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Cover Story

8 ACS Provides Guidance for Senior Surgeons Facing an Age-Old Question

Tony Peregrin



Features

14
Blue Ribbon Committee II
Advises Sweeping Changes in
Surgical Education
M. Sophia Newman, MPH

22
Psychological Safety in the
OR Improves Outcomes and
Performance
Jim McCartney

28
Long COVID May Have Long-
Term Impact on Surgery
Lavanya Visvabharathy, PhD, Julia R.
Berian, MD, MS, FACS, and John C. Alverdy,
MD, FACS

34
“Four Evils” Plagued Surgical
Practice in the Early 20th
Century
Julia Chavez and Peter Angelos, MD,
PhD, FACS

Commentary

6
Executive Director’s Update:
A Century of Camaraderie for
Urological Surgeons at the ACS
Patricia L. Turner, MD, MBA, FACS

42
Viewpoint: Surgeon Advocacy
during Training: Professional
Interest or Physician
Responsibility?
Michael Visenio, MD, MPH

44
Viewpoint: Chief Surgical
Officers Are Needed in Hospitals
with Complex OR Environments
David A. Etzioni, MD, MSHS, FACS

Reports

48

Easy-to-Use Screening Tool Can Reduce Postoperative Mortality among Frail Patients

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

52

The History of Breast Reconstruction Is a Journey of Resilience

Shyamin Mehra, MD, Isabel Silva, Edward S. Lee, MD, and Susan Pories, MD, FACS

56

Observations from Breast Patients Reveal Barriers to Achieving Timely Care

Katharine A. Yao, MD, MS, FACS, and Rebecca A. Snyder, MD, MPH, FACS

News

58

Leadership & Advocacy Summit Unites Surgeons, Inspires Change

Jennifer Bagley, MA

66

Discover the Power of Value at the 2024 Quality and Safety Conference

67

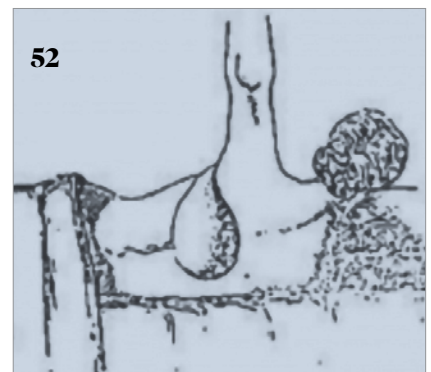
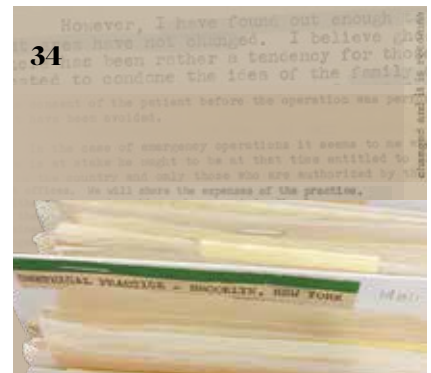
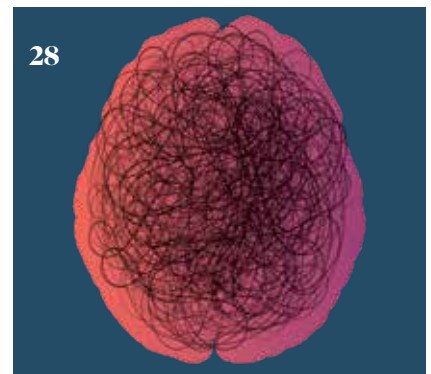
Thank You National Doctors' Day Contributors

68

JACS Highlights

70

Member News





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A Century of Camaraderie for Urological Surgeons at the ACS

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HAND-PAINTED paperweights, blown glass, carved boxes: objets d'art, many of them gestures of gratitude from patients, filled the office of urologist Atmaram Sitaram Gawande, MD, FACS (1934–2011), at O'Bleness Memorial Hospital in Athens, Ohio. His office was described by his son, surgeon-author Atul Gawande, MD, MPH, FACS, in his 2002 book, *Complications: A Surgeon's Notes on an Imperfect Science*. The younger Dr. Gawande discussed

his father's successful career in urology in an essay on surgical advancements, describing his efforts to learn new techniques "on his own, fifty miles from his nearest colleague."

In the same book, Dr. Gawande, a general surgeon at Brigham and Women's Hospital in Boston, Massachusetts, and assistant administrator of the US Agency for International Development in Washington, DC, described a partial solution to professional isolation: an annual conference that he, his father, and other surgeons attend to learn surgical techniques, communicate with colleagues, and recharge from work.

"Doctors belong to an insular world," he wrote. "The isolation of practice takes you away from anyone who really knows what it is like to cut a cancer from a patient or lose her to a pneumonia afterward or answer the family's accusing questions or fight with insurers to get paid. Once a year, however, there is a place full of people who do know. They are everywhere you look... our own nation of doctors."

The conference to which he referred was the ACS's own Clinical Congress, one of the largest gatherings of surgeons in the world. Clinical Congress and the ACS have always been a resource and place of welcome for surgeons of all specialties and disciplines. This meeting is one of the many ways the ACS helps empower all surgeons and enhance our ability to practice evidence-based medicine.

This inclusive engagement began long ago. For example, at the 1922 Clinical Congress, Andrew Fullerton, CB, CMG, MB, BCh, MD, MCh, FRCSI, FACS (1868–1934), became the first urological surgeon to receive an Honorary Fellowship in the College.

Dr. Fullerton was a graduate of Queen's College Belfast (MB, BCh, MD) and Queen's University Belfast (MCh) in Northern Ireland. His expertise in urology came via his WWI service with the Royal Army Medical Corps, through which he learned to treat gunshot wounds to the kidney, ureter, and bladder. He enjoyed exchanging knowledge with the surgeons from many nations



Dr. Christopher Chapple



Dr. Emmanuel Ameh



Dr. Anthony Atala

he met during the war, and he later hosted many world-class surgeons, including the Mayo brothers and Harvey Cushing, MD, FACS, in Belfast. He often adopted their ideas for surgical advancement, and he soon earned his own international reputation for innovation. Through the then-novel act of concentrating on urologic issues, he helped establish and expand the nascent field, an effort that resonates today.

We continue to celebrate those who advance urological surgery. At last year's Clinical Congress, the ACS granted Honorary Fellowship to urologist Christopher Chapple, BSc, MBBS, MD, PhD, FRCS(Urol), FEBU, FCSHK(Hon), and at this year's Clinical Congress, we will similarly honor Emmanuel A. Ameh, MBBS, FACS, FWACS, a pediatric urologist from Nigeria. Dr. Chapple is a reconstructive urologist in the Royal Hallamshire Hospital in Sheffield, England, who has treated patients referred nationally and internationally and researches the effects of neurological disease on the urinary system.

Our engagement with our urologic colleagues extends far beyond Honorary Fellowships. Each year, Clinical Congress offers several sessions devoted to urological surgery, as well as multidisciplinary sessions with vascular surgery, trauma surgery,

obstetrics and gynecology, and other specialties. The annual flagship meeting begins with the Martin Memorial Lecture, which is named for ACS founder Franklin Martin, MD, FACS, and sponsored by the American Urological Association (AUA).

Our connection with the AUA is strong and multifaceted as well. The ACS offers a jointly sponsored annual ACS/AUA Health Policy Scholarship for the Executive Leadership Program in Health Policy and Management at Brandeis University in Waltham, Massachusetts, which is also open to surgeons in breast, cardiothoracic, colon and rectal, gastrointestinal and endoscopic, neurological, otolaryngology-head and neck, pediatric, plastic, trauma, urogynecologic, and vascular specialties.

This past September, experts from the ACS helped promote Prostate Cancer Awareness Month. Additionally, opportunities for leadership exist on our Board of Governors and Advisory Council.

The current Chair of the ACS Board of Regents is a urologist. Anthony Atala, MD, FACS, is the George Link Jr. Professor and director of the Wake Forest Institute for Regenerative Medicine and W. H. Boyce Professor and Chair of Urology at the Wake Forest University School of Medicine in Winston-Salem, North Carolina. He is renowned for

completing foundational research in regenerative medicine, including implanting the first laboratory-engineered organ as a permanent replacement (a bladder) in 1999. He continues to innovate in regenerative medicine and urology and was the winner of the 2022 ACS Jacobson Innovation Award.

Dr. Atala has said that, in his view, ACS membership is valuable to urologists in the same way that hosting international surgeons was meaningful for Dr. Fullerton a century ago or attending Clinical Congress is helpful to all surgeons now. It permits surgeons to connect with colleagues across disciplines about the clinical and nonclinical issues we have in common.

Dr. Atala's view captures a key aspect of the ACS. All surgeons, from Athens, Ohio, to Belfast, Northern Ireland, and beyond, are welcome to engage with the American College of Surgeons—the House of Surgery. We aspire to offer an essential network in which all surgeons, including those in urology and every other specialty, can support each other across our profession—to become, to borrow a phrase, our own nation of doctors. **B**

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

ACS Provides Guidance for Senior Surgeons Facing an Age-Old Question

Tony Peregrin

When is it time for the senior surgeon to put down the scalpel?



WHILE THERE ISN'T A DEFINITIVE ANSWER to this question, the reality is that surgeons—just like everyone else—are susceptible to age-related decline in physical and cognitive skills. In fact, studies suggest notable variability in diminishing abilities between individual senior surgeons, with research supporting the assertion that decades of experience may compensate for moderate cognitive decline.

A considerable portion of the surgical workforce has grown considerably more gray within the last decade. More than 40% of US physicians will be 65 years or older within the next 10 years, according to the Federation of State Medical Boards Census of Actively Licensed Physicians in the US.¹⁻³ Unfortunately, there is a paucity of information on how to best assess a surgeon's competency throughout his or her career while also maintaining patient safety and preserving physician dignity.

In an effort to address this gap, the ACS Board of Governors (BoG) Physician Competency and Health Workgroup published an article in the *Journal of the American College of Surgeons (JACS)*, “Sustaining the Lifelong Competency of Surgeons: A Multimodality Empowerment Personal and Institutional Strategy,” which provides a literature review of recent studies examining the “neurocognitive function and the clinical competency of surgeons

and recommendations for the implementation of ‘whole of career’ strategies to ensure the sustained competency of the surgical workforce.”¹

The *JACS* article informed some of the key guidelines featured in the newly released ACS Statement, “Sustaining the Lifelong Competency of Surgeons,” which is an updated version of “The Aging Surgeon” statement from 2015.

“The 2015 statement was a very conservative dip in the water,” said Todd K. Rosengart, MD, FACS, lead author of the *JACS* article and professor and DeBakey-Bard Chair of the Michael E. DeBakey Department of Surgery at Baylor College of Medicine in Houston, Texas. “It really advocated only for voluntary testing, and the results did not necessarily need to be shared. It was sort of a gentle introduction to the subject.”⁴

The *JACS* authors outlined guiding principles that helped drive the development of the new article and the ACS Statement, including the support of “comprehensive, multimodality clinical competency assessments, including neurocognitive testing and the early implementation of long-term transition planning for surgeons within a culture of safety, collaboration, and equity.”¹

The 2024 ACS Statement supports a “comprehensive, lifelong assessment program inclusive of all physicians” in order to “create a culture of safety, equity, and transparency in monitoring potential declines that could affect surgeon competency.”²

“The other big change in developing the updated ACS Statement was the focus on lifelong or career-long competency, which is a very different approach to this subject both by the College, and really to my knowledge, almost every other institution looking

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“We need to empower our surgeons to be involved in their own assessments of competency throughout the entirety of their careers as opposed to focusing on the trigger of age.”

—Dr. Adam Kopelan

at the issue of surgeon competence,” explained Dr. Rosengart. “This really is a significant step forward from the 2015 statement.”

Being a physician is often at the core of a surgeon’s identity, and developing pathways that foster the maintenance of cognitive skills in an inclusive and nonjudgemental framework is essential to the maintenance of such competency.

“We need to empower our surgeons to be involved in their own assessments of competency throughout the entirety of their careers as opposed to focusing on the trigger of age,” said Adam M. Kopelan, MD, FACS, coauthor of the *JACS* article and Chair of the ACS BoG Physician Competency and Health Workgroup. “By doing so, we can help destigmatize the concerns of aging on performance,” said Dr. Kopelan, who also is chair of Surgery at Newark Beth Israel Medical Center and chief of general surgical services at RWJBarnabas Health Northern Region, both located in New Jersey.

Current Data on Assessing Surgeon Performance

The College does not support a mandatory retirement age, according to the ACS Statement, because “the onset and rate of age-related decline in clinical performance varies among individuals and suggests that “objective assessment of fitness should supplant consideration of a mandatory retirement age.”²

The *JACS* authors noted that while there isn’t a mandatory retirement age for US physicians, many other countries impose a mandatory retirement age (India: age 65; China and Russia: age 60 for males, 55 for females; Pakistan, Spain, British Columbia, and Australia: age 70).

The justification for whether or not an international governing body dictates a retirement age for its physicians may be a point for further debate, but one fact is consistently clear—studies show age-related cognitive decline can occur after the age of 60, which

can affect the clinical competency of surgeons.¹

According to the *JACS* article, Korinek et al. and Turnbull et al. observed “significantly to severely impaired cognitive function in 16% and 23% of physicians referred for competency testing in their respective studies.” The article also cited a study by Boom-Saad et al. that found “senior surgeons (aged 61-75 years) were significantly outperformed overall on the Cambridge Neuropsychological Test Automated Battery by midcareer practicing surgeons (aged 45-60 years), who in turn were outperformed by medical students (aged 20-35 years).”

A review of 62 studies also cited in the *JACS* article outlined a correlation between increased age with “decreasing medical knowledge, lower adherence to evidence-based standards of care, and worse patient outcomes.”

Notably, data contradicting the association of surgeon age with patient outcomes also were highlighted in the article. “Together, these findings suggest that surgeon experience may, at least in some cases, have a ‘protective’ effect against declining psychomotor and cognitive performance,” said Dr. Kopelan.

For example, Wallis and colleagues examined a retrospective cohort analysis of 1.1 million patients in Ontario, Canada, undergoing 25 common elective and emergent surgical procedures and found that surgeon advancing age was associated with 5% relative decreased odds of a composite of death, readmission, and complications with every 10 years of surgeon experience and a 7% reduction with surgeons over age 65.

Tsugawa and colleagues showed modestly lower mortality in 900,000 Medicare beneficiaries performed by surgeons older than 60 years of age compared to those performed by younger surgeons. And Clark and colleagues found that survival in a population of 950 lung transplant patients in the UK had a higher 30-day posttransplant survival rate

sustained at 5 years posttransplant for those patients whose surgeons were older than 48 years.

“Some of these studies show that older surgeons can perform better in terms of outcomes because they’ve learned through years of experience about how to avoid trouble, how to navigate complex cases or the like,” explained Dr. Rosengart.

