS, as President, Anne C. Mosenthal, MD, FACS, as First Vice-President, and Edward M. Barksdale Jr., MD, FACS, as Second Vice-President.

The 2025 Honorary Fellows were:

- Hendrik Jacob (Jaap) Bonjer, MD, PhD, FACS, FRCSC, FASCRS (Amsterdam, the Netherlands)
- Chintamani, MBBS, FACS, FRCSEd, FRCSEng, FRCSGlas, FRCSI, FICS, FIMSA (New Delhi, India)
- Luis Grande, MD, PhD, FACS, ESA, RAMC (Barcelona, Spain)
- Cathal J. Kelly, MB, BCh, BAO, LRCSI & PI, BSc, MCh, FRCSI (Gen.) (Dublin, Ireland)
- Eduardo E. Montalvo-Jave, MD, PhD, FACS (Mexico City, Mexico)
- Gabriela Möslein, MD, PhD, FEBS, FASCRS(Hon) (Düsseldorf, Germany)
- Rowan Parks, MD, PRCSEd, FRCSI, FFSTEd (Edinburgh, Scotland)

Marshall Z. Schwartz, MD, FACS, received the 2025 Distinguished Service Award for his more than 40 years of service to the ACS, with leadership positions including Vice-Chair of the Board of Regents (BoR), multiple roles with the Advisory Council for Pediatric Surgery, and head of several key committees. Perhaps his most impactful role was as a proponent in the 1990s for the ACS to become more engaged in healthy policy and advocacy, which he helped advance as Chair of the Health Policy and Advocacy Group.

The 2025 Owen H. Wangensteen Scientific Forum Award was presented to John L. Cameron, MD, FACS, for more than 50 years of dedication to advancing scientific and clinical knowledge in hepatobiliary and pancreatic surgery. Among his achievements, Dr. Cameron is best known for dramatically improving outcomes and survival from the Whipple procedure at both his home institution, The Johns Hopkins University School of Medicine, and throughout the world as a result of his research.

Anna Marie Ledgerwood, MD, FACS, received the Dr. Mary Edwards Walker Inspiring Women in Surgery Award. Dr. Ledgerwood is a general and trauma surgeon with Wayne State University School of Medicine in Detroit, Michigan, where in her 40-year tenure as a full professor, she has built a reputation for mentoring and advising students and junior colleagues in surgery.

A recording of Convocation, which includes the awards presentations and ACS Presidential Address, is available at *facs.org/convocation*.

Named Lectures

Clinical Congress featured eight Named Lectures, which provided attendees with opportunities to hear internationally renowned surgeons and healthcare experts share their insights on medicine and surgery.

David J. Skorton, MD, president and chief executive officer of the Association of American Medical

More than 2,100 surgeons from 93 countries became ACS Fellows at Clinical Congress 2025.

Colleges, delivered the Martin Memorial Lecture, "Looking Forward Together in an Uncertain Time," wherein he discussed how navigating the exponential growth of scientific knowledge necessitates an integrated approach.

Dr. Skorton's presentation highlighted the value of maintaining the "beginner's mind" to embrace new ideas and possibilities, the importance of maintaining surgeon well-being during periods of rapid transformation and instability, and supporting equal opportunities for improving the health of all patients as a catalyst for promoting collaboration.

"Working together to find a way forward requires us to be open to new perspectives—and at the same time, it is equally important to coalesce around time-tested, enduring concepts that should withstand the rapidly evolving world in which we live," he said.

In the I. S. Ravdin Lecture in the Basic and Surgical Sciences, "The Past, Present, and Future of the Total Artificial Heart: A Very Houston-Centric Story," cardiothoracic surgeon William E. Cohn, MD, FACS, explored the promise of the total artificial heart.

In his talk, Dr. Cohn described not only the history of artificial heart innovation—work that is rooted in Houston, where he practices—but also the paradigm-shifting work that may finally bring a permanent solution for end-stage heart failure. He described the radically different approach that his team is taking by embracing continuous-flow technology to create a small titanium device with a single moving part, suspended in a magnetic field, spinning silently to pump blood into the body and lungs without valves, membranes, or wear points.

"It's like science fiction," Dr. Cohn said. "There's no mechanical wear. The rotor never touches anything. There's no reason it shouldn't last indefinitely."

Pediatric surgeon and trauma leader Mary E. Fallat, MD, FACS, delivered the popular Scudder Oration on Trauma, which this year focused on an urgent conversation in American healthcare: "Optimizing Strategies to Improve Trauma and Burn Care for US Children."

In an already fragmented healthcare system, trauma and burn care in the US is notably disjointed for children: Burn centers are verified by the American Burn Association, while trauma centers are verified by the ACS, state systems, or both. Meanwhile, pediatric services often are siloed from adult care.

"Ideally, we will develop an action plan for the emergency and initial care of injured children and facilitate transfer to definitive care," she said. "The goal is to 'raise all boats' and make sure the initial emergency care for kids becomes an imperative for all hospitals across all disciplines," which will involve implementing the National Pediatric Readiness Project.

Wide-Ranging Academic Programming

A broad slate of academic, scientific, and educational programming anchored the conference, providing surgeons with an opportunity to share their unique insights into a spectrum of topics.

Returning this year were thematic sessions, which focused on endocrine, hernia, trauma/orthopaedics, artificial intelligence (AI), and education. Meanwhile, multidisciplinary sessions explored topics such as limb salvage, adolescent bariatric surgery, thyroid disorders, and acute mesenteric ischemia.

In addition to Didactic and Skills Postgraduate Courses, Clinical Congress 2025 provided attendees with access to 102 expert-led Panel Sessions, including:

- The "10 Hot Topics in General Surgery" session, comoderated by ACS Regent Kenneth W. Sharp, MD, FACS, and Benjamin K. Poulose, MD, MPH, FACS, which covered managing difficult percutaneous endoscopic gastrostomy tubes, endoscopy for acute cholecystitis, and adjuvant immunotherapy in melanoma, among others. Other "Hot Topics" sessions focused on pediatric trauma and surgical oncology.
- Dynamic Great Debates, which this year were expanded to include four sessions where experts on opposing sides discussed approaches to benign biliary disease, medical versus surgical intervention to obesity, treatment for diverticulitis, and neoadjuvant therapy for rectal cancer.
- Several sessions focused on the current uses, growing potential, and challenges of AI, including "Using ChatGPT and AI for Beginners," "AI: Who Is in Control?," and several more.

Three Special Sessions provided attendees with an in-depth look at relevant and timely topics in surgery:

- The session, "Credentialing and Privileging in Robotic Surgery – Current State and Future Opportunities," reviewed current state and future opportunities of providing surgeons with the tools and experience to effectively perform robotic surgery procedures.

Approximately 10,560 individuals registered for the in-person Clinical Congress 2025, taking advantage of the opportunity to network and interact with peers.

- "Succeeding in TEAM—the Transforming Episode Accountability Model" explored the potential impacts that ACS Quality Program participation could have on performance in this new Centers for Medicare & Medicaid Services model and took a detailed look at hospitals using historical data.
- "Updates from the Blue Ribbon Committee II" covered the background and key initiatives of the Blue Ribbon Committee II, which focuses on advancements in surgical education through competency-based assessment, faculty development, and more.

In addition to the Named Lectures, Panel Sessions, Special Sessions, poster presentations (which are available for registered attendees to view via the on-demand platform), and other session types offered onsite, Clinical Congress 2025 featured more than 2,800 total presentations and more than 2,100 total faculty and presenters.

Surgical Ergonomics Clinic

In the bustling Exhibit Hall, which featured more than 160 companies showcasing the newest surgical tools, services, and technologies, the fourth ACS Surgical Ergonomics Hands-On Clinic for practicing surgeons and surgery residents generated significant interest. Approximately 200 participants took part in this year's clinic, which emphasizes the importance of health and well-being in the physically demanding field.

