APRIL 2026 / VOLUME 111 / NUMBER 4

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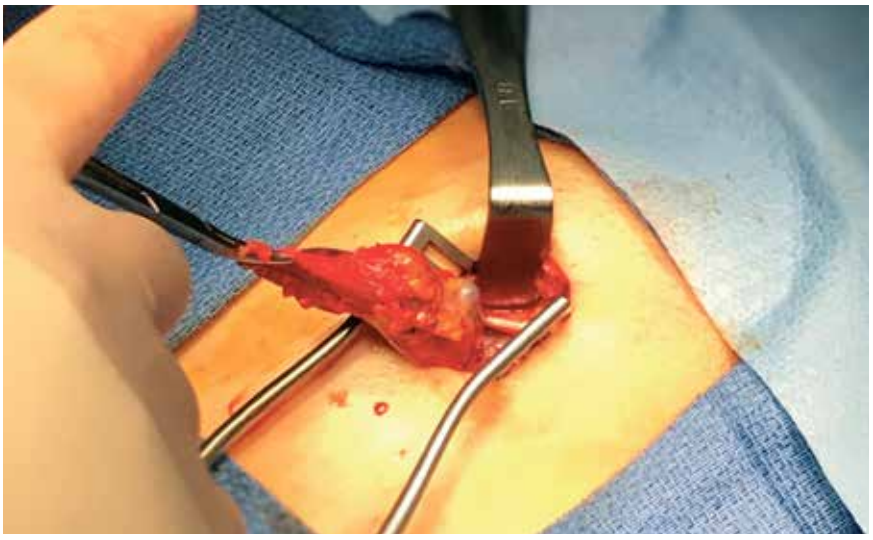
Cover Story



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Bulletin of the American College of Surgeons (ISSN 0002-8045) is published 10 times a year by the American College of Surgeons, 633 N. Saint Clair St., Chicago, IL 60611-3295. It is distributed electronically, without charge, to all ACS members. Dues-paying members can request a complimentary print subscription. Nondues-paying members and nonmembers can purchase an annual print subscription ($50 within the US and Canada; $75 for all others). Contact bulletin@facs.org.

Periodicals postage paid at Chicago, IL, and additional mailing offices. POSTMASTER: Send address changes to *Bulletin of the American College of Surgeons,* 633 N. Saint Clair St., Chicago, IL 60611-3295. The American College of Surgeons headquarters is located at 633 N. Saint Clair St., Suite 2400, Chicago, IL 60611-3295; tel. 312-202-5000; toll-free: 800-621-4111; email: postmaster@facs.org; website: facs.org. The Washington Office is located at 20 F Street NW, Suite 1000, Washington, DC 20001-6701; tel. 202-337-2701.

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Printed in the USA.

Cardiothoracic Surgery at the ACS

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AS THE HOUSE OF SURGERY®, the ACS is committed to supporting surgeons across all disciplines, career stages, practice settings, and geographic locations. In recent months, I have used this column to highlight how some surgical specialties engage with and are supported by the ACS.

This month, I consider cardiothoracic surgery, a discipline that has made, and continues to make, enduring contributions to the ACS and one for which we are proud to offer a wide range of resources.

Resources for Cardiothoracic Surgeons

Across our extensive cancer care portfolio, several resources are directly relevant to thoracic malignancies. Our *Operative Standards for Cancer Surgery* address 15 disease sites, including lung and esophageal cancers. In addition, updated operative standards within *Optimal Resources for Cancer Care* provide guidance on pulmonary resection.

Cardiothoracic surgeons caring for injured patients may find value in our latest *Best Practices Guidelines: Management of Chest Wall Injuries*, released at the ACS Trauma Quality Improvement Program Annual Conference in November 2025.

Supporting the financial sustainability of surgical practice remains a key priority for the ACS. We provide coding and billing resources across specialties. The January 2026 issue of the *Bulletin* outlines recent updates to Current Procedural Terminology codes, including those relevant to thoracic aortic aneurysm and diaphragmatic hernia repair, an operation performed by several surgical specialties.

In addition, the ACS website features a dedicated page highlighting recent *Journal of the American College of Surgeons* (*JACS*) articles on cardiovascular procedures.

Tailored Education

Each year at Clinical Congress, we curate a robust slate of educational programming designed specifically for cardiothoracic surgeons, including the distinguished John H. Gibbon Jr. Lecture, established in honor of the pioneer of modern open-heart surgery. Recent Gibbon Lectures have explored a breadth of transformative topics, from re-envisioning morbidity and mortality conferences to advances in lung cancer care, as well as the evolving promise of xenotransplantation.

Last year's I. S. Ravdin Lecture was delivered by **William E. Cohn**, MD, FACS, who examined "The Past, Present, and Future of the Total Artificial Heart." Both this presentation and recent Gibbon Lectures are available through *The House of Surgery* podcast.

Recognizing Cardiothoracic Innovators

Through our various communications, we recognize the contributions of cardiothoracic surgeons whose innovations continue to advance the field. Recent examples include **Stephanie H. Chang**, MD, FACS, who led a team performing the first full robotic double lung transplant in 2024; **Vinay Badhwar**, MD, FACS, who performed a world-first robotic transcatheter aortic valve explant and aortic valve replacement in 2025; and **Sameh Said**, MD, FACS, who in 2025 performed the first successful operation on a mid-delivery infant to correct hypoplastic left heart syndrome.

Additionally, we have partnered with colleagues at Baylor College of Medicine in Houston, Texas, to share videos highlighting the **Michael E. DeBakey** Library & Museum, a testament to the innovations of this legendary cardiac surgeon.

Our prestigious Jacobson Innovation Award, which honors lifetime achievement in surgical innovation, has had several cardiothoracic surgeon recipients: **James L. Cox**, MD, FACS (2020), for his work on atrial fibrillation; **William S. Pierce**, MD, FACS (2007), who developed the first pneumatic heart assist pump; and **Joel D. Cooper**, MD, FACS (1996), who achieved the first successful lung transplant and double lung transplant.

Similarly, we have awarded numerous Honorary Fellowships to cardiothoracic surgeons, reflecting the specialty's global impact on surgical advancement. **Sir Rickman J. Godlee**, 1st Baronet, KCVO, FACS(Hon) (1849-1925), received this honor in 1913 as an early innovator in thoracic surgery and the biographer (and nephew) of antiseptics pioneer **Dr. Joseph Lister**. Swedish cardiovascular surgeon **Clarence Crafoord**, MD, FACS(Hon) (1899-1984), was honored in 1948 for his work introducing heparin as thrombosis prophylaxis and performing the first successful aortic coarctation repair.

Cardiothoracic Leadership within the ACS

Cardiothoracic surgeons continue to serve in prominent leadership roles within the ACS.

Douglas E. Wood, MD, FACS, FRCSEd, serves as Vice-Chair of the ACS Board of Regents. **Thomas K. Varghese Jr.**, MD, MS, MBA, FACS, serves as Editor-in-Chief of *JACS*. **Richard I. Whyte**, MD, FACS, chairs the Advisory Council for Cardiothoracic Surgery.

The specialty also has a distinguished history of presidential leadership within the ACS, underscoring its longstanding influence on the direction of the organization. Past Presidents include **Evarts A. Graham**, MD, FACS (1940–1941), who cofounded the American Board of Surgery and helped establish smoking as a cause of lung disease; **James D. Hardy**, MD, FACS (1980–1981), performed the first lung transplant in 1963 and the first heart transplant (a xenotransplant of a chimpanzee heart) in 1964; and **Valerie W. Rusch**, MD, FACS (2019-2020), a prominent surgeon-scientist researching mesothelioma and lung cancer at Memorial Sloan Kettering Cancer Center in New York, New York, who helped lead development of the American Joint Committee on Cancer's Cancer Staging Manual (6th through 9th editions).

Resources for Patients and the Public

Building on this legacy, the ACS continues to develop resources that support patients and the broader public. These include smoking cessation initiatives, as well as "Your Lung Operation," which features an online course, a video, and additional patient tools. In addition, Dr. Varghese helped develop the Strong for Surgery program, which supports hospitals and care teams in integrating preoperative checklists for elective procedures.

Supporting All Surgeons

No matter your specialty, the ACS remains committed to ensuring that you have access to the resources, leadership opportunities, and education needed to thrive and provide excellent patient care. We welcome your continued engagement and feedback as we advance this work together.

Join Us at QSCC

I encourage you to join us at the Quality, Safety & Cancer Conference (QSCC), which continues to expand its offerings, including a dedicated focus on cancer quality improvement. This year's meeting will take place in Orlando, Florida, July 30–August 2. Registration opens this week at *facs.org/qscc2026*.

Clinical Congress Registration Opens Soon

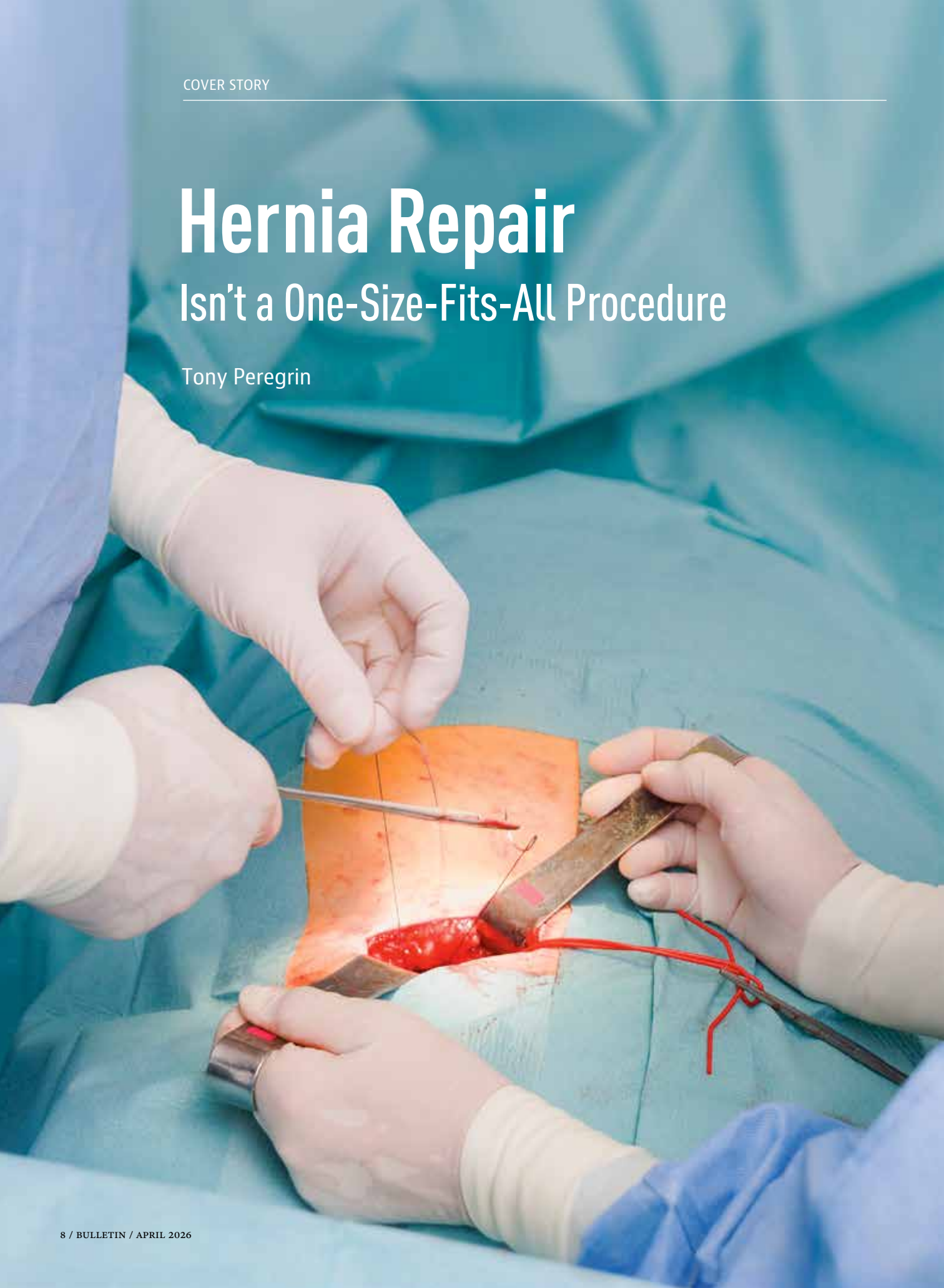
In addition, please mark your calendars for this year's Clinical Congress, which we will hold in Washington, DC, from September 26 to 29. Registration will open soon at *facs.org/clincon2026*.

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

Hernia Repair

Isn't a One-Size-Fits-All Procedure

Tony Peregrin



Hernia repair is a cornerstone of general surgery—accounting for up to 1.5 million repairs annually in the US—yet certain patient factors introduce complexities that transcend routine practice and require specialized expertise.[1,2]

THESE CHALLENGING SCENARIOS include managing patients with chronic illnesses such as liver failure, treating individuals with traumatic hernias, determining appropriateness of mesh use in contaminated fields, and offering elective tissue-based inguinal hernia repairs for a specific subset of patients.

Although mesh-based hernia repair is typically recognized as the gold standard for both inguinal (groin) and ventral (abdominal) operations, no hernia repair method is completely free of risk. Consequently, the surgeon must apply a tailored approach with each patient assessment in order to reduce the risk of recurrence, minimize risks of complications and chronic pain, and optimize recovery.

Hernia Surgery in High-Risk Patients

Hernia specialists typically follow evidence-based algorithms that prioritize patient safety when managing complex scenarios. For example, patients with cirrhosis, heart disease, transplant history, or critical illness will each have a different treatment algorithm tailored to their needs. This customized approach helps mitigate risks of postoperative complications, which may vary or be amplified in each special patient group.

In the case of a cirrhotic patient with a hernia, guidelines published jointly by the American and European Hernia Societies suggest optimizing liver function before elective repair, unless strangulation poses immediate risk to life.[3] "Managing complex hernia repairs means tweaking what is your standard of care for a patient in an evidenced-based approach in order to effectively treat those really difficult scenarios," said Shirin Towfigh, MD, FACS, president and founder of Beverly Hills Hernia Center in California, and a general surgeon who specializes in the treatment of hernias and hernia-related complications.

In high-risk patients presenting with a life-threatening problem associated with a hernia, the dictums of acute care surgery demand that the primary focus of the surgeon should be saving the life of that patient. "The one message that we give, which is not often found in textbooks, is that you don't need to fix everyone's hernias," explained Dr. Towfigh.

"For example, if you're in surgery for a hernia-related complication like a strangulated femoral hernia with septic shock, you don't necessarily have to fix that hernia during the first operative session." In fact, Dr. Towfigh shared a valuable surgical pearl to manage these cases: plug the femoral hernia with an absorbable hemostatic agent at the time of the initial operation. "This simple step allows the surgeon to focus on addressing the dead bowel and getting the septic patient off the OR table. Once the patient is clinically more stable, then you can return to the OR and perform a definitive femoral hernia repair in a more controlled setting," she explained.

Access related video content online.

"Whatever intervention the surgeon decides to pursue, it should consider balancing the patient's quality of life and the benefit of repairing the hernia in a timely fashion."

Dr. Shirin Towfigh

As with all surgical procedures, including hernia repair, the first goal for the surgeon is to address what is killing the patient, and the second goal is to do no harm.

In trauma settings, abdominal wall hernias are commonly accompanied by life-threatening injuries and qualify as situations where the surgeon would prioritize "life over hernia," noted Dr. Towfigh. A traumatic wall hernia could occur during a motor vehicle collision, fall from a significant height, or via a direct impact blow. Unsurprisingly, the same patient-centered approach for hernia repairs in critically ill patients also applies to trauma patients.

"Usually, if you have someone with a traumatic hernia, they're going to have not just the abdominal wall ripped off its bony insertion, but maybe also a spleen injury or a bowel injury or broken pelvis or some other distracting injury that is more important than the hernia," she explained. "It is advisable to avoid addressing the traumatic hernia at that time and focus on saving the life."

With initial trauma management focused on survival, delaying repair of the traumatic hernia by 6 months can allow for resolution of local soft tissue bleeding and edema, improved compliance of tissue planes, and safer, more effective reconstructive repair. "By delaying the repair of the traumatic hernia, you have a fluid status that is more normal, the massive bleeding from this torn muscle is resolved, and now you're working in a more fibrotic space," she said.

Nevertheless, early repair may still be appropriate for patients with massive hernias causing severe quality of life impairment.

"There will be patients who have a massive traumatic hernia that is humongous—as if they're carrying a baby on their side. So, the quality of life decline from delaying surgery in that patient may not be worth the wait," noted Dr. Towfigh. "Early treatment, once they're healed from their acute problems, may be a better choice in a subset of patients."

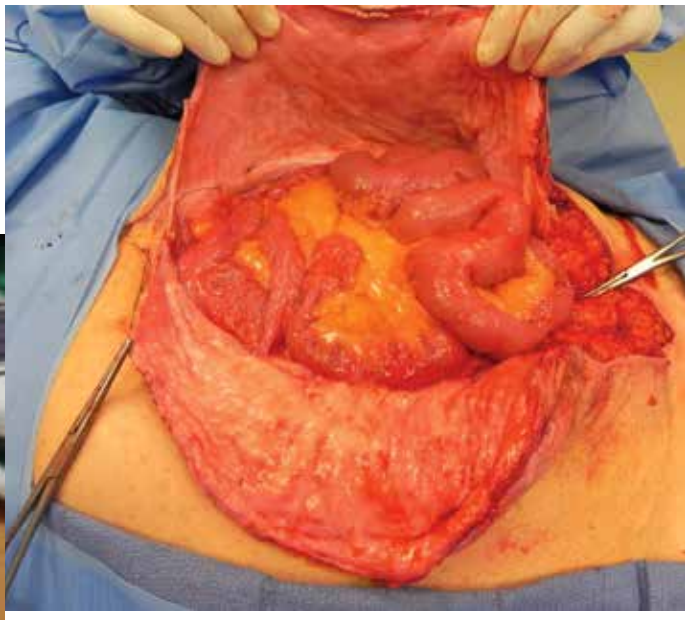
It is also important to stress that, no matter the case scenario, the surgeon should not aim for perfection for every individual hernia repair. "Whatever intervention the surgeon decides to pursue, it should consider balancing the patient's quality of life and the benefit of repairing the hernia in a timely fashion."

Could Strict Adherence to BMI Thresholds Delay Necessary Care?

For all hernia repair patients, particularly for critically ill and traumatic cases, enhanced recovery after surgery (ERAS) protocols help drive successful hernia surgery outcomes by emphasizing glycemic control, nutritional optimization, nonopioid multimodal pain control, and weight management.

However, Dr. Towfigh and other hernia surgeon specialists support challenging rigid adherence to elective surgery cutoffs for specific patients, particularly individuals living with obesity. "If you strictly follow the ERAS protocol and never offer elective surgery to anyone for a ventral hernia repair with a body mass index (BMI) over 40—what are you actually doing? Are you helping the patient because you can get a great majority of them to lose the weight and then come back to you for elective surgery, or are you punting what could have been a less-than-ideal elective repair into an emergency situation where now you have the on-call doctor who's not a specialist struggling with a small bowel obstruction, wound complication, or strangulation and unable to provide any reasonable type of hernia repair?" asked Dr. Towfigh.