Tools for Identifying Declining Capacity

A survey administered to 995 surgeons at ACS Clinical Congress meetings from 2001 to 2006 examined subjective changes in cognitive abilities, caseload, engagement with new technology, and retirement-related decisions. Of those surveyed, only 32% (55 years and older) reported self-perceived alterations in memory recall and name recognition, which according to the *JACS* article, is “inconsistent with corresponding objective, age-associated measures of such changes.”^{1,5-7}

The 2024 ACS Statement corroborates the survey findings and suggests that “surgeons may not, on their own, recognize deterioration of their physical and cognitive function and clinical skills with age.”

“A significant number of physicians surveyed at the ACS annual meetings were not aware of their own cognitive decline, nor were many peers comfortable, understandably, calling them out and saying, ‘I’m concerned about my colleague,’” said Dr. Rosengart. “In the current culture, there’s more than a bit of discomfort in discussing the issue of a surgeon’s competency. The ability to create a framework where we normalize taking care of ourselves and each other in a nonpejorative way is very important.”

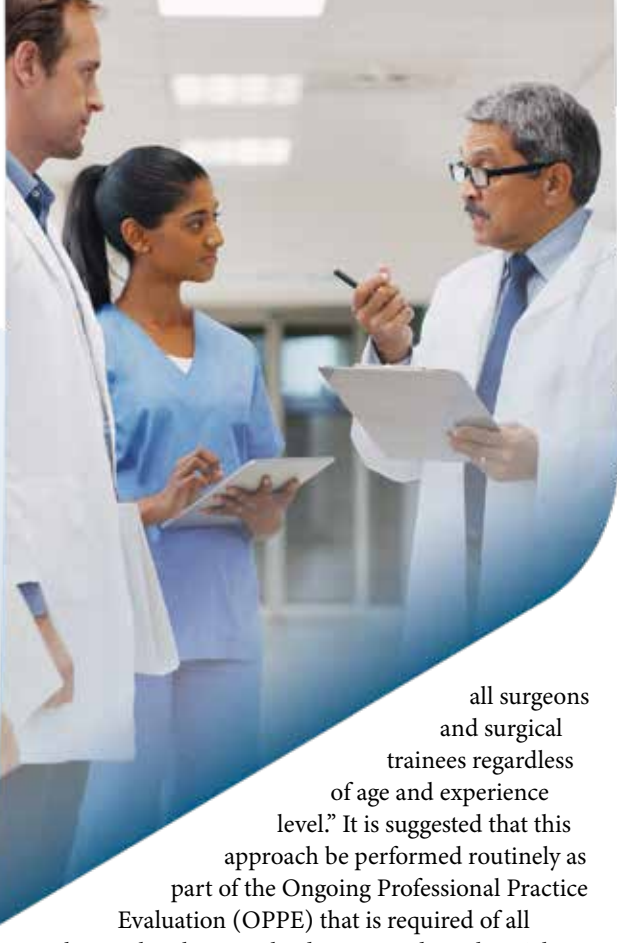
Potential warning signs of age-related decline may include forgetfulness, unusual tardiness, evidence of poor clinical judgment, major changes in referral patterns, unexplained absences, confusion, change

in personality, disruptiveness, drastic change in appearance, and unusually late and incoherent documentation.

“A very important part of both the ACS Statement and the *JACS* article is that they both address the question of: “Who is going to lead this effort? Is it going to be the American College of Surgeons, the American Board of Surgery, or other state or national entities? If not us, though, if we abdicate this responsibility, is it going to be the federal government mandating what we do?” posited Dr. Rosengart, who encouraged surgeons to take the leadership role in developing competency assessments and associated policy.

The ACS recommends the implementation of a “comprehensive, whole-of-career testing strategy for





all surgeons and surgical trainees regardless of age and experience level.” It is suggested that this approach be performed routinely as part of the Ongoing Professional Practice Evaluation (OPPE) that is required of all hospitals subject to third-party credentialing. The ACS Statement and the JACS article also support the use of neurocognitive assessments tools, which could be considered a potential component of OPPE.

“Importantly, maintaining this responsibility at the local, institutional level with guidance from national entities such as state medical boards, the American College of Surgeons, or the American Board of Surgery could create universal recommendations that could be integrated into local assessments of relevant capabilities,” observed Dr. Rosengart.

The authors of the JACS article highlighted specific neurocognitive tests that are available for widespread use, such as the MicroCog test, a computerized neuropsychiatric screening tool that assesses attention and mental control, memory, reasoning, calculation, spatial processing, and reaction time. Other tests described in the article and the ACS Statement include the St. Louis University Mental Status Examination, Montreal Cognitive Assessment, Cambridge Neuropsychological Test Automated Battery, and the Halstead-Reitan Neuropsychological Test Battery.

“Measuring surgeon competency is a multidimensional assessment of the physical and intellectual ability to assess and treat patients who have a variety of diseases,” explained Dr. Kopelan. “There are no singular measures (with exceptions) that we are aware of that can render a surgeon ‘competent’ or ‘incompetent.’ Additionally, competence of a surgeon may vary among a variety

of diseases. Developing a set of tools to trigger when a more formal assessment of competency must be made will be challenging especially given the variability of measurements and the subjective biases of these evaluations.”

However, when a surgeon or hospital system decides to measure surgical performance and potential declining capacity, one factor is consistent across all practice settings—one size does not fit all. Notably, evidence of decline on any of these tests can also signal an opportunity for individualized training, which in at least some cases, has been shown to reverse or at least slow neurocognitive declines and potentially extend a surgeon’s service as an active operator.

“What we’re proposing is not that a cognitive test would be the one and only standard, the be-all and end-all of approving competency,” Dr. Rosengart said. “These assessments would be part of a mosaic of cognitive testing, including clinical performance, peer review, and so on, that would be potentially different at each institution. And what we’re going to do, hopefully, is create guidelines and a framework for institutions to decide for themselves what that competency testing and approval should look like.”

A primary goal of the Physician Competency and Health Workgroup is to support the College in educating the surgical community about the issues faced by some senior surgeons. “We’re not attempting to take on the role of monitoring the community, but rather, we want to provide support, encourage, and help each other,” said Dr. Rosengart. “We’re certainly not seeking to single out older surgeons. We are simply asking ‘Why wouldn’t you want to focus on a surgeon’s competency throughout their entire career?’”

Career-Long Transition Planning

Senior surgeons may be hesitant to think about the next phase of their careers, particularly if they are considering a transition to nonsurgical roles.

“What we envision both in the statement and article is early career considerations of ‘What am I going to do when I can’t, or decide not to, go to the operating room?’”

—Dr. Todd Rosengart

Surgeons sometimes experience a perceived obligation to maintain clinical activity due to their dedication to patient care and/or perceptions that the next generation does not share their level of commitment or capability, according to the *JACS* article.

It is advisable to pair careerlong competency assessments with long-term transition planning so that surgeons are prepared should testing and other factors indicate a transition away from standard clinical practice.

“Up until now, surgeons have not had that awareness of, yes, this will come to an end, and you need to be prepared,” Dr. Rosengart said. “What we envision both in the statement and article is early career considerations of ‘What am I going to do when I can’t, or decide not to, go to the operating room?’”

Individually tailored transition strategies should provide flexibility for surgeons looking to move away from the clinical workforce or retire altogether. For example, a transition plan could include a first step of moving from the primary surgeon role to privileges as a first-assistant or consultant role.

“A senior surgeon can continue to contribute in many diverse ways,” said Dr. Rosengart. “An individual could serve as a wonderful first assistant to a more junior surgeon who could benefit from that surgeon’s skills and experience. Another surgeon, however, might decide they are ready to leave the operating room with the goal of helping the hospital institution in other ways. Think about all of the needs we have for talented and experienced physicians to support our institutions in quality improvement, research, education—or through mentoring or coaching, or community outreach.”

For some surgeons, it might be hard to imagine a day when they will be ready to take off their scrubs and contribute to patient care in different but meaningful ways.

“I think too often surgeons think ‘The day I leave the operating room is the day my life as I know it has

ended,’” said Dr. Rosengart. “That’s something that can be frightening; we want to change that next chapter into something that physicians and surgeons will welcome as a new opportunity.” **B**

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Blue Ribbon Committee II Advises Sweeping Changes in Surgical Education

M. Sophia Newman, MPH



The second Blue Ribbon Committee on Surgical Education (BRC II) announced its recommendations for optimizing the future of surgical education at the recent American Surgical Association (ASA) Annual Meeting in Washington, DC.

THE INAUGURAL BLUE RIBBON COMMITTEE on Surgical Education (BRC I) published a groundbreaking report on surgical education¹ in the *Annals of Surgery* in early 2005. That committee, led by the ASA in partnership with the ACS, American Board of Surgery (ABS), and Resident Review Committee-Surgery (RRC-S), assembled in response to projected shortages in surgeons. It held discussions from June 2002 to mid-2004. The group ultimately made 40 recommendations for changes at every level of surgical education.

Twenty years on, much has changed, from national demographics to the rise of artificial intelligence. Facing a new era, the BRC II—after

again assembling surgeons from across the field of surgery as well as the ASA, ACS, ABS, RRC-S, and other organizations—is taking the opportunity to ask: How can surgery as a profession best educate the next generation of surgeons?

Why Now?

Steven C. Stain, MD, FACS, who is now the immediate past president of the ASA and a member of the ACS Board of Regents, said the impetus for the BRC II arose at a lecture by Richard K. Reznick, MD, FRCSC, FACS, a colorectal surgeon and past president of the Royal College of Physicians and Surgeons of Canada (RCPSC) at an ABS-sponsored

Members of the BRCII Steering Committee and Subcommittee Chairs met at ACS Headquarters in November 2023.



summit on competency-based education. Dr. Stain spoke in rebuttal to a public presentation by Dr. Reznick on entrustable professional activities (EPAs) and competency-based education, which the RCPSC has championed in Canadian surgical training. Dr. Stain advised caution in implementing these new approaches in the US.

In response, John D. Mellinger, MD, FACS, vice president of the ABS, requested that Dr. Stain initiate a second BRC to examine advancements in surgical education more closely. Dr. Stain agreed—on the condition that E. Christopher Ellison, MD, FACS, who was then ACS President, become involved: “He will be the one who will make sure we get it done.”

Dr. Ellison embraced the idea, feeling motivated to address growing work demands, new technology, concerns about insufficient operative readiness in new practicing surgeons, and myriad other issues. “There have been dramatic changes in how we take care of patients. It’s become more and more complex to be a surgeon,” he said.

A Careful Process

The BRC II used a careful process to generate its new set of recommendations. After gathering 67 surgeon members representing general surgery and its related specialties, the group created nine subcommittees. One included all members of the BRC I (which included neither Dr. Stain nor Dr. Ellison). The other eight subcommittees were tasked with discussing one aspect of surgical education as originally outlined by the BRC I and generating current recommendations for its optimization. The proposals of the entire group were then compiled and sorted, and the list was subjected to a Delphi analysis.

The Delphi method, first developed in the 1950s,² is based on a series of rounds in which a panel of experts shares perspectives on a topic, receives an aggregated summary of the full group’s views after each round, and is given the chance to revise answers in light of these insights. After a few rounds, views often converge; when a predesignated stopping point is reached, the group finalizes a decision.

In the case of the BRC II, three rounds of discussion were held, and each ended with a vote. Only the recommendations with more than 80% approval (in other words, a “yes” from at least 54 members) were considered acceptable to include in the final report. In the first round, which generated 23 recommendations, members also voted on the impact and feasibility of all items on a 5-point Likert scale. Unapproved items were submitted to two more

rounds of discussion and voting. Each resulted in four more recommendations.

Given the broad scope of surgical training and logistical considerations, the BRC II found it infeasible to include all surgical disciplines as part of this project. Recognizing that the committee was focused on general surgical specialties and contained few surgical residents, the BRC II also sought to share the report with surgeons in all disciplines. Dr. Ellison explained, “We had a separate meeting with representatives of all the surgical specialties for a 2-hour review of the recommendations. The purpose of this was to share our findings, as many of the recommendations may be applicable to their training programs, and get their feedback.”

Ellison said they gleaned meaningful insights from the session, including that a high level of interest from the surgical specialties and a need for further engagement exist.

In addition, he noted, “We had a focus group with 16 residents as a separate meeting and provided them with the recommendations, and they actually did the Delphi assessment at a separate time from the panel,” generating recommendations that differed slightly from the main BRC II and that, per Dr. Ellison, will be the topic of a manuscript submitted for publication.

What Does the New Report State?

Through these processes, the committee reduced an initial 50 recommendations to 31. They are far-reaching by design, ranging from diversity to finance.

To enhance medical student education in surgery, the BRC II recommended providing better support programmatically and financially, to the faculty and residents engaged in teaching medical students. The group also suggested convening multiple organizations to optimize the residency selection process, so that it evaluates leadership, decision-making, ethical, and technical skills via standardized assessments.

To enhance work-life integration and wellness, the BRC II suggested a mixed qualitative and quantitative approach: on the one hand, advising the creation of best practice recommendations for a surgical “culture of belonging,” and on the other, suggesting a multidisciplinary group of national organizations be convened to assess how to equitably and sustainably improve resident wages, particularly by considering the return on investment for surgical training.

Other subcommittees also focused on finance. The faculty development portion of the recommendations noted a need to examine the economic value

Recommendations from the New Report



Surgical Medical Workforce

Meet the demographic needs of the population served, as well as the sustainability needs of the surgical workforce



Medical Student Education

- Enhance medical school education by programmatically and financially supporting surgical faculty and trainees who work with medical students interested in surgery
- Develop an optimized, holistic residency selection process that evaluates leadership, decision-making, ethics, and technical skills, using standardized competency-based assessments
- Create a nurturing atmosphere for professional development, including role models from diverse backgrounds



Work-Life Integration, Resilience, and Wellness

- Create best practice recommendations for a culture of belonging in surgical trainees
- Convene a multidisciplinary national group for equitable, value-based, sustainable improvement in resident wages
- Develop a national framework defining workplace safety for surgical trainees and create a just pathway for reporting workplace mistreatment



Faculty Development and Educational Support

- Create a national curriculum for faculty training, including the use of entrustable professional activities
- Establish a multidisciplinary surgical task force to develop a faculty teaching performance assessment tool
- Define the economic value of a surgical trainee (i.e., resident, fellow) for the purposes of negotiating hospital payment for their work



Residency Education in Surgery

- Promulgate national guidelines supporting a comprehensive approach to competency-based education reforms
- Implement ongoing review and revision of SCORE
- Establish a national research consortium to critically review the effectiveness of competency-based reforms, focusing on implementation and correlation of educational with patient outcomes



Goals, Structure, and Financing of Surgical Training

- Update financing of surgical training to address caps on surgical residencies
- Convene a summit of stakeholders, including insurance companies, hospitals, and the Association of American Medical Colleges, to discuss how to pay for residency education



Research Training

Develop a national model to better aid surgeons who wish to become surgeon-scientists



Educational Technology and Assessment

Establish a Multidisciplinary Surgical Educational Council to:

- Oversee and convene subcommittees to monitor and facilitate implementation of BRC II recommendations
- Maintain an up-to-date toolbox of new recommended educational technologies
- Develop consensus and road maps on best practices for technology implementation and prospective assessment

Note: This list is not comprehensive to the forthcoming report or verbatim to any single source.