Attendees learned how to optimally place/adjust their operating room components, such as the OR table, laparoscopic monitor, and robotic surgery surgeon console, to improve surgeons' ergonomics during open, laparoscopic, or robotic surgery. In addition, the attendees practiced stretching and stabilization exercises that could be implemented inside or outside the OR.

Nearly all participants in the clinic indicated that they would use the learned exercises in their practices and that they found the event valuable. For more information on surgical ergonomics, see "Smarter Tools and Culture Shift Are Reshaping Surgical Ergonomics," in this issue.

Awards and Honors

Practicing surgeons, residents, and medical students were recognized for their contributions to advancing the art and science of surgery, domestic and international volunteerism, leadership in residency, and much more. Visit *Clinical Congress News* for a complete listing of the awards, honors, and dedications provided at this year's conference.

Annual Business Meeting

The Annual Business Meeting of Members was held on October 7, with Dr. Sidawy presiding. Following a series of reports from the BoR, Board of Governors (BoG), ACS Foundation, and the ACS Professional Association Political Action Committee, new ACS Officers and other officials were elected for 2025–2026.

The President-Elect is Timothy J. Eberlein, MD, FACS, a renowned surgical oncologist who is the Spencer T. and Ann W. Olin Distinguished Professor and senior associate dean for cancer programs at WashU Medicine and Barnes-Jewish Hospital in St. Louis, Missouri. Dr. Eberlein has been an active ACS leader for many years, serving as a Regent (2015–2024), Governor (2004–2010), and Editor-in-Chief of the *Journal of the American College of Surgeons* (2004–2025).

"It is an honor to be elected to the leadership of the ACS by my national peers. In this position, I will continue to work tirelessly to help the College and its Fellows in our shared mission to care for patients and advance surgical care," Dr. Eberlein said.

Access related video content online.

The First Vice-President-Elect is general surgeon Sharon M. Henry, MD, FACS, professor of surgery at the University of Maryland School of Medicine and director of the Division of Wound Healing and Metabolism at the R Adams Cowley Shock Trauma Center, both in Baltimore. The Second Vice-President-Elect is surgical oncologist Robert P. Sticca, MD, FACS, emeritus professor of surgery at the University of North Dakota School of Medicine & Health Sciences in Fargo.

The new Chair of the BoR is trauma and critical care surgeon Lena M. Napolitano, MD, FACS, who is a professor of surgery and associate chair for the Department of Surgery at the University of Michigan School of Medicine in Ann Arbor. The new Vice-Chair is cardiothoracic surgeon Douglas E. Wood, MD, FACS, the Henry N. Harkins Professor and Chair of the Department of Surgery at the University of Washington in Seattle.

The BoR also named cardiothoracic surgeon Larry R. Kaiser, MD, FACS, as the new ACS Treasurer. Dr. Kaiser is an adjunct professor of surgery at the Perelman School of Medicine at the University of Pennsylvania in Philadelphia, the Lewis Katz Dean Emeritus at the Lewis Katz School of Medicine at Temple University in Philadelphia, and president, CEO, and Thomas W. Langfitt Chair of the College of Physicians of Philadelphia.

Three surgeons were elected to initial terms on the BoR:

- Joshua Broghammer, MD, FACS, associate professor of urology at The University of Kansas Medical Center in Kansas City (3-year term)
- Lillian S. Kao, MD, FACS, Jack H. Mayfield, MD, Chair in Surgery and professor of surgery at the McGovern School of Medicine at The University of Texas Health Houston (3-year term)
- Don J. Selzer, MD, FACS, associate professor and chief of the Division of General Surgery at the Indiana University School of Medicine in Indianapolis (3-year term)

The following BoG Officers were elected:

- **Chair:** Cherisse D. Berry, MD, FACS, surgery vice-chair of academic affairs and professor of surgery at Rutgers Health, New Jersey Medical School in Newark
- **Vice-Chair and Communications Pillar Lead:** Robert D. Winfield, MD, FACS, division chief of acute care surgery at The University of Kansas Medical Center in Kansas City
- **Secretary:** Sundeep G. Keswani, MD, FACS, chief of pediatric surgery at Texas Children's Hospital in Houston

The following surgeons were elected to the BoG Executive Committee for a 1-year term:

- **Member Services Pillar Lead:** Rohan A. Joseph, MD, FACS, clinical associate professor at Florida State University and director of the HCA Florida Capital Hospital Cancer Center in Tallahassee
- **Quality, Research, and Optimal Patient Care Pillar Lead:** Todd K. Rosengart, MD, MBA, FACS, professor and chair of the Michael E. DeBakey Department of Surgery and DeBakey-Bard Chair of Surgery at Baylor College of Medicine in Houston, Texas
- **Inclusive Excellence Pillar Lead:** Maheswari (Magi) Senthil, MBBS, FACS, division chief of surgical oncology in the Department of Surgery at the University of California, Irvine
- **Education Pillar Lead:** Cynthia Talley, MD, FACS, professor of surgery at the Medical University of South Carolina in Charleston

Special Events

Clinical Congress 2025 provided attendees and their guests with opportunities to participate in social and wellness activities, including two notable events.

The Windy City Welcome Reception took place on the evening of October 5. This new event combined the Saturday President's Reception and Taste of the City, previously held on Tuesday, and blended Chicago's renowned cuisine, vibrant culture, and a view of the stunning skyline with a celebration of The House of Surgery®.

Another unique event was a celebration of the career of Ajit K. Sachdeva, MD, FACS, who retired in October of this year as Senior Vice President of the ACS Division of Education. In a nearly 25-year tenure, Dr. Sachdeva transformed the Division of Education from offering just a few educational programs into one that presented an expansive suite of courses, events, and resources for medical students, residents, practitioners, surgeons, and patients.

Clinical Congress 2026

The next Clinical Congress will take place September 26–29, in Washington, DC. Abstract submission begins mid-December, and housing reservations are underway.

CLINICAL CONGRESS 2025
BY THE NUMBERS

7,040
App Downloads

117
Registrant Countries

197
CME Credits Available for In-Person Attendees

11,578
Registrants

10,559
In-Person

38%
First-Time Attendees

1,019
Virtual

2,122
Initiates From 91 Countries

8,000
Total Mentions for #ACSCC25

750K
Impressions for #ACSCC25 [July-Oct]