Elective hernia repair in morbidly obese patients—while imperfect—has the ability to prevent recurrent hospitalizations, bowel obstruction, and emergency surgery with significantly higher complication rates and resource use. Notably, while laparoscopic or robotic-assisted repairs are common approaches for the



Left:
This is an example of a umbilical incisional hernia, which typically appears as a bulge near the navel.

Right:
An open abdomen for surgical repair involves a large, vertical incision through the midline of the abdomen.

average hernia patient, open surgery may be necessary in complex scenarios, including in cases with obese patients, in order to enhance visualization of organs and tissue mobilization.

"There is an ongoing discussion in our hernia world that it may be a more humane decision to perform a less-than-perfect hernia repair electively in someone who is morbidly obese and accept the fact that if you do a good-enough repair electively, it could positively impact their quality of life and help them avoid ending up in the emergency room," explained Dr. Towfigh. "Surgeons need to be able to translate what the research shows with ERAS protocols versus the reality, especially in communities where there is a high obesity rate."

Long-Term Data Optimize Mesh Repair Decision-Making

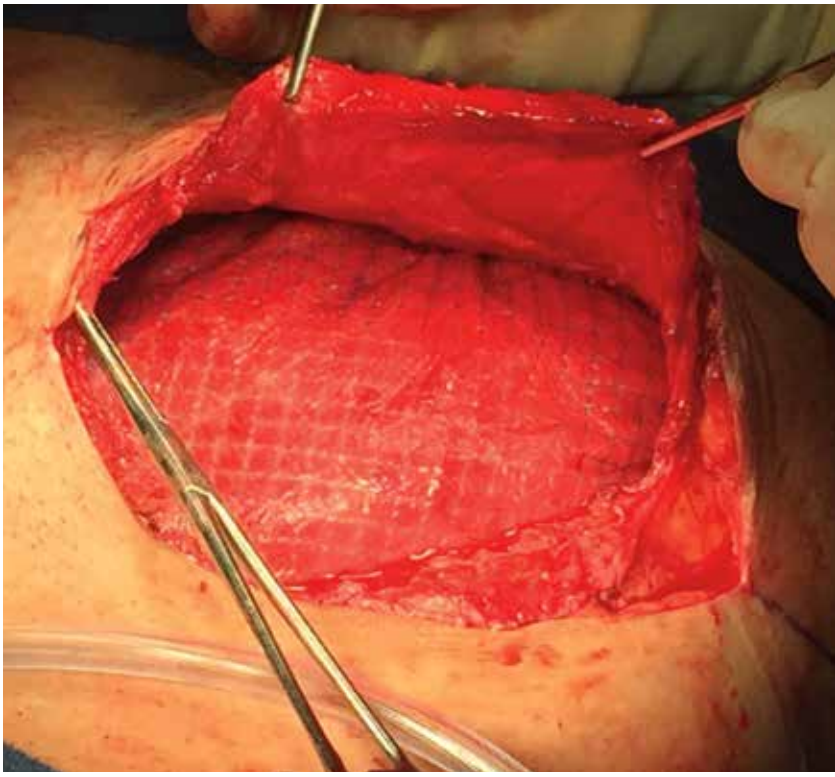
Current research reinforces the assertion that mesh-based hernia repair is the standard of care for reducing the risk of recurrence, a practice pattern sparked by a pair of foundational, longitudinal studies that evaluated ventral hernia repair versus primary suture repair. The initial study, published in 2000, described 3-year outcomes revealing a substantial reduction in recurrence with mesh (24% with mesh compared to 43% with suture repair).[4]

"Researchers then examined the same cohort of patients and followed them out for a total of 10 years with more or less the same results," said Arielle J. Perez, MD, MPH, FACS, a general surgeon with PeaceHealth in Springfield, Oregon, specializing in abdominal wall reconstruction and hernia repair. "So, after a decade, 32% of patients with a mesh repair had a hernia recurrence, while 62% of patients with a primary suture repair had a hernia recurrence."[5]

Three primary categories of mesh are used in hernia repair surgery: permanent synthetic mesh, biologic mesh, and the newest category—absorbable synthetic mesh.

"Permanent synthetic mesh is the most commonly used mesh and was the first type introduced into clinical practice," said Dr. Perez.

These meshes—commonly made of polypropylene, polyester, or ePTFE (GORE-TEX)—are designed to provide durable, long-term structural support. Permanent synthetics have the strongest evidence base, particularly in "clean cases," supported by randomized controlled trials



A biological mesh for hernia repair, which can be ideal for complex cases, is designed to reinforce weak abdominal walls while reducing risk of infection.

and long-term follow-up. A clean case in mesh hernia repair refers to patients with no signs of infection, inflammation, or strangulation, providing an optimal setting for safe placement of mesh with minimal risk of postoperative infection.

Biologic meshes are derived from human (allograft) or animal (xenograft) tissue, including porcine, bovine, or other sources. The tissues undergo decellularization to remove immunogenic elements, leaving a collagen-rich scaffold that supports tissue remodeling. These meshes were marketed to provide a theoretically safer alternative to treat repairs in contaminated or infected fields. However, they are an expensive option, may stretch over time, and have a higher recurrence rate, particularly when used as a bridge rather than with primary fascial closure, according to Dr. Perez.

"Absorbable synthetic meshes are the newer options on the market, meant to be a cheaper alternative to biologic mesh. Although they are not permanent, these materials are intended to provide safer support in an infected or contaminated field," she said, noting that these meshes are marketed to reduce long-term complications like chronic infection or pain by degrading over time. "The caveat to this option is that the surgeon should check with their hospitals to determine the true pricing of each product."

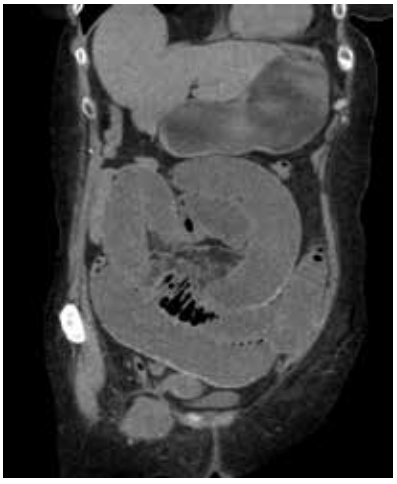
While permanent synthetic mesh offers the most durable support and strongest long-term data, especially in clean cases, the evidence is more sparse in clean-contaminated and contaminated settings, where infection risk complicates decision-making.

"The difficult—and important—thing to do is find good studies that look at contaminated cases and clean-contaminated cases—findings that are essential for surgeons when performing hernia repairs in settings that are not straightforward," Dr. Perez said.

The Centers for Disease Control and Prevention (CDC) wound classification system stratifies cases from clean to dirty/infected to assist healthcare providers in assessing degree of contamination and determine risk of surgical site infection. CDC wound classification for mesh repair includes:

- **Class I (Clean):** Elective, no inflammation, no entry into respiratory/alimentary tracts. Low risk; synthetic mesh is appropriate.
- **Class II (Clean-Contaminated):** Controlled entry into respiratory/alimentary/genital/urinary tract. Moderate risk; synthetic or biologic meshes are used.
- **Class III (Contaminated):** Open, fresh, accidental wounds or major breaks in sterile technique. High risk; biologic or bioabsorbable mesh is often preferred to reduce infection.
- **Class IV (Dirty/Infected):** Perforated viscera, clinical infection, or devitalized tissue. Highest infection risk; generally avoid permanent mesh.

Adaptability is critical in these scenarios, and surgeons should not hesitate to change course regarding mesh type, technique, or staging the repair.



CT scan shows an incarcerated femoral hernia with small bowel obstruction.

While synthetic mesh is standard for clean (Class I) wounds, clean-contaminated (Class II) or contaminated (Class III) scenarios have historically been cases where use of permanent synthetic mesh was anathema and biologic, or absorbable synthetic mesh was used due to concern of complications such as infection, mesh erosion, or fistula formation.

A pivotal multicenter randomized controlled trial study, published in 2022 in *JAMA Surgery*, examined mesh selection in contaminated settings. Researchers found that in CDC Class II and III cases, synthetic mesh placed in a retromuscular position resulted in significantly lower hernia recurrence than biologic mesh at 2 years (5.6% vs. 20.5%) without increasing the risk of dreaded complications.[6]

A 5- to 10-year follow-up study, published in 2025 in the *Annals of Surgery* examining the same patient cohort, revealed similar findings, with recurrence rates of 11.8% for synthetic mesh versus 23.6% for biologic mesh, and no increase in long-term mesh-related complications.[7]

"You still saw a reduction of hernia recurrence using a synthetic mesh over biologic mesh, and there were no differences in terms of patients requiring any sort of mesh excision. In fact, the only mesh excision in this study came from a biologic mesh," explained Dr. Perez.

The key takeaway from these studies suggests that even in contaminated or clean-contaminated cases, prudent use of permanent synthetic mesh—when placed appropriately—can outperform biologic mesh in long-term outcomes.

Despite these findings, Dr. Perez emphasized the fact that a "perfect mesh for contaminated settings simply does not exist."

"What we're worried about with any patient are the potential complications that they may have to endure after surgery, including hernia recurrence, infections, sometimes surgical site occurrences, seromas, and hematomas," she said. "The more serious complications that we should be considering are related to requiring further surgery and the need to excise the mesh. No mesh is perfect in any sort of clean, clean-contaminated, contaminated, dirty/infected case. It behooves the surgeon to weigh the risk-benefit, think about why they are using the mesh, and what the goal is for that surgery."

While the data show that the best outcomes are associated with permanent synthetic meshes, how should a surgeon respond if conditions change intraoperatively?

Adaptability is critical in these scenarios, and surgeons should not hesitate to change course regarding mesh type, technique, or staging the repair.

"Having a surgeon who knows the benefits and risks associated with each mesh category is important, especially since some patient factors cannot be defined preoperatively—some of it may be determined by intraoperative factors, requiring a game-time decision," said Dr. Perez.

"I think surgeons have a shared agreement that we do not have a perfect solution for hernia repairs."

Dr. Samer Sbayi

Mesh Is Not Always the Answer

For ventral hernia defects measuring larger than 1 cm, mesh repair continues to be the preferred approach to prevent recurrence, although a subset of patients may experience inflammatory or autoimmune responses to these materials, signaling the need for a tissue-based approach.

"When you look at autoimmune diseases, we know that these patients have weaker immune systems, so they may be more prone to infections," said Samer Sbayi, MD, MBA, FACS, chair of surgery at Glen Cove Hospital in New York, and assistant professor of surgery at the Donald and Barbara Zucker School of Medicine at Hofstra/Northwell in Uniondale, New York. "We also know that people who have a history of asthma, and skin and other allergies may be at a higher level of sensitivity to implanted products."

The autoimmune/inflammatory syndrome induced by adjuvants (ASIA) covers a spectrum of immune-mediated diseases triggered by a variety of factors, including the presence of foreign bodies such as mesh.

"All patients do not react equally to mesh, with some individuals presenting symptoms that could include fatigue, fever, chronic pain, and even some cognitive deficits. We have found that the removal of mesh in these patients can actually relieve them of these symptoms," he said.

Consensus guidelines from the American and European Hernia Societies support primary tissue repair for patients with primary umbilical or ventral hernias of 1 cm or less with no high-risk underlying conditions, including diabetes, nicotine use, morbid obesity, and chronic steroid use.

As the field of hernia repair continues to evolve, it is important for surgeons to consider the full spectrum of treatment options available, including tissue-based repair.

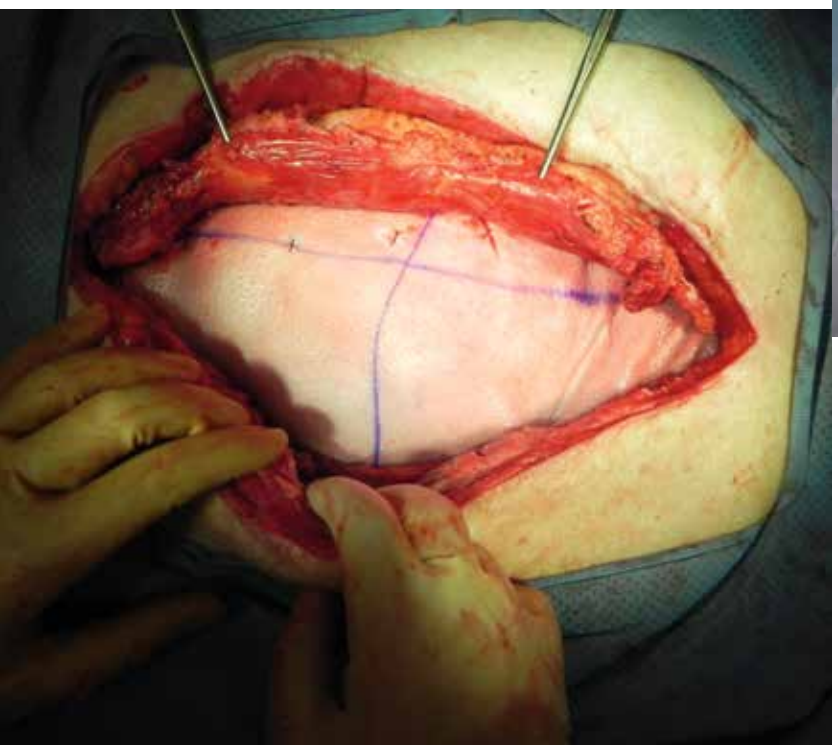
"Tissue repair is kind of a tricky subject because there is an understanding in the surgical community that tissue repairs don't work," said Dr. Sbayi. "Regardless, there are patients who may benefit from this approach, and surgeons should be prepared to address the fact that some patients may want to move away from implantables. As a profession, we need to figure out a better way to have that discussion and actually dig deeper into it. In the end, we are trying to serve our patients in the best way possible."

The Shouldice technique, a specialized tissue-based approach for inguinal hernia repair, is a highly effective option for patients who are concerned about possible long-term mesh-related complications or prefer a more natural, non-prosthetic solution. Using permanent sutures to overlap four layers of abdominal tissue, the Shouldice technique has a notable recurrence rate of less than 1% and is associated with low infection rates and minimal chronic pain.[8]

Developed in the 1940s at the Shouldice Hernia Hospital in Ontario, Canada, the technique was originally devised during World War II to aid men who were unable to enlist in the military due to their hernias. Dr. Sbayi trained at the Shouldice Hospital (reportedly the only hospital in the world dedicated to this approach) for nearly 2 years before returning to the US as a general surgeon. (Dr. Sbayi performs both Shouldice and mesh-based repairs.)[9]

"I am from the generation that trained with laparoscopy, with the robotic-assisted approach and mesh—and I had to figure out how to include tissue-based repair into my practice, because for some patients, it is a good procedure, and some of them are actually asking for it," he said, adding that for patients with a BMI of less than 30, the data show there is a reduced risk of surgical site infections and occurrences.

"I think surgeons have a shared agreement that we do not have a perfect solution for hernia repairs.



Left:
This view shows a biological mesh repair.

Right:
A strangulated hernia is a life-threatening medical emergency where a portion of the intestine becomes trapped in a hernia, cutting off its own blood supply.

I just want surgeons to put themselves in their patient's shoes in order to better understand them when they start asking about what you can do other than a mesh repair," Dr. Sbayi explained. "The good news is that the profession is definitely better at how we do hernia repairs overall, and mesh has really come a long way. The current macroporous monofilament nature of mesh has seen greater tissue ingrowth, lower bacterial adherence, and decreased biofilm formation, allowing for higher mesh salvage rates and lower recurrence rates."

As the practice of hernia repair continues to evolve, surgeons are encouraged to remain open to learning both new and established techniques, engage colleagues with specialized experience, and prioritize patient-centered discussions. B

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Timely Surgery for Early Stage Lung Cancer Matters

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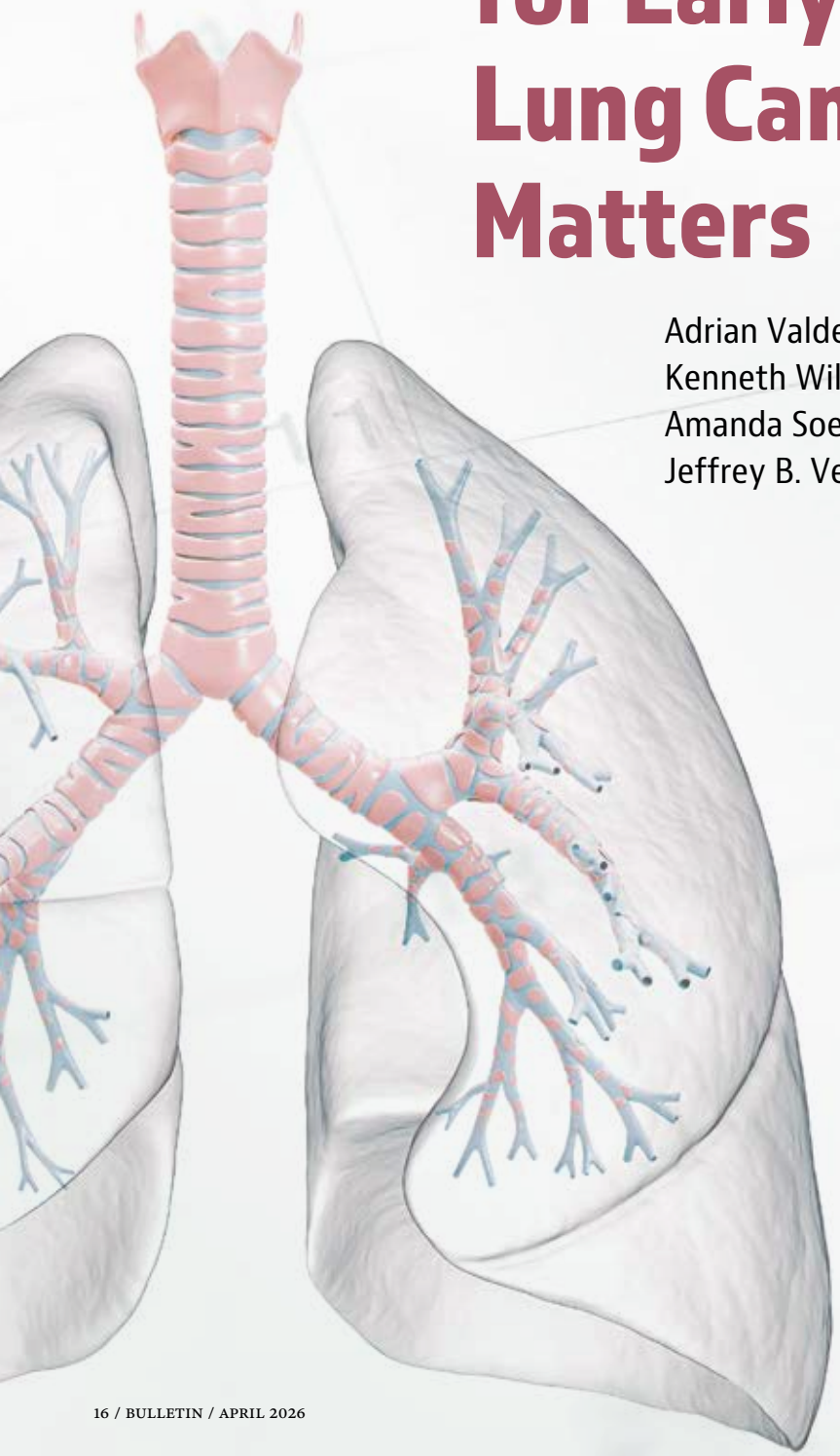


Dr. Jeffrey Velotta and University of California San Francisco (UCSF)-East Bay chief resident Phillip Brennan, MD, perform a video-assisted thoracoscopic surgery (VATS).