“The College is the largest surgical organization in the world, and it has the reach and scope to bring these groups together.”

Dr. Chris Ellison

of surgical trainees to negotiate hospital payment for their work, as well as ways to pay surgeons for their efforts educating medical students and surgical trainees. The financing section proposed efforts to address caps on surgical residencies and determine how to best pay for resident education.

Elsewhere, resident education recommendations include expanding mentorship during residents’ transition from training into independent practice, while further faculty development suggestions describe a need for a national curriculum for faculty training and an assessment tool for faculty teaching performance.

The recommendations also address the original impetus behind the BRC II: EPAs and competency-based education. The BRC II proposes both, including EPAs to be included in the proposed national faculty training curriculum and promulgating national guidelines for comprehensive, competency-based reforms, as well as a national research consortium that will critically review the effectiveness of such reforms.

Finally, the BRC II report contains meaningful suggestions for “people who really want to become surgeon-scientists,” Dr. Stain noted.

“Typically, you do 2 years of research in the middle of your residency, then do your fellowship—and by that time, it’s 5 years later and your research is probably not up to date enough to get you funded,” he explained. “We’re suggesting a paradigm where people can do a continuum of their research and fellowship in the same span.”

Although this raises questions on resources and funding, he acknowledged, “It’s the way it’s been more successful in getting a funded research scientist, so there are some tracks that we recommended for that.”

Recommendations of the BRC I

In total, the BRC II represents a step forward from the BRC I. The BRC I report¹ addressed issues ranging from medical student education in surgery to continuous professional development. Its

40 recommendations were sweeping—“no less than a new surgical education system,” the article stated, continuing, “This will require major redesign of surgery residency training and allocation of sufficient resources to achieve the desired outcomes.”

In specific, the BRC I proposed expanding the workforce and recruiting more surgeons to address a then-pending surgical workforce shortage. Read more on workforce shortage in the April issue of the *ACS Bulletin*. In part, to create a workforce pipeline, the group recommended increased focus on educating medical students, including “surgical education centers”¹ which emphasize teaching expertise and education science.

In addition, the BRC I suggested creating and implementing a national curriculum for residents; devising a modular, competency-based course in the fundamentals of surgery; and shifting all noneducational activities to the nonphysician workforce. It also suggested the integration of educational technologies, such as surgical simulation, as soon as resources become available.

The report featured a proposal for a structure of surgical training that included an optional research period or advanced degree in the middle of residency, reflexive training in basic research methodologies for all residents, and the creation of a surgeon-scientist training pathway—a recommendation the BRC II has now significantly updated.

Finally, the report included recommendations to change the structure and functions of academic surgical departments to improve teaching—even though to do so, the report acknowledged, would require the same problem the BRC II aims to confront: that surgical departments “develop a mechanism to enable faculty to devote more time in the nonrevenue-generating educational activities.”¹

These suggestions included several other items familiar from the BRC II, such as asking all surgical chairs and division chiefs to demonstrate fundamental knowledge of education, providing the

training necessary for existing surgeons to develop skills in teaching, evaluation, and education research, and standardizing methods of evaluation for residents.

Impact of the BRC I

In the 19 years since the BRC I report was published, many of those efforts have taken place. Some are reflected in ACS offerings, including courses such as Surgeons as Educators and Successfully Navigating the First Year of Surgical Residency, which is aimed at medical students and PGY-1 residents. The College also has a program, Clinical Scholars in Residence, that grants surgical trainees in mid-residency 2 years of research experience, matching the BRC I's outline of surgeon-scientist development.

"Simulation centers came out of the first BRC," Dr. Stain added, which aligned with a comment from Dr. Ellison that the ACS has helped surgeons embrace surgical simulation techniques via its annual Surgical Simulation Summit and other resources.

Success of the BRC I report went well beyond the College. While both Drs. Ellison and Stain readily admit that not all the recommendations have come to fruition, they describe the outcome similarly. "The things that were under control of surgeons," Dr. Ellison said, as opposed to items requiring federal regulation or C-suite participation, "actually got done."

A prime example lies in the establishment of a national curriculum for training in general surgery and related surgical specialties. After the BRC I published its report, a second group, the Surgical Council on Resident Education (SCORE), convened in 2006.³ Many of the organizations represented in the BRC I were part of this new nonprofit consortium. Together, they devised a curriculum meant for general surgeons and those in related specialties, that focused on patient care, medical knowledge, professionalism, interpersonal and communication skills, practice-

based learning, and systems-based practice.⁴

SCORE has since been adopted nationally, and its offerings have extended to curricula for vascular surgery, pediatric surgery, surgical critical care, and surgical oncology. It also has been aligned with board certification examinations, such as the ABS In-Training Examination and the General Surgery Qualifying Exam. In 2019, SCORE merged with the ABS, the key administrator of board certification in surgery.⁷ In its new recommendations, the BRC II advised the ongoing review and update of SCORE to ensure its lasting relevance.

What Comes Next

While the current process in many ways is an extension of the BRC I, it is in some ways more robust. The BRC I was completed in mid-2004; its report was published in the *Annals of Surgery* in early 2005.¹ The BRC II also aims for publication of its recommendations in the *Annals of Surgery*, having already submitted a draft. Unlike the BRC I, however, each subcommittee in BRC II and its surgical resident and fellow focus group have written their own papers. As with the full report, these are intended for publication in the near future.

In addition, the BRC II, its surgeon members, and the organizations they represent will undoubtedly pursue many of the aims that have been laid out. One of the key recommendations was for the establishment of a multidisciplinary surgical education committee to facilitate and monitor implementation of the recommendations. Unlike the BRC I, the new recommendations list organizations that could join multiorganizational task forces on specific issues. Others omit organizational names but call for new processes, systems, and best practice recommendations, implying a need for collaboration across groups. In time, Dr. Ellison said, those will surely come.

The ACS will no doubt be important to this process, Dr. Ellison added: "The College is the largest surgical organization in the world, and it has

the reach and scope to bring these groups together. The ACS is the House of Surgery, and surgical education and training are vitally important to the continued success of our profession in providing the healthcare needs of our country and beyond. The ACS has been at the table and very involved. I think they will play an important role in convening the groups to move this effort forward.”

Adding to a Rich History

Of course, the history of concerns about surgical education and training go much farther back than the BRC I. Indeed, the question of how surgeons should be educated and trained has been central to the ACS since before its founding. In 1913, Franklin H. Martin, MD, FACS, a surgeon-gynecologist, and others founded the ACS in part in response to a lack of postgraduate surgical education, building on surgeons’ strong collective drive to improve their training and outcomes.

The ACS entered a world in which the surgical residency was nascent. The legendary surgeon William S. Halsted, MD, FACS(Hon), was the first to establish a surgical residency⁵—one with surprisingly durable central concepts. In a speech at Yale University in 1904, Dr. Halsted said, “We need a system, and we shall surely have it, which will produce not only surgeons but surgeons of the highest type,” an outcome possible only through reforms “providing the requisite opportunities for the prolonged and thorough training of those preparing for the higher careers in medicine and surgery.”⁶

It was in, in essence, what both BRCs have attempted to continue more than a century later with the 2,848 graduate surgical education programs now in existence,⁷ from the overall vision to the

assurance that, in large part, “we shall surely have” the proposed changes made real in many respects.

In the same speech, Dr. Halsted articulated the qualities a surgeon should attain through education and training: “to be an impressive teacher of surgery, to attract important cases in large numbers, to exert an influence far and wide as a surgeon, to know his subject thoroughly.”⁶

Through the residency system that Dr. Halsted himself devised, many surgeons have attained exactly those attributes—and with the BRC II now advancing the same core ideas in our own time, many more will, too. **B**

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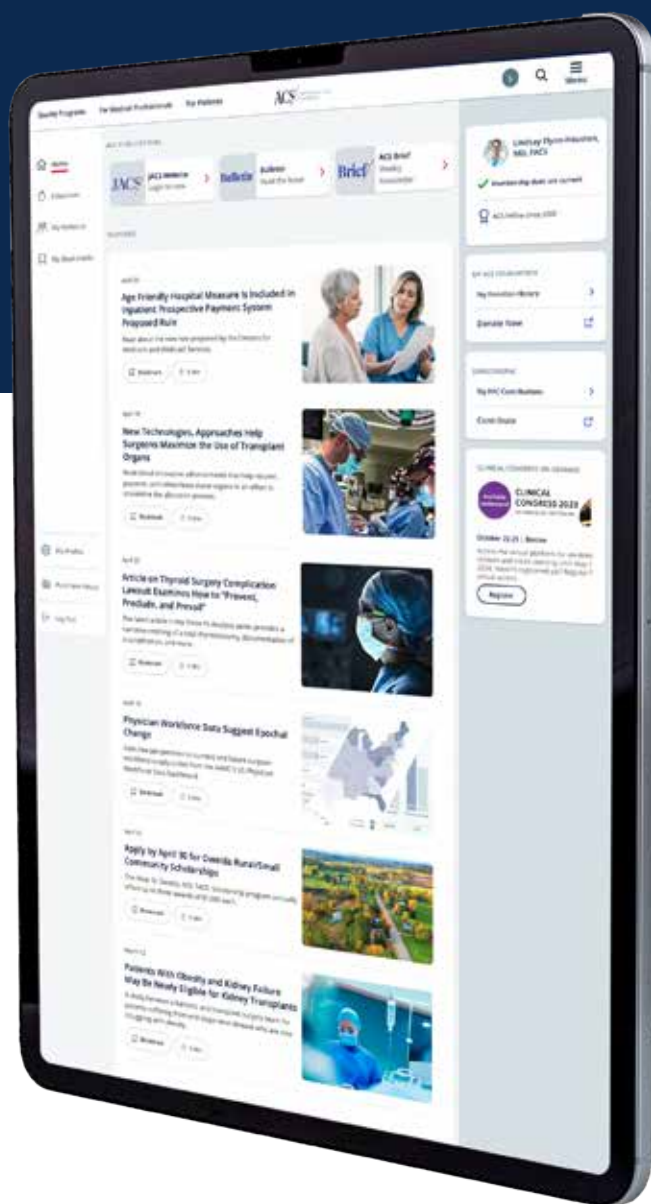


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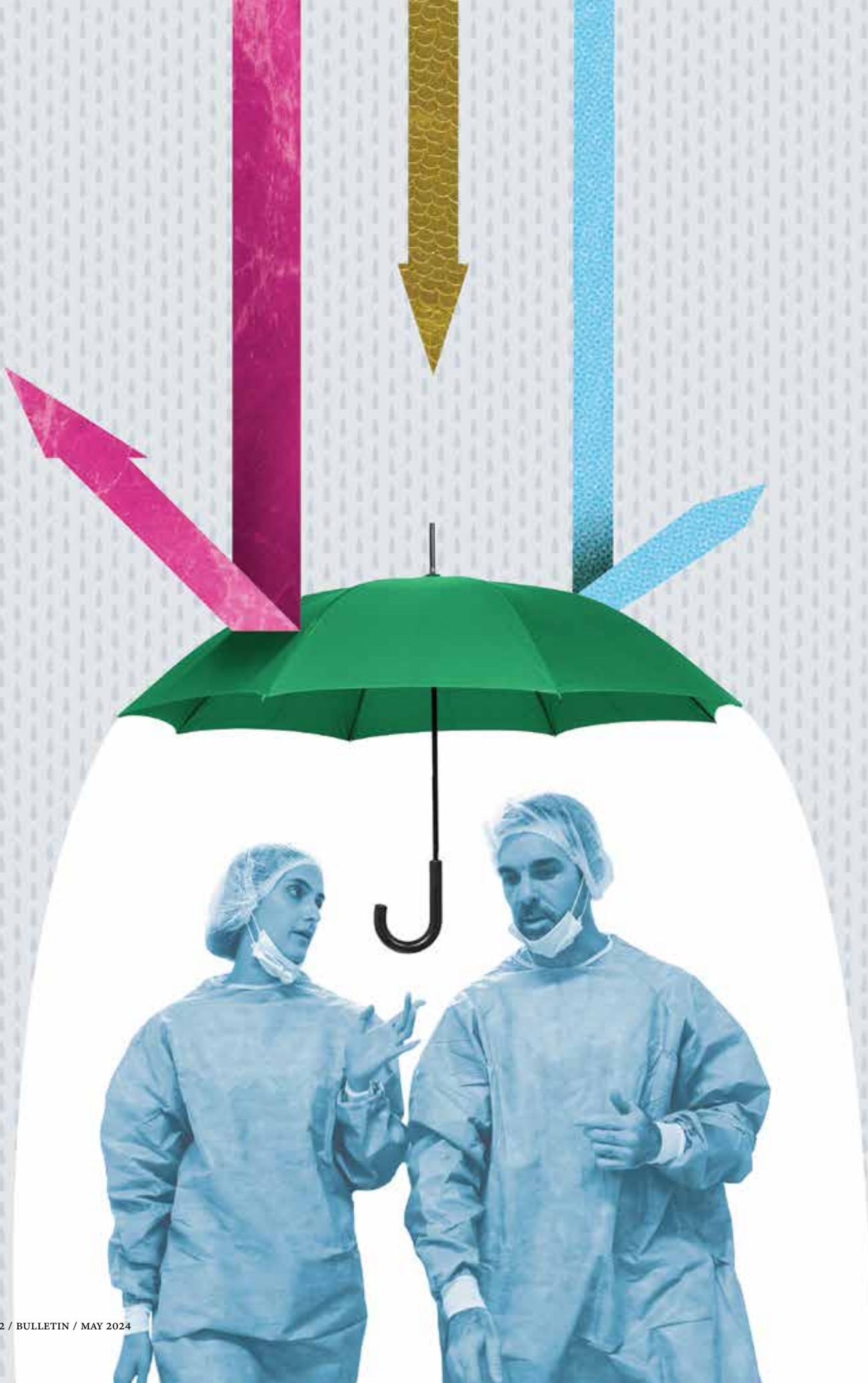
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Psychological Safety in the OR Improves Outcomes and Performance

Jim McCartney

Although it may once have been common for a surgeon to discourage other surgical team members from asking questions, reporting errors, and speaking up, there is growing evidence that this type of hierarchical behavior not only exacerbates an already high-stress environment, but also negatively impacts team function, morale, and patient outcomes.¹

SIMPLY PUT, AN ENVIRONMENT IN WHICH TEAM members hesitate to speak up or act because they fear criticism or other repercussions from team members higher up in the hierarchy is not conducive to practicing good medicine.