1,364 Total Speakers

837 Scientific Forum Abstracts Presented

526 Scientific Forum ePosters Presented

221 Videos Presented


ACS Central
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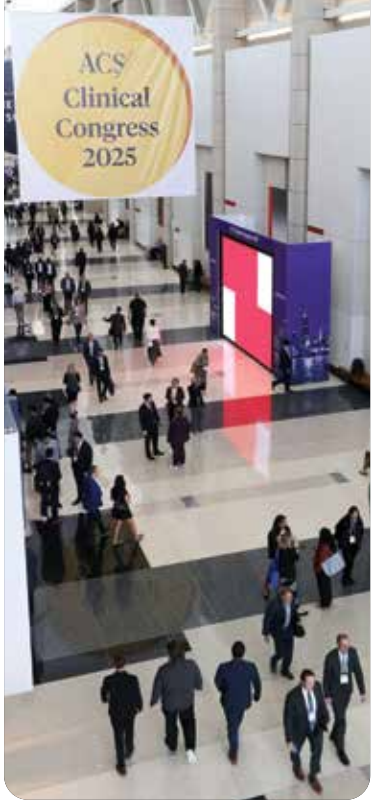
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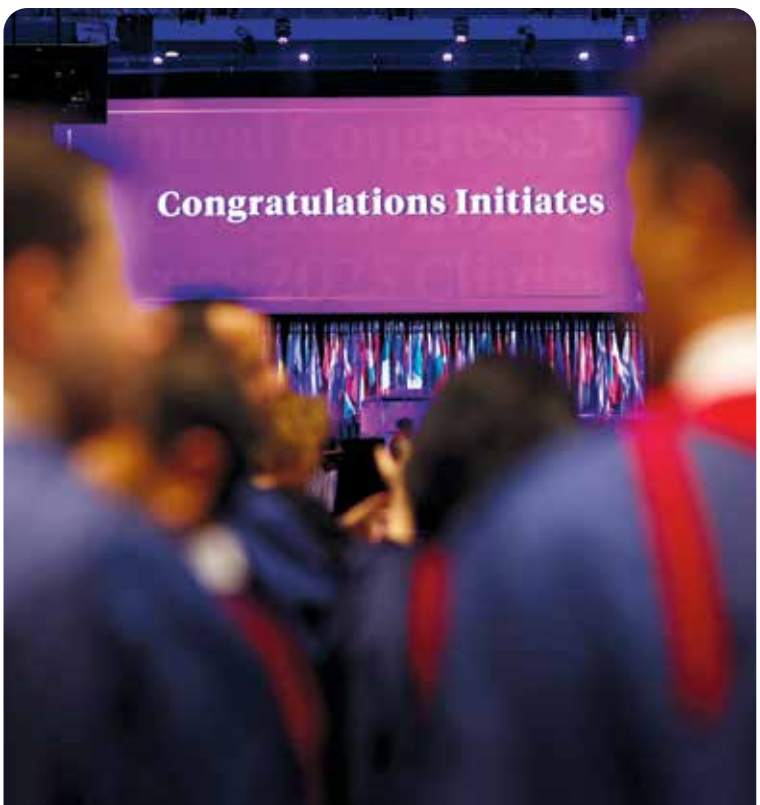

Congratulations Initiates


ACS
AMERICAN COLLEGE
OF SURGEONS

Dr. Anton Sidawy Is Installed as 2025-2026 ACS President

Access introductory video about ACS President Dr. Anton Sidawy.

VASCULAR SURGEON Anton N. Sidawy, MD, MPH, FACS, was installed as the 106th President of the ACS during Convocation at Clinical Congress 2025 in Chicago, Illinois.

During the ceremony, he unveiled his theme for the year: "The House of Surgery®: Home to All Surgeons."

This theme reflects a longstanding vision of the ACS as a unifier of surgeons in all disciplines, career stages, practice types, and geographical locations. Dr. Sidawy emphasized the importance of surgeon unity in ensuring surgery is high in quality, equitably delivered, and safe. See page 58 for more on his Presidential Address.

Background and Career Highlights

Dr. Sidawy's ascent to the ACS presidency adds to a career that combines achievements in his surgical discipline with leadership in the ACS. He currently is a professor of surgery and the Lewis B. Saltz Chair of Surgery at George Washington University in Washington, DC.

After earning his medical degree at Aleppo University School of Medicine in his native Syria and being inspired by the work of legendary cardiovascular surgeons Michael E. DeBakey, MD, FACS, and Christiaan Barnard, MD, Dr. Sidawy completed his general surgical residency at Washington Hospital Center, in Washington, DC, where he also spent a year as administrative chief resident.

During a fellowship in vascular surgery at Boston University Hospital in Massachusetts, he bonded with Frank LoGerfo, MD, FACS, the now-retired chief of vascular surgery and chair of the Department of Surgery at Beth Israel Deaconess Medical Center and the William V. McDermott Distinguished Professor of Surgery at Harvard Medical School, both in

Boston. With his profound influence, Dr. LoGerfo became Dr. Sidawy's longtime mentor and friend.

Returning to Washington, DC, after his fellowship, Dr. Sidawy's surgical career has been centered primarily at George Washington University, with additional service at Georgetown University and Howard University, both in Washington, DC, and at the Uniformed Services University of the Health Sciences in Bethesda, Maryland.

Achievements with the ACS

An ACS Fellow for nearly 40 years, Dr. Sidawy served as a member of the ACS Board of Governors from 2001 to 2007 and a member of the Board of Regents from 2015 to 2024, including a year as Chair (2021–2022).

In addition, he spearheaded a joint effort by the ACS and the Society for Vascular Surgery (SVS) to create the Vascular Verification Program, an ACS Quality Program that accredits vascular surgery programs in hospitals around the US. This partnership was facilitated by his many years with the SVS, including as the organization's president (2009–2010) and the editor-in-chief of the *Journal of Vascular Surgery*. For this work, he received both a 2020 SVS Presidential Citation Award and the 2025 SVS Lifetime Achievement Award.

A longstanding member of the ACS Metropolitan Washington DC Chapter, Dr. Sidawy received the 2006 LaSalle D. Leffall Jr., Award for his contributions to surgery and the broader community. He also enjoyed the rarer distinction in 2008 of being the namesake of the Anton N. Sidawy Lectureship of the Metropolitan Washington DC ACS Chapter.

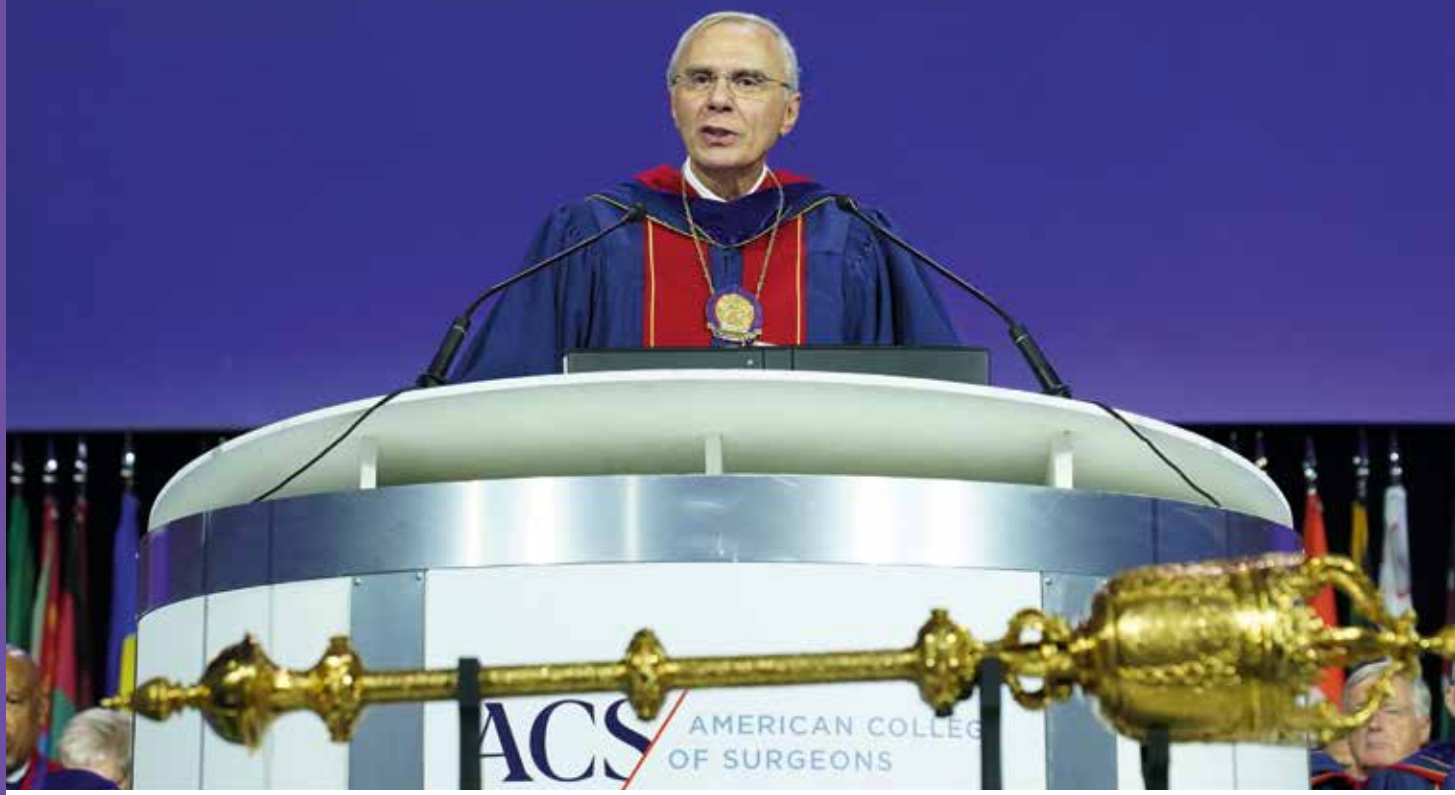
An introductory video with more information about Dr. Sidawy is available at *facs.org*.