Lung cancer is the leading cause of cancer-related death in the US, but patients diagnosed at an early stage (stages I and II) have an improved chance of survival when treated with surgical resection.

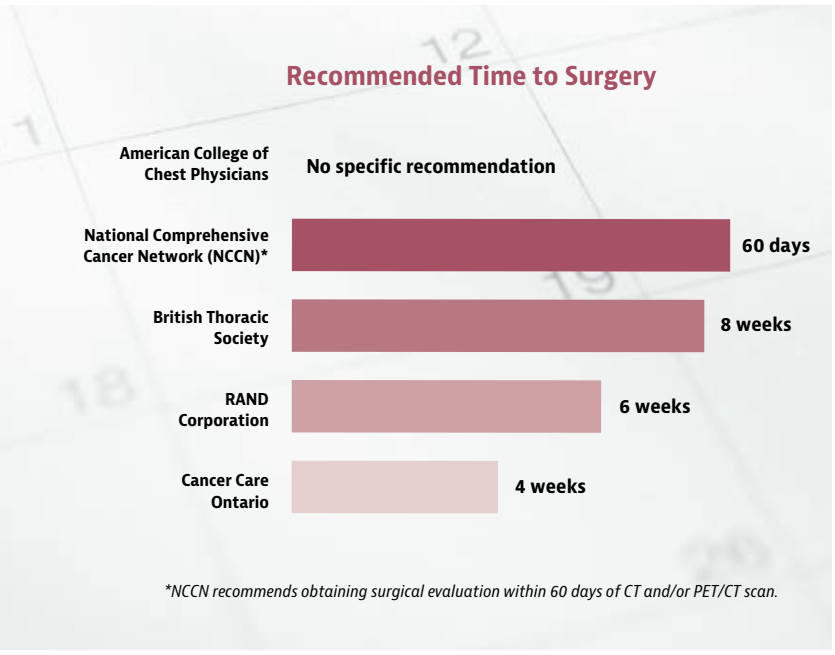
Timely care matters.

FOR PATIENTS WITH EARLY STAGE lung cancer, delays between diagnosis and surgery—even as short as 8–12 weeks—have been linked to increased rates of growth, metastasis, and mortality.[1] Yet, there is no universal standard for the optimal interval between diagnosis and surgical resection, and recommendations vary substantially by organization.

A clearer understanding of optimal surgical timing could help health systems set benchmarks and prioritize access to timely, curative treatment. This article reviews the current evidence on surgical delays for early stage lung cancer and highlights key barriers to achieving timely surgery.

Does Delayed Surgery Matter?

Extended delays in lung cancer resection raises the risk for disease progression, but the exact window when delays become clinically significant remains uncertain. Some studies show no clear survival impact with wait times ranging from 12 to 16 weeks, while others report worse outcomes with delays as short as 4 weeks.[2]



Many studies examining this question use data from the ACS National Cancer Database® (NCDB®), the largest hospital-based cancer registry in the US. In an analysis of more than 363,000 patients with early stage non-small cell lung cancer (NSCLC), delays beyond 6 weeks were linked to worse 5-year survival rates.[3] Each additional week of delay was associated with a 3% higher risk of death for stage I disease, and 1.6% increase for stage II disease.

A separate NCDB study focused on those with stage IA disease—a group for whom surgery alone is often curative. Among 4,984 patients, delays of more than 38 days between diagnosis and surgery were associated with worse 5-year survival.[4] Survival continued to decline as delays lengthened beyond this point.

Together, these studies suggest that surgical timing plays an important role for patients with early stage lung cancer. Although the exact threshold is a subject of ongoing debate, there is a clear association between surgical delay and decreased survival.

Defining Time to Surgery

A major challenge in understanding the impact of surgical delays in lung cancer treatment is the lack of a standardized definition for time to surgery (TTS). While the date of surgery is straightforward, the date of diagnosis is defined differently across studies. Some use the date of initial imaging, others the day of biopsy, and some even use the date of surgery itself.

These differences make it difficult to compare results and draw data-based conclusions about how delays affect outcomes. For example, for researchers using data from the NCDB, up to one-fourth of patients must be excluded because diagnosis and surgery are defined as occurring on the same day.[4] Without a consistent definition of TTS, interpreting data on surgical delays becomes challenging.

One practical approach for defining TTS is to establish the diagnosis date as the first computed tomography (CT) scan suggestive of lung cancer. Most early stage lung cancers are initially identified on cross-sectional imaging, either through cancer screening or as incidental findings. Using the

A UCSF-East Bay surgery resident and Dr. Jeffrey Velotta use novel intraoperative molecular imaging techniques to treat a patient with early stage lung cancer.

CT scan date captures the full preoperative timeline, including additional imaging (e.g., positron emission tomography [PET] scan), possible biopsy, pulmonary function testing, surgical referral, and scheduling.

Defining TTS this way may provide a more clinically meaningful measure of surgical timeliness. Furthermore, a universal definition for TTS will allow health systems to establish clear, standardized benchmarks, which can be used to track and improve care across the entire patient workup continuum.

Insights from Robust Cohort Studies

To address gaps in data regarding patients with early stage NSCLC, several recent studies have focused on integrated healthcare systems, where clinical data are more complete and care timelines can be tracked more accurately.

One such study by Heiden and colleagues examined patients with early stage NSCLC treated within the Veterans Affairs (VA) health system.[5] The authors use the date of the first CT scan suggestive of cancer as the starting point, which allowed them to measure TTS more consistently.

With access to detailed patient data, they also were able to account for factors such as smoking status, race, and socioeconomic status. Their analysis found that overall survival was decreased for patients who received surgical resection more than 12 weeks after their diagnosis.

A limitation of this study, however, was the restricted applicability of these findings to broader populations. The VA cohort was predominantly male (96%), White (83%), and almost entirely composed of current or former smokers (99%).

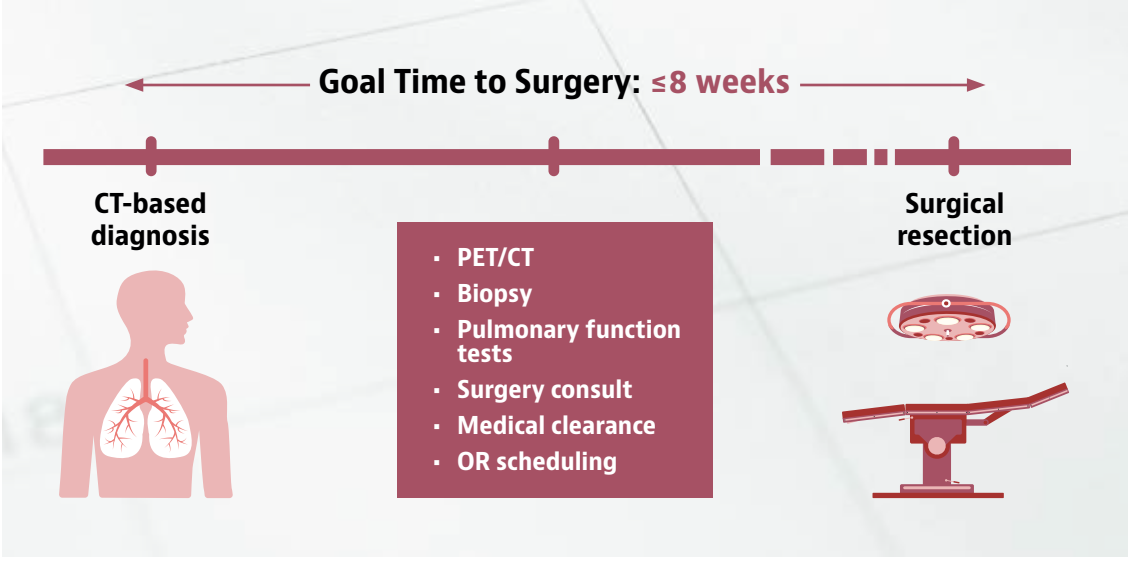
A similar approach for defining TTS was conducted by Tupper and colleagues in a more diverse patient population within Kaiser Permanente Northern California.[6] Using the same CT-based definition of diagnosis and adjusting for clinical and socioeconomic differences, they found that delays beyond 8 weeks were associated with higher recurrence at 1 year and greater 5-year mortality. This cohort included more women (60%), more non-White patients (35%), and more never smokers (23%), making it more representative of the broader US population.

Overall, these higher-quality studies provide more precise estimates of how surgical timing relates to outcomes and suggest that longer delays may carry real consequences for survival in early stage NSCLC.

When Should Surgery Occur?

Timely surgery is associated with better long-term survival in early stage NSCLC, although the exact threshold varies across studies. Robust analyses using consistent definitions of TTS suggest that delays beyond 8–12 weeks are linked to decreased survival, even after accounting for patient factors.

In light of these findings, aiming for surgery within 8 weeks of diagnosis is a reasonable benchmark for delivering prompt surgical care. Ultimately, prospective studies will be needed to better define the optimal timing for surgery and refine evidence-based standards.



Barriers to Timely Surgery

Although a clear definition of TTS has not been established, studies consistently identify patient-, system-, and societal-level barriers to timely surgery. Recent data suggest an increase in TTS over the last several decades.[6] These delays have significant survival, recurrence, and cost implications.

Patient factors are one important driver of surgical timing. A greater comorbidity burden, such as cardiopulmonary morbidity or frailty, is associated with longer TTS often due to the need for complex preoperative evaluation, optimization, and multidisciplinary input.[7]

Tumor biology also plays a role. Patients with lower-grade, well-differentiated tumors have been found to be associated with increased TTS compared to more aggressive tumors, possibly due to the prioritization of patients with more severe disease.

At the system level, access to specialized centers and care coordination play an important role in TTS. Surgical care at low-volume centers is associated with longer TTS and higher risk of pathologic upstaging compared with high-volume centers.[8] These differences may partly reflect variance in care coordination. Lung cancer workup is a complex, multistep process, and even small delays can meaningfully prolong TTS. High-volume centers often have well-defined pathways and experience fewer delays, making timely surgery more achievable.

Societal factors, often described as social vulnerability or social determinants of health, also influence TTS. These factors have measurable impacts on both the preoperative and postoperative period. Patients with higher social vulnerability are more likely to experience longer TTS.[9]

A recent large cohort study within Kaiser Permanente Northern California examined how specific social determinants influenced the likelihood of undergoing surgery within 8 weeks.[10] Factors such as race, higher neighborhood deprivation index, and distance of more than 50 miles from the treatment facility, all were associated with longer TTS.

Many of these drivers extend beyond the healthcare system, but increased awareness, targeted needs assessments, and tailored support programs can help promote more equitable access to lung cancer care.

Given the association between prolonged TTS and diminished oncologic outcomes, greater attention to where delays arise along the care pathway—at the patient, system, and societal levels—is warranted.

Many of these barriers are modifiable and identifying them is a key step toward meaningful improvement.

TTS remains one of the few modifiable variables in lung cancer care. Reducing patient-, system-, and societal-level barriers offers a practical opportunity to improve outcomes for patients with early stage lung cancer. Prioritizing timely surgery should remain a shared goal for clinicians, health systems, and policymakers alike.

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Left:
Dr. Jeffrey Velotta teaches suturing techniques to a medical student in the OR.

Right:
During a VATS lung cancer resection, Dr. Jeffrey Velotta works alongside a UCSF–East Bay surgery resident.

General and Pediatric Surgeons Can Create Effective Models of Cross-Coverage

Matthew Fox, MSHC

There is a pithy saying in pediatric surgery that, in many ways, defines the discipline—"children aren't just little adults."[1]

CHILDREN HAVE unique physiology, operative demands, psychological and social needs, and other distinctions from adult populations that can necessitate the specialized expertise of a pediatric surgeon.

In an ideal surgical landscape, a specialty-trained pediatric surgeon would be available to address the needs of any patient 18 years old and under with a smooth transition of care to an adult surgeon familiar with their pathology. But as surgeons and healthcare leaders well know, reality rarely falls along such neat dividing lines, and pediatric surgeons are among the projected 20,000-surgeon shortfall that the US could face in the mid-2030s.[2]

Pediatric surgery also contends with the familiar surgeon maldistribution of other disciplines, where surgeons are concentrated in urban and academic centers that leave smaller cities, towns, and rural areas lacking in representation.

However, even in areas affected by shortages, children's health needs must be met—and general surgeons continue to serve a crucial role in pediatric surgical care.

Cross-Coverage Rooted in Familiarity

An ongoing conversation in modern surgery is appropriateness and necessity of general surgeons providing coverage for emergencies or patient complications in other abdominal-based specialties, such as select procedures in colorectal surgery or bariatric surgery (see March 2025 *Bulletin* article for more information).

A similar discussion is happening in pediatrics, where general surgeons are performing high-quality care for children as circumstances demand.

Rather than expanding beyond their usual anatomical scope, general surgeons who treat children are simply shifting the patient population they serve.

"The most common cases a general surgeon will usually encounter in terms of pediatric patients are appendectomies for nonperforated appendicitis, cholecystectomies, and pilonidal cysts," said Michael Phillips, MD, MSCR, FACS, a pediatric surgeon and associate professor of surgery in the Division of Pediatric Surgery at the University of North Carolina School of Medicine in Chapel Hill. "These are three procedures that we hope our trainees graduating in general surgery would feel comfortable managing if they became community general surgeons."

Data suggest that general surgeons who do not specialize in pediatric surgery perform the majority of these "bread and butter" procedures—though others include (to a much lesser extent) umbilical and inguinal hernia repair, and procedures for Meckel's diverticulum.[3]

Dr. Phillips noted that this information came from a study he and his colleagues conducted on the reality of general surgeons operating on pediatric patients. The research was based on North Carolina patient cohorts specifically, but he suggested that because the state is ninth largest in population and has a representative mix of rural and urban populations, the data may be generalizable across the US.[3]

Looking at cholecystectomy, the operation adult general surgeons perform at the highest rate on pediatric patients at nearly 70%, illuminates one of the reasons why general surgeons can step in for some pediatric procedures—they have a high level of experience.

"General surgeons do many more gallbladder operations on adults than we do on children, since it is comparatively less common in our patient populations, and that high level of familiarity is likely why they do more of the gallbladder surgeries for pediatric patients than pediatric surgeons," explained Dr. Phillips.

The higher prevalence of biliary disease in adults, relative to children, makes cholecystectomy one of the most common surgical procedures in this population, and enables surgeons to extend their expertise to older children and adolescents.[4]

Naturally, there are certain intraoperative accommodations that need to be made for children during an operation, particularly when they are on the younger side.

"For minimally invasive surgery, which is the primary approach for these common conditions, we tend to use smaller, shorter instruments and lower insufflating pressures, since we have less working space," Dr. Phillips said. "Other times, the instruments are small enough that they may be placed directly through abdominal incisions without the use of a laparoscopic port, except one for the camera and insufflation."

But these are minor differences that are frequently taught to general surgery trainees who rotate on pediatric surgery

> "The most common cases a general surgeon will usually encounter in terms of pediatric patients are appendectomies for nonperforated appendicitis, cholecystectomies, and pilonidal cysts."
>
> Dr. Michael Phillips

services or to general surgeons who frequently operate on children. In addition, the postoperative period may be less challenging for pediatric patients than for adults, as pediatric patients are likely to have shorter periods of convalescence and, as a population, have lower complications rates than adult patients due to relatively fewer comorbidities that can complicate perioperative management.

However, there are limits to what conditions general surgeons should expect to cover. According to Dr. Phillips, although inguinal hernias are approximately three times more common than cholecystitis in children, general surgeons perform a smaller percentage of those repairs than pediatric surgeons likely due to the notable differences in the anatomy and repair techniques of pediatric hernias compared with adult hernias.[3]

Additionally, hospital staff and anesthesia teams may not be equipped to support a general surgeon who feels comfortable performing surgery on a pediatric patient.

Meeting Multiple Needs

The data, while limited, suggest that general surgeons are performing select operations on pediatric patients, but it is equally important to understand why, when, and where this type of cross-cover is occurring.

To meet the needs of his community, Bryan K. Richmond, MD, MBA, FACS, a general surgeon in Charleston, West Virginia, helped create a program that elucidates these core questions[5] and reinforces the findings that Dr. Phillips and colleagues reported in their study.

"I practice in a city of about 60,000 people in one of the most rural states in the country, and it's difficult to recruit pediatric surgeons to the area. We found ourselves facing a pediatric surgical workforce shortage, down to one pediatric surgeon, sometimes two," said Dr. Richmond, the Bert Bradford Professor and Chair of the Department of Surgery at the Charleston Area Medical Center Institute for Academic Medicine in West Virginia.

Noting that the call burden for pediatric surgery is extreme if a surgeon is on every other night, even in a low-acuity environment, Dr. Richmond and his team sought to create a more reasonable professional lifestyle to avoid attrition of their existing pediatric surgeons. To that end, Dr. Richmond's team of general surgeons contracted with their hospital to provide a financial incentive to the adult acute care surgeons to cover all pediatric acute care for children ages 6 and up.

Age 6 is when many children begin to present with appendicitis, and his team forecasted that the most common cases they would see would be an appendectomy—"an easy lift for any adult surgeon," Dr. Richmond said. Because patient safety is always paramount, a pediatric surgeon remains on call to address any findings or developments that were outside the covering surgeon's comfort or expertise.

Dr. Richmond also stressed that this model is only applied to urgent cases from the emergency department.

But when both general and pediatric surgeons are aligned with their hospitals and health systems, a model that not only allows for but also promotes cross-coverage can be a valuable addition to areas that are limited in healthcare funding and population density.

"This was not a consult on the floor for a neuroblastoma in a 12-year-old," Dr. Richmond said. "It was an appendix that night and a gallbladder the next day, or cases along those lines. In addition, if it was an established pediatric surgery patient who had been operated on for tracheoesophageal fistula, Hirschsprung disease, or something else requiring specialized care, then clearly that would go to the pediatric surgeons for continuity and for expertise."

Importantly, while implementing and maintaining this coverage arrangement, Dr. Richmond and team were able to answer this question: was there a learning curve in preparing general and acute care surgeons to provide these types of operations on pediatric patients?[6]

"The short answer was there was not a learning curve. It appeared that the skill set that we came into the project with was adequate to maintain the same integrity of outcomes throughout, and we've really seen no substantial changes, seeing good-quality benchmarks and the same good outcomes," Dr. Richmond said.

The agreement, which remains in place well into its second decade, has proven to be successful, providing high-quality, durable health results for the children in the community, an improved professional workload for the pediatric surgeons on call, and increased caseload for general and acute care surgeons providing the care.[5]

This unique model is one based on community needs and the proficiency of general and acute care surgeons, but it is also indicative of a health system that cultivates and maintains the comfort level of providers. In other regions or communities, where this kind of integrated model may not yet exist, decisions about how to provide coverage for pediatric patients will require a nuanced approach.