In contrast, a “psychologically safe” work environment is one in which employees share the belief that interpersonal risk-taking is safe.² In the OR, surgical team members feel empowered and enabled to admit errors, ask questions, voice concerns, be creative, and suggest new ideas or raise concerns without fear of humiliation, criticism, or retaliation.³

According to research, a psychologically safe workplace with a culture of trust and open communication among healthcare teams that are providing high-quality patient care is imperative for the high-stress and high-demand space of the OR.⁴

When surgical team members have “radical candor,” mistakes will be avoided, and team members will

feel more engaged in and energized about their OR roles, said Amy C. Edmondson, PhD, professor of leadership and management at Harvard Business School in Cambridge, Massachusetts, who also is a psychological safety expert.

When psychological safety is combined with discipline, shared accountability, and high expectations, it can lead to better outcomes, better problem-solving, a better learning environment, increased adaptability, and better psychological health for all members of the surgical team.

In an environment of psychological safety, “it’s okay to take risks, express your ideas and/or concerns, ask questions, admit mistakes, all without fear of negative consequences,” said Harry T. Papaconstantinou, MD, FACS, a colorectal surgeon and the Glen E. and Rita K. Roney Professor and Chair of the Department of Surgery at Baylor Scott & White Healthcare in Dallas, Texas. “It’s the ability to speak up and not be judged.”

What Psychological Safety Is Not

Psychological safety does not describe a work environment that is comfortable, soft, or permissive. This concept isn't about being nice, and it doesn't mean an OR team should be led to believe their needs should be met at all times, or that they should be in charge, Dr. Edmondson said.

In a surgical context, psychological safety means absolutely no hesitation if a team member has even the remotest suspicion that the surgeon is about to do something wrong, she said, adding that a psychologically safe environment promotes candor, and candor requires strength, courage, and honesty.

Although such an environment may occasionally divert or distract the team from the task at hand, it is a risk worth taking, Dr. Edmondson said. "While it may be distracting to have someone say something irrelevant or not helpful at the moment, compare that to what might happen if the team member noted a significant error was about to be made but was afraid to speak up."

In a psychologically safe OR, the surgeon is still in charge. Team members who constantly interrupt an operation with inaccurate, irrelevant, or unhelpful comments should later be taken aside and given feedback to help make them more effective—but in a way that does not discourage them from speaking up in the future, she explained.

How Psychological Safety Affects Surgical Settings

Psychological safety has been shown to improve performance in a variety of areas, including aviation and healthcare.

"Everybody's prone to error, but better teams are better able to catch and correct each other's errors," Dr. Edmondson said.

Research supports that psychological safety benefits patient safety by improving the delivery of clinical care.⁵ For example, in intensive care units, psychological safety is associated with better health outcomes, lower morbidity, and lower mortality, according to Dr. Edmondson. That's largely due to the fact that staff, such as respiratory therapists or nurses, feel able to speak up about what they see and what they know.

In a study of the impact of psychological safety in radiation oncology, researchers found

that psychological safety was associated with more reported near misses because healthcare workers were more willing to point them out. Near-miss reporting is important to quality improvement efforts because it can uncover underlying causes of potential patient harm that could lead to adverse events.⁶

"We think big failures come out of the blue, but they're actually on top of a pile of often underreported near misses," Dr. Edmondson said. "The more we hear about what's really going on, the higher the reliability of our processes and the better we are able to prevent the big, bad ones."

At this point, however, data related to the influence of psychological safety on surgical outcomes are limited. That said, Dr. Papaconstantinou maintained that there is intuitive logic to the idea that if everyone in the OR feels empowered to point out a potential error, the result would be fewer errors because they would have been prevented or corrected. In addition, pointing out a potential error creates the opportunity for the surgical team to learn how to avoid that same error in the future.

Improved Team Performance

A psychologically safe OR is an environment safe for learning, with mutual professional respect, open communication, and suspended judgment.⁴ The result often is that clinicians are more engaged and better able to learn and creatively solve problems. OR teams demonstrating higher levels of psychological safety also are better able to successfully implement new technologies.⁷

"Work is more engaging and meaningful if you believe you matter and if you believe your voice is expected and welcome," Dr. Edmondson said.

Psychological safety supports three other conditions that help make work significant and attractive:

- Purpose and meaning
- Culture and community
- Growth and development

Dr. Edmondson described how it's difficult for people to feel purpose and find meaning in their jobs if their input is not welcome. Likewise, it's tough to feel part of a community in which you are not encouraged to participate. Finally, opportunities to gain experience and develop new skills require an environment

conducive to learning from and engaging with others in the OR.

“If you are in the OR and not in a state of learning, then you’re not doing your job as well as you should be,” Dr. Edmondson said.

Improved Mental Health

When a patient does poorly after an operation, especially due to a mistake, surgeons have a heightened sense of responsibility that can lead to emotional turmoil, anxiety, sadness, guilt, and shame. It may even lead to burnout.

By helping to create an environment of psychological safety in the OR, surgeons not only can help avoid errors, but they also share responsibility with others by allowing team members to have a more important role in the process.

“A psychologically safe environment takes some of the burden off of the surgeon’s shoulders,” Dr. Edmondson said.

Creating a Psychologically Safe OR

Because surgeons are considered captains of the OR, team members are highly attuned to their leader’s actions, which can shape their own perceptions of appropriate behavior.⁴

“Leaders always have an outsized impact on the culture,” Dr. Edmondson said. “Whether it’s a surgeon, team leader, or CEO, the proximal leader will always have a bigger effect on perceptions of what’s expected or appropriate than others.”

To help create a psychologically safe OR, surgeons can stress the uncertainty and interdependence of work, model fallibility, and solicit peers and subordinates for suggestions and feedback, and embrace those who do speak up.⁶

Self-awareness also is critical for surgeons. They need to know how they are perceived because they need to model the desired behavior.

“You have to tell them it is okay to raise questions, and then you have to respond in a way that encourages that,” Dr. Papaconstantinou said. “People listen to intent first, then content. Therefore, the way a surgeon responds to team members in the OR creates the work environment that determines if it is possible for team members to ask questions or raise issues.”

In addition, it is important for surgeons to realize that they cannot control others; they only can control themselves. When a member of the



What Surgeons Can Do to Create Psychological Safety

Set the stage.

Be inclusive. Tell the team that you want their candor. Explain to them that since no operation (and no surgeon) is flawless, they need to say something if a mistake is made or is about to be made.

Seek feedback.

Be approachable.

Ask good questions during the procedure, such as: I’m about to close up, have we missed anything? Do you see anything? Is everything accounted for?

Respond appropriately.

When someone speaks up, monitor yourself. Whether the comment is right or wrong, helpful or unhelpful, don’t look annoyed or angry. Just thank them for their input in a positive manner.





Dr. Papaconstantinou and his surgical team members recognize the importance of psychological safety in the OR.

surgical team points out a potential error, patient concern, or observation, surgeons need to train themselves to respond in an emotionally intelligent way. “The second you show frustration, the second you show a negative emotion, that’s going to give the signal to the person that maybe they shouldn’t have asked the question or spoke up,” Dr. Papaconstantinou said.

One way surgeons can help adjust the way they respond is to remember that correcting an error means that the patient will receive better care, according to Dr. Edmondson. “Surgeons need to create a culture in which candor is expected. It’s what we do around here.”

What Surgeons Can Do to Create Psychological Safety

How do surgeons create an environment of psychological safety? Dr. Edmondson views it as a three-step process:

Set the stage.

Be inclusive. Tell the team that you want their candor. Explain to them that since no operation (and no surgeon) is flawless, they need to say something if a mistake is made or is about

to be made. Come from a place of humility, not false modesty. Admit that you’re a fallible human being, and the last thing you want is for something to go wrong that could have been prevented.

Seek feedback. Be approachable.

Ask good questions during the procedure, such as: I’m about to close up, have we missed anything? Do you see anything? Is everything accounted for?

Respond appropriately.

When someone speaks up, monitor yourself. Whether the comment is right or wrong, helpful or unhelpful, don’t look annoyed or angry. Just thank them for their input in a positive manner.

In addition, surgeons need to learn to respect and trust their team members.

“Too many people think trust is something that must be earned, when in fact, trust means a willingness to act despite uncertainty,” said Dr. Edmondson.

To trust a team member is to believe they are willing and capable of doing the assigned task. To build trust, start by assigning small tasks and graduate to more important, high-stakes tasks.

Creating an environment of psychological safety improves outcomes, problem-solving, learning, adaptability, and psychological health for surgical team members.

Dr. Papaconstantinou agreed that trust helps create an environment of mutual professional respect that is essential to psychological safety. Trust makes it possible to manage conflict in a productive and healthy way, allowing questions to be raised about important issues such as patient safety or operational efficiency.⁸

“If you avoid conflict, then you have a lack of commitment and a lack of accountability because the team is not engaged in decision-making, and that negatively impacts results,” he said.

Consistent Teams Are More Likely to Be Psychologically Safe

Surgical teams that have worked together before are more conducive to psychological safety and higher performance than surgical teams that haven't.⁴ In contrast, most team members who rotate on to ad hoc teams reported decreased psychological safety due to communication problems worsened by a lack of team identity, familiarity, and trust.

“We talk about how having a consistent team in the OR really improves patient safety,” Dr. Papaconstantinou said. “To me, the reason why is that they have already developed a relationship with each other.” In addition, consistent teams are more likely to have trust, commitment, and the ability to manage conflict—all factors essential for psychological safety.

Prioritizing Psychological Safety

Making ORs psychologically safe starts with surgeons and other OR leaders learning more about the concept through articles, podcasts, and research studies, Dr. Edmondson suggested. They should encourage and support education and training programs that teach the importance of psychological safety to future surgical team members.

“To change the culture requires a multipronged attack,” she said.

Creating an environment of psychological safety improves outcomes, problem-solving, learning,

adaptability, and psychological health for surgical team members. But at the heart of psychological safety is patient safety. Anyone's voice could make a difference at a crucial time, but without psychological safety, that voice may never be heard.

“You will probably not hear that voice without proactive leadership,” Dr. Edmondson said. “It may not matter for weeks, even years—until the day it does. That will be the day that breaks your heart.” **B**

Jim McCartney is a freelance writer.

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LONG COVID

MAY HAVE
LONG-TERM
IMPACT ON
SURGERY

Lavanya Visvabharathy, PhD
Julia R. Berian, MD, MS, FACS
John C. Alverdy, MD, FACS

More than 77% of people in the US had been infected with SARS-CoV-2 as of 2022.¹ Of these, approximately 30% of survivors report having persistent symptoms classified as long COVID² and 11% describe persistent symptoms at 6 months.³

PATIENTS FREQUENTLY complain of brain fog, cognitive difficulties, and other neurologic sequelae as the primary drivers of decreased quality of life. These patients also perform worse in cognitive measures of working memory, attention, and processing speed compared to controls.⁴

A recent study that gave cognitive assessments to more than 100,000 people with and without long COVID confirmed that complaints of brain fog in long COVID patients were correlated with lower cognitive performance in memory, reasoning, and executive function tasks.⁵ Although mRNA vaccines against SARS-CoV-2 have been extremely effective in preventing severe acute disease, the incidence of long COVID

has not significantly decreased in the US despite widespread vaccine uptake.⁶ This indicates that long COVID, also referred to as postacute sequelae of SARS-CoV-2 infection, will remain a medical concern for the foreseeable future.

As a result, it is important that surgeons become familiar with this syndrome in order to continue providing the best care for their patients.

How Does Surgery Affect Cognition?

The lay press is filled with stories of patients who were “never the same” after surgery.⁷ Patients describe cognitive deficits in focus, memory, and attention, all affecting their ability to function.⁸ Data suggest that approximately 10% to 12% of patients suffer cognitive dysfunction that persists up to 3 months postoperatively.⁹

In 2015, the American Society of Anesthesiologists launched the Brain Health Summit, with participation from the ACS, to discuss the state of the science of perioperative cognition.¹⁰ Subsequently, a working group proposed new nomenclature to better align perioperative terminology to diagnoses already used in medical fields.¹¹

For example, the term “postoperative cognitive dysfunction” had no consensus definition and was primarily used in research, disconnected from patients’ real-world experiences. The currently recommended term for cognitive impairment identified during the overarching perioperative period is “perioperative neurocognitive disorder,” with specific subclassifications defined by timing (see Table, this page).

Postoperative delirium deserves special attention, as it may occur as a common complication distinct from other perioperative neurocognitive disorders. It is characterized by an acute onset of waxing and waning confusion, with changes in the levels of consciousness, attention, orientation, and disorganized thinking. The clinical presentation differs according to psychomotor subtype, ranging from hypoactive (e.g., slowed movements, quiet affect—symptoms that are easy to miss) to hyperactive delirium (e.g., restlessness and agitation), as well as mixed subtypes.

The rate of postoperative delirium across the literature is highly variable from 5% to 52%¹² and dependent on the detection method (from prospective screening using validated tools to retrospective chart reviews using keywords). However, there is some evidence that rates vary by specialty and operative stress load.^{13,14}

Across multiple studies, common risk factors include age, preexisting cognitive impairment, previous episodes of postoperative delirium, and low education levels. Despite recommendations from the ACS and American Geriatrics Society to perform routine screening for baseline cognition,¹⁵ this is rarely performed.

The lack of baseline data can lead to a true “blind spot” in the ability of clinicians to best identify, educate, and enact preventive measures

Table. Recommended Nomenclature for Cognitive Changes in the Perioperative Period

Nomenclature	Definition & Timing
Perioperative Neurocognitive Disorder	Cognitive decline noted anytime in the overarching perioperative period
Postoperative Delirium	Distinct acute fluctuating changes in cognition in the postoperative period (variably defined as 1 week to up to discharge)
Delayed Neurocognitive Recovery	Cognitive decline persisting up to 30 days
Postoperative Neurocognitive Disorder	Cognitive decline >30 days and up to 12 months postoperatively

The preoperative cognitive impairment in long COVID patients may be a problem that obscures a clinician's ability to recognize subtle symptoms and properly care for patients undergoing elective surgery.

for patients at highest risk for postoperative delirium. Unfortunately, patients who suffer delirium, particularly when combined with surgical complications, experience prolonged length of stay, higher hospitalization costs, need for institutional discharge, and even face long-term consequences.^{16,17}

Growing evidence suggests that postoperative delirium is associated with long-term cognitive decline, both for those with normal cognition at baseline and those with preexisting dementia.¹⁸ The Successful Aging after Elective Surgery study cohort has demonstrated a dose-response relationship wherein higher severity delirium is associated with worse cognitive outcomes.¹⁹ Furthermore, these effects persist up to 6 years, with delirium accelerating cognitive decline by 40% over normal aging-related changes.²⁰

Whether preceded by delirium or not, postoperative neurocognitive disorders can significantly decrease long-term health and quality of life. Patients with postoperative neurocognitive disorders are twice as likely to experience impaired instrumental activities of daily living.²¹ Furthermore, cognitive and functional decline are associated with higher rates of long-term mortality and healthcare utilization.²²

Long COVID's Potential Impact on Surgery

Given the risks associated with delirium and postoperative neurocognitive disorder, the preoperative cognitive impairment in long COVID patients may be a problem that obscures a clinician's ability to recognize subtle symptoms and properly care for patients undergoing elective surgery.