Vice-Presidents

First Vice-President Anne C. Mosenthal, MD, FACS, and Second Vice-President Edward M. Barksdale Jr., MD, FACS, also were installed during Convocation.

Dr. Mosenthal is the chief academic officer at Beth Israel Lahey Health—Lahey Hospital & Medical Center in Burlington, Massachusetts. She has pioneered advancements in palliative surgical care via multiple leadership roles in the ACS Committee on Surgical Palliative Care. She has helped lead the ACS Trauma Quality Improvement Program, including developing best practice guidelines for palliative care in trauma contexts, while also cochairing the Advanced Trauma Life Support® team for its 11th edition, which was launched this year.

Dr. Barksdale is the chief surgical officer at the Chicagoland Children's Health Alliance and a professor of surgery at The University of Chicago, both in Chicago, Illinois. He has contributed to many ACS committees for more than 2 decades, including most recently as a consultant to the Committee on Interprofessional Education and Practice. An expert in childhood cancer and chronic intestinal disease, Dr. Barksdale also worked closely with officials in Cleveland and throughout Ohio on successful antiviolence initiatives while serving as surgeon-in-chief at Rainbow Babies and Children's Hospital/ University Hospitals in Cleveland, Ohio. B



ACS President Champions Unity in Surgery

NEWLY INSTALLED ACS President Anton N. Sidawy, MD, MPH, FACS, began his Presidential Address at Convocation at Clinical Congress 2025 in Chicago, Illinois, with a theme familiar to many: the American Dream.

After earning his medical degree at Aleppo University in his native Syria, Dr. Sidawy completed his surgical training in Washington, DC, and Boston, Massachusetts, before returning to Washington, DC, where he currently is a professor and the Lewis B. Saltz Chair of the Department of Surgery at George Washington University.

"Although I carried with me a deep belief in the promise of the American Dream, I couldn't have imagined that dream extending into…the distinct honor of standing before you, not only as a surgeon, but as the President of the American College of Surgeons," Dr. Sidawy said.

He called the US a place where rewards can be gained through hard work and perseverance and described how his own journey has been facilitated by numerous colleagues and peers, as well as Frank LoGerfo, MD, FACS, and James O. Menzoian, MD, FACS, "who introduced me to the joy of scientific discovery."

Dr. Sidawy then transitioned into the main topic of his speech: his mission as ACS President. After discussing longstanding efforts of the ACS to address surgeons' challenges via quality programs and advocacy, he focused on ensuring the present and future success of the surgical workforce.

"Beyond the surgeon reimbursement issues and administrative burdens that affect everyday surgical practice, I believe there are overarching systemic challenges in healthcare that warrant particular attention," he said. As examples, he listed corporatization and consolidation of healthcare that

Throughout his speech, Dr. Sidawy emphasized the need for surgeons to unite to advance their collective position.

compromises patient care and physician autonomy; the detrimental engagement of private equity and venture capital in healthcare; and the shortage and maldistribution of surgeons nationally.

He expanded on the last item by sharing a prediction from the Association of American Medical Colleges, issued in early 2024: A coming shortage of physicians will include a shortfall of 10,000 to 19,900 surgeons by 2036. Using further data analysis from multiple sources, Dr. Sidawy also noted that 2,250 of 3,145 US counties have no surgeons representing his own surgical discipline, vascular surgery, and the total number of vascular surgeons is less than what is needed to meet patient needs nationwide.

Using data analysis originally published in the April 2024 issue of the ACS *Bulletin,* Dr. Sidawy shared that the surgeon workforce is facing declines as younger age groups are smaller in size than older generations. "Strategic policy interventions to boost training capacity are no longer optional," he said. "They are imperative to reverse workforce attrition."

Dr. Sidawy explained the ways in which the ACS is attempting to ensure that the US will have a sufficient and equitably distributed surgeon workforce, including via updates to surgeon education promoted by the Blue Ribbon Committee II (read more in the May 2024 *Bulletin* issue) and unity through advocacy, as recognized in the new ACS Strategic Plan (read more in the Executive Director's July-August 2025 column).

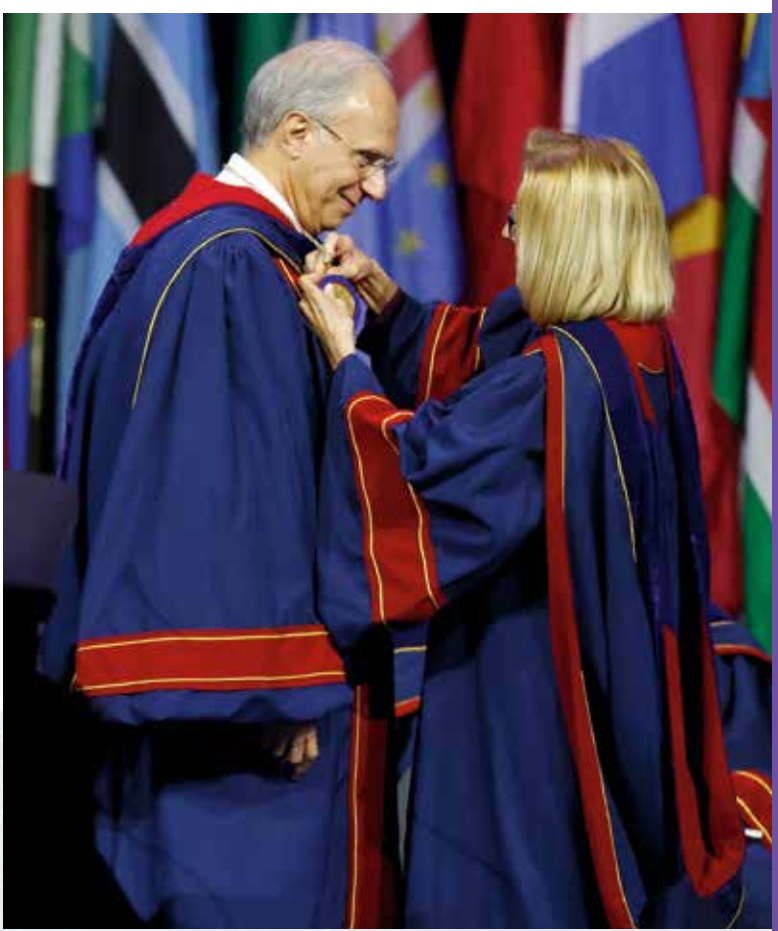
Throughout his speech, Dr. Sidawy emphasized the need for surgeons to unite to advance their collective position. He connected this message with his remarks on the American Dream by bringing up the motto found on US currency, "E pluribus unum," which means "out of many, one."

He said, "In advocacy, the surgical motto should be 'E pluribus advocatus': 'out of many, one advocate.'"

He also said the unique ability of the ACS is to provide surgeons with the forum and resources to unite, for advocacy and many other purposes: "With this infrastructure, this stature, and this resolve, we must grow and draw closer together as surgical specialties."

He continued, "In so doing, our collective voice will resonate more powerfully, our influence will multiply, and we will be better equipped to meet the challenges before us and realize the goals all surgical specialties share."