"A gallbladder surgery or appendectomy in a very young patient is likely to require the elements that a children's hospital offers, rather than just the surgeon, and so that's where I think the nuance has to come in," Dr. Phillips said.

But because there are no defined, national age, weight, or developmental criteria for how to make these distinctions, he said, much of the decision-making comes down to provider comfort.

"You might have a general surgeon who says they are very comfortable doing an appendectomy on a 12-year-old, but their anesthesia team is not, their nurses are not. And that's a limitation of an individual system that administrative datasets can't capture," Dr. Phillips said.

"I think what it allows us to say is that general surgeons should be able to do general surgery procedures on children if needed, but that is based on the system that's around them and whether that system can support their surgical abilities," he added.

But when both general and pediatric surgeons are aligned with their hospitals and health systems, a model that not only allows for but also promotes cross-coverage can be a valuable addition to areas that are limited in healthcare funding and population density.

"While our model was created out of necessity to preserve our pediatric surgical workforce, it also proved that when there are those resource limitations you can structure things to give your pediatric surgeons some much-needed relief and not sacrifice anything in terms of outcomes," Dr. Richmond said.

Local, Timely, High-Value Care

Surgical care arrangements such as Dr. Richmond's, or indeed the general surgeons in smaller communities who provide care for pediatric patients, provide a range of benefits.

When it comes to potentially specialized care in areas outside the standard catchment area of an academic medical center or a large, multidisciplinary hospital, one of the primary decisions that needs to be made is whether a transfer is necessary. But for pediatric patients, surgeon skill is not the only consideration when it comes to potentially needing to transfer a child to a specialist—there is also the stress of the transfer itself to consider.

"I think we just need to recognize that transferring to pediatric care is a difficult thing to add on top of what could be, for a lot of kids, one of the most traumatizing events of their childhood," Dr. Phillips said. "Needing surgery is likely to be scary for them, and then we're potentially taking them 100 miles away from their parents and their cousins and their siblings and their soccer team, and all the people who would normally visit you in the hospital at an already stressful time."

Because children and families in nonacademic and rural settings often need to travel sometimes significant distances to receive surgical care,[7] adding in a potential transfer can further extend time to treatment (in addition to increased risk of complications and higher costs associated with care transfers in general).[8]

A general surgeon closer to home should be capable of performing uncomplicated appendicitis on a 15-year-old with outcomes parity to pediatric surgeons, as Dr. Richmond's efforts have shown, making a case that travel and transfers are not always necessary or even ideal.

"We need to be mindful of that shrinking elasticity in the workforce, and what cases can be safely done and provide good surgical care to children near their home and their support centers," Dr. Phillips said.

Additionally, care by local general and acute care surgeons means that suffering children may be able to get their treatment in a shorter time compared with needing to wait for a pediatric surgeon.

"We observed that the time to the OR was actually quicker than our pediatric surgical counterparts, the reason for which is not a sign of quality, necessarily, but logistics," Dr. Richmond said. "Because we were working over at the children's hospital at night, but we had full operating schedules the next day, by necessity we got the pediatric cases done at night. If we needed to wait for pediatrics for that appendectomy, it may not have happened until the morning."

The more expedient care of the patient, and sometimes next-day discharge, removes a possible

extra day of hospitalization and saves time, money, and patient discomfort.

And in terms of overall resource allocation, data suggest that general surgeons are able to complete an adolescent appendectomy, for example, with similar costs and outcomes compared to pediatric surgeons.[9] Some data even show that pediatric surgeons tend to have higher charges than general surgeons overall—though the nebulous nature of healthcare costs makes an assessment in that regard difficult to finalize.

"What we found in our examination is that pediatric surgeons tend to operate on younger children and tend to have higher charges," Dr. Phillips said.

"But when we look at total charges and say, pediatric surgeons have a higher charge, that might be acceptable for a younger patient who required subspecialty nursing and hospital care. However, because children are generally healthier than adults, pediatric surgery is historically reimbursed at lower levels," he said.

As value becomes an increasing focus in US healthcare, local and regional health systems will need to carefully analyze who can or should be performing common, low-risk pediatric surgeries when easy access to specialist is not a guarantee.

Preparing Surgeons to Share Surgical Burden

Research into the reality of how surgeons are sharing the burden of treating some surgical diseases in children, as well as the experiences from a historically successful and ongoing care model, suggests that general and pediatric surgeons already are working together to address potential care gaps or unsustainable practices. With that in mind, can general surgeons become better prepared to offer their services?

Depending on the circumstance, few modifications may be needed for general surgeon trainees to provide valuable care to pediatric patients, as seems to be evident with cholecystectomy or appendectomy.

"Appendectomy is one of the most straightforward laparoscopic cases that surgeons learn. These are the cases you teach the PGY-1s," Dr. Richmond said. "So, when you are dealing with a kid 6 years and up, they are not little adults, but they are not babies either. There are no technical differences to the procedure, so I don't think that there's a modification required in the training paradigm."

Rather, mentors can ensure that their junior operating surgeons become familiar with entering a smaller abdomen, for example, which is something practicing surgeons can provide as ongoing, "onsite" training.

Dr. Phillips suggested that including common procedures performed on pediatric patients (e.g., appendectomy, cholecystectomy, pilonidal cyst removal) in general surgery training for graduating residents is an important element that is sometimes overlooked, as it helps them recognize when to involve a general surgeon versus refer to a pediatric specialist.

"With that said, general surgery training is excellent, and I think that it's been tailored to address

Can general surgeons become better prepared to offer their services?

this area specifically. This has been a challenge that's been on the minds of general surgeons and pediatric surgeons for a long time," he said.

With existing training paradigms continuing to set general surgeons up to succeed as the broad-based providers they are intended to be, it is incumbent on the providers and hospitals to take advantage of a unique skill set that can benefit children in need.

"What we're seeing is that general surgeons' skills are consistently marginalized, and sometimes this is a creature of their own creation," Dr. Richmond said. "They find themselves retreating to the right upper quadrant to do gallbladder operations, when there may be no practice that is more valuable to a hospital than a general surgeon who's well-rounded in terms of the services they can provide. As we see when we cover in pediatric surgery, I believe that using those skills when they are needed to keep our care models viable and to not overstress our specialists is a great service to patients and hospitals."

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FOXY-29 DELIVERS FORWARD SURGICAL INNOVATION ON SHORES OF NORMANDY

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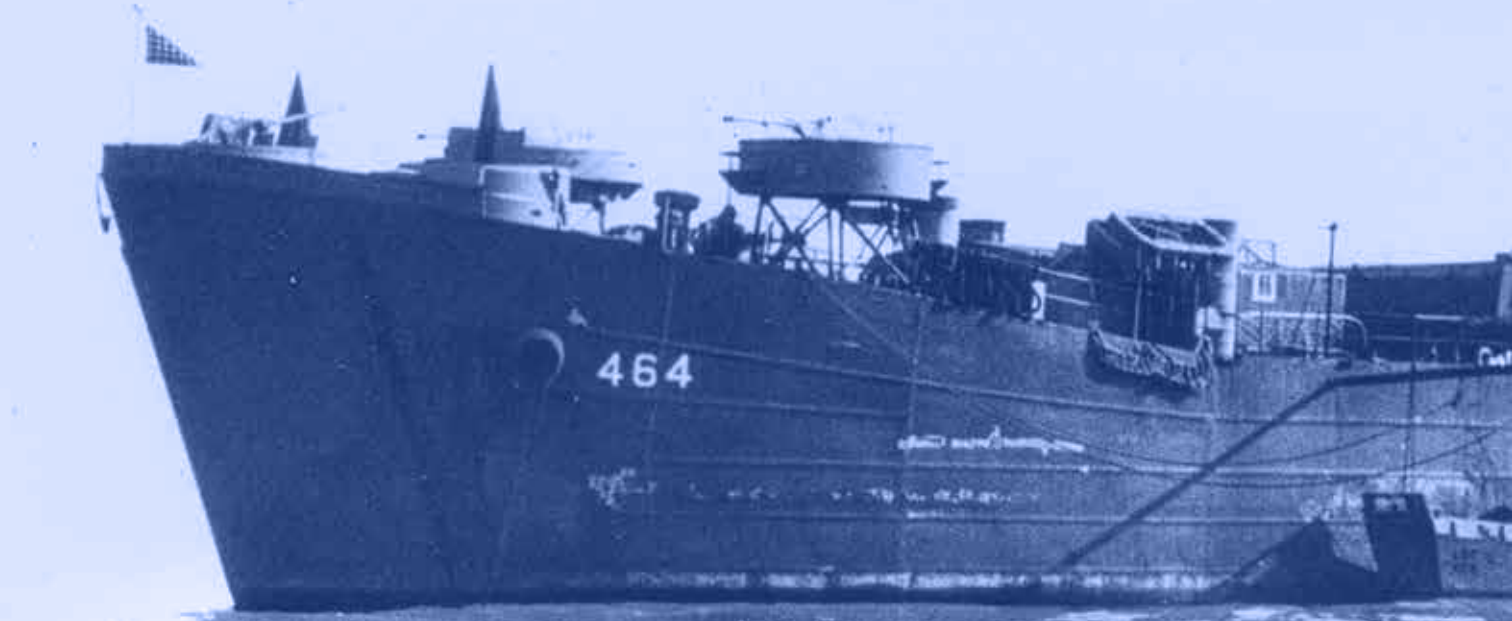

FOXY-29

Named after the date these elite units were created, February 29, 1944, FOXY-29 medical augmentation units provided lifesaving forward surgical care to soldiers and marines on the beaches of Normandy during the Second World War (WWII).

Overleaf: LST(H) 464 sits in the San Francisco Bay, circa 1945.

A PRECURSOR TO THE US Navy's modern fleet surgical teams, FOXY-29 units deployed on Landing Ship Tanks (LSTs) and were specifically designed to carry troops and materiel to support amphibious operations.

The origin of the American-designed LST can be traced back to November 4, 1941, when the British sent a dispatch to Washington, DC, requesting landing craft capable of carrying 500 tons of military cargo. The request was brought to the US Navy's Bureau of Ships by Captain Edward L. Cochrane, and civilian naval architect John Niedermair is cited as having been tasked with sketching the designs for a ship with such capabilities.

Niedermair's blueprints featured a ship that could cross the Atlantic yet also pump ballast tanks dry to land on beaches amidst amphibious operations and were specifically designed for use by the US Marine Corps (USMC). This initial design would ultimately become the famous LST of WWII.

The first LST, launched less than a year after the conception of its original design, was the product of a collaboration between the Bureau of Ships and the USMC (which had provided significant input into the design). These vessels would go on to become one of the most versatile, widely used, and strategically indispensable components of amphibious operations by Allied forces during WWII.[1]

Sitting at 328 feet long, 50 feet wide, with a minimum draft of only 3.8 feet, the LST could hold up to 1,900 tons of tanks and vehicles on its vehicular deck. These ships also included a sick bay, which represented the extent of medical capability for early LSTs.

Over the course of WWII, LSTs were fitted with varying equipment and medical teams, and some vessels were redesignated to better address the medical needs required by large-scale amphibious operations. By the Battle of Iwo Jima (January–March 1945), many LSTs participating in the invasion would be retrofitted with advanced medical and operative capabilities and redesignated as hospital ships—the LST(H).

To complement the newly retrofitted LST(H) vessels, the US Navy devised and implemented the FOXY-29 unit—a stopgap to address the anticipated increased casualty load for what was going to be the largest-known military amphibious invasion, which occurred in Normandy, France, on June 6, 1944. These lesser-known military units assigned to LSTs proved exceedingly capable at answering the call despite being equipped with limited supplies.

FOXY-29 Unit

More than 3,000 US Navy personnel would become part of the FOXY-29 program, and more than 2,300 naval medical personnel would be aboard LSTs at Normandy.[2,3] Comprised of one or two doctors and 20–40 corpsmen, a single FOXY-29 unit would be assigned to an LST ahead of the upcoming invasion.

While composition varied modestly among FOXY-29 units, most units were composed of pharmacist mates—equivalent to modern-day hospital corpsmen—of varying rates and experience.[4] The US Navy trained these special units at a small base in Lido Beach, New York. The units' sole purpose was to organize and train personnel for this mission.

Many FOXY-29 physicians—commissioned officers—reported to Lido Beach having just finished their internship year with little to no prior military experience. Some of these physicians had their internships cut short by 3 months due to the pressing wartime efforts, limiting their postgraduate education as interns to only 9 months before being sent out to the fleet.[5]

Training at Lido Beach would last 5–6 weeks for FOXY-29 personnel. Enlisted personnel were issued

carbines, and officers received Colt .45s, affirming the fact that unlike their medical counterparts aboard rearward white-hull hospital ships, FOXY-29 personnel would be in the fight.[5]

From a logistics standpoint, transporting wounded casualties from beachhead to ship before sailing back across the channel toward a higher echelon of care was not without challenge. While the bow doors of the LSTs were built to be able to onload and offload with relative ease, some LSTs would stay afloat for parts of the invasion, which necessitated other means of transporting casualties onto the ship.

DUKW amphibious trucks (D standing for the 1942 production year, U for utility, K for all-wheel drive, and W for tandem rear-axles); Landing Craft, Vehicle, Personnel (LCVP); and Landing Craft Tank (LCT)—small assault craft—were tasked with casualty evacuation on return trips after deploying troops and cargo on the beach, transporting the wounded back to LSTs offshore.

From there, the newly repurposed ambulance ships would dock alongside the bulkheads of LSTs before loading casualties on a crane that could haul the wounded on Stokes litters aboard the larger ship. At that point, patients could be triaged by the FOXY-29 personnel who stayed aboard LSTs, before heading back across the English Channel.[2,5,6]

The capacity to manage casualties for each LST differed but was most impacted by whether or not the vessel had been purposefully retrofitted for casualty transport. Many LSTs prior to the invasion of France's beaches had been fitted with three-tiered litters and rudimentary operative capability in the crew mess room for more advanced casualty transport capacity and stabilization of acute traumas, respectively.

Removable brackets were added to what would otherwise be used as part of the cargo haul to accommodate 147 additional litters to be used to transport the wounded, although some reports of casualty-converted LSTs note that the largest number of casualties carried in one trip was 260.[6,7]

Crew mess rooms were turned into makeshift ORs with the addition of a slop sink, an extra light, double electric outlet, and a foldable counter to house the ship's portable sterilizer and associated trays. Additional stowage and bracket arms on the mess room bulkheads and newly mounted operative lights positioned over crew mess tables complemented the other renovations and formed the "MacGyvered" LST ORs.

Of the 144 LSTs assigned to the Normandy assault task force, 54 had been outfitted with these additional medical capabilities, and the remaining LSTs were to provide medical care with stock equipment and carrying capacity.[6]

Road to Normandy

The 3.8-foot minimum shallow draft of the LST that famously gave it its amphibious capabilities was not without consequence. Optimized for the shallow waters that define amphibious operations, the hull of the LST was poorly suited for the Atlantic crossing.

One FOXY-29 physician estimates that 95% of his shipboard crew was seasick during parts of the crossing. Medical personnel carried scopolamine and other motion sickness medicine for this purpose. Indeed, it was reported that the keelless LST would crest 40-foot waves and slide sideways, a supposedly exceedingly vertiginous sensation caused by its increased leeway and decreased tracking by virtue of design.[2]

High winds and chop would not be the only treacherous features of the Atlantic crossing. Lurking below the surface of the water, *Unterseeboote*, German U-boats, as well as surface E-boats—fast attack craft—were preparing to mount attacks on the crossing of Allied convoys.

Using a deck crane and double sling, a casualty is transported on a Stokes litter aboard an LST from a smaller amphibious craft.

On April 28, 1944, while Allied forces were practicing landings during Exercise Tiger, LSTs 507 and 531 were hit and sunk at the hands of nine E-boats that emerged out of the fog off Slapton Sands near the Devon coast. Estimated casualties from the two combined losses were 600–800 American servicemen. An estimated 13 more casualties resulted from damage to LST 289 attributed to friendly fire, which had its screws and rudders damaged and sustained a fire but otherwise remained seaworthy.[5,8]

For most who made it across the Atlantic, following the staging and preparation for the invasion of Normandy, came the crossing of the English Channel toward the beaches of occupied France. Not dissimilar to the Atlantic crossing, safe passage across the channel was not guaranteed.

Mines laid by various German vessels, combined with E-boats and Luftwaffe air raids would threaten convoys crossing the channel. While the surprise of the early D-Day convoys meant few threats from patrolling E-boats and air raids, American LSTs were susceptible to the mortal threat of mines in the crossings that followed. As such, LSTs traveled with minesweepers to dampen that risk.

To mitigate strafing runs by Luftwaffe air raids, LSTs floated barrage balloons attached to the ship deck and to one another with steel cables designed to disrupt and mitigate attacks from above.[9]

June 6, 1944

A total of 144 LSTs were estimated to have landed as part of the assault force during the invasion on D-Day. Of these, 106 LSTs were designated for casualty evacuation, 95 of which would undergo several trips across the channel to carry casualties, with 54 vessels having been purposefully retrofitted with extra litter racks and operative capability.[3,6]

LSTs converted for casualty evacuation received casualties in several different ways. The vessels that landed on the beachheads to unload vehicles and troops were able to receive patients through the bow ramps as well. However, LSTs at anchor and those unable to beach could load casualties brought by DUKWs, LCVPs, and LCTs using Stokes litters and double slings with deck cranes.[6,7]

Once aboard the casualty-carrying LSTs, FOXY-29 physicians, corpsmen, and US Army surgeons were hard at work triaging, stabilizing, and caring for

THE ADVENT AND IMPLEMENTATION OF FOXY-29 units aboard LSTs represents an inflection point in the US Navy's approach to medical support in combat operations.

Allied casualties and prisoners of war alike. Hospital corpsmen worked in rotating shifts—4 hours on, 4 hours off—once patients were stabilized. However, they were reported to have worked continuously through the day and night until D-Day plus 3.

Numerous amputations were performed in the officer's wardroom and messing tables in crew quarters, requiring significant amounts of blood plasma and penicillin. Exploratory laparotomies, debridement of ophthalmologic injuries, suturing of scalp lacerations, as well as fixation and splinting of various fractures are documented procedures of medical teams aboard LST 307. Other LST reports note treating gas gangrene, and all reports note extensive use of penicillin in all patients.

While medical staff organization differed from unit to unit, the US Army surgeon and his two assisting technicians aboard the LST 307 performed all operations. The two FOXY-29 US Navy physicians administered anesthesia (sodium pentothal) and oversaw pre- and postoperative care, and enlisted personnel were responsible for administering stimulants, sedatives, intravenous fluids, charting, and other nursing duties.

Collaboration of FOXY-29 units with medical personnel of other branches and militaries was not uncommon. Reports from the LST 209 suggest the onboarding of a Royal Navy medical unit, consisting of three medical officers and 33 first-aid men before sailing for France's beaches.

LSTs offloaded their casualties back to LCTs once they made it back across the channel and did not come into port to expedite patient disembarkment. By doing so, LSTs could unload up to 1,100 casualties in the span of 3 hours. Before returning to France, medically converted LSTs were resupplied at depots established at Southampton, Portland-Weymouth, and Brixham.[6] Throughout the days and weeks following D-Day, LSTs transported more than 41,000 casualties from the beaches of occupied France back to the UK.[3]

Historical Significance

The advent and implementation of FOXY-29 units aboard LSTs represents an inflection point in the US Navy's approach to medical support in combat operations.