Recent studies have suggested that long COVID may be caused by a prolonged, subclinical infection

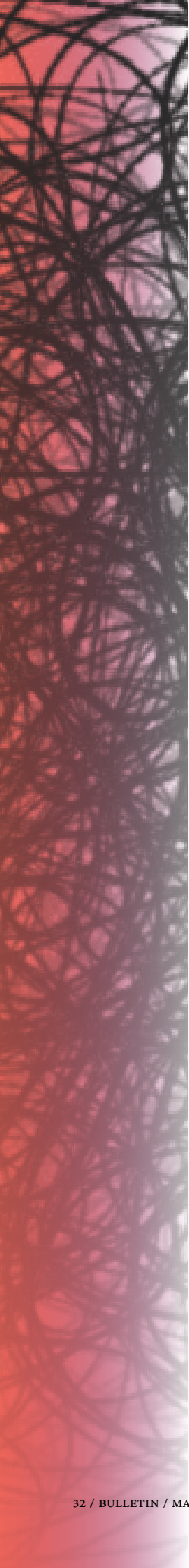
leading to the establishment of a viral reservoir, potentially in the gut,²³ that can modulate host immune responses and contribute to persistent cognitive symptoms.²⁴⁻²⁶

Surgery in such patients could result in unintentional spread of the SARS-CoV-2 viral reservoir to distal tissues such as the lung, where infection can cause severe damage.²⁷ Autoantibody responses directed against central nervous system antigens, including myelin and G-protein-coupled receptors, also are detectable in plasma and cerebrospinal fluid and strongly correlate with abnormal cognitive status in long COVID patients.²⁸ Surgery in patients with already elevated autoantibody levels may induce further autoimmunity due to tissue damage leading to epitope spreading.²⁹

Finally, defects in mitochondrial oxidative phosphorylation and lipid catabolism have been linked with cognitive and noncognitive symptoms of long COVID,^{30,31} and surgery in long COVID patients with mitochondrial dysfunction may prolong the recovery phase. Further studies are needed to determine if the prevalence of these various biomarkers is reflective of underlying disease processes or of preexisting long COVID both before and after surgery.

Mitigating the Impact of Long COVID on Surgery

Though cognitive symptoms caused by long COVID may be difficult to diagnose, there are strategies to help surgeons identify biomarkers of import. For example, clinical diagnostic testing can be used to identify long COVID patients who may have a persistent infection. In addition to testing for the presence of SARS-CoV-2 in the nasopharynx, it



Much work remains to be done before the root causes of long COVID-related cognitive dysfunction can be determined and effective treatments developed.

may be important to test for viral RNA or protein present in stool samples from long COVID patients before elective surgery, as the gut may be a cryptic viral reservoir.

One possible intervention for patients suspected of having a persistent infection may be to administer nirmatrelvir/ritonavir (Paxlovid) as preoperative prophylaxis to help clear infection. There is some evidence that nirmatrelvir/ritonavir may help alleviate long COVID symptoms as well,²⁶ and it is currently being tested as a treatment for long COVID in clinical trials.³²

Another option for surgeons when confronted with patients at risk for postoperative delirium who also may have long COVID is to refer them to a long COVID clinic for evaluation. Not only can their baseline cognitive status be determined, but further testing—if needed—can be suggested during this evaluation. There are multiple long COVID clinics that are associated with large academic medical centers as well as community hospitals located throughout the US.³³ Many offer televisits for patients who are not local. Long COVID clinics offer consultation across multiple specialties of internal medicine, and therefore, could be used to assess the status of long COVID patients with both cognitive and noncognitive symptoms. These are just two examples of how surgeons might consider modifying their care plans for patients with long COVID who also are at risk for postoperative delirium. Much work remains to be done before the root causes of long COVID-related cognitive dysfunction can be determined and effective treatments developed.

Given that the number of adults with long COVID who are experiencing prolonged though often subtle and nuanced cognitive changes,

is growing and that surgical intervention can adversely affect long-term cognition, it remains unknown how this syndrome will affect the health outcomes of surgical patients. **B**

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"Four Evils" Plagued Surgical Practice in the Early 20th Century

Julia Chavez

Peter Angelos, MD, PhD, FACS

MAY WE ASK SURGERY A QUESTION?

It is doubtless the blackest sort of heresy to ask questions of the profession of surgery, but so be it. My experience with surgery leads me to ask questions. Nor is this experience theoretical. It is direct, first hand, personal experience of the lives of three cousins, each widowed by surgery. There must be many similar cases, and I am led to wonder whether the profession has to that extent strayed from its original purpose, and whether this purpose, at present, is to save life or promote surgery.

The first death occurred twelve years ago. The patient

es vary. Ghost surgery has been defined by the
of the College as 'that surgery in which the patient
rmed of or is misled as to the identity of the
surgeon.'

I thought I would give you a little
e investigation of the Scranton situation
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The things that happened to my husband as a beloved
stitution in which he had served for many many years stand
s absolutely brutal and absolutely serving no purpose
there was any surgical accounting, a bureau wherein a surgeon
to register his findings before an operation took place
would have to write down his diagnosis, and if the surgeon
e consent of the patient before the operation was performed
t have been avoided.

writing to ask a question of medical ethics. I
o go into joint practice with another obstetrician -
and an obstetrician-gynecologist.

Unethical Practice - Scranton, Pennsylvania

1951-

UNETHICAL PRACTICE - BROOKLYN, NEW YORK

1951-59

changed and it is recommended that it continue to be cons
restricted area for Fellowship. The Chairman asked that

Over the past year, we delved into the ACS Archives to better understand the College's role in guiding surgical ethics.

INITIALLY, WE APPROACHED the research with a broad scope, uncertain whether “surgical ethics” would be explicitly defined within the archives. We considered the possibility of needing to identify an ad hoc committee that addressed ethical issues, as the term “ethics” might not have been formally used in the earlier records. However, to our surprise and satisfaction, we discovered a robust surgical ethics section within the archives, providing a direct and comprehensive resource for our investigation.

In this article, we focus on one particularly noteworthy initiative that demonstrates the ACS’s early recognition of, and response to, critical ethical challenges in surgery.

Changing Landscape of Surgery

In the early 1900s, the ACS Board of Regents (BoR) set out to confront what it termed the “four evils” plaguing surgery: unjustified surgery, ghost surgery, fee-splitting, and exorbitant fees.

To grasp the full scope of ethical challenges at this time, it is necessary to understand that surgical practice was not the field we know today. The early 20th century was a period of rapid change and transformation in the field of surgery.

The introduction of antisepsis, anesthesia, and a new conceptual

understanding of diseases between 1880 and 1910 led to a rapid expansion in the scope and complexity of surgery. Before these innovations, surgery was largely limited to procedures such as lancing of abscesses, mass excisions, and amputations. By the end of this transformative period, surgeons routinely were performing complex operations on the thoracic, abdominal, and pelvic organs.

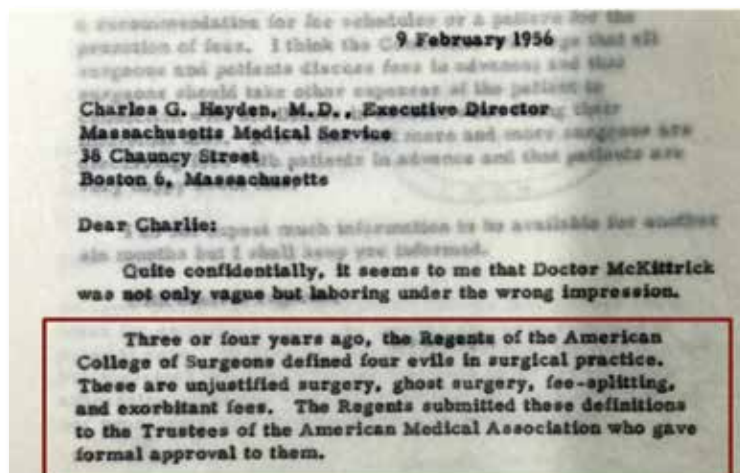
Despite the increasing sophistication of surgical procedures, there was not yet a clear distinction between surgeons and other medical practitioners. In other words, it was possible for doctors to perform surgeries without specialized training or accreditation. The absence of clearly delineated professional standards fostered

a permissive environment where questionable practices could be carried out with little scrutiny or consequences.

Complicating matters further, these transformations in surgical practice coincided with a time of economic hardship and financial crises. This created a situation in which some practitioners could be tempted to prioritize financial gain over ethical considerations and patient welfare.

Filling the Ethical and Regulatory Void

The ACS was founded in 1913 to fill this “regulatory and ethical void.” Other surgical associations existed at the time, but they had not yet acted on the new challenges facing the profession. One way the ACS addressed these challenges was through the establishment of an



active surgical ethics committee that engaged with the surgical community and tackled a wide range of issues. While the surgical ethics committee was involved in numerous initiatives, one particular campaign consumed a significant portion of the organization's time and resources over a period of several decades.

The Four Evils

The ACS BoR identified what it termed the “four evils” facing the profession, and these issues would remain a central focus of the ACS's activities and a topic of intense discussion and debate for the better part of the century (see photo, page 36). The “four evils” exemplify the ethical challenges that emerged as a result of the changing social, economic, and institutional contexts of surgery in the early 20th century.

The ACS Archives provides a unique window into the development of surgical ethics, offering a more complete picture of the discussions surrounding complex ethical issues than can be surmised from public announcements and newspaper articles. Unlike public presentations, where the College leadership must present their consensus on any given issue, private correspondence allows members to discuss their differences of opinion more freely.

The College's approach to each issue generally followed

a similar pattern: defining the problem, discussing solutions, and implementing strategies. But the process also was marked by unique challenges and debates specific to each issue. By examining the committee's deliberations and responses to these four core issues, we were better able to understand the factors that influenced surgical ethics not only during this period but also today.

Unjustified Surgery

According to the BoR, “an unjustified operation is one in which either the indications were inadequate, or the procedure was one which is contrary to generally accepted practice.”

This issue exemplifies the ways in which surgery at the time was not as we know it today. Debates about “unnecessary surgery” these days have to do with whether a double mastectomy is indicated for unilateral breast mass or whether appendicitis should be treated with an appendectomy or antibiotics. However, at the time, the cases were much more complicated.

The gravity of this issue is best exemplified by a letter written to the BoR in November 1929 by Rose Climenko, the widow of a prominent neurologist in New York. After losing multiple family members to unnecessary surgeries, Climenko wrote a letter to the board, pleading that

it act on the still highly prevalent issue of unnecessary surgical procedures (see photos, page 38).

In her letter, Climenko provided details of these cases. The first case, from 1917, involves a 32-year-old man who was “neurotic, maladjusted, unhappy, and introspective.” He suffered from nerve strain and headaches until a neurologist believed he had found symptoms of a brain tumor and advised an operation. The patient and family were led to believe the operation was fairly routine and that it would resolve the patient's difficulties. They were not informed of the high mortality risk associated with such an invasive procedure. Not surprisingly, the man died on the operating table, and an autopsy revealed no tumor. Climenko posed poignant questions: “It is a typical case—how is it to be answered? Can surgery offer any justification that will remove the injustice done this family?”

The second case, from 1924, describes a 31-year-old father of two. Although generally healthy, he experienced stomach issues. A doctor advised an exploratory operation, assuring him it was safe and that he would be back to work within 10 days. Trusting in the procedure's safety, the man did not inform his parents. However, during the operation, he suffered a hemorrhage and died on the table. Climenko noted that this, too, was a typical case.

These two cases were just the first of two personal examples Climenko used to illustrate the human cost of unjustified surgery and to urgently plead for reform.

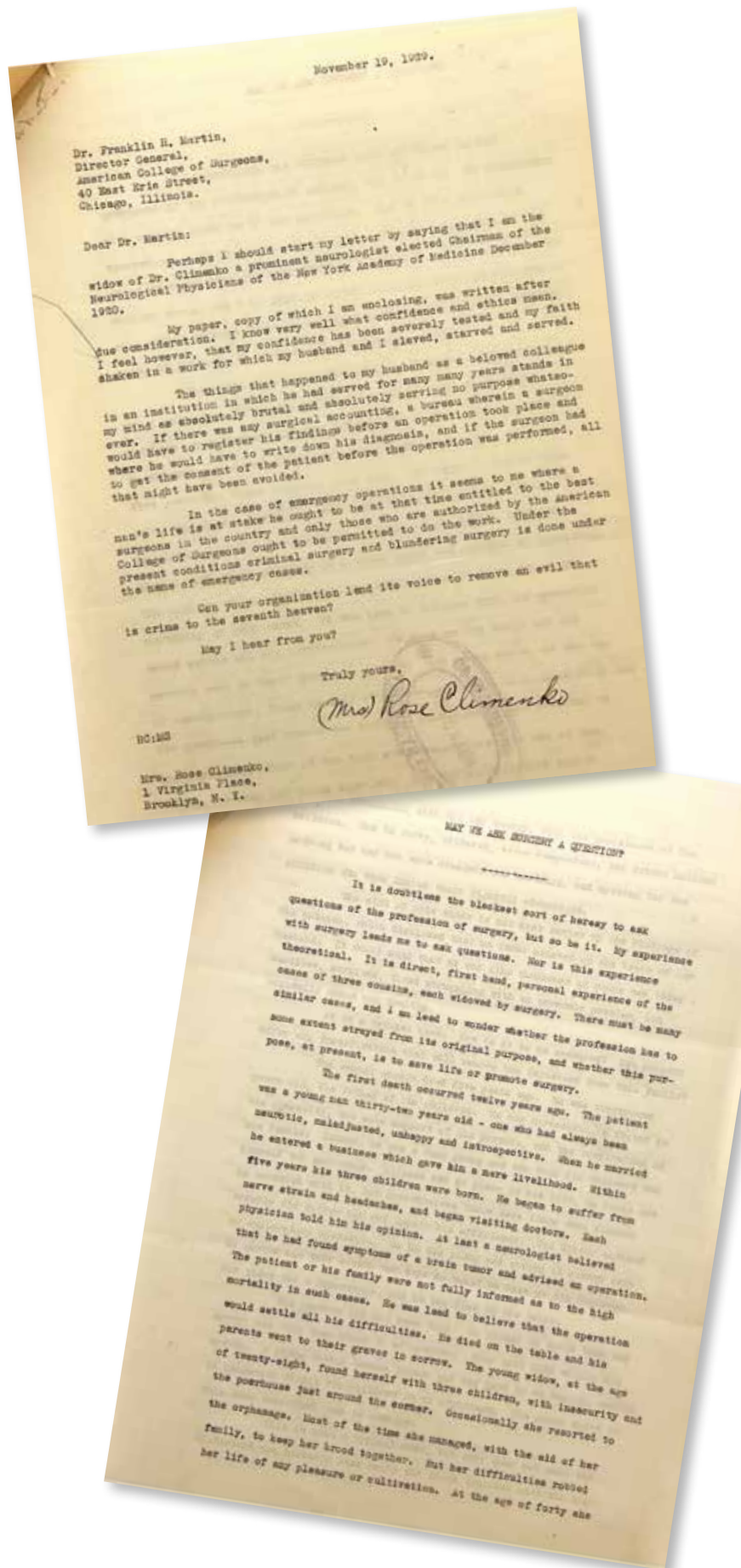
The ACS addressed these ethical challenges through massive undertakings, such as the standardization project. In 1920, the organization published a minimum standard for hospitals, which included requirements for organized medical staff, accurate record-keeping, and adequate facilities. The ACS also established guidelines for surgical practices.