The full Convocation ceremony is available online. The address also is available as an episode on *The House of Surgery* podcast. B



Dr. Timothy Eberlein Is ACS President-Elect

RENOWNED SURGICAL oncologist Timothy J. Eberlein, MD, FACS, was elected President-Elect of the ACS during the Annual Business Meeting of Members at Clinical Congress 2025 in Chicago, Illinois. Joining him as First and Second Vice-Presidents-Elect, respectively, are Sharon M. Henry, MD, FACS, and Robert P. Sticca, MD, FACS.

A native of Pennsylvania, Dr. Eberlein serves as the founding director of the Alvin J. Siteman Cancer Center, as well as the Spencer T. and Ann W. Olin Distinguished Professor, and senior associate dean for cancer programs at Barnes-Jewish Hospital and Washington University School of Medicine in St. Louis, Missouri.

After earning his medical degree from the University of Pittsburgh School of Medicine in Pennsylvania, he completed an internship and residency at Brigham & Women's Hospital (known for part of that time as Peter Bent Brigham Hospital) in Boston, Massachusetts, including a year as chief resident. He also completed two research fellowships at the National Institutes of Health in Bethesda, Maryland.

Dr. Eberlein has been active within the ACS for more than 30 years. His roles have included serving as a member of the Board of Governors, Chair of the Board of Regents, and the Chair of the Committee on Research and Education. In addition, he was Editor-in-Chief of the *Journal of the American College of Surgeons* from 2004 to 2025. For his numerous contributions to the ACS and the surgical profession, he received the Rodney E. and Thomas G. Sheen Award from the New Jersey Chapter of the ACS, as well as the Owen H. Wangensteen Scientific Forum Award (2020).

He also has held leadership positions at the American Board of Surgery, Advisory Committee

Dr. Eberlein has been active within the ACS for more than 30 years.

to the Board for Surgical Oncology, Board of the National Comprehensive Cancer Network, Society of Surgical Oncology, Society of Surgical Chairs, American Surgical Association, and the National Cancer Institute. A prolific researcher and editorial board member, he served as associate editor of the *Annals of Surgical Oncology* for 17 years.

Dr. Eberlein called becoming President-Elect of the ACS "the epitome of my academic career in surgery," and stated his wish to "work tirelessly to help the College and its Fellows."

Vice-Presidents-Elect

Dr. Henry, the Anne Scalea Professor of Trauma Surgery at the University of Maryland School of Medicine in Baltimore, is the First Vice-President-Elect.

In addition to being a renowned trauma surgeon, Dr. Henry has been active within the ACS for many years. This includes more than 2 decades of involvement with the Committee on Trauma (COT) in a range of roles. Similarly, she is a long-serving Advanced Trauma Life Support® (ATLS®) course director, for which she received the ACS COT Meritorious Service Award in 2009. She helped promulgate ATLS to Slovenia, Iraq, Haiti, and Bangladesh, and she served on the steering committee for its newly launched 11th edition.

Dr. Sticca is the Second Vice-President-Elect. He is an emeritus professor of surgery at the University of North Dakota School of Medicine in Grand Forks.

Formally trained in general surgery and surgical oncology, Dr. Sticca has focused his career on serving rural populations. He was a founding leader of the only surgical residency program in North Dakota, which helps meet a need for surgical care in the Great Plains and serves as a model for rural care nationally. As a result, one surgeon who nominated Dr. Sticca for the Second Vice-Presidency called him "an icon of rural surgery."

A past member of the ACS Board of Governors and Advisory Council for Rural Surgery, Dr. Sticca also contributed to the Commission on Cancer and ATLS program. B


ACS Clinical Congress 2025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Seven Acclaimed Surgeons Receive Honorary ACS Fellowship

Honorary Fellowship in the ACS was conferred upon seven prominent surgeons from around the world at Convocation during Clinical Congress 2025 in Chicago, Illinois.

The granting of Honorary Fellowships is one of the highest honors bestowed by the ACS. Brief summaries of the 2025 recipients' careers follow.

Hendrik Jacob (Jaap) Bonjer, MD, PhD, FACS, FRCSC, FASCRS

Amsterdam, the Netherlands

Dr. Jaap Bonjer is an adjunct professor at Dalhousie University in Halifax, Canada, chair of the Departments of Surgery, Orthopaedic Surgery and Sports Medicine, Plastic and Reconstructive Surgery, Urology, and Emergency Medicine at the Amsterdam University Medical Centre in Amsterdam, the Netherlands, and a commander of the Royal Netherlands Navy Reserves.

Dr. Bonjer has been a visionary in surgical simulation-based education. After initiating several surgical education programs, including at Eramus University in Amsterdam and the Skills Centre for Health Sciences in Halifax, Canada, he became CEO of the Amsterdam Skills Centre for Health Sciences in Amsterdam. The Centre trains more than 7,000 healthcare professionals annually and has advanced the concept of entrustable professional activities. He has received the Amsterdam Impact Award for Life Sciences for founding this center.

In addition, Dr. Bonjer was president of the European Association for Endoscopic Surgery and Dutch Society for Surgery; a principal investigator on several colorectal and hernia surgery trials; and has published more than 300 articles and edited six books. He serves as editor-in-chief of *Surgical Endoscopy.*

Chintamani, MBBS, FACS, FRCS(Ed), FRCS(Eng), FRCS(Glas), FRCSI, FICS, FIMSA

New Delhi, India

Dr. Chintamani, who follows an Indian tradition of using just one name, is a prominent breast surgeon, surgical oncologist, researcher, and educator.

He currently chairs the Department of Surgical Oncology at Sir Ganga Ram Hospital in New Delhi, India, and was previously the surgery unit chief at Vardhman Mahavir Medical College of Safdarjung Hospital in New Delhi, where he has supervised and educated hundreds of surgical trainees. He also maintains a YouTube channel through which he has published more than 300 operative and clinical training videos. In addition, he has published more than 160 scientific papers and 13 books and book chapters, is a frequent presenter at national and international conferences, and is joint editor of the *Indian Journal of Surgical Oncology.*

Dr. Chintamani has held several positions within the ACS, including as President of the India Chapter and a member of the Board of Governors. He also is the founding director of Breast Global and a member of the board of directors of the Indian Cancer Genome Atlas, and was president of the Association of Breast Surgeons of India, the Delhi Chapter of the Association of Surgeons of India, and the Indian Society of Wound Management.

Luis Grande, MD, PhD, FACS, ESA, RAMC

Barcelona, Spain

Professor Luis Grande, whose surgical career has focused on foregut and hepato-pancreato-biliary surgery and liver transplantation, is the emeritus chair of surgery at Hospital del Mar and an emeritus professor at Autonomous University, both in Barcelona, Spain.

Dr. Grande held prestigious positions at the Hospital Clinic of the University of Barcelona before moving to the Hospital del Mar of the Autonomous University of

Barcelona. There, he was the elected director of the surgery service and later became a full professor.

Dr. Grande is a prolific researcher whose work on gastroesophageal reflux disease, liver preservation for transplantation, liver lesion ablation, and other gastrointestinal, esophageal, and liver disease topics, includes 38 book chapters, 460 articles, and more than 650 lectures. His work has resulted in an h-index near the top of global research impact.

The recipient of numerous awards, he is a member of the Royal Academy of Medicine of Spain, represents Spain on the ACS Board of Governors, and serves on the Best Practices Workgroup and the Quality, Research, and Optimal Patient Care Pillar.

Cathal J. Kelly, MB, BCh, BAO, LRCSI & PI, BSc, MCh, FRCSI(Gen.)

Dublin, Ireland

Dr. Cathal Kelly is the CEO of the Royal College of Surgeons in Ireland (RCSI) and vice chancellor of the RCSI University of Medicine and Health Sciences in Dublin, Ireland.