Prior to WWII, medical personnel and equipment were limited to basic first aid with inadequate operative capability, if any at all, during initial amphibious, and casualty evacuation infrastructure from shore to shore was underdeveloped.

USS LST 307 carries LCT(6) 622 loaded on its main deck as it sails in the San Francisco Bay, circa 1946.[10]

Medical personnel perform a surgical procedure in the troop's mess galley aboard an LST.

The decision to embed more advanced casualty care teams aboard LSTs for the invasion of Normandy reflected the recognition that large-scale assaults required increasingly advanced medical capability within close proximity to injured combatants. This shift departed from, yet complemented, the more traditional model of having rearward hospital ships and shore-based treatment facilities, establishing the principle that medical capability could, and should, follow maneuver elements.

FOXY-29s represented early, deliberate attempts by the US Navy to weave combat casualty care within the hull of assault vessels.

Improvised ORs fashioned from mess tables and wardrooms enabled Army surgeons, Navy physicians, and hospital corpsmen to conduct urgent procedures while the ship continued to sustain enemy fire. By performing transfusions, administering anesthesia, and operating while underway, FOXY-29 teams and their surgical personnel delivered critical care

WHILE LSTs have long since been decommissioned, the ethos of FOXY-29 lives on today.

during the "golden hour." While novel in amphibious operations, this concept contributed significantly to the success of medical care during D-Day and foreshadowed the doctrinal emphasis on en-route critical care that defines contemporary military medical evacuation algorithms.

The novel surgical capability aboard forward-operating craft was a functional precursor to the lineage that would later include US Navy fleet surgical teams embarked on modern amphibious warships, capable of landing troops by both air and sea.

While LSTs have long since been decommissioned, the ethos of FOXY-29 lives on today. The US Navy currently operates 22 amphibious warships equipped with modern ORs, hospital wards, and intensive care units, along with substantial supplies of packed red blood cells, frozen plasma, and walking blood bank capabilities—enabling robust forward surgical care anywhere in the world.

EDITOR'S NOTE: *This article is based on the first-place winning entry in the 2025 History of Surgery Poster Competition, which occurred in conjunction with Clinical Congress.*

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New Legislation Advances Breast Cancer Care into Modern Age

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The Women's Health and Cancer Rights Act (WHCRA) of 1998 represented a significant landmark in the advancement of women's health, ensuring access to medically necessary postmastectomy care.

THIS EFFORT, led in part by determined and dedicated advocates of the ACS, affirmed the right of women to make informed and empowered choices about breast reconstruction. The WHCRA was developed after a national effort across the spectrum of care highlighted the importance of comprehensive insurance coverage for cancer-related conditions disproportionately affecting women.

Before 1998, there were no federal protections ensuring healthcare coverage for breast reconstruction after a mastectomy. While a handful of states did have laws at the time with some level of limited coverage, the vast majority did not offer any form of protection for this cohort. Insurers commonly classified breast reconstruction as "cosmetic," denying coverage for procedures that were medically necessary to restore form, symmetry, and function following mastectomy.

This issue gained national attention in 1997, when 31-year-old Janet Franquet was diagnosed with an aggressive form of breast cancer. Following mastectomy and chemotherapy treatments, Franquet sought breast reconstruction from her surgeon, Todd Wider, MD. However, to her dismay, Dr. Wider informed Franquet that her insurance carrier refused to cover the cost of the procedure.

The insurance carrier explained that the operation was considered "cosmetic" and therefore did not qualify for coverage. Dr. Wider was outraged by the denial and ultimately decided to perform the operation free of charge. Determined to prevent other women from facing similar obstacles, he began a campaign to establish federal requirements for coverage of breast reconstruction surgery.[1]

This series of events led to surgeon and physician advocacy involvement across the US.

Over the next year, the ACS and other physician-focused associations worked in coordination with Senator Alfonse D'Amato (R-NY) and a bipartisan collection of senators, including Senator Diane Feinstein (D-CA). This group of advocates worked together to pass groundbreaking legislation to support insurance coverage of breast reconstruction surgery following a mastectomy.

Speaking on the Senate floor, Sen. D'Amato emphasized the importance of passing this critical legislation:

"This past February, not that long ago, her doctor called me. Dr. Wider of Long Island said to me, 'Janet Franquet, a 31-year-old woman, needs a radical mastectomy. When I contacted her medical plan, the medical director said that they would not authorize payment for reconstructive surgery.' Here is a young woman, 31 years of age. I called the director of that plan, Dr. Hodos, and I said to him, 'How could you be saying that this is not necessary?' He said, 'Replacement of a breast is not medically necessary and not covered under the plan.' Then he said, 'This is not a bodily function and therefore cannot and should not be replaced.' That is not an isolated case, Mr. President. The women of America—our mothers, daughters, sisters, neighbors, friends—should know that they are covered."[2]

The WHCRA was ultimately signed into law in October 1998 by President Bill Clinton. This transformative piece of legislation mandated that any group and individual health plan covering mastectomies must also cover:

- All stages of reconstruction of the breast removed during mastectomy
- Surgery and reconstruction of the opposite breast to achieve symmetry
- Prosthetic devices
- Treatment of physical complications at all stages of mastectomy, including lymphedema[3]

The law ensures that all these services are provided with consultation from the patient's attending physician. In addition to coverage, the WHCRA also requires that insurers notify beneficiaries of these rights upon enrollment as well as annually. Enforcement of these rights is carried out by the US Department of Labor and the Department of Health and Human Services, depending on the type of plan.

The WHCRA was a significant milestone in the advancement of improving women's health in the cancer space. By ensuring coverage for breast reconstruction postmastectomy, it set a precedent that these procedures could no longer be classified as purely cosmetic, and in fact, serve a medically necessary function. WHCRA stands as a testament to the power of advocacy from a coalition of numerous specialty associations, bipartisan collaboration, and the commitment to advancing women's health in the US.

Why WHCRA Needs an Update

Although the WHCRA was a significant milestone at the time, it was written when breast reconstruction options were more limited. Advancements in surgical care over the past 25 years have outpaced this law and no longer meet the new improved realities. These structural gaps result in limiting a woman's ability to receive timely, high-quality, and patient-centered surgical care. These gaps can result in worsened outcomes for cancer survivors who deserve the best possible treatment.

Today, more than 300,000 women in the US are diagnosed with breast cancer each year, affecting 1 in 8 women.[4]

Despite these staggering numbers, the gaps in coverage still prevent patients from receiving comprehensive care to empower them and reclaim their bodies in a way that aligns with psychological, social, and improved well-being after breast cancer surgery.

One limitation is the lack of coverage for the full spectrum of modern reconstructive options and techniques that are available. These options have evolved drastically since 1998, and many have become standard-of-care options.

WHCRA does not provide a mechanism to ensure that payers' decisions reflect current surgical science, such as deep inferior epigastric perforator flaps, transverse rectus abdominis myocutaneous flaps, superficial inferior epigastric artery flaps, and other advanced microsurgical autologous approaches to reconstruction. The language used in WHCRA predates these innovations, and unfortunately because of this, insurers are more likely to deny coverage.[5]

The lack of modernized federal standards that properly reflect the current surgical techniques will continue to result in suboptimal patient care. Similar to the environment of 1998, insurers at times classify these procedures as nonstandard, experimental, or not medically necessary. These misclassifications may be the case even if these techniques represent the best possible option and provide the highest quality of care.

An additional challenge is the lack of any safeguards to ensure enforcement of WHCRA. This reality is somewhat due to the enforcement of WHCRA remaining largely reactive and complaint driven. These delays in coverage generate avoidable anxiety for patients that in many cases are still undergoing treatment for cancer. This disruption in care undermines the patients' dignity and access to care that WHCRA was designed to protect.

Because the statute does not impose penalties on insurers that violate the law, there is little deterrent against inappropriate denials or arbitrary reinterpretations of "medical necessity." As mentioned previously, surgeons already encounter denials that conflict with the well-recognized standards of care.

One of the most persistent challenges related to WHCRA implementation comes from administrative barriers that can place a significant burden on providing care. Even when a procedure falls within the intent of WHCRA, surgeons still may be drawn into hard-fought administrative battles to secure the necessary coverage.

Routinely, surgeons are required to draft extensive letters confirming medical necessity, file multiple levels of appeal, and participate in peer-to-peer reviews, in an effort to secure proper coverage.

Introduced by a bipartisan group of US Representatives, this bill is expected to be supported by a diverse group of different cancer advocacy and medical associations from across the spectrum of care.[6]

These tasks become incredibly arduous for surgeons who must defend their clinical judgments against reviewers who have no specialized expertise.

Compounding this burden is the reality that an insurer's approval for coverage is not always a guarantee.

Employing care management mechanisms, such as prior authorization, can be reversed months after approval for an operation. This practice can expose surgical teams to added financial risk and discourage surgeons from offering resource-heavy procedures that are often necessary. The environment disincentivizes surgeons from attempting the most advanced and durable forms of reconstruction for cancer patients.

Another concern related to WHCRA is the fact that it fails to address the structural access issue that many patients face when attempting to obtain reconstructive care. Large parts of the US, particularly in rural and underserved areas, do not have the adequate level of reconstructive services.

WHCRA does not provide any specific features to ensure network adequacy requirements from insurers. Insurers may technically cover reconstruction but fail to provide specialists who are able to adequately perform such procedures. Patients can thus be forced to travel long distances, face delays in care, or worse, settle for no treatment at all. As a result, WHCRA protections can still vary drastically depending on where survivors are located.

Women's Health and Cancer Rights Modernization Act

In short, WHCRA's promise remains only partially fulfilled. The law established an essential foundation for women's healthcare coverage, but without modernization, cancer survivors will continue to face barriers that limit their options and delay treatment. It is critical to fix these oversights that continue to undermine treatments during an already vulnerable moment.

To this end, it is essential that lawmakers pass reforms more in line with today's practice of reconstruction. The Women's Health and Cancer Rights Modernization Act of 2025 is a new bipartisan bill that has been introduced to remedy the current shortcomings. Introduced by a bipartisan group of US Representatives, this bill is expected to be supported by a diverse group of different cancer advocacy and medical associations from across the spectrum of care.[6]

Specifically, the Women's Health and Cancer Rights Modernization Act would address these gaps by:

- Expanding coverage to include all recognized breast reconstruction options, from implant-based procedures to advanced microsurgical and combination techniques
- Protecting patients by guaranteeing coverage for all reconstruction procedures listed under the Healthcare Common Procedure Coding System (HCPCS Level I)
- Empowering survivors with insurance coverage for flat closure, symmetrical reconstruction, and custom prostheses
- Improving access by requiring at least one in-network provider for every recognized reconstruction modality
- Protecting medical judgment, prohibiting insurance denials that override physicians' expertise while preserving flexibility in rate negotiations
- Driving accountability through a US Government Accountability Office study assessing ongoing gaps and disparities in reconstructive care[7]

While the legislation will be reintroduced to address technical corrections, the concepts outlined in this act will provide the first meaningful update to WHCRA in more than 25 years.

The legislation, with minor technical corrections, signifies the widespread bipartisan belief that no women should ever be denied medically necessary reconstruction that reflects modern standards. This recognition stands to show that WHCRA was transformative in 1998, but its protections have not kept the necessary pace to match the progression of reconstructive surgery.

While the legislation will be reintroduced to address technical corrections, the concepts outlined in this act will provide the first meaningful update to WHCRA in more than 25 years. This modernization effort recognizes the reality that breast reconstruction, like many other forms of surgery, is not static and evolves over time. It is critical that federal protections evolve with medical standards to ensure the best possible care for cancer patients.

What ACS Members Can Do

To take this monumental step and advance the Women's Health and Cancer Rights Modernization Act, the ACS needs help from every ACS member. Once technical corrections are added to the legislation, it will be critical to increase bipartisan support from as many Members of Congress as possible. Action alerts and the opportunity to voice your support will be available in the coming months. Visit the Advocacy Brief section on *facs.org* regularly for updates.

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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Dr. Hudson Berrey

ACS Surgeons Train Syrian Teams During Liberation Day Mission

B. Hudson Berrey, MD, FACS
Michael J. Samotowka, MD, FACS
Adam Ackerman, MD, FACS

During their travel in Syria, Drs. Michael Samotowka, Hudson Berrey, and Adam Ackerman were supported by welcoming hosts (left and right).

Syria's first Liberation Day, celebrated on December 8, 2025, included three ACS members as part of the event held in Idlib.

MICHAEL SAMOTOWKA, MD, FACS, Adam Ackerman, MD, FACS, and I were in the region on a trauma training mission under the sponsorship of MedGlobal, an international humanitarian nongovernmental organization (NGO) that provides free, sustainable healthcare services to refugees, displaced persons, and other vulnerable communities in crisis areas and low-resource settings worldwide.

We are veterans of surgical trauma training in Ukraine and volunteered for this first-of-its-kind mission to Syria.

MedGlobal leadership, including Zaher Sahloul, MD, and its board of directors, have a history of supporting medical missions in northern Syria during the civil war, which began in 2012. Specifically, these missions worked within the internal displaced persons (IDP) camps in northern Syria which borders Türkiye. Following the fall of the Assad regime on December 8, 2024, a new government was established with control over all of Syria, and we were the first surgeons from the US for MedGlobal to participate in a medical surgical trauma teaching mission.

Travel into Syria required navigating international connections, cash-only visa procedures, and security interviews upon arrival. After navigating these challenges, we were gratefully received by our Syrian hosts.

The team headed to Tartus, Syria, a coastal town located in the area held by the prior regime. The journey was a study in contrasts. Throughout the free Syria region, there was evidence of prior fighting, bombed-out buildings, empty power line structures, and IDP camps. Additionally, there were frequent checkpoints along the road, all with heavily armed but pleasant soldiers who waved us through.

Our surgical trauma training in Syria was based on the training that we do in Ukraine, with certain modifications. The 2-day course includes lectures and surgical training. Two diverse types of surgical training are provided to students—one for the orthopaedic/trauma surgeons and another directed at the general surgeons.

Top:
Some of the trauma training was held at this clinical facility in Darkush, Syria.

Above:
This bombed-out village in Darkush is located near an old church in the free Syria region, showing evidence of prior fighting.

An ultrasound machine and a somewhat reluctant volunteer were made available to us. The students had virtually no experience with using ultrasound. The normal findings of an ultrasound exam were demonstrated followed by practice. With instructor guidance, the surgical trainees were able to get firsthand experience examining the heart, kidneys, liver, and bladder.

In Ukraine, pigs are used as anatomical models, which lends itself well to general surgery trauma training as the chest and abdomen are reasonably similar to humans. Unfortunately, pig models do not work for orthopaedics,

Top:
Dr. Michael Samotowka and his students practice emergency surgical procedures using a goat model.

Above:
The concept of muscle flap coverage (gastrocnemius) for exposed open fractures is demonstrated.

which is Dr. Berrey's specialty, so he developed a goat model that he uses in Ukraine.

However, in Syria, because of the prohibition of pigs and pork, we used sheep models instead, but there are significant anatomical variations that make using sheep a challenge. Demonstrating different maneuvers and repairs of injuries to vital structures were the mainstays of instruction as well as demonstrating shunt techniques.

For the orthopaedic section, goat models were used featuring black ink to simulate a wound and damaged tissue. A lecture on goat anatomy showing the relevant anatomy of the model and how it differs from human anatomy was provided to learners as was a video demonstration depicting the proper method for debriding a wound made in a goat leg with the use of a "M-80" type of firecracker.

As firecrackers are not allowed in Ukraine, the modified wound with ink substitutes is a reasonable facsimile, except the ink can be smeared so it is a never-ending chase to get all the ink out. Ultimately, this training demonstrated the proper technique for debriding open wounds caused by blast or gunshot injuries.

Additionally, a PowerPoint presentation, also using a goat model, was featured in the training to demonstrate the proper way to perform a fasciotomy for compartment syndrome releases in the leg, using two large incisions—medial and lateral.

Care was taken to demonstrate the adequate release, using the medial longitudinal incision, of the deep posterior compartment of the leg. Next, the release of both the anterior and lateral compartment on the lateral side was shown. With these two incisions made, we proceeded with demonstrating the use of the medial gastrocnemius flap for coverage of the proximal third of the tibia, a skill every orthopaedic surgeon should know.

Another PowerPoint presentation showed the anatomy of the goat leg, including the two heads of the gastrocnemius and the proximal interval between the medial and lateral heads through which the neurovascular bundle passes. This gap between the heads allowed identification of the raphe between the heads and then mobilization of the medical gastrocnemius was demonstrated.

Once the end of the muscle with 2 cm of Achilles tendon is mobilized, a tendon suture technique was shown. This step allowed the placement of the muscle to cover the exposed bone or neurovascular tissue. The fascia over the muscle was removed to demonstrate how to enlarge the muscle graft widthwise and to prepare for receipt of a split-thickness skin graft. Obtaining the skin graft was featured in the presentation, but not demonstrated in the class, due to the model's tough skin and lack of a dermatome.

One goat can serve to teach two students as the hind legs are used for the compartment release and muscle flaps. Other parts

At the site of the first training, Drs. Michael Samotowka, Hudson Berrey, and Adam Ackerman meet with students and staff from the hospital in Tartus, Syria.

of the goat can be used for the debridement model.

On the afternoon of our second skills lab day, we packed up and traveled north, into the former area of the Free Syrian Army that opposed the Assad regime. We were in Darkush, a half kilometer from the Turkish border.

A hospital that is supported by MedGlobal as well as other NGOs, was to be our home for the next 3 days. We took over the hospital call room as our sleeping quarters, displacing the prior occupants who accepted their removal graciously. We had wonderful accommodations, comfortable beds, with tea or coffee provided by one of the staff. Breakfast—consisting of cucumbers, tomatoes, pomegranates, hummus, pita bread, and rolls—was brought to our room on a big tray and put on two bedside stands.

Our outline for teaching was the same as it was in Tartus, though the class size was smaller as we only had 2 days for teaching—one for lectures and one practical goat session.

Liberation Day

Three million Syrians occupied IDP camps in the free, non-Assad regime area of Syria during the civil war, of which one million have returned to their homes or what is left of them. Much of the power grid in Syria is supplied by Türkiye but water and sanitation systems are almost nonexistent in many areas. Destroyed homes and buildings are everywhere in the formerly liberated region of Syria.

On Liberation Day, we journeyed with our Syrian friends from Darkush to Idlib, a harrowing 2-hour drive over poorly marked roads and mountainous terrain in the fog. Idlib was the city where the final advance of the Free Syrian Army began its progression toward Damascus in order to free the entire country from the Assad regime.

Upon arrival in Idlib, we found massive traffic jams, car horns blaring, and people walking, smiling, cheering, and waving flags. Our team made it to the city center on foot where a huge crowd gathered, with spotlights lighting up the air and bands playing. Being recognized as Americans, we had many Syrians come up and want their picture taken with us.

As the hour was getting late, we managed to find our minibus and took the same road home. We felt lucky to witness such a historic celebration and serve as unofficial ambassadors of our country.