These efforts by the College laid the groundwork for future programs, such as the National Surgical Quality Improvement Program, which aims to measure and improve the quality of surgical care in the US. What are now considered quality issues in surgical practice were not always seen as matters of ethics or even standard practice within the profession. The ACS's initiatives played a crucial role in establishing and enforcing these standards, ultimately leading to improved patient care and outcomes.

Ghost Surgery

The ACS defined ghost surgery as “that surgery in which the patient is not informed of, or is misled as to, the identity of the operating surgeon.”

There was a consensus that patients had the right to know who would be operating on them. However, the issue became complicated when considering the involvement of surgical assistants and trainees. The BoR was trying to define ghost surgery



in a way that would protect patients' rights while still allowing for practical surgical training.

Sensationalized articles in newspapers like *The New York Times*, with headlines such as "Patients Unaware Surgeon May Be a Beginner" from 1978, stoked fears and raised questions about the identity of the person wielding the scalpel. These articles oversimplified the issue, causing widespread concern among the public and putting pressure on the medical community to address the problem.

The BoR was divided on how to respond to the public pressure. The BoR fielded questions from constituents, discussed the issue at multiple conferences, and sent a survey out to program directors across the country. While some Board members took a more rigid stance, stating that any involvement of assistants was a violation of the patient's trust and the principle of informed consent, others took a more nuanced stance, arguing that the definition should not be so rigid as to be impractical.

Fee-Splitting

ACS defined fee-splitting as "the refunding of any portion of the total fee for the care of a patient to either the surgeon or the referring physician."

The primary ethical concern with fee-splitting is that it can create financial incentives that prioritize profits over patient care. When physicians receive compensation for referring patients to a specific specialist or facility, they may be more likely to make referrals based on financial gain rather than the

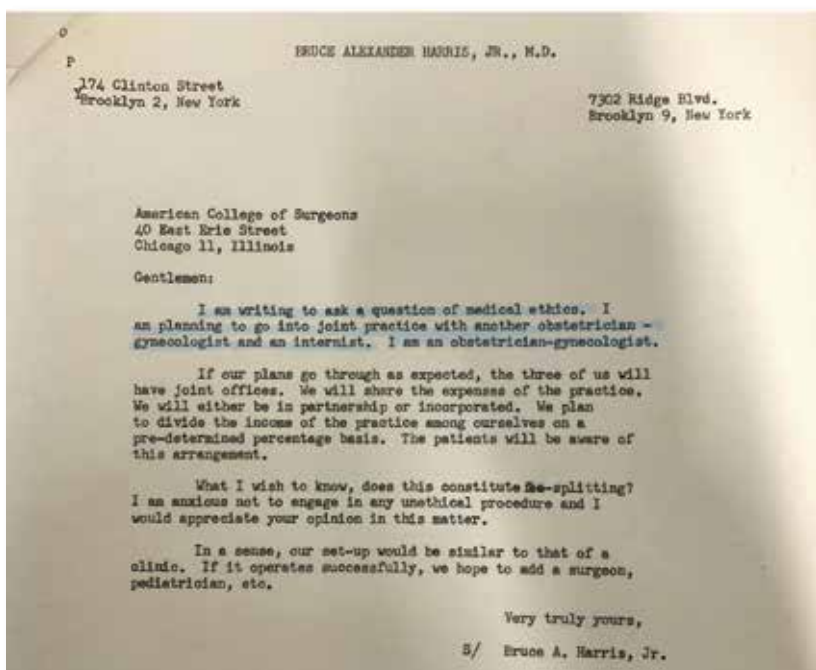
patient's best interests. The ACS took a strong stance against fee-splitting, even considering the submission of a joint bill, whether itemized or de-itemized, by the surgeon or referring physician as a form of fee-splitting.

This position was rooted in the fundamental principle that medical decisions should not be influenced by financial incentives, and the ACS's strict policy against fee-splitting was intended to protect patients from unethical practices. Fee-splitting has been extensively discussed in the literature examining the history of surgical ethics. The ACS Archives confirms that fee-splitting was indeed a significant issue during this period. However, the archives also reveal some underrecognized aspects of the issue. While some instances of fee-splitting were indeed unethical and driven

by financial gain, others were a product of the evolving nature of surgical practice.

This balancing act is exemplified by a letter from a concerned ACS Fellow seeking advice on whether his group practice arrangement would be considered unethical (see photo, this page). In his letter, the Fellow described a scenario in which surgical fees were distributed among the group members based on their involvement in the patient's care. The College's response, which approved of the arrangement, illustrates that there were instances in which a joint bill was appropriate given the realities of group practice arrangements.

The letter from the concerned ACS Fellow illustrates the active communication between the ACS and its constituency regarding ethical issues. This ongoing



dialogue demonstrates the commitment of both surgeons and the ACS to navigating the complexities of evolving surgical practice while upholding the highest ethical standards. The ACS's responsiveness to these inquiries and its efforts to provide guidance on a case-by-case basis highlight the important role the organization played in shaping the ethical landscape of surgical practice during this period.

Exorbitant Fees

This concept is defined as "a fee [that] is excessive when it is greater than the patient is reasonably able to pay

or higher than justified by the service rendered."

At the time that the ACS was founded, the responsibility to charge fair fees was conceptualized as a responsibility of the surgeon. In fact, the original ACS Fellowship Pledge in 1916 included a direct commitment to "make fees commensurate with the service rendered and with the patient's rights." However, the pledge was written at a time when surgeries were procedures that could be done primarily by a single surgeon and financial arrangements could be more directly negotiated between the two parties.

Since then, the scope of surgery changed, so too had the site of practice and the size of the care teams. Because procedures involving the abdomen and chest required better lighting and more involved postoperative care, the primary location of surgeries shifted from homes to hospitals, where teams of nurses and other physicians were involved.

While the BoR said it was confident that the majority of fees were reasonable, the Regents also recognized that "scarcely a day passes that I do not hear of one or more outrageous fees." As an example, it mentioned the case of a patient making \$40 per week

No dust bag to empty!



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14

How much should

By Leonard Reed

Medical fees, he felt, were exorbitant. Considering from a serious abdominal operation, he had just received the surgeon's bill. Before the operation, Hehl had hesitantly asked the surgeon what the fee would be. The doctor had just smiled reassuringly and told him not to worry, and Hehl had let it go at that. Now, looking again at the bill, \$1000, he realized with sinking heart that it represented the savings of two years. Hehl could not escape the feeling that he had been shabbily treated.

Although about 25,000,000 people now carry some form of surgical insurance, the protection they're getting is only partial at best. In the Blue Shield plan, for instance, only families whose incomes are less than a certain amount are covered at all.

And so, each year, thousands of Americans are rudely awakened to the fact that surgery is a blind item. For a given operation, two different surgeons may charge quite different amounts, not necessarily according to their respective abilities or reputations. Even the same surgeon may vary his fee to different patients in a way that does not reflect the patient's ability to pay. The result is too often a severe financial shock—particularly to families in the vulnerable middle class.

The medical profession, possibly prodded by proposed health insurance legislation, has recently taken steps to face up to the problem posed by haphazard fee-setting. Nineteen hundred and fifty saw a mushrooming of " grievance committees" in state and county medical societies to act on complaints by patients. The Colorado State Medical Society went so far as to request its county societies to set up and publicize "average fee" schedules so patients would have some idea of how much some of the more common medical services should cost. And the American Medical Association, after noting reports of exorbitant fees, warned doctors that such practices create hard feelings that react against the entire medical profession.

Put yourself, for instance, in Mrs. Burton's place, and try to imagine some livelihood. Her daughter, Peggy, had been born with a cyst above her right eye. When Peggy was about 4 months old, Mrs. Burton's pediatrician, hearing involvement of the tear glands, recommended the removal of the cyst. He referred her to an eye specialist, who confirmed the diagnosis. When Mrs. Burton asked what the operation would cost, the doctor gave an unqualified professional cough and shunted her off to his nurse. The nurse matter-of-factly said that the fee was \$250.

It struck Mrs. Burton, on the way home, that the fee was a rather stiff one. The \$250 wouldn't break her—her husband earned about \$6,000 a year—but she had the unpleasant feeling that she was being imposed upon. When she reached home, she phoned her pediatrician. Acting on an impulse, she told him that \$125 seemed to her to be quite ample for the relatively minor operation. A few minutes later, the pediatrician called back to say that \$125 would be just fine with the surgeon.

Turn to page 143

your operation cost?

What curious operations cost:

[Average charges based on national survey of 10,000 hospital cases by American Society of Anesthesiologists]

OPERATION	AVERAGE FEE
Various veins, ligation, both legs	\$101.00
Removal benign tumor or cyst on breast	50.00
Tumor of eye (inoperable)	21.00
Tumor of eye, involves extensive surgery	123.00
Cyst or sinus, pharyngeal, operation on	83.00
Appendectomy	131.00
Removal of gall bladder	191.00
Carcinoma cervix, including delivery	176.00
Delivery of child	78.00
Miscarriage	45.00
Cervix, cauterization or contraction of	39.00
Dilation, curettage (other than childbirth)	54.00
Hysterectomy	180.00
Thyroidectomy	109.00
Infected tooth, surgical removal of	42.00
Calculation	217.00
Hemorrhoids (single)	125.00
Small intestine, resection	205.00
Esophagus	170.00
Liver (peptic, duodenal, or gastric)	253.00
Hemorrhoids, internal and external	92.00
Carcinoma (operation less than 12 years old)	18.00
Removal of prostate gland	263.00
Cataract, removal of	200.00
Glaucoma, operation for	153.00
Strabismus (operation for cross-eyes)	148.00
Fenestration (to overcome form of deafness)	111.00
Mastoidectomy	102.00
Nasal septum, submucous resection	104.00
Tonsillectomy	41.00
Laminectomy (operation on spinal cord)	204.00
Brain tumor, excision	311.00
Broken rib	20.00
Humerus (upper arm), simple fracture	53.00
Ribcage or ribs (various), simple fracture	12.00

Note: Although the fee in each case will vary somewhat from the average—as explained in this article—the survey from which these figures are taken indicates that the variation is slight. For example, in appendicitis, which averaged \$134, 90 percent of the surgeons' fees were less than \$165.

143

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15

being charged \$1,500 for a cast. Part of the motivation to address the issue was also to help preserve the public's trust in the surgical profession. The issue of exorbitant fees was an issue that received significant public attention, with magazines like *Better Homes & Gardens* publishing articles about how to negotiate fees with your surgeon (see photo, page 40).

The BoR established a committee to investigate the matter and gather data on the prevalence of overcharging, seeking to understand the scope of the problem and identify potential solutions. One of the proposed solutions was to create a standardized fee schedule that would provide guidance on reasonable charges for various surgical procedures.

Some factors the committee discussed that should influence fees were duration of operation, difficulty, mental and physical strain, and pre- and postoperative care. While this was not implemented, these discussions revealed the values of the ACS. Interestingly, many of these items parallel factors used to calculate the relative value units per procedure in modern healthcare reimbursement systems.

Despite its efforts to address the issue of exorbitant fees, the College did not ultimately arrive at a consensus regarding this matter. There was hope that health insurance policies, which were becoming more common at the time, would serve to alleviate the issue of cost.

In one of the final letters about the issue, the BoR stated that the College would “refrain from taking positions upon the economics of medical practice.”

Although much of the early ethical questions were intertwined with the financial aspect of medical care, the records show that the increasing complexity of the healthcare system made it challenging for the profession to establish a clear stance on the matter. The responsibility for ensuring fair and reasonable fees became a shared one rather than an individual one.

Unfortunately, health insurance does not always alleviate patients' massive financial burdens when seeking medical care. High deductibles, copayments, and coinsurance can result in considerable out-of-pocket expenses, while limited provider networks and uncovered services can leave patients with even higher costs. The passage of the No Surprises Act in 2022 underscores the ongoing relevance of financial accessibility in surgical care even today.

A Long History of Quality

Our research in the ACS Archives challenges the notion that the early years of the profession lacked formal ethical considerations. The ACS played a crucial role in shaping surgical ethics since its founding in 1912. As the profession grappled with the rapid advancements and changing social, economic, and institutional contexts of the time, surgeons found themselves confronting a series of thorny ethical issues that defied easy resolution.

The ACS's efforts to address the “four evils” and establish ethical standards is a part of the larger process of the consolidation of professional authority in

medicine. As the profession gained greater social and cultural status, it also faced increasing pressure to regulate itself and maintain high ethical standards.

While the specific practices and contexts may have changed, many of the underlying issues—such as the tension between innovation and safety, the challenges of professional boundaries, the impact of financial pressures on surgical practice, and the relationship between surgery and society—remain as relevant as ever. By engaging with this history, we can gain valuable insights into the ongoing challenges and opportunities facing the surgical profession in the 21st century.

Acknowledgments

We would like to express our gratitude to the ACS Archives for its diligent work in preserving the College's history. Its careful stewardship of these records made it possible for us to explore the rich history of surgical ethics and gain valuable insights into the evolution of the surgical profession. **B**

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Dr. Michael Visenio

Surgeon Advocacy during Training: Professional Interest or Physician Responsibility?

Michael Visenio, MD, MPH

Medical societies, including the ACS, have long exemplified organized physician advocacy in both Congress and state legislative houses to ensure high-quality surgery for patients and sustainable practices for surgeons.

THROUGH RESOURCES such as the annual Leadership & Advocacy Summit (see a recap of the 2024 Summit on pages 58–65), SurgeonsVoice Advocacy Center, and ACS Professional Association-SurgeonsPAC, the ACS introduces resident and associate surgeons to the practice of advocacy and various methods with which advocacy can be accomplished.

While comprehensive, advocacy in this context exists within a surgical society. Aside from surgical societies, exposure to advocacy occurs in state medical societies and, more rarely, student interest groups. Some may question whether exposure to advocacy should be more informal and grassroots or part of formal undergraduate and graduate medical education.