Dr. Kelly was a consultant vascular surgeon at Beaumont Hospital in Dublin, Ireland, for several years, as well as director of the Intermediate Cycle of the Undergraduate Medical Program, vice dean for curriculum change, and director of the research laboratory at the same institution. In 2006, he became dean of the RCSI Medical School, through which he helped create the first graduate-entry medical education program in Ireland. He also helped to pioneer Irish government–sponsored collaboration between the RCSI with the College of Surgeons of East, Central, and Southern Africa, through which more than 750 surgeons in 10 African nations have received education.

In 2009, Dr. Kelly was appointed CEO of RSCI. In this role, he contributed to RSCI becoming the first independent, nonpublic institution to be granted full university status from the National University of Ireland. As its first vice chancellor, Dr. Kelly has overseen the addition of numerous undergraduate and postgraduate programs in clinical care and healthcare management in Dublin, Bahrain, Malaysia, the United Arab Emirates, and China, as well as the first community-based dental education school in Ireland and a School of Population Health.

Eduardo E. Montalvo-Jave, MD, PhD, FACS

Mexico City, Mexico

Dr. Eduardo Montalvo-Jave is a leading hepato-pancreato-biliary (HPB) surgeon at the Universidad National Autonoma de Mexico (UNAM) in Mexico City, Mexico, where he currently serves as chair of the Department of Surgery. He also is a consultant and staff surgeon in the Division of HPB Surgery at Hospital General de México "Dr. Eduardo Liceaga" and surgeon staff in the Division of General and Endoscopic Surgery at Hospital Médical Sur in Mexico City.

A prolific researcher, Dr. Montalvo-Jave has published 122 articles and 53 book chapters and presented at hundreds of

conferences, largely focusing on the development of biomarkers for HPB malignancies and liver fibrosis, ischemia reperfusion injury of the liver and oxidative stress, development of bio-prosthesis for bile duct replacement, and mechanisms and causes of bile duct injury. He also is on the editorial boards for several major journals in Mexico and has edited several textbooks on HPB and upper gastrointestinal tract disease.

Dr. Montalvo-Jave is the current president of the Mexican Association of Endoscopic Surgery, Latin American Association of Endoscopic Surgery, and local organizing committee of the World Congress of Surgery of the International Society of Surgery in Mexico City.

Gabriela Möslein, MD, PhD, FEBS, FASCRS(Hon)

Düsseldorf, Germany

Dr. Gabriela Möslein is a renowned authority on research and treatment of hereditary gastrointestinal tumor syndromes and a pioneer in pouch surgery and continent ileostomy. She currently serves as head of the Center for Hereditary Tumors at the Academic Hospital Bethesda in Duisburg, Germany.

Dr. Möslein previously has been a consultant in visceral surgery and coloproctology at the University of Düsseldorf, chair of the Department of Surgery at HELIOS St. Josefs-Klinik in Bochum, Germany, and chair of the Department of Hereditary Tumors at the University of Witten-Herdecke in Helios Universitätsklinikum Wuppertal in Germany.

Her research has included more than 150 papers on aspects of hereditary colorectal cancer, mutations in the mismatch repair system, polyposis syndromes, chemoprevention, registries, gender diversity, and women in surgery. She was a leader of the colorectal adenoma/cancer prevention project (CAPP2) trial.

A founding member and current chair of the European Hereditary Tumor Group, she also helped establish the International Society for Gastrointestinal Hereditary Tumors, where she served as chair and helped establish the Human Variome Project. In addition, she co-initiated the Prospective Lynch Syndrome Database to enhance understanding of genetic factors in cancer.

Rowan Parks, MD, PRCSEd, FRCSI, FFSTEd

Edinburgh, Scotland

Dr. Rowan Parks is an internationally renowned hepato-pancreato-biliary surgeon-scientist, educator, and leader who currently serves as a professor of surgical sciences at The University of Edinburgh and president of The Royal College of Surgeons of Edinburgh, both in Scotland.

Dr. Parks has contributed to surgical education via several roles within the NHS Education for Scotland, where he has been chair of the General Surgery Specialty Training Committee, associate postgraduate dean, chair of the Scottish Specialty Training Board for Surgical Specialties, and deputy medical director. He has similarly held many roles within The University of Edinburgh Medical School, where he is currently chair of the Fitness to Practice Committee.

A recipient of 40 international awards, Dr. Parks traveled widely via early career fellowships and has since worked nationally and internationally on organizing many healthcare conferences. Similarly, his leadership has extended to national and international positions, including as past president of both the Association of Surgeons of Great Britain and Ireland and the Great Britain and Ireland Hepato-Pancreato-Biliary Association, a past director of the James IV Association of Surgeons, and a past treasurer of the European-African Hepato-Pancreato-Biliary Association.

View the full citations and sponsors for the Honorary Fellows, plus the list of all Fellows inducted during Clinical Congress, in the 2025 Convocation program at *facs.org/convocation.*

Dr. Lorrie Langdale Is Honored as Distinguished Philanthropist

LORRIE A. LANGDALE, MD, FACS, chief of general surgery and director of surgical critical care at the University of Washington in Seattle, is this year's recipient of the ACS Foundation Distinguished Philanthropist Award.

The Distinguished Philanthropist Award, established in 1989, honors the donor who most embodies the mission of the ACS Foundation, which is to support surgical research, scholarships, and programs that benefit surgical patients worldwide. The award reflects not only the recipient's history of philanthropy to the ACS, but also a record of service to the Foundation and the ACS and a commitment to leadership regarding the practice of philanthropy.

Dr. Langdale's philanthropic journey began at the behest of a friend, Eileen M. Bulger, MD, FACS, who is a professor of surgery at the University of Washington and chief of trauma at Harborview Medical Center, both in Seattle, and the ACS Medical Director of Trauma Education Programs.

"I had been hearing about her dream for the Future Trauma Leaders (FTLs) project for some years, and then she really got the ball rolling with it," Dr. Langdale explained. "She thought it needed to be supported."

Dr. Langdale agreed to help.

"I looked at where the project was, and I thought, 'How could I help put this over the top?'"

The program, which celebrated its 10th anniversary in 2025, helps trauma surgeons develop leadership skills early in their careers; many have gone on to prestigious positions.

"There's a significant return on investment, and that's what attracts me to it," Dr. Langdale stated frankly about the program.

Dr. Langdale also has given to Stop the Bleed, the ACS's program to educate people worldwide in how to respond to emergency bleeding, and the Injury Prevention Fund, which has helped support research and initiatives to reduce firearm-related violence.

Although not a trauma surgeon herself, Dr. Langdale brings significant insight into trauma to her philanthropic giving.

After earning her medical degree at the University of Washington, she completed her residency in general surgery at the Michael Reese Hospital in Chicago, Illinois, and attained double-board certification in general and critical care surgery. Over the course of her career, Dr. Langdale has carved out a surgical practice with an unusually broad range of general and critical care cases.

Notably, this work includes care for trauma patients long after acute care has been rendered. Because she is based primarily at a Veterans Affairs medical center, some of her patients have been injured in combat.

"You'd think that I was a trauma surgeon by what I support," she said. "But it's mostly a little bit of a reflection of what my patients have gone through. As they have survived war, they come back with chronic injuries, which somebody's got to take care of after that, which is what my job is."

While Dr. Langdale emphasized that her clinical practice is wide-ranging, she noted her veteran patient population also copes with emotional and psychological trauma.

"I'm helping them manage the rest of their life after the trauma. There may be aspects of it that are still at play decades later," she said.

Dr. Langdale is an instructor for the ACS Advanced Trauma Life Support® course, which is one of several ways that she has generously contributed her time and expertise to the ACS and the broader surgical community.

Dr. Langdale also has participated in the development of the Surgical Education and Self-Assessment Program (SESAP®), one of the ACS's most important surgical education resources. She has served on the SESAP Committee for more than 25 years, including as the Program Director for the 18th and recently released 19th editions.