Our last day was an early one, leaving Darkush and our new colleagues for the long drive over the mountains and then on to Aleppo. In the light of day, scenes of combat damage were evident along our route to the airport. However, there also were optimistic signs of a new future, such as the sites of IDP camps that were empty as people made their way back home, and scenes of new construction and farming, goat and sheep herding, and well-tended groves of olive and pistachio trees. 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.

Dr. Hudson Berrey *is a semi-retired professor of orthopaedic surgery from the University of Florida in Gainesville and Jacksonville. He spent 25 years on active duty in the US Army, retiring as chief of orthopaedic surgery at Walter Reed Army Medical Center in Bethesda, MD, and served as the orthopaedic consultant to the US Army Surgeon General.*

Dr. Christopher DuCoin

Dr. Jay Redan

Defined Protocols Help Ensure Surgical Telementoring Is Safe, Scalable

Christopher DuCoin, MD, MPH, FACS
Jay A. Redan, MD, FACS
Cory Watts
Edgardo Nahum-Reyes, MD

SURGICAL TELEMENTORING has emerged as a powerful tool to expand access to expertise, accelerate skill acquisition, and enhance patient safety as surgical innovation continues to outpace traditional training pathways.

While the technologies enabling remote mentorship, including high-definition video, telestration, low-latency connectivity, and secure audiovisual platforms, have advanced rapidly, the foundational principles governing surgical education and accountability remain unchanged.

Telementoring is not a substitute for sound surgical judgment or local responsibility; rather, it represents an extension of established educational paradigms delivered through secure, remote platforms, consistent with the broader evolution of surgical education and coaching models described in contemporary literature.[1-3]

At its core, surgical telementoring must operate under the same professional, ethical, and educational standards as in-person surgical instruction. This approach is particularly notable when comparing telementoring to telesurgery.

Whereas telesurgery involves remote physical control of operative instruments by an offsite surgeon, telementoring preserves the onsite surgeon as the primary operator, decision-maker, and surgeon of record. This difference alters the ethical, legal, and professional frameworks involved with telementoring.

Beyond individual cases, teleteaching from the OR to large learner audiences represents another important application of this technology.

Published experience suggests that telementoring, when appropriately structured, carries lower medico-legal complexity and greater scalability than telesurgery, while still providing meaningful educational and clinical benefit.[4,5]

The qualifications of the telementor are central to the integrity of this model. The remote mentor should be a fully licensed physician, board certified or board eligible in the relevant specialty, and actively practicing with demonstrable expertise in the procedure for which they are providing mentorship.

Most institutions require documentation of case volume, favorable outcomes, and prior experience as an educator, proctor, or attending surgeon. In addition, formal training in telementoring technology, including telestration, image optimization, and closed-loop communication, is essential to mitigate issues that are sometimes associated with remote guidance. These expectations mirror standards described in surgical coaching and quality improvement literature from major academic societies.[6-8]

Within a single healthcare system, intra-institutional telementoring offers substantial educational and operational value. By allowing experienced faculty to mentor colleagues remotely, systems can standardize care pathways, disseminate best practices, and support the safe adoption of new techniques without the logistical and financial constraints of travel.

This model has been particularly effective in robotic surgery, advanced minimally invasive procedures, and endoscopy—in any environment where a camera mediates the operative field. Studies published in *Surgical Endoscopy* and *Annals of Surgery* have demonstrated that such approaches improve surgeon confidence and procedural consistency while maintaining institutional oversight and quality assurance.[2,9]

Extra-institutional telementoring further expands access to highly specialized expertise, particularly for hospitals or regions with limited subspecialty volume. When implemented with formal inter-institutional agreements, this model allows surgeons to benefit from the experience of national or international leaders while preserving local autonomy through verification of licensure and credentialing, appropriate malpractice coverage, and compliance with state and federal regulations.

Notably, the onsite surgeon remains fully responsible for operative execution and clinical decision-making, reinforcing accountability and aligning with guidance published in *JAMA Surgery* and the *Journal of the American College of Surgeons*.[10,11]

Remote Mentors Can Offer Immediate Guidance in OR

Telementoring also may function as a real-time intraoperative consultation. In this context, it resembles an enhanced form of intraoperative consult rather than a casual curbside discussion.

Successful implementation requires preoperative planning, technology verification, explicit patient consent, and clearly defined escalation and communication protocols. When these elements are in place, telementoring can provide immediate expert input during critical operative moments while maintaining patient safety, role clarity, and closed-loop accountability within the OR. Research indicates that this structure is essential to avoid ambiguity in responsibility and documentation.[7,12]

Beyond individual cases, teleteaching from the OR to large learner audiences represents another important application of this technology. Secure livestreaming platforms allow surgeons to teach residents, fellows, and practicing surgeons across institutions and geographic boundaries in real time.

This approach has been shown to enhance educational reach while preserving patient privacy and operative focus, particularly when combined with moderate interaction and delayed Q&A sessions. Such models align with broader trends in virtual surgical education and augmented learning environments described in recent educational literature.[9,13]

As telementoring becomes more integrated into routine surgical practice, legal, regulatory, and financial considerations must be addressed. Surgeons and healthcare systems should ensure appropriate licensure, credentialing, informed consent, malpractice coverage, and data security.

Surgical telementoring represents a natural and necessary evolution of surgical education, one that extends expertise without compromising standards.

View the telementoring checklist.

From a reimbursement perspective, the consultative nature of intraoperative telementoring raises the possibility of billing structures analogous to intraoperative consultations. While current reimbursement models remain limited, emerging discussions suggest that standardized documentation and demonstrated value could support scalable billing frameworks in the future, particularly as telemedicine continues to gain regulatory acceptance.[11,14]

Surgical telementoring represents a natural and necessary evolution of surgical education, one that extends expertise without compromising standards. Whether deployed within a healthcare system, across institutions, as an intraoperative consultative resource, or as a teleteaching platform, its success depends on rigorous credentialing, robust technology, regulatory compliance, and mutual respect between mentor and mentee. As emphasized by recent publications, mentorship remains foundational to surgical excellence, and telementoring offers a modern mechanism to preserve that tradition while responsibly embracing innovation.[15]

A telementoring checklist (available as a PDF on *facs.org*) provides guidance for starting a telementoring program at your hospital or training center. B

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ACS AMERICAN COLLEGE OF SURGEONS

If You Could Do Anything You Want, What Would You Do?

Tyler G. Hughes, MD, FACS

Dr. Carlos Pellegrini sits at his desk at Walter Reed Army Medical Center.

In 1975, a young man immigrated to the US from Argentina.

THE IMPETUS FOR THIS MOVE was to ensure his safety given the political situation during the "Dirty War" era in his native country.

In his pocket was $92 and a work visa for entry into the US.

The young Carlos A. Pellegrini, MD, FACS, was a graduate of medical school and had completed a surgery residency in Argentina. He was alone, but he had been a foreign exchange student in Michigan some 11 years before—and he had a job waiting for him at The University of Chicago in Illinois with David B. Skinner, MD.

The way forward for this young immigrant was uncertain, his prospects equally unsure. Like millions of people escaping repression, Dr. Pellegrini saw in the US the opportunity to live a life of his choosing and to serve others.

A year passed. He worked hard, enjoyed his work, and became close to his mentor; but a foreign medical graduate without an American residency had no way to really practice medicine, at least not the sort of medicine of his choosing. Dr. Pellegrini decided he would repeat residency in general surgery, a situation common to many physicians from other countries.

He sent out 22 applications, but no interviews were offered. He didn't match. Ultimately, Dr. Pellegrini secured a preliminary year at The University of Chicago in a so-called pyramid program. These programs deliberately accepted more residents than they intended to graduate, creating intense competition and persistent uncertainty about advancement. Such programs no longer exist.

Through his hard work and intelligence, he won the job and graduated from the program.

Now with the credentials of his residency and years of experience, Dr. Pellegrini needed a job. He had come from a small town where his father and mother were general practitioners on the Argentinian plains.

Years ago, while still in his native country, he had hoped to do the same and applied to a special program for rural surgery practices; his best friend got that job.

At 18 years old, Carlos was a foreign exchange student in Kalamazoo, Michigan.

Now, Dr. Pellegrini hoped to achieve his goal of being a surgeon in a small town on the Midwestern plains of the US. Administrators at the University of Missouri in Columbia accepted him into the program, but it was not to be.

At the same time, another opportunity became available for Dr. Pellegrini—a job at the new King Faisal Specialist Hospital & Research Centre in Saudi Arabia. This position had a great salary, offered interesting work, a month off each year to study and travel, an around-the-clock driver, and other perks.

Around the same time, Dr. Skinner asked him, "If you could do anything, what would you want to do?"

Dr. Pellegrini replied immediately, "I would do what you do. Be a chief of surgery."

The next day, a call came from the University of California San Francisco (UCSF). Paul A. Ebert, MD, FACS, chair of the UCSF Department of Surgery

Left:
Dr. Carlos Pellegrini visits with his friend Haile T. Debas, MD.

Right:
During Operation Desert Storm, Dr. Carlos Pellegrini served at Walter Reed Army Medical Center.

(1975–1986) and later ACS Executive Director, would be willing to meet Dr. Pellegrini in Salt Lake City, Utah for an interview.

This meeting led to a job at the San Francisco Veterans Affairs Medical Center with Larry Way, MD, and later an appointment at UCSF at Moffitt Hospital as Dr. Way's partner. Dr. Pellegrini's interests focused on pancreatic and esophageal surgery, and his practice expanded.

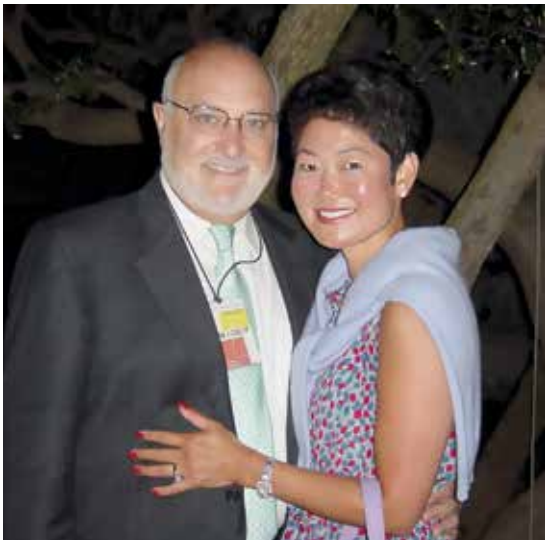
Dr. Pellegrini was now a US citizen and had served in the US Army Reserve. In 1991, he was called to active duty for Operation Desert Shield, which became Desert Storm. During the conflict, he served at Walter Reed Army Medical Center in Bethesda, Maryland. By the end of his service, other surgeons had taken up the load at UCSF in his absence.

So, Dr. Pellegrini—surgeon, teacher, soldier—decided to fulfill his dream and eventually was appointed chief of surgery at the University of Washington in Seattle—a position he held for the next 23 years until his retirement.

During that time, Dr. Pellegrini became a world-famous esophageal surgeon, including doing the first minimally invasive esophagomyotomy in the US.

When he received his Fellowship in the ACS, he was sent a letter from the College signed by C. Rollins Hanlon, MD, FACS, then ACS President,

Dr. Pellegrini became a world-famous esophageal surgeon, including doing the first minimally invasive esophagomyotomy in the US.



Dr. Carlos Pellegrini and his wife Kelly live in a small town along the Puget Sound in Washington.

and the final paragraph stated, "I encourage you to remain active in the affairs of the College, and if you have any questions, do not hesitate to call me."

Dr. Pellegrini did have such interest, and in his first-year post-residency, he called the ACS and asked to speak to Dr. Hanlon.

After a long pause, Dr. Hanlon came on the phone asking what he could do for Dr. Pellegrini.

Dr. Pellegrini explained that he was interested in being part of the ACS International Relations Committee (IRC). However, Dr. Hanlon shared that the IRC usually is composed of Fellows with considerable experience.

"I have looked at the committee membership, and it seems to be composed of members from the US. I am from Argentina and speak four languages. I believe I can speak with international surgeons in their own language and offer a perspective to this committee," said Dr. Pellegrini.

A few weeks later, an invitation was sent to Dr. Pellegrini to join the IRC. He worked hard on the committee, eventually becoming its Chair. Dr. Pellegrini then was offered roles on other committees as well.

Years later, Dr. Pellegrini received the news that he had been chosen to be an ACS Regent. This opportunity would eventually lead a young man from a small town in Argentina, who wanted initially only to be surgeon in a small town far away from the US, to become President of the ACS and a major contributor to the science and practice of surgery in a career spanning 50 years. Dr. Pellegrini had become the person of his dreams.

He now lives in a small town along the Puget Sound with his wife, Kelly, and has transitioned from surgical icon to executive coach, working with healthcare leaders to help them develop their full potential.

Dr. Pellegrini has enjoyed his life serving all with skill and trust.

Disclaimer

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

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

Dr. Nicholas Senn Embraces Risks, Rewards of Surgical Self-Experimentation

David E. Clark, MD, FACS

NICHOLAS SENN, MD (1844-1908), was the first Chief of the Editorial Board of *Surgery, Gynecology & Obstetrics*, which became the *Journal of the American College of Surgeons* in 1994.

Dr. Senn was born in Switzerland, raised in Wisconsin, and received medical degrees from the Chicago Medical College, which is now Northwestern University Feinberg School of Medicine in Chicago, Illinois, and the University of Munich in Germany. Later, he became a professor at Rush University Medical College and The University of Chicago, both in Illinois.

Dr. Senn also was Surgeon General of the National Guard of Illinois and founded the Association of Military Surgeons of the US National Guard (now known as the Association of Military Surgeons of the United States) to advance military medicine and the welfare of civilian soldiers.

In addition, Dr. Senn served as chief surgeon of the VI Army Corps during the Spanish-American War in 1898. He had an international reputation as a practitioner and educator, and traveled around the world twice. Notably, Dr. Senn's writings filled 160 large volumes.[1]

Among Dr. Senn's many contributions to the surgical research literature was the 1888 description of a diagnostic procedure to determine whether an abdominal gunshot or stab wound had resulted in a hollow viscus injury.

"As in private practice, the treatment of penetrating wounds of the abdomen usually involves great medico-legal responsibilities," he argued. "It becomes of the greatest importance to arrive at positive conclusions in reference to the character of the injury before the patient is subjected to the additional risks to life incident to an abdominal section."[2]

The procedure involved insufflation of pressurized hydrogen gas into the rectum through a rubber tube, while "the escape of air or gas from the rectum was prevented by an assistant pressing the margins of the anus firmly against the rectal tube."

In a series of experiments, Dr. Senn showed that a pressure of "one-fourth of a pound to 2 pounds" (presumably 0.25-2 psi or 13-103 mmHg) was sufficient to overcome the ileocecal valve,

Nicholas Senn, MD

after which the hydrogen would flow retrograde through the rest of the gastrointestinal tract.

A perforated viscus could then be diagnosed by the absence of liver dullness on percussion or, ideally, by holding a lighted match to any hydrogen gas escaping through a wound in the abdominal wall, which "will ignite with a slight explosive report, and burn with a characteristic blue flame."

Dr. Senn himself was experimental subject number 52, having been preceded by 34 dogs (four without anesthesia, 17 with anesthesia, and 13 postmortem); a human cadaver (used three times); eight patients (including a "hysterical female" and a "middle-aged physician suffering from typhlitis"); and six other healthy volunteers, including two young doctors and a medical student.

Personally, Dr. Senn said he was "desirous of experiencing himself the sensations which would be caused by inflation of hydrogen gas," but his report does not specify how the other subjects were recruited. His own symptoms included "a feeling of distention," "colicky pains," "a sensation of faintness," and "profuse clammy perspiration." The pains were somewhat relieved by "eructation" but did not completely resolve for an hour and a half.

A total of 13 additional anesthetized dogs were studied, most of them shot in the abdomen "at short range with a .32 caliber revolver" and examined for gastrointestinal perforation after rectal insufflation of hydrogen.

The animals underwent laparotomy and repair, with survival "in a few instances." After presenting his method and results, Dr. Senn concluded, "I do not hesitate to recommend its adoption as an infallible diagnostic test in demonstrating the existence of a wound of the gastrointestinal canal."[2]

In a lengthy editorial published in the *Annals of Surgery*, the procedure was described as providing "the greatest diagnostic value."[3] The principal American textbook of surgery contained a qualified endorsement in its 1892 edition,[4] but the description was shortened in a subsequent edition in 1899 and absent altogether in the 1903 text.

Senn himself moved on to other clinical and research innovations, including the implantation of cancer cells from one of his patients into his own forearm in 1901.[5]

Contemporary institutional review boards would certainly prohibit using some of the research subjects described earlier in this column, but in Dr. Senn's era, self-experimentation was considered heroic.

Contemporary institutional review boards would certainly prohibit using some of the research subjects described earlier in this column, but in Dr. Senn's era, self-experimentation was considered heroic.

In addition to Dr. Senn, other researchers engaged in self-experimentation in pursuit of medical knowledge, including August Bier, a German surgeon, and his assistant who gave each other some of the first spinal anesthetics (and headaches). Members of the US Army Yellow Fever Commission, working under Major Walter Reed, a US Army pathologist and bacteriologist, were commended for allowing themselves to be bitten by infected mosquitoes. Werner Forssmann, a German surgeon, was awarded the Nobel Prize in 1956, for catheterizing his own heart.

Fellows of the ACS who have performed self-experimentation in the pursuit of knowledge, include Evan O'Neill Kane, MD, FACS (who performed an appendectomy and inguinal herniorrhaphy on himself); US Army Colonel William R. Lovelace II, MD, FACS (who parachuted from a B-17 bomber at 40,000 feet to test oxygen equipment); and John H. Crandon, MD, FACS (who gave himself scurvy to study wound healing).[5]

The motivations of a self-experimenter may not be entirely altruistic, and we are less likely to hear about such cases in the highly regulated research environment today.

The history of Dr. Senn demonstrates that even an experienced investigator can devote considerable effort and incur significant risks in pursuit of an idea that is soon discarded and ultimately considered absurd. Yet, we can respect the opinion of Rosalyn Yalow, an American medical physicist, who performed some pioneering radioimmunoassays on herself and maintained that "we are the only ones who can give truly informed consent."[5]

Dr. David Clark *is professor of surgery emeritus at the Tufts University School of Medicine in Boston, MA, and he formerly practiced trauma and general surgery at Maine Medical Center in Portland.*

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ACS AMERICAN COLLEGE OF SURGEONS

Leadership Summit Prepares Surgeons to Navigate Rapidly Changing Profession

Jennifer Bagley, MA

THE SURGICAL PROFESSION is moving through a highly demanding, crossroads moment characterized by widespread burnout and a projected workforce shortage, along with reimbursements being under pressure, administrative burdens continuing to mount, artificial intelligence (AI) reshaping clinical workflows, and a policy environment shifting in ways that will have lasting consequences for how surgeons practice.

But ask surgeons what they're doing about it, and increasingly, the answer is, "showing up."

This year, a record-breaking 534 registrants did exactly that, gathering in Washington, DC, at the Grand Hyatt Washington Hotel for the ACS Leadership & Advocacy Summit, February 28–March 3, to build the skills, relationships, and strategic clarity needed to lead through these times.