Here, I argue that introductory advocacy and health policy education for trainees would prime future physicians well for involvement in future advocacy efforts.

Contributing to Human Well-Being

Most physician and surgeon organizations make advocacy a priority for diverse interests in medicine. The American Medical Association adopted a Declaration of Professional Responsibility that requests physicians commit to “advocat[ing] for the social, economic, educational, and political changes that ameliorate suffering and contribute to human well-being.”¹

Similarly, the ACS considers patient safety, medical research funding, trauma systems, and cancer care to be advocacy priorities.

Despite advocacy being viewed as a professional responsibility, extant literature demonstrates that the incorporation of advocacy into the medical curriculum often is heterogeneous.

Among varied curricula, one study found that longitudinal rather than one-time learning about advocacy was more successful, along with immersive and objective-based activities and peer-led advocacy such as student or resident advocacy groups.² Another systematic review found that effective advocacy education is defined by a supportive culture that is learner-centric, educator-friendly, and action-oriented.³ When incorporated into undergraduate or graduate medical education, these curricula serve as first steps to furthering advocacy within their programs or institutions, or even as part of wider state or national medical societies.

Primed for Advocacy

Equipped with a common language of advocacy and health policy, as well as expansive medical knowledge and invaluable interactions with patients in the clinical setting, trainees then can serve as content experts in advocating for medical or surgical issues, and act as informed liaisons for patients who desire an improved healthcare system.

While organic involvement in advocacy at organizations such as the ACS is the typical route of participation, maintaining foundational knowledge of advocacy from undergraduate or graduate medical education may make initial involvement less intimidating and more readily fulfilling.

In the ACS Resident and Associate Society, the Advocacy and Issues Committee serves as that forum for early career surgeons to raise issues important to our membership and advance many of these issues along with potential solutions to the wider College.

Advocacy serves an important role for surgical trainees and practicing surgeons to advance their profession and improve patient care. Incorporating advocacy curriculum in undergraduate or graduate medical education can provide foundational knowledge on health policy, leading to robust engagement with medical and surgical organizations. **B**

Disclaimer

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

Dr. Michael Visenio is a general surgery resident at the University of Nebraska Medical Center in Omaha. He also is Chair of the Advocacy and Issues Committee for the ACS Resident and Associate Society.

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Dr. David Etzioni

Chief Surgical Officers Are Needed in Hospitals with Complex OR Environments

David A. Etzioni, MD, MSHS, FACS

THE CARE OF SURGICAL patients constitutes a significant portion of the overall enterprise of healthcare delivery. Data from the Centers for Medicare & Medicaid Services suggest that payments for surgical care represent more than 50% of federal healthcare expenditures and these disbursements are growing rapidly.¹ Within the US alone, there were 14.4 million OR procedures in 2018, incurring an overall cost of \$210.3 billion.² A recent analysis of California hospitals found an average cost of \$36–\$47 per minute of surgery performed.³

In order to achieve optimal function in the OR, this

environment requires the seamless collaboration of a broad spectrum of healthcare providers, including surgeons, anesthesiologists, and nurses, as well as coordinated efforts within different areas of the hospital such as central sterile, preoperative/recovery spaces, radiology, and others.

Decision-making in each of these areas encompasses considerations related to quality of care, cost-effectiveness, diplomacy, and culture. Rapid evolution in the scope of technologies that are available within the OR (e.g., robotic platforms, integration, image guidance) requires a growing

degree of strategic and operational oversight.

Strong leadership in the OR is necessary not only for efficient care but also to improve patient outcomes. The inherently multidisciplinary care within the OR depends on effective communication for high-quality care; attention to best practices has the potential to improve communication and reduce incidents of potential harm.

The culture within an OR environment has an important impact on patient outcomes as well, and effective leadership has a profound but inestimable impact on maintaining a culture that is appropriately patient-focused.⁴

With this concept in mind, I propose a chief surgical officer position or title within every hospital that has a multifaceted OR environment.

What Are the Responsibilities of a Chief Surgical Officer?

The OR is a limited resource with significant associated costs, and therefore, access (allocated starts) needs to be managed wisely, including setting block allocations and managing flexibility for emergent cases. Polarities arise and must be managed by a leader who listens and carries the respect of the OR community. Ensuring that the structure and processes within the OR support optimal practice and quality of care is clearly an important domain of leadership.

Acute shocks to normal operations will occur; for example, the COVID-19 pandemic had an impact on standard operating procedures specifically concerning issues related to capacity and safety. These situations need thoughtful leadership and clear communication.

Additional responsibilities may be less obvious, but also are within the scope of a chief surgical officer. Plans to grow OR capacity need to fit

in with the overall strategic plan of a hospital campus. Growth in surgical capacity requires more than implementing adjustments in the OR, as accompanying increased capacity in preoperative/recovery spaces, central sterile processing, waiting areas, staff touchdown areas, and sterile cores also should be considered. The chief surgical officer is integral to representing all these concerns.

Who Is Qualified to Be a Chief Surgical Officer?

It should be noted that a chief surgical officer does not need to be a surgeon. The main requisite for the role is that the individual be a respected leader within the community of physicians and allied health staff who work within the OR. Other important attributes of a chief surgical officer include a passion for improving the function of the OR and a willingness to interface collaboratively with other disciplines to identify and achieve shared goals.

This new title is necessary because no other title fits this purpose. Many hospitals already have leaders in the surgical space—such as the surgeon-in-chief or chief medical officer—who have responsibilities along the lines described in this viewpoint article. However, as noted earlier, a chief surgical officer does not need to be a surgeon. Therefore, the title of surgeon-in-chief may not be appropriate. The title of chief medical officer also does not fit, as the experience/expertise, decision-making, and relationships that a leader needs to exert to be effective as a chief surgical officer are distinct from those of a chief medical officer. Other intra-institutional roles (e.g., chief operations officer) do not specifically pertain to the complex clinical considerations that are inherent to effective surgical care.

The chief surgical officer role also is important

In each hospital with a busy OR, there currently is a person functioning (formally or informally) as a chief surgical officer, and this person may be struggling to define their role in the OR within a vacuum.

because it is essential to effectively defining and developing leaders who seek to elevate their profiles and have a lasting impact in this important sphere. Resources to support a chief surgical officer do exist, and I list several of them here. The ACS published a handbook—*Optimal Resources for Surgical Quality and Safety*—that focuses on quality with many practical and real-world concepts. The second edition of the textbook *Operating Room Leadership and Perioperative Practice Management* was published in 2019, and this is an excellent resource.⁵

In addition, academic programs focusing on surgical leadership are certainly useful for surgeons who seek to expand their leadership skills. Programs that are formally designed to train chief medical officers abound, but none that are specifically focused on the complex multidisciplinary leadership that is necessary for an effective chief surgical officer.

In each hospital with a busy OR, there currently is a person functioning (formally or informally) as a chief surgical officer, and this person may be struggling to define their role in the OR within a vacuum.

In addition to formally proposing and defending the title of chief surgical officer, the secondary goal of this viewpoint is to highlight the need for organized forums where the skills of a chief surgical officer can grow within a community of other leaders facing similar challenges. The conferences, educational programs, and other venues where surgical leaders convene need to formally include content that focuses on the needs of the chief surgical officer. Our leaders, hospitals, and patients will surely benefit. **B**

Disclaimer

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

Dr. David Etzioni is chair of the Department of Surgery and chief surgical officer at the Mayo Clinic in Phoenix, Arizona.

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Easy-to-Use Screening Tool Can Reduce Postoperative Mortality among Frail Patients

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

The US population is aging, and most seniors would like to be mobile and have good cardiovascular, neurologic, and orthopaedic health in their retirement years. However, an increasing number of seniors who have multiple preexisting conditions and are at extremely high risk for postsurgical complications are seeking out complex surgical procedures.

IT'S IMPORTANT THAT BOTH patients and their surgeons recognize that procedures performed on senior, frail patients are very different from similar procedures performed on healthy young patients. This is supported by the mortality rates for frail patients—all frail patients face significant risk from surgery, and about one in three very frail patients may die within 6 months of a “low-stress” surgery.¹

A study of 432,828 unique patients found that 8.5% of patients identified as frail had a mortality rate of 1.55% at 30 days after undergoing what is considered very low-stress surgeries. This 30-day rate increased to 22.26% after high-stress surgeries were performed on very frail patients, who comprised 2.1% of the sample. For both frail and very frail patients, mortality rates continued to increase at 90 and 180 days, reaching a high of 43.0% at 180 days for very frail patients after moderate-stress surgical procedures.¹

These mortality rates clearly show the need to evaluate the frailty of patients prior to surgery. High-risk frail patients require a different approach in order to have the best possible outcomes. With this in mind, surgeon and researcher Daniel E. Hall, MD, MDiv, MHSc, FACS, from the Veterans Health Administration (VHA) devised and implemented a 30-second screening tool that flags the 5%–10% of surgical patients identifiable as frail who are at risk for postoperative complications, loss of independence, and mortality.

Surgical Pause Starts with 12-Item Risk Analysis Index

Called the Surgical Pause, Dr. Hall's screening tool consists of a 12-item Risk Analysis Index (RAI) that identifies at-risk patients. These patients then are evaluated further using an interdisciplinary approach that may include prehabilitation and a structured

conversation designed to clarify the patient's goals and expectations prior to surgical decision-making. In addition, operative teams implementing the Surgical Pause may use narcotic-sparing regional anesthetics during surgery and implement a systematic delirium assessment during recovery.^{2,3}

The prehabilitation may include preoperative exercise to improve physical condition and respiratory function, as well as nutritional supplementation. These prehabilitative interventions shift the focus to increasing physiologic reserve and mitigating the risk of potential complications before they happen rather than relying only on rescuing patients after they experience postoperative complications that may result in long-term hospitalizations, readmissions, long-term institutionalization, or death.^{4,5}

The goal clarification goes beyond informed consent, framing a conversation about surgery within the context of the patient's life and goals. Surgeons and their staff can lead patients through this discussion by using lay language to describe the possible outcomes of surgery versus nonoperative management under the best, worst, and most likely scenarios. This discussion of options can be supplemented by visual aids given to patients and can be placed in the medical record.^{3,6-8}

Six-Month Mortality Rates Reduced from 25% to 8%

After being implemented at the Omaha VA Medical Center in Nebraska, the Surgical Pause reduced 6-month mortality rates among frail patients from 25% to 8%.^{2,9} Later efforts at Pittsburgh VA Medical Center and the University of Pittsburgh Medical Center, both in Pennsylvania, and Malcom Randall VA Medical Center in Gainesville, Florida, replicated this improvement.¹⁰

As a result of this success, the Surgical Pause has been implemented at more than 50 medical centers across the VHA and the private sector; this tool also has been adopted as a national practice by the VHA's National Surgery Office and by a growing number of private sector institutions.

The US Department of Veterans Affairs (VA) also developed a national CPRS (computerized patient record system) template to facilitate frailty assessment with the RAI.²

Surgical teams can implement the Surgical Pause by dedicating 5–10 hours a week for the first 3 months to establish the program. Afterward, only a few hours a week are required to review frail cases and generate periodic reports of process and outcomes measures. An implementation guide outlines a proposed timeline for implementation over 12 months and is publicly available on VA Diffusion Marketplace.¹¹

Winner of Eisenberg Patient Safety and Quality Award

The VHA received a 2023 John M. Eisenberg Patient Safety and Quality Award from The Joint Commission and National Quality Forum for the development of this tool, which screens patients quickly, simply, and effectively. The panel also noted that Surgical Pause's methodological approach and implementation strategy make it accessible and replicable within a variety of settings and facilities. **B**

Disclaimer

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

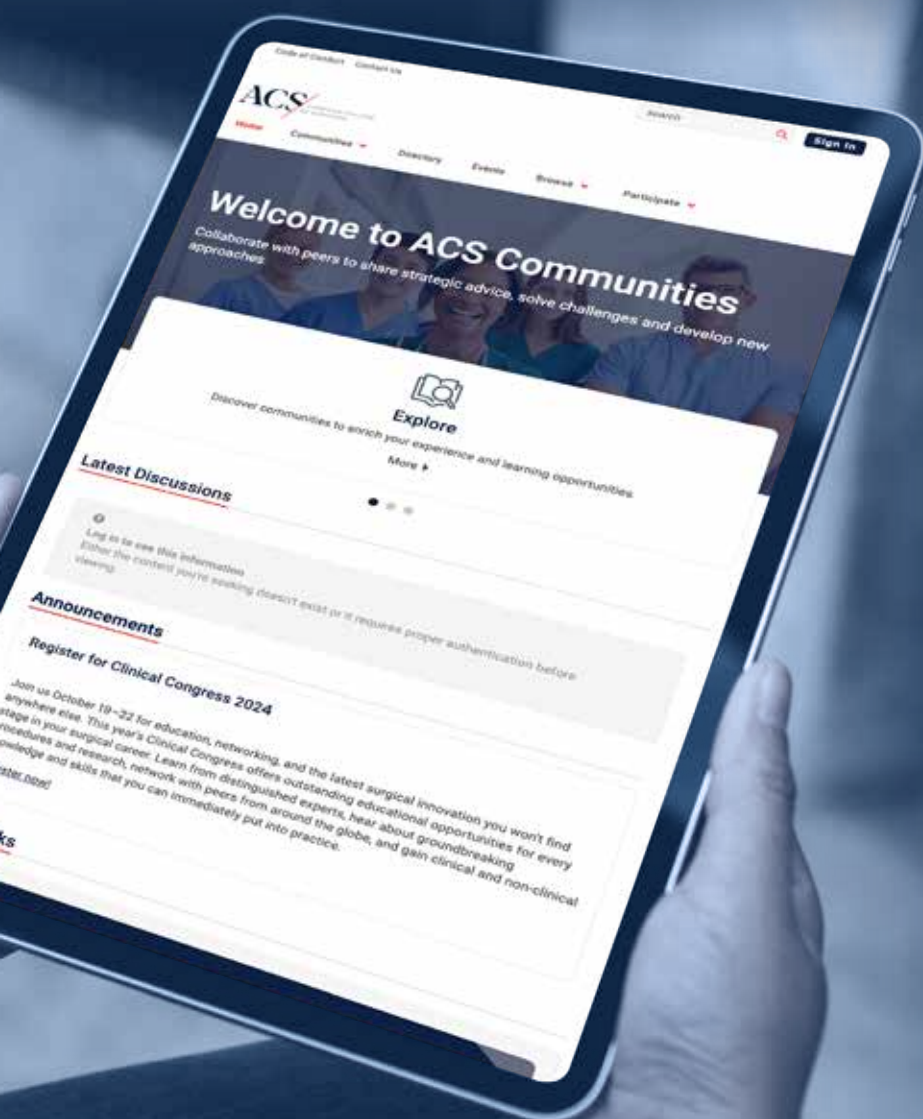
Dr. Lenworth Jacobs is a professor of surgery at the University of Connecticut in Farmington and director of the Trauma Institute at Hartford Hospital, CT.