Additionally, she has served on the ACS Board of Governors for 6 years and other ACS committees over several years. She is a Past-President of the ACS Washington State Chapter, where her leadership included serving as the representative to the Association of Women Surgeons, an organization for which she also served as president.

As one might expect for someone so highly accomplished, Dr. Langdale is the recipient of several awards, including the Seattle Surgical Society's Lifetime Service Award, Shock Society's Distinguished Service Award, John K. Stevenson Award for Resident Teaching, and Women's Mentoring Award from the University of Washington School of Medicine.

Asked about her impact on the surgical profession, Dr. Langdale said she has identified four pathways to a legacy in surgery: leadership, scientific discovery, service, and philanthropy.

Of the four, she considered service her primary approach for creating impact. "I would say that's probably where my legacy will predominantly lie, in how I see myself having served those who have served our country."

Dr. Langdale also noted that philanthropy is important to her legacy. "I think each of us dips into any one of those four pathways at different times. As someone who's been very fortunate in terms of fiscal safety, I have the option to do that, to bring some of those things forward and support projects that fit my moral compass and that I believe will make a difference."

H. Randolph Bailey, MD, FACS, Chair of the ACS Foundation, presented Dr. Langdale with the Distinguished Philanthropist Award during Clinical Congress 2025 in Chicago, Illinois.

"Dr. Langdale's generosity is a powerful force for progress in surgery," said Dr. Bailey. "But it is her unique combination of philanthropic support and hands-on leadership that truly sets her apart."

The ACS Foundation, founded in 2005, supports surgeons through programs providing opportunities for research, education, innovation, and mentorship—all to improve the care of the surgical patient. In the past 2 years, the Foundation achieved record-breaking fundraising, including raising more than $240,000 during Clinical Congress 2025. To learn more, visit *facs.org/foundation.*

ACS Executive Director and CEO Patricia L. Turner, MD, MBA, FACS, (left), and Dr. Randolph Bailey (right) present the ACS Foundation Distinguished Philanthropist Award to Dr. Lorrie Langdale.

Report on ACS/ACSPA Activities, October 2025

Marion Curtiss Henry, MD, MPH, FACS

The Board of Directors of the ACS Board of Regents (BoR) and ACS Professional Association (ACSPA)* met October 3 at the Marriott Marquis Chicago in Illinois.

KEY PRESENTATIONS centered on the College's strategic plan, updates related to the Division of Research and Optimal Patient Care's Continuous Quality Improvement Programs, ACS Cancer Programs, and the overarching ACS clinical data strategy.

The following is a summary of the discussion and was current as of the date of the meeting.

ACS Strategic Plan

Important performance indicators and dashboards related to the pillars of the strategic plan were outlined. Recent editions of the *ACS Brief* e-newsletter have featured more specifics on each pillar.

Education

The proposed program for Clinical Congress 2026 was presented for the Regents' comments and reviews. The BoR approved the program at their Adjourned Meeting on October 7.

Member Services

The BoR accepted resignations from 28 Fellows, changed the status from Active or Senior to Retired for 135 Fellows, and approved the formation of the ACS Dominican Republic Chapter.

Research and Optimal Patient Care

In addition to the updates and recent progress on the long-term strategy previously presented to the BoR for ACS clinical data registries by ACS Chief Health Informatics Officer Genevieve Melton-Meaux, MD, PhD, FACS, deep-dive presentations offered details on initiatives within the Cancer Programs and the Continuous Quality Improvement Program areas within the Division of Research and Optimal Patient Care.

**The ACSPA, a 501(c)(6), allows for a broader range of activities and services that benefit surgeons and patients, including expanded legislative advocacy and political programming, such as the ACSPA-Political Action Committee (SurgeonsPAC).*

Cancer Programs

To complement the strategic analysis of the ACS Cancer Programs in 2024, Ronald J. Weigel, MD, PhD, MBA, FACS, Medical Director for ACS Cancer Programs, provided updates on strategic goals:

- Increasing the value of the National Cancer Database (NCDB)
  - Using NCDB to demonstrate value of accreditation
    - NCDB accrued more than 1.7 million records in 2023. Historic accrual of 53 million records dates to 1985.
    - Registries abstracted more than 250 data points.
    - In 2024 and the first half of 2025, more than 360 publications in PubMed were based on NCDB data.
    - Articles show that ACS Accreditation improves quality of care and survival.
  - Developing methods to increase real-time data capture
    - Initiative with the National Cancer Institute for the US Core Data for Interoperability (USCDI+) Cancer Program
    - Linkage to cost data to move from quality to value in care
  - Published first NCDB Annual Report: *J Am Coll Surg.* 2025;240(1):95-110.
    - Second annual report will focus on melanoma, prostate, and esophageal cancers.
    - Third annual report will focus on lung, rectal, and thyroid cancers.
  - Developing a Cancer Survival Calculator using staging and NCDB clinical data

- Expanding the number of accredited programs, exploring incentives for accreditation, and developing Commission on Cancer (CoC) hospital rankings
  - Development of new Rural CoC Accreditation program to improve cancer care in rural settings
    - Accreditation specifically designed for rural hospitals requiring fewer resources
    - Based on Iowa and Kentucky pilots and feedback from CoC Rural Task Force
    - Offers rural participants consultive services from trained CoC Site Reviewers
    - Encourages collaboration between rural sites to help solve problems and advance care
    - Improves offerings in NCDB to be more applicable to smaller-volume hospitals
    - Pilot to launch in early 2026
  - Status of International CoC and additional accreditation programs
    - Efforts underway to increase number of Canadian Hospital sites in accreditation program
    - Launched CoC Pediatric Specialty accreditation in 2024
    - Exploring other cancer accreditation programs
  - Developing partnership with Blue Cross and Blue Shield (BCBS) for CoC hospitals to receive quality designation from BCBS Blue Distinction Centers
  - Developing ranking system for CoC hospitals
  - Exploring public reporting

A future meeting will focus on the strategic goals of increasing the revenue, funding, and value of accreditation programs and streamlining the operations of the Cancer Programs.

Continuous Quality Improvement Programs

To complement the strategic analysis of the ACS Continuous Quality Improvement Programs in 2023, Clifford Y. Ko, MD, MS, MSHS, FACS, Senior Vice President of the Division of Research and Optimal Patient Care, provided updates on strategic goals.

- ACS Clinical Protocols
- Communications and marketing efforts related to the ACS Clinical Data Strategy
- Quality improvement mandates from specialty certifying boards

Additional Activity

In addition to these presentations, the Regents heard updates from the Finance Committee, the BoR Optimal Working Environment for Surgeons Task Force, and the Resident and Associate Society. They also reviewed several informational reports and approved the *Best Practices Guidelines for the Management of Chest Wall Injuries.* B

Dr. Marion Curtiss Henry *is the Immediate Past Chair of the ACS Board of Governors and professor of surgery at The University of Chicago Medicine, where she also serves as the medical director of the operating rooms and pediatric surgery quality officer at Comer Children's Hospital 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.

Member News

Four ACS Fellows Are Elected to NAM




Gail E. Besner, MD, FACS, Andrea Hayes Dixon, MD, PhD, FACS, Margaret "Gretchen" Schwarze, MD, MPP, FACS, and Patricia L. Turner, MD, MBA, FACS, were elected to the National Academy of Medicine (NAM).

Dr. Besner, a pediatric surgeon, director of the Division of Pediatric Surgery, and H. William Clatworthy Jr. Professor of Surgery at The Ohio State University in Columbus, was recognized "for being an internationally renowned expert on novel therapeutics to prevent necrotizing enterocolitis since her seminal discovery of heparin-binding epidermal growth factor-like growth factor."