"Leadership in surgery today requires more than clinical excellence. It demands engagement, and that's what makes this summit so meaningful—the collective resolve in the room. Surgeons are facing extraordinary challenges, but when we gather with shared commitment, we rediscover our voice and our strength," said Michael J. Sutherland, MD, MBA, FACS, Senior Vice President, ACS Member Services, who opened Sunday's general session.

Building Your Brand

Ahead of the summit, special preconference workshops were offered, including "Building Your Leadership Brand to Increase Impact," presented by Kimberly A. Whitler, MBA, MS, PhD, from the University of Virginia Darden School of Business in Charlottesville.

Dr. Whitler outlined a process for building a leadership brand, starting with identifying the target audience, defining the primary impact one wants to have, and articulating the tangible value and proof points that demonstrate that value. Also important is activating the brand through specific, deliberate choices and behaviors that reinforce the intended brand.

According to Dr. Whitler, there are two sides to building a brand: style and substance.

"A brand is built on both. We've all seen the research and data that say the first 30 seconds you

interact with someone matters a lot: Your eye contact, your ability to shake their hand effectively, the way you dress, the way you look. Style matters. It absolutely does, but it's easier to change," she said.

On the other hand, the substantive elements, like one's expertise, values, and character are more complex when developing an effective leadership brand.

"What is it that you stand for? Are you an intellectual? Are you a leading influencer? Those elements take time to build. All of you have a realized brand. Right here, right now, I could ask anyone who works with you, and they would tell me what you stand for," said Dr. Whitler. "How do you get that brand? It comes from everything you do and say. We call that activation. When we show up at work, when we work with a patient, when we're working with colleagues, we're activating our brand."

Trust as the Foundation

The Leadership Summit kicked off Sunday morning with a general session on building cultures of trust and excellence. Amy Vertrees, MD, FACS, from Columbia Surgical Partners in Tennessee, set the tone early, framing culture-building not as a soft skill but as a hard strategic imperative.

Dr. Vertrees emphasized that trust is a feeling that leaders must cultivate, and excellence is about intentional action and creating ideal results. Understanding one's own thoughts, emotions, and stress responses, as well as those of the people around them, are crucial to building a culture of trust and excellence.

"It starts with you. Leaders build teams; they don't just assemble ready-made parts. You can't inspire something you don't know how to do for yourself," she said.

In the presentation, Dr. Vertrees also provided strategies such as assessing one's own strengths and values, finding the best version of others, setting boundaries, and focusing on improvement rather than judgment or punishment.

"Finding the best version of a person and the best version of you takes planning ahead," she said. "Use your imagination and manifestation to find the best version of the human in front of you and interact with that person. You may have to dig through layers to find this version, but that will change interactions. If you're the best version of you, and you find the best of them, you have

Dr. Amy Vertrees addressed more than 530 attendees at the Leadership Summit, challenging leaders to build cultures of trust and excellence through intentional action.

Emphasizing that coaching is a catalyst for growth, not remediation, Dr. Douglas Wood shared how the University of Washington embedded executive coaching into its Department of Surgery.

automatically brought to the conversation neutral respect."

Douglas E. Wood, MD, FACS, FRCSEd, from the University of Washington (UW) in Seattle, followed with a session on executive coaching, further emphasizing that excellence in surgery now requires emotional intelligence, intentional culture-building, and leadership development, not just technical mastery.

When it comes to executive coaching, Dr. Wood made the case that coaching is not remediation; it is a leadership development tool. The best leaders, in surgery as in other high-performance fields, invest continuously in self-awareness and team dynamics.

Following in the footsteps of his mentor and ACS Past-President Carlos A. Pellegrini, MD, FACS, Dr. Wood trained as an executive coach and saw the value in using a coaching approach to help faculty develop and improve communication, conflict management, and leadership skills.

In turn, the UW Department of Surgery has embedded a full-time coach who provides longitudinal and spot coaching for faculty, staff, and residents, covering a range of professional development topics. The coaching program has been well-received across the department, with the goal of supporting faculty growth, reducing burnout, and improving the department's overall culture. In the first 6 months, more than 340 sessions were conducted for 73 clients.

Coaching can help surgeons at all stages of their careers, from new faculty members developing confidence and self-regulation, to mid-career faculty managing work-life balance, to senior leaders planning for retirement and succession, according to Dr. Wood.

"What do we mean by the coaching mindset? I learned that the benefits of coaching are slowing down, being curious, and asking questions. It's about nonjudgmental curiosity in exploring what someone needs, focusing on managing a situation while helping an individual find their own solutions, and creating an environment that allows time for people to develop self-awareness and their own plans for how they want to solve an issue or how they want to develop their career," he said.

Leading Through Advocacy—and Meaning It

One of the most energetically received sessions of the morning came from Callisia N. Clarke, MD, MS, FACS, from the Medical College of Wisconsin in Milwaukee. Dr. Clarke reinforced the paradigm shift in leadership detailed earlier by Dr. Wood: Excellence in surgery now depends on emotional intelligence, advocacy, mentorship, and the ability to influence culture—not simply positional authority.

"Our trainees, our colleagues, even our patients want coaches rather than bosses," Dr. Clarke said.

In the session "Leading Through Advocacy," Dr. Clarke highlighted that advocacy is essential for success as a leader, as it involves championing and empowering others, driving systemic change, and collaborative action.

"Advocacy is leadership in action, and in today's current climate, it's really not optional," she said.

Dr. Clarke encouraged attendees to identify their circle of influence and take small, actionable steps toward advocacy, underscoring the importance of storytelling and leveraging platforms like professional societies to drive systemic change.

"Leadership is influence," she said. "Surgeons are trusted voices, and advocacy is a lane we must stand in. If we're silent, then we're missing the opportunity to make a difference."

From Private Practice to AI Frontier

Two of the day's most instructive sessions illustrated the remarkable range of environments in which surgeons are now leading.

D. Rohan Jeyarajah, MD, FACS, from Texas Christian University Burnett School of Medicine in Fort Worth, Texas, shared an honest, experience-grounded account of what it takes to build a program from the ground up in a community setting, absent the infrastructure and brand recognition of a large academic medical center.

Dr. Jeyarajah discussed the importance of efficiency, measurement, and outcomes in private practice, as well as the value of accreditation programs like those offered by the ACS to help establish interdisciplinary teams and improve patient outcomes.

"If you don't measure it, you can't improve it," he said.

In addition, Dr. Jeyarajah highlighted the integral role of education, research, and clinical excellence in building a thriving private practice. Also important are stronger partnerships between private practitioners

Above:
Drawing from real-world experience, Dr. Rohan Jeyarajah outlined the grit and discipline required to build a high-performing surgical program in a community setting.

Below, left:
Dr. Callisia Clarke urged surgeons to move beyond titles and authority, and embrace bold advocacy to shape culture and advance meaningful change.

> "All surgeons possess innate leadership qualities that surface daily as we care for patients, particularly in the OR."
>
> Dr. Anton Sidawy

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and academic colleagues, with Dr. Jeyarajah encouraging private surgeons to remain engaged in scholarly dialogue and urging academic institutions to better understand the operational realities of private practice.

While Dr. Jeyarajah focused on leadership within the operational realities of private practice, the next session shifted the lens to a different—and rapidly accelerating—frontier: leading through technological transformation.

The hour-long session on leading through technology changes, moderated by Dr. Sutherland, with panelists Genevieve Melton-Meaux, MD, PhD, FACS, ACS Chief Health Informatics Officer, and Jack T. King, MBA, ACS Chief Information Officer, demonstrated that AI technology is something surgical leaders must actively shape, or risk being shaped by.

From AI in clinical decision-making to data governance and electronic health record optimization, the session challenged attendees to develop a more sophisticated fluency with the tools now embedded in every corner of surgical practice.

Dr. Genevieve Melton-Meaux joined fellow leaders in urging surgeons to approach AI with informed curiosity and strategic focus.

ACS President Dr. Anton Sidawy encouraged surgeons to harness their credibility, composure under pressure, and system-wide insight to lead with unity and purpose.

Dr. Melton-Meaux suggested that surgeons should be proactive in understanding AI capabilities and approach the technology with a balanced mindset—being interested but cautious, and focusing on high-return, low-risk opportunities that can improve efficiency and free up time for higher-level tasks. However, concerns around deskilling, liability, and the rapid pace of AI innovation will require ongoing vigilance and advocacy from the surgical community.

"This is a megatrend. It cannot be ignored. The capabilities of it are evolving faster than anything I've ever seen in 35 years of technology," King said.

View from the Top

The afternoon sessions brought a notable shift in register—from practical instruction to broader strategic vision.

ACS President Anton N. Sidawy, MD, MPH, FACS, from George Washington University in Washington, DC, delivered a session on unity in advocacy and self-leadership, drawing on his long experience in surgical practice and organizational leadership. He explained that the surgeon's capacity to lead externally depends on first leading internally.

"All surgeons possess innate leadership qualities that surface daily as we care for patients, particularly in the OR. The captain of the ship remains alive and well in surgery," he said.

Like Dr. Clarke, Dr. Sidawy emphasized that advocacy must be grounded, principled, and sustained—not merely reactive or episodic—and that surgeons are uniquely positioned to serve as powerful advocates.

"We understand urgency, consequences, and responsibility. We are trained communicators under pressure, and we see the entire system: patients, teams, structures. We are natural problem-solvers, and we enjoy public trust and are deeply motivated by purpose and goals," said Dr. Sidawy. "We also understand that silence is not neutral. If we do not speak for our patients and our profession, others with less insight will shape the future of healthcare."

Caprice C. Greenberg, MD, MPH, FACS, from the University of North Carolina at Chapel Hill, continued the conversation on evolving leadership by highlighting how the traditional path to leadership, focused on personal achievement and expertise, is no longer sufficient in the complex healthcare environment. Instead, leaders must develop a broader set of competencies, including understanding the business of healthcare, effective communication, conflict resolution, and the ability to build and develop teams.

In her presentation, "The New Face of Surgical Leadership: Redefining Pathways for the Modern Surgeon," Dr. Greenberg outlined two key phases in the path to leadership: first, becoming an expert in a specific area, and second, defining one's legacy by finding joy in having a significant impact. She emphasized the importance of self-awareness, continuous learning, and observing effective leaders as ways to develop the necessary skills, while also delving into the

Above:
Surgeon-executives from leading health systems convened for "Surgeons Leading the Future of Healthcare," offering insights on guiding large organizations with surgical discipline and vision. Dr. Michael Sutherland also is pictured.

Below, right:
Dr. David Callender reflected on the realities of work-life integration in healthcare leadership.

differences between management and leadership, with the latter requiring a more proactive, forward-looking, and people-focused approach.

"I love this quote from Peter Drucker: Management is doing things right, leadership is doing the right things," Dr. Greenberg said.

Masterclass in Healthcare Leadership

The afternoon panel, "Surgeons Leading the Future of Healthcare," brought together leaders from some of the most consequential health systems in the country: Susan Moffatt-Bruce, MD, PhD, FACS, from Beth Israel Lahey Health in Burlington, Massachusetts; Bruce L. Gewertz, MD, FACS, from Cedars-Sinai in Los Angeles, California; David L. Callender, MD, MBA, FACS, from Memorial Hermann Health System in Houston, Texas; Conor P. Delaney, MD, MCh, PhD, FACS, from Cleveland Clinic in Florida; and Craig T. Albanese, MD, MBA, FACS, from Kaiser Permanente in Oakland, California.

The conversation these surgeon-leaders modeled—itself a masterclass in healthcare leadership—was candid, high level, and focused on what it actually takes to run large, complex organizations with surgical sensibilities intact. They provided valuable insights into their leadership journeys and perspectives, offering guidance and inspiration for surgeons aspiring to take on greater leadership responsibilities.

Reflecting on a challenge that tested both his resolve and capacity, Dr. Gewertz described his transition from a clinical role to a chair of surgery position when he was 42 years old, frankly addressing the self-doubt and imposter syndrome that can arise—even for accomplished surgeons.

"Every single section chief was 10 years older than me, and I was paddling furiously under the surface to keep up. The city we were in had a bad malpractice environment, and the costs were increasing significantly. I couldn't sleep at night. I just couldn't imagine how we could come up with these additional millions of dollars," he shared. "One day, I realized there were 10 other people who were equally concerned about this—my section chiefs. I had somehow left them out of the loop and never involved them in the angst over this. We eventually solved the problem together. The real lesson for me was that I was not in this by myself, and that was a profound thing for me to appreciate. It changed the way I lead."

The panelists drew attention to the need to balance productivity demands with clinician well-being and burnout, including strategies like empowering teams, leveraging technology, and promoting work-life integration rather than just "balance."

"With the lives we lead in healthcare, particularly when it comes to caring for patients, sometimes it's going to be almost all about work, and some days it's not," Dr. Callender explained. "It's not always predictable, but there's great joy that comes with that over the course of time. Acknowledging, understanding, and promoting that, and helping people establish what their work-life integration norms are—I think that is an important responsibility for us as leaders."

Importantly, the panelists also offered advice about taking on more leadership responsibility and being more thoughtful about influencing the future of healthcare.

Reaffirming the College's unifying mission, Dr. Turner reminded attendees, "We are The House of Surgery® for all surgical specialties."

- **Step up despite uncertainty:** Take on leadership roles even without feeling fully prepared; the skills can be developed along the way.
- **Embrace the "happy warrior" mindset:** Approach challenges with enthusiasm rather than complaint. The satisfaction and rewards of leadership can be immense.
- **Leverage clinical expertise:** Bring your frontline perspective as a surgeon to healthcare problem-solving; don't lose that critical viewpoint.
- **Be a perpetual learner:** Seek mentors, stay curious, and recognize that leadership is situational and context-dependent.
- **Follow what excites you:** Pursue opportunities aligned with your passions rather than chasing titles or positions.

Dr. Albanese offered one last thought to the young leaders in the room: "I often talk about Mr. Potato Head. You get the eyes and nose, and you mix and match. Over the years, you take the good, the bad, put it all together, mix it up, and you have your own style. I'm excited for this moment we're in. Raise your hand to lead. We need leadership more than ever."

Executive Director's Update

Patricia L. Turner, MD, MBA, FACS, ACS Executive Director and CEO, delivered an update, outlining the College's current priorities and multifaceted efforts to support surgeons and improve patient care.

In a comprehensive address, Dr. Turner outlined the ACS's strategic priorities, emphasizing its commitment to advancing patient-centered care, modernizing surgical education, and accelerating innovation. She highlighted a transformative clinical data strategy integrating AI and real-time electronic health record data to strengthen quality improvement while reducing reporting burdens. Additional initiatives include guidance on optimal working conditions, expanded support for rural and locum tenens surgeons, and enhanced well-being resources.

Dr. Turner also underscored the power of coordinated advocacy, noting that member outreach helped prompt bipartisan legislation to halt cuts to surgical work relative value units. Reaffirming the College's unifying mission, she reminded attendees, "We are The House of Surgery® for all surgical specialties."

The 2027 Leadership & Advocacy Summit will be April 10–13 in Washington, DC. B

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

Dr. Patricia Turner detailed the ACS's strategic priorities and reaffirmed the College's commitment to supporting surgeons and strengthening patient care.

Surgeons Bring Their Case to Capitol Hill at 2026 Advocacy Summit

Jennifer Bagley, MA

Hundreds of surgeons from across the country united in Washington, DC, to shape the policies that will define the future of surgical care.

Surgeon advocacy has always mattered.

BUT WITH CONSEQUENTIAL policy conversations underway on everything from reimbursement and workforce shortages to rural access and administrative burden, the call for showing up in Washington has rarely felt more compelling or more timely.

ACS Executive Director and CEO Patricia L. Turner, MD, MBA, FACS, and Christian Shalgian, Senior Vice President of the ACS Division of Advocacy and Health Policy, welcomed more than 340 attendees to the Advocacy portion of the 2026 ACS Leadership & Advocacy Summit, held February 28–March 3, at the Grand Hyatt Washington Hotel in Washington, DC.

The Advocacy Summit offers attendees the opportunity to spend a day in the room with the people who know these issues best—policy experts, healthcare researchers, and seasoned advocates—working through the substance and strategy behind each congressional ask, culminating with in-person visits on Capitol Hill.

"This is a pivotal moment for surgery. Decisions being made in Washington right now will shape who can access care, how surgeons are paid, and whether

The "Advocating for Rural Surgery" panel, featuring (left to right) Drs. Estin Yang, Daniel Chase, Waddah Al-Refaie, Gary Timmerman, and Thomas Tsai, explored policy solutions to address persistent rural surgeon shortages.

our workforce is sustainable for the next generation. If surgeons aren't at the table, those decisions will be made without us," said Shalgian.

Rural Surgery: Challenge, Opportunity, and "Gold Mine"

The morning panel "Advocating for Rural Surgery: Evaluating Workforce Shortages" set the tone for the day, taking on one of the most stubborn structural challenges in American healthcare—the surgical desert.

Moderated by ACS Regent Gary Timmerman, MD, FACS, from the University of South Dakota Sanford School of Medicine in Vermillion, the session brought together a panel with a deliberately varied geography—academic medical centers, community hospitals, rural health systems—to examine the workforce gaps that leave millions of Americans without reliable access to surgical care.

More than 20% of the US population lives in rural or frontier locations, with less than 10% of the healthcare workforce practicing in the same regions (even fewer general surgeons), according to Dr. Timmerman, who added, "The workforce is not just small. It is aging, unevenly distributed, and not being replenished at adequate rates."

The numbers are not new, but they remain striking.

Surgeon shortages in rural areas are projected to worsen as the current workforce ages, training pipelines fail to redirect graduates toward underserved communities, and reimbursement structures continue to disadvantage lower-volume, higher-overhead rural practices.

Panelists Waddah B. Al-Refaie, MD, FACS, from Creighton University in Omaha, Nebraska, Estin Yang, MD, MPH, FACS, from Oregon Health & Science University in Portland, Daniel Chase, MD, FACS, from the University of Illinois College of Medicine at Urbana-Champaign, and Thomas Tsai, MD, MPH, FACS, ACS Medical Director of Health Policy Research, examined what policy levers exist to address this and how surgeons effectively can make the case to legislators who represent rural constituents but may not fully grasp what surgical access means for the populations they serve.

Dr. Al-Refaie framed rural surgery as both a challenge and an opportunity, describing it as a "gold mine" for innovation and policy transformation. Through state-supported research initiatives and partnerships with the ACS, his team is developing a rural surgery-centric research framework focused on access, quality, workforce drivers, and equity. He emphasized that geography matters deeply and cautioned that "one solution doesn't fit every rural place," calling for tailored strategies grounded in data.

Building on that foundation, Dr. Yang, a practicing rural surgeon and representative of the North American Rural Surgical Society, highlighted workforce realities on the ground. Despite growth in rural training rotations, only about 6% of general surgery graduates ultimately practice in rural communities. Isolation (professional and social) remains a powerful deterrent.

"Looking forward, we find that the number of urban general surgeons will grow in tandem with the population growth, leading to a slight oversupply of general surgeons in urban areas, whereas in rural areas, we expect that growth to continue to stagnate and lead to a roughly 60% deficit. What we're doing works to some degree, but it isn't enough," he noted, urging stronger mentorship, clearer definitions of rural practice, and better retention strategies.

Dr. Chase, who is a member of the ACS Advisory Council for Rural Surgery, guided the discussion squarely into day-to-day practice. Rural surgeons,

Dr. Thomas Tsai underscored the need for data-driven solutions to address projected surgical workforce shortages.

he explained, operate across an unusually broad scope—providing endoscopy (30%–45% of the practice), emergency surgery, trauma care, and often filling gaps left by absent subspecialists. In many communities, they are the backbone of the hospital's viability. However, increasing hospital consolidation means rural facilities are often managed by distant systems unfamiliar with local realities.

"You're at the mercy of someone 200 miles away who has no idea what your rural practice is like, what your population is like, and how care is delivered in your community," he said.

Closing the discussion, Dr. Tsai focused on the evidence needed to drive policy change. He described efforts to modernize surgical staffing capacity mapping through interactive, data-driven tools that track surgeon supply at the county and referral-region levels. His team also is using machine learning to define surgeons by actual practice patterns rather than training labels, revealing geographic and subspecialty maldistribution.

With projections showing significant shortages of surgical specialists in the coming decade, Dr. Tsai emphasized that sustainable solutions must be grounded in rigorous data. Evidence, he explained, is essential to inform reimbursement reform, graduate medical education expansion, and federal workforce legislation. "We can't solve maldistribution until we solve the supply problem," he said.

"The panel with Dr. Timmerman evaluated current and future workforce shortages in surgery and made a cogent argument for the need to expand access to rural surgery to sustain growth in the surgical workforce," said attendee Arun K. Gosain, MD, FACS, ACS Regent from Ann & Robert H. Lurie Children's Hospital of Chicago in Illinois. "This message helped us to better understand the often-conflicting arguments made for growth in primary care at the expense of growth in surgery."

Fee Schedule Fight

If the rural workforce session was about access, the next panel was about economics—and the two are not unrelated.

The session "Surgery vs. Primary Care: A False Dichotomy Built into the Fee Schedule" featured Christopher Childers, MD, PhD, from the University of Washington in Seattle, Jose Figueroa, MD, MPH, from Harvard T. H. Chan School of Public Health in Boston, Massachusetts, and health economist Irene Papanicolas, PhD, from the Brown School of Public Health in Providence, Rhode Island, who took apart the assumptions baked into how surgical work is valued under the Medicare Physician Fee Schedule.

Dr. Childers unpacked the mechanics of the fee schedule and how its structure fuels the perceived conflict between primary and specialty care. Under long-standing budget neutrality rules, any significant increase in payment for one set of services must be offset by reductions elsewhere.

In recent years, conversion factor cuts, efficiency adjustments, and Centers for Medicare & Medicaid Services decisions not to update global surgical codes have effectively redirected billions from procedural specialties. The prevailing policy narrative, he noted, assumes that increasing primary care reimbursement will automatically improve national health. Dr. Childers urged attendees to scrutinize that assumption by asking a more fundamental question: what does the evidence actually show about how health outcomes improve?

That question set the stage for Dr. Figueroa, who examined national outcomes data to test whether the payment debate aligns with the realities of population health. Avoidable mortality has worsened in every US state over the past decade,

driven largely by external causes, such as drugs, suicide, homicide, and traffic injuries—as well as cardiovascular disease.

At the same time, the US performs strongly on cancer screening, vaccination, and chronic disease management. The implication, he argued, is that the core drivers of premature death lie largely outside the clinical encounter and beyond the payment of any single specialty.

"Even though we have strong performance within the healthcare system, it is not enough to protect us," he said.

Extending the discussion to spending patterns, Dr. Papanicolas examined whether over-specialization explains higher US costs. It does not. The physician workforce mix resembles that of peer nations, and primary and specialty care operate as complements, not substitutes. Instead, administrative complexity and high prices—particularly nonclinical costs—distinguish US healthcare spending. Together, the panel concluded, meaningful reform must be grounded in evidence, not false dichotomies.

"For years, I've attended the ACS Leadership & Advocacy Summit, and I've never been more encouraged than I am now. The conversation is shifting in a meaningful way—ACS quality data are strengthening our message and helping us clearly demonstrate the value of surgery. In a healthcare environment where financial pressure often pits specialties against one another, surgeons finally have the tools to show—not just say—why our work matters," said attendee Don J. Selzer, MD, MBA, FACS, from Indiana University in Indianapolis. "Recent ACS research, including the *Journal of the American College of Surgeons* article by Dr. Childers and colleagues, validates what many of us have long felt: caring for surgical patients is more complex than ever, yet outcomes remain strong."

Covering Every Front

With panelists Jessica R. Burgess, MD, FACS, from Old Dominion University in Norfolk, Virginia, Jason P. Wilson, MD, MBA, CPE, FACS, from Sentara Health in Hampton, Virginia, and Elizabeth Young from Congressman Ron Estes's (R-KS) office, Margaret Tracci, MD, JD, FACS, ACS Medical Director of Surgeon Engagement, broadened the lens in the third panel of the morning, "Today's Fight for Surgeons and Surgery: Covering Every Front."

Dr. Tracci emphasized the ACS's responsibility to serve as a "convener" for The House of Surgery®, reminding attendees that the ultimate goal is to "take care of our patients by taking care of surgeons."

From that broad vision, Dr. Wilson offered a personal roadmap for engagement. Describing his evolution from disengaged medical student to seasoned advocate, he demonstrated how small steps—sending a message via SurgeonsVoice, serving on committees, developing district relationships—can grow into important influence. His challenge to the audience was direct: "If I'm not doing it, who is going to do it?"

Dr. Burgess expanded on the theme of individual agency, sharing how state-level advocacy can deliver tangible results.

Top:
"You are the advocacy person, just by being here," Dr. Jessica Burgess said.

Above:
From student to advocate, Dr. Jason Wilson outlined a practical roadmap for surgeon engagement in policymaking.

Advocacy and Health Policy Abstract Competition

Ten authors were invited to present their abstracts, and the top three were recognized:

FIRST PLACE
Patrick L. Johnson, MD, MPH
Downstream Medical Costs of Repealing Universal Motorcycle Helmet Laws

SECOND PLACE
Sheharzad Mahmood, MD, MSc(c)
Reinforcing the Pipeline: A Novel Partnership Between a National Surgical Society and Grassroots Advocacy Initiative to Inspire the Next Generation of Surgeons

THIRD PLACE
Katayoun S. Madani, MD, MS
Toward Equitable Academic Exchanges: Reforming Texas Medical Licensing to Enable Bidirectional Training in Global Surgery

Through coalition-building and persistent engagement, she helped advance legislation on hospital safety and non-competes. "You are the advocacy person, just by being here," she said.

The presence of a congressional staffer in the room was, as it always is at this meeting, instructive. The reminder that most legislators rely heavily on their staff for policy guidance—and that relationships with those staffers are as vital as relationships with the members themselves—is something that bears repeating. Young reinforced that physician outreach matters. When surgeons speak up, "it absolutely 100% gets back to the member," she said.

Key takeaways from this session included:

- **Advocacy** begins with showing up.
- **Engagement** is a ladder—start simple and build upward.
- **Relationships** drive policy.
- **State advocacy** is powerful and fast moving.
- **Persistence** matters—even in difficult climates.

"If you've ever considered engaging in this work, now is the time. I strongly encourage colleagues to attend this summit—it's an unmatched opportunity to strengthen the future of our profession, amplify the voice of surgery, and ensure that data-driven advocacy shapes the policies that impact our patients and our daily practice," said Dr. Selzer.

Learning to Speak the Language

In the afternoon, the program shifted from issue education to skills development. Knowing how to communicate the substance of healthcare policy, in the compressed and often unpredictable format of a Capitol Hill meeting, is a separate skill set that summit attendees take seriously.

The "Advocacy 101" panel, featuring Ross F. Goldberg, MD, FACS, from Jackson Health System in Miami, Florida, and Elise Fannon, MD, MPP, from the University of Pennsylvania in Philadelphia, walked attendees through the mechanics and mindset of an effective Hill meeting (which typically lasts no more than 20 minutes).

The consistent message was to lead with patients, not policy. Legislators hear policy arguments all day. They remember stories.

Surgeons were encouraged to focus on what they are asking for, why it matters, and how policies affect patients. With that emphasis in mind, Drs. Goldberg and Fannon outlined a practical framework for preparation—mastering the

Drs. Elise Fannon and Ross Goldberg emphasized preparation, persistence, and patient-centered messaging in surgeon advocacy.

content, coordinating strategy with teammates, and executing concise, patient-centered conversations. Even in challenging meetings, advocates should remain positive and bipartisan. Ultimately, the session reinforced that effective engagement is a long-term, relationship-building effort grounded in professionalism, purpose, and persistence.

"I'm not expecting to change anyone's mind in a 10-minute meeting. It's a marathon, not a sprint. We have to be persistent," said Dr. Goldberg.

That long-view approach to advocacy is not just strategic, it is transformative. For Dr. Fannon, sustained engagement through the Advocacy Summit has shaped her professional journey in lasting ways: "The ACS Leadership & Advocacy Summit has been formative for me. I've always had a sense that I wanted my career to extend beyond the operating room and toward broader impact, but it was at this meeting 5 years ago when that vision really crystallized. Each time I return, it grounds me in my purpose, reconnects me with the joy that brought me to surgery, and energizes me through new ideas, projects, and colleagues committed to walking a similar path. It's also a place where surgeons are given a real platform to turn that sense of purpose into meaningful advocacy for our patients and our profession. It's been a beautiful journey from the first time I attended, looking to those around me for examples, to this year, when it felt like others were looking to me. I'm honored to be in that space and look forward to continuing to grow both as a mentee and a mentor along the way."

Congressional Asks

The ACS Issue and Lobby Day Briefing that followed helped reinforce the plan of action and agenda for the next day. Attendees learned the specific asks they would be bringing to their Congressional meetings, talking points behind each, and the political context that would shape how different offices were likely to receive them.

The asks this year were pointed: Stabilize the Medicare physician payment system, improve access to breast cancer screening, support surgical research, and support the surgical workforce and patient access to care.

Attendees also participated in interactive advocacy training designed to equip them with the knowledge, practical skills, and confidence needed to engage effectively during Hill Day meetings. Through hands-on exercises and guided discussion, participants refined their messaging and learned how to tailor their approach to different legislative audiences.

Congressman Herb Conaway Jr., MD (D-NJ), joined the summit, reflecting on the importance of surgeon engagement in the legislative process and the impact their expertise can have on national health policy.

Surgeons from Texas reviewed key priorities ahead of their visits with lawmakers on Capitol Hill.

On Hill Day, 262 Advocacy Summit attendees representing 39 states participated in 247 meetings.

What happens after Hill Day is harder to measure than the number of meetings held or states represented. Legislative change is slow, nonlinear, and rarely traceable to a single visit. But as the day's presenters emphasized, the cumulative impact of surgeons showing up year after year in Congressional offices—across party lines—with clear asks, credible expertise, and powerful patient stories—is real.

"The ACS Advocacy Summit is the best organized and most impactful summit focused on surgical advocacy that I have attended. Anyone interested in influencing the future of healthcare in America should consider attending this meeting next year," said Dr. Gosain.

The 2027 Leadership & Advocacy Summit will be April 10–13 in Washington, DC.

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

262
Advocacy Summit attendees

39
states represented

247
meetings


Ashley Moody
SR 387

Report on ACS/ACSPA Activities, February 2026

Cherisse D. Berry, MD, FACS

The Board of Directors of the ACS Board of Regents (BoR) and ACS Professional Association (ACSPA) met February 27–28 at the Grand Hyatt Washington in Washington, DC.

KEY PRESENTATIONS focused on updates to the Division of Advocacy and Health Policy (DAHP), information technology, patient-reported outcomes efforts, 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.

ACSPA

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).

In 2025, the ACSPA-SurgeonsPAC raised more than $336,000 from 706 ACS members and eligible contributors, disbursed $370,000, and attended or hosted/co-hosted more than 150 PAC events for the 2026 election cycle. Fund distribution focuses on health professionals, key congressional leaders, and members serving on US House and Senate committees with jurisdiction over various healthcare policies and issues, including ACS-supported legislative priorities.

Advocacy and Health Policy

Christian Shalgian, Senior Vice President of the DAHP, Margaret C. Tracci, MD, JD, FACS, Medical Director for Surgeon Engagement, and Thomas C. Tsai, MD, MPH, FACS, Medical Director for Health Policy Research, provided an update on the strategic priorities of the DAHP.

Reviewed topics and discussions included:

Coalitions and Partnerships
- Funding existing coalition efforts and exploring new partnerships
- Optimizing surgical leadership opportunities

Health Policy Research
- Exploring opportunities such as establishing a health policy innovation institute and a health policy scholarship program
- Investing resources in generating actionable evidence at pivotal moments to innovate delivery models that advance excellent surgical care

Medicare Physician Payment
- Continuing efforts for long-term reform
- Emphasizing access to surgery improves population health

Surgeon Engagement
- Capitalizing on state-level advocacy opportunities
- Enhancing the tracking, evaluation, and targeting of current and future issues
- Increasing the engagement of Fellows through inspiration, education, and empowerment
- Optimizing current tools and building added resources

Member Services

The BoR accepted the resignations of 26 Fellows and changed the status of 113 Fellows from Active or Senior to Retired.

Research and Optimal Patient Care

Liane S. Feldman, MD, CM, FACS, FRCS, Lead of the BoR Patient-Reported Outcomes (PRO) Task Force, and Clifford Y. Ko, MD, MS, MSHS, FACS, Senior Vice President of the Division of Research and Optimal Patient Care, presented an update on PRO efforts.

Information Technology

The mission of the Information Technology area is to enable the College to enhance surgical excellence through innovative technology. Jack King, MBA, Chief Information Officer, presented an update on the area's strategic priorities: Artificial intelligence enablement, cybersecurity, and operational excellence. In addition, Genevieve Melton-Meaux, MD, PhD, FACS, FACMI, Chief Health Informatics Officer, provided an update on the ACS Clinical Data Strategy Initiative.

ACS Foundation

The mission of the ACS Foundation, a separate 501(c)(3) organization, is to secure financial support for initiatives in surgical research, education, rural surgery, trauma, and more, ultimately promoting better patient outcomes. The Foundation offers a wide spectrum of funding opportunities for ACS Fellows and supporters to ensure the highest level of surgical care and education. As of December 31, 2025, the Foundation secured $1,013,749 in restricted and unrestricted support for the ACS.

Additional Activity

In addition to these presentations, the Regents heard updates from the Board of Governors, Finance Committee, BoR Optimal Working Environment for Surgeons Task Force, and Young Fellows Association. They also reviewed several informational reports and approved a new statement on the Importance of Sustainable Surgical Practices, as well as revisions to the Statements on the Surgeon and HIV Infection and on the Surgeon and Hepatitis. Also approved was the Committee on Trauma's *Resources for Optimal Care of the Injured Patient: Level IV Trauma Center Standards.* B

Dr. Cherisse Berry *is Chair of the ACS Board of Governors and surgery vice chair of academic affairs and professor of surgery at Rutgers Health New Jersey Medical School in Newark.*

Member News

Arora Leads Northwestern Cardiothoracic Critical Care

Rakesh C. Arora, MD, PhD, FRCSC, FACS, is director of cardiothoracic critical care at Northwestern Medicine in Chicago, Illinois, and a professor of surgery and anesthesia at the Northwestern University Feinberg School of Medicine in Chicago. Previously, Dr. Arora was director of perioperative and cardiac critical care for the University Hospitals Harrington Heart & Vascular Institute in Cleveland, Ohio.

Garvey Is Plastic Surgery Chair at Mayo Clinic in Arizona

Patrick Garvey, MD, MBA, FACS, has taken over as chair of the Division of Plastic and Reconstructive Surgery at the Mayo Clinic in Scottsdale, Arizona. He also will serve as the associate chair of innovation and business development. Dr. Garvey previously was a complex head and neck and breast reconstructive surgeon at The University of Texas MD Anderson Cancer Center in Houston.

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.

Abbas Joins Catholic Health as Thoracic Surgery Chair

Abbas El-Sayed Abbas, MD, MS, FACS, is the inaugural system chair of the Department of Thoracic Surgery and associate director of surgical oncology at Catholic Health in Rockville Centre, New York. Dr. Abbas comes from Brown Surgical Associates and The Warren Alpert Medical School at Brown University, both in Providence, Rhode Island, where he was chief of thoracic surgery and professor of surgery, teaching scholar, respectively.

Ferriss Takes Over Gynecologic Surgical Oncology at Fox Chase

James S. Ferriss, MD, FACS, is system chief of gynecologic surgical oncology at Temple Health and Fox Chase Cancer Center in Philadelphia, Pennsylvania. Dr. Ferriss also will be an associate professor of gynecologic oncology. Most recently, he served as fellowship program director in gynecologic oncology and associate professor at Johns Hopkins University in Baltimore, Maryland.

Nominate Colleagues for Prestigious ACS Awards by April 10

The ACS invites members to nominate colleagues for six prestigious awards.

Honors Committee

NOMINATIONS OF CANDIDATES from all surgical disciplines and geographical locations are highly desired for all awards.

The Honors Committee, which administers the awards, will review the nominations and send them to the Board of Regents for final approval.

Submissions are accepted throughout the year and considered for selection annually (see sidebar).

Nominations must be received by **April 10** in order to be included on the next Honors Committee meeting agenda. Nominations received after that date will be held for future consideration.

Visit *facs.org/honorscommittee* for award criteria and instructions for submitting a nomination.

Note: Nominations do not guarantee selection, and not all awards or honors are presented annually.

2025–2026 Honors Committee Members

- Anton N. Sidawy, MD, MPH, FACS, Chair
- Timothy J. Eberlein, MD, FACS
- Diana Farmer, MD, FACS, FRCS
- James W. Fleshman Jr., MD, FACS
- Andrea A. Hayes-Dixon, MD, FACS
- Lena N. Napolitano, MD, FACS
- Beth H. Sutton, MD, FACS
- Douglas E. Wood, MD, FACS, FRCSEd

DISTINGUISHED LIFETIME MILITARY CONTRIBUTION AWARD
Honors surgeons for exceptional contributions to advancing military surgery

DISTINGUISHED SERVICE AWARD
ACS's highest annual honor recognizing exceptional service and dedication to the College

HONORARY FELLOWSHIP
Recognizes surgeons with international reputations or distinguished humanitarian service

JACOBSON INNOVATION AWARD
Recognizes surgeon-scientists whose pioneering work has had a global impact in advancing surgical science and patient care

LIFETIME ACHIEVEMENT AWARD
Recognizes surgeons for their outstanding contributions to the art and science of surgery and a lifetime of service

SHEEN AWARD
Recognizes a surgeon-educator or surgeon-scientist on the frontiers of medical science performing work and research that has great promise

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American College of Surgeons

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July 30–Aug 2 | Orlando, FL

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The American College of Surgeons has reimagined the future of surgical quality, and you can be part of the transformation at this year's **ACS Quality, Safety & Cancer Conference (QSCC)**.

The 2026 theme, "**QI Powered by AI**," reflects both the momentum and responsibility ahead. Artificial intelligence is rapidly transforming healthcare, but technology alone does not drive improvement. Meaningful quality improvement is driven by multidisciplinary teams who work together to identify gaps, examine setbacks, and learn from experience.

QSCC provides a space for surgeons, clinical leaders, quality professionals, administrators, and multidisciplinary teams to learn from peers, exchange best practices, and gain tools that immediately can be applied in practice.

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Program & Agenda

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