Dr. Dixon, a pediatric surgeon, dean, and senior vice president of health affairs at Howard University College of Medicine in Washington, DC, as well as an ACS Regent, was recognized "for pioneering cytoreductive therapy for rare pediatric cancers, increasing survival rates from 30% to 70%. As the first African American woman pediatric surgeon in the US and the first female dean of Howard University College of Medicine, she is inspiring and training the next generation of physicians from underrepresented backgrounds."

Dr. Schwarze, a vascular surgeon and the Morgridge Endowed Professor of Vascular Surgery in the Department of Surgery and Department of Medical History and Bioethics at the University of Wisconsin–Madison, was recognized "for her pioneering work that has transformed how surgeons communicate with patients about major treatment decisions and informed consent for surgery."

Dr. Turner, a general surgeon and the ACS Executive Director and CEO, was recognized "for her visionary leadership at the American College of Surgeons that coalesced all surgical specialties into the 'House of Surgery,' creating a forceful, influential voice promoting evidence-based care. Her tireless efforts enable surgeons 'to heal all patients with skill and trust.'"

Have you or an ACS member you know achieved a notable career highlight recently? If so, send potential contributions to Jennifer Bagley, MA, *Bulletin* Editor-in-Chief, at jbagley@facs.org. Submissions will be printed based on content type and available space.

Wexner Leads Colorectal Surgery in Washington, DC

Steven D. Wexner, MD, FACS, is executive director and system chair for colorectal surgery, professor, and vice chair for professional development in the Department of Surgery at Georgetown University and MedStar Health in Washington, DC. For more than 35 years, Dr. Wexner was at the Cleveland Clinic Florida in Weston, most recently serving as director of the Ellen Leifer Shulman and Steven Shulman Digestive Disease Center and emeritus chair of the Department of Colorectal Surgery. He also is a past Regent of the ACS.

James Joins Perimeter as Chief Medical Officer

Ted A. James, MD, MHCM, FACS, is chief medical officer for Perimeter Medical Imaging AI, Inc., a commercial-stage medical technology company. Dr. James, a surgical oncologist, also will continue in his roles as the system physician executive of the Endeavor Health Cancer Institute in Chicago, Illinois, and faculty director of executive education at Harvard Medical School Corporate Learning, in Boston, Massachusetts.

Yoon-Flannery Heads Women's Oncology in South Jersey

Kay Yoon-Flannery, DO, MPH, FACS, has been appointed chief of women's oncology at the AtlantiCare Cancer Care Institute in Egg Harbor Township, New Jersey. A breast surgical oncologist, she will lead the strategic expansion of AtlantiCare's comprehensive Women's Oncology Program while continuing her surgical practice. Dr. Yoon-Flannery previously served as director of quality and process improvement and director of physician engagement at MD Anderson Cancer Center at Cooper, and co-director of the Janet Knowles Breast Cancer Center, both in Camden, New Jersey.

Nwariaku Is President-Elect of SBAS

Fiemu Nwariaku, MD, MBA, FACS, was named president-elect of The Society of Black Academic Surgeons (SBAS) at the recent annual meeting in Milwaukee, Wisconsin. He will formally become the 32nd SBAS president in September 2026 and serve a 1-year term. Dr. Nwariaku is chair of the Department of Surgery at the Spencer Fox Eccles School of Medicine and Helen Lowe Bamberger Colby Presidential Endowed Chair in Health Sciences at The University of Utah in Salt Lake City.

Smith Is Appointed UofL Health CEO

Jason W. Smith, MD, PhD, MBA, FACS, is chief executive officer (CEO) of the University of Louisville (UofL) Health in Kentucky. He has been in the role on an interim basis since June. With his appointment, UofL Health becomes the only physician-led health system in the region. A trauma surgeon, Dr. Smith also will continue to serve as chief medical officer for UofL Health, as well as the Berel L. Abrams, MD Endowed Professor in Surgery and chief of the Division of General Surgery at the UofL School of Medicine.

Basu Takes Over as Plastic Surgeons President

C. Bob Basu, MD, MBA, MPH, FACS, was elected president of the American Society of Plastic Surgeons (ASPS). He will lead ASPS—the world's largest organization of board-certified plastic surgeons—for 1 year. Dr. Basu is the founder and managing director of Basu Aesthetics + Plastic Surgery, a Houston-based independent private practice specializing in aesthetic plastic surgery of the face, breast, and body.

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Highlights

The following articles appear in the November and December 2025 issues of the *Journal of the American College of Surgeons (JACS)*. A complimentary online subscription to *JACS* is a benefit of ACS membership. See more articles at ***facs.org/jacs***.

Longitudinal Trends in Efficiency and Complexity of Surgical Procedures: Analysis of 1.7 Million Operations Between 2019 and 2023

Christopher P. Childers, MD, PhD, Lauren M. Foe, MPH, Vinita Mujumdar, JD, and colleagues

Overall, for common high-volume surgical procedures, operative times and patient complexity have significantly increased over time. There does not appear to be empirical evidence of efficiency gains that would justify an efficiency adjustment as proposed in the calendar year 2026 Medicare Physician Fee Schedule.

Identifying Diagnostic Gaps and Mitigation Strategies for Older Adult Emergency General Surgery Patients: A Scoping Review

Jessica K. Liu, MD, MS, MPH, Xane D. Peters, MD, MS, Sarah L. Remer, MD, and colleagues

Current diagnostic issues, clinical tools, and clinician feedback strategies in the older adult emergency general surgery (EGS) setting were identified in this scoping review. While challenges unique to older adults exist, variability in the use of tools to improve identification of older adult conditions in EGS and gaps in feedback to improve diagnosis remain.

Evaluating Effectiveness and Long-Term Outcomes of Roux-en-Y Gastric Bypass vs. Gastric Sleeve Bariatric Surgery in Obese and Diabetic Patients: Systematic Review

Rebekah Brown, MD

This systematic review compared long-term outcomes of Roux-en-Y gastric bypass (RYGB) and sleeve gastrectomy (SG), highlighting RYGB's superior weight loss and diabetes remission but higher complication risk, while SG offered fewer nutritional deficiencies but increased gastroesophageal reflux disease and revision rates. Surgical choice should be tailored to individual patient profiles.

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Are You Paid by wRVUs?
How the CMS "Efficiency Adjustment" Will Cut Surgeons' Pay

The Centers for Medicare & Medicaid Services (CMS) has finalized a **2.5% cut to work relative value units** (wRVUs) for almost all non-time-based codes starting on January 1, with additional reductions expected every 3 years *indefinitely*.

This so-called "efficiency adjustment" is based on unsupported assumptions about productivity gains, further reducing surgeon reimbursement, and having far-reaching consequences for patients.

Flawed Thinking

CMS claims that surgeons have become more efficient over time, performing procedures faster and with less intensity. However, recent data contradict this assumption.

A study published in the *Journal of the American College of Surgeons*, analyzing more than 1.7 million operations across 249 CPT codes and 11 surgical specialties, found that 90% of procedures took the same or longer to perform in 2023 compared to 2019. All measures of complexity also increased during this time period. In fact, **operative times increased by an average of 3.1%.**

Inconsistent Implementation

CMS's cut even applies to codes that have been recently revalued, despite them not having historical data on efficiency. **This logic is flawed and inconsistent.**

Unintended Consequences

Reducing wRVUs will have wide-ranging consequences for surgeons and patients. Many physician compensation models are tied to work or total RVUs, therefore, **CMS is directly cutting pay without reducing workload.** Physicians locked into multiyear employment agreements could face untenable financial strain, undermining stability in medical practices.

In addition, these cuts could **limit access to surgical care,** particularly among the sickest or most complex patients.

Call to Action

CMS's across-the-board reduction in work RVUs, without clear, data-driven justification, is flawed and harmful.
Congress needs to act swiftly to prevent implementation of this misguided policy before it takes effect on January 1.

Help us fight back against these cuts. Amplify our voice using SurgeonsVoice.

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