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The History of Breast Reconstruction Is a Journey of Resilience

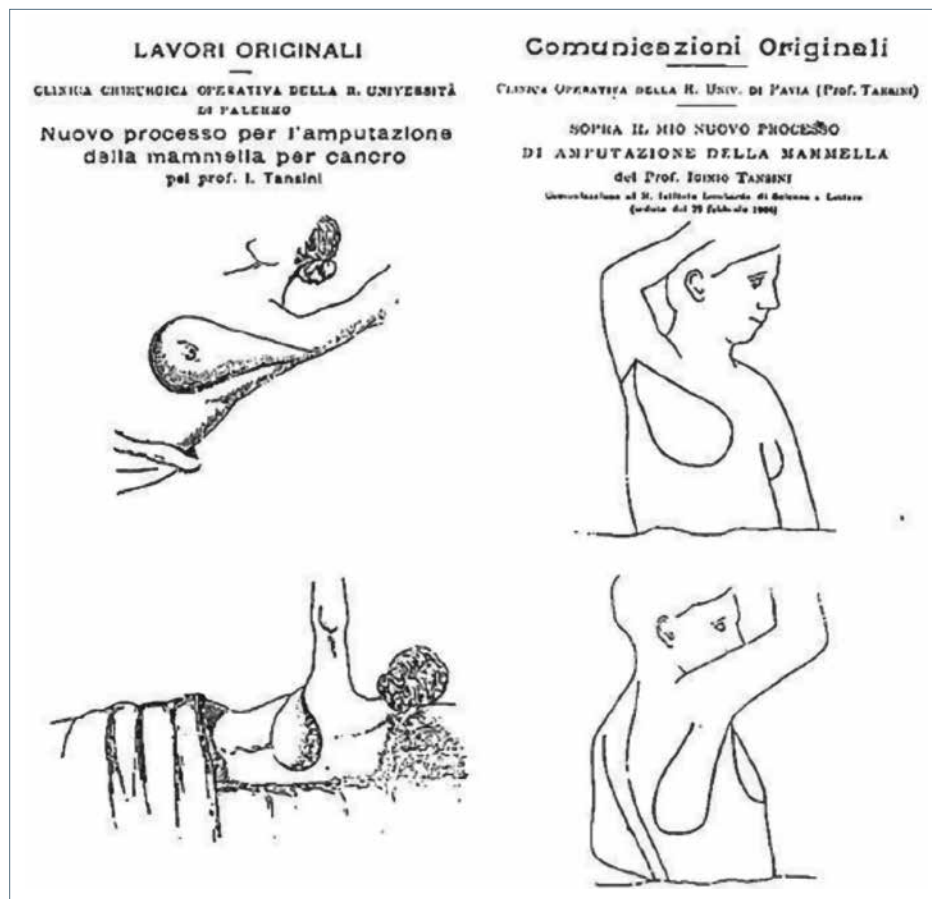
Shyamin Mehra, MD

Isabel Silva

Edward S. Lee, MD

Susan Pories, MD, FACS

The history of breast reconstruction unfolds as a testament to our collective and unwavering commitment to overcome cancer and restore the human body and spirit. Paramount to the trajectory of breast cancer care has always been the patient, while the focus has evolved from survival to disease recurrence to patient-reported outcomes and quality of life. Breast reconstruction has mirrored this evolution of care.



WILLIAM S. HALSTED, MD, FACS, performed the first radical mastectomy for breast cancer in 1882, removing all the breast tissue, pectoral muscles, nodes, and overlying skin. He believed that leaving behind skin for subsequent reconstruction would lessen the chances of survival.¹ Dr. Halsted feared that breast reconstruction would hide tumor recurrence, increase the chance of recurrence, or alter the course of the disease.

In 1976, Cushman Haagensen, MD, a professor of surgery at Columbia University in New York, New York, was quoted in *The New York Times* as saying that breast reconstruction was “madness” and that “breast cancer could be spread by another operation.” However, the tide began to turn against disfiguring radical mastectomies and in favor of lumpectomy as well as breast reconstruction when mastectomy could not be avoided.

Rose Kushner, a prominent journalist known for her reporting about the Vietnam War, developed breast cancer in the 1970s and became an outspoken advocate for less radical surgery as well as the availability of reconstruction. Her efforts raised public awareness of the physical, emotional, and psychological impact of a radical mastectomy, ultimately influencing the

surgical community as well. Despite initial resistance, breast reconstruction has now become an integral component of breast cancer treatment.

The first breast reconstruction was performed by Vincenz Czerny, a professor of surgery in Heidelberg, Germany. In 1895, he published the case of a 41-year-old woman who was a dramatic singer. She had a large fibroadenoma removed and was concerned that the resultant asymmetry would affect her stage career. Czerny noted that she had a sizeable lipoma in the right lumbar region and used this for the successful reconstruction of the breast defect.²

In the early 1900s, several European surgeons developed novel techniques for breast reconstruction using autologous tissue. Iginio Tansini, from

the University of Pavia in Italy, developed a latissimus dorsi musculocutaneous flap to close large radical mastectomy wounds. Other techniques included the distant tubed pedicle skin flap, with the umbilicus substituting for a nipple, introduced in 1917 by renowned surgeon, Sir Harold Gillies, known for his reconstructive efforts of severe war injuries.

These early approaches largely provided skin to cover the radical mastectomy defect without reconstructing the shape and aesthetics of the breast. The tubed pedicle flap required multiple staged operations and ultimately was replaced with other procedures requiring fewer operative stages and better aesthetic results.

In 1982, Carl Hartrampf Jr., MD,

Italian surgeon and pioneer in oncology Iginio Tansini created this first description of latissimus dorsi myocutaneous flap.⁶

The pedicle skin flap breast reconstruction was introduced by surgeon Sir Harold Gillies in 1917.⁷

FACS, from Atlanta, Georgia, made a quantum leap in autologous breast reconstruction with the development of the transverse rectus abdominis myocutaneous (TRAM) flap.³ Other local and regional flaps for breast reconstruction such as

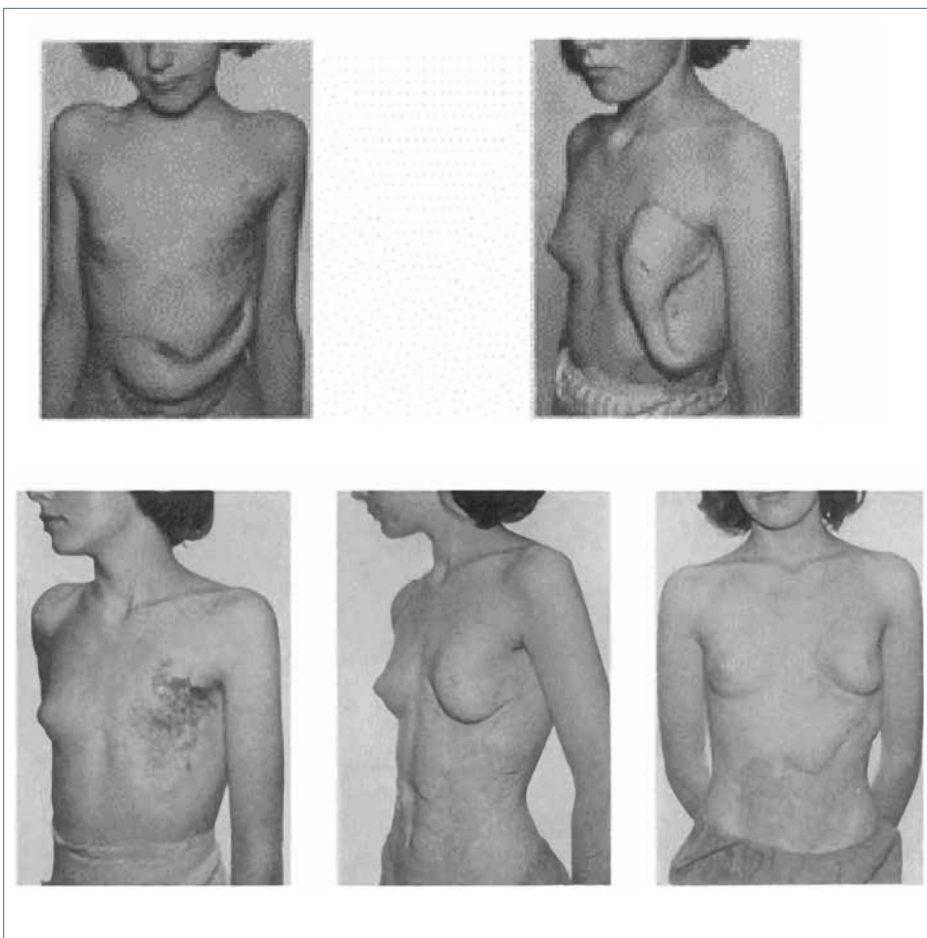
the latissimus myocutaneous flap were popularized and refined during this period. Further advancements in microvascular surgery allowed the development of the free TRAM flap, which involves harvesting less muscle. Muscle-sparing methods were

further explored to reduce patient morbidity, leading to the creation of the deep inferior epigastric flap in 1989, by Isao Koshima, MD, and Shugo Soeda, MD, from the University of Tsukuba in Japan.⁴

Alongside the autologous tissue breast reconstruction development, others pioneered implant-based reconstruction. In the 1950s, surgeons initially tried injecting liquid silicone into breasts, which led to significant complications such as migration of silicone to other body parts, and this technique was consequently banned in the 1970s.

Silicone breast implants were developed by Thomas Cronin, MD, from Houston, in the 1960s¹ followed by the introduction of the saline-filled implant. Implant-based aesthetic surgery and reconstruction quickly gained popularity. However, the safety of silicone breast implants was questioned, and silicone implants were withdrawn from the market for aesthetic surgery in the 1980s. After extensive study, the use of silicone implants was approved for both aesthetic and reconstructive surgery. In 1982, the tissue expander was introduced for delayed reconstruction to gradually expand the overlying skin and ensure appropriate skin coverage.

Breast implants have undergone many advancements



It is important to emphasize that breast reconstruction goes well beyond physical restoration and plays a pivotal role in the psychological and emotional well-being of many women who undergo surgery for breast cancer.

since the 1960s. Modern approaches such as skin and nipple-sparing mastectomies, when oncologically sound, preserve the natural appearance of the breast, areola, and nipple skin, which are difficult to reconstruct. Oncoplastic breast reductions have improved the shape of some lumpectomy defects. Fat grafting has grown in popularity to correct smaller deformities and asymmetries and allowed for refinement of breast reconstruction results.

It is important to emphasize that breast reconstruction goes well beyond physical restoration and plays a pivotal role in the psychological and emotional well-being of many women who undergo surgery for breast cancer. The BREAST-Q was developed by plastic surgeon Andrea Pusic, MD, FACS, as a way of analyzing patient-reported outcomes (PRO) after breast surgery.⁵

BREAST-Q measures PROs quantitatively and qualitatively with validated questionnaires that address quality of life domains and satisfaction after surgery. Studies using the BREAST-Q have demonstrated that reconstruction helps improve patients' quality of life and physical functioning, satisfaction with their appearance, psychosocial, and sexual outcomes.

Unfortunately, not all women have access to breast reconstruction after mastectomy and disparities for minority women persist. While barriers to access need correction, the history of breast reconstruction stands as a testament to our capacity to provide physical and emotional healing to those affected by breast cancer, reaffirming the belief that every woman's journey is worth celebrating. **B**

Dr. Shyamin Mehra is a fourth-year surgical resident at Rutgers New Jersey Medical School in Newark. She is pursuing a career in breast surgical oncology and is dedicated to reducing disparities in breast cancer care.

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Observations from Breast Patients Reveal Barriers to Achieving Timely Care

Katharine A. Yao, MD, MS, FACS

Rebecca A. Snyder, MD, MPH, FACS

The Patient-Reported Observations on Medical Procedure Timeliness (PROMPT) for Breast Patients study, a 2-year quality collaborative of the ACS National Accreditation Program for Breast Centers (NAPBC), was completed in January 2024.

IN THE FIRST year of PROMPT, 322 NAPBC-accredited sites contributed data from 2019 to 2021 on four timely metrics:

- Time from screening mammogram to diagnostic mammogram
- Time from diagnostic mammogram to biopsy
- Time from biopsy to neoadjuvant therapy
- Time from biopsy to surgery

Additionally, patient perceptions were gathered on timely care from screening to treatment through qualitative interviews. In the second year of PROMPT, approximately 207 sites conducted individual site-specific quality improvement (QI) projects using the ACS Quality Framework.

Overall, PROMPT was well received by NAPBC sites. Approximately 58% of all accredited NAPBC sites participated in the first year of PROMPT, and of the sites that submitted timely data, 63% completed all steps of the ACS Quality Framework for their QI projects.

The timely metrics submitted by participating sites in year 1 of PROMPT were examined. The metric data demonstrated that time intervals from screening to diagnostic biopsy were, on average, shorter than biopsy to treatment. The median number of days from screening mammogram (MGM) to diagnostic MGM was 11, from diagnostic MGM to biopsy was 8 days, but from biopsy to surgery, the median number of days ranged from 39 to 42 days. Not surprisingly, a marked decrease was observed in the number of days for all four time intervals during the first few months of the COVID-19 pandemic in 2020. Fortunately, time intervals for all four metrics resumed pre-pandemic levels within 2 months.

Year 1 also revealed some important patient perceptions from the patient interviews. One important finding from PROMPT was comparing patient preferences for the aforementioned time intervals (i.e., screening MGM to diagnostic MGM) to actual timelines collected through PROMPT.

Overall, patients preferred shorter time intervals from screening MGM to treatment compared to time intervals reported in PROMPT. Patients preferred

a time interval of 5 days from screening MGM to diagnostic MGM (compared to 11 days in PROMPT) and 21 days from biopsy to surgery (compared to 42 days in PROMPT). Patients reported many barriers to achieving timely care. Factors such as difficulty scheduling appointments, second opinions, and additional testing and consultations delayed care. Issues with insurance coverage, financial constraints, and transportation barriers also were obstacles to getting timely care.

The second year of PROMPT wrapped up in January 2024. Sites submitted their individual QI projects using the ACS Quality Framework. PROMPT gave each site a choice as to which timely metric they wanted to improve. Fifty-one (24%) sites picked the screening to diagnostic MGM time interval, 58 (27%) selected the diagnostic MGM to biopsy interval, 62 (29%) chose the biopsy to neoadjuvant therapy interval, and 42 (20%) selected the biopsy to surgery interval.

Each site developed a problem statement, aim statement, root causes, interventions, barriers, and a sustainability plan. More than 75% of the sites that focused on time from screening to diagnosis stated their QI project was successful compared to approximately 50% of sites that focused on time from biopsy to treatment. This finding was not surprising given the increased number of steps it takes to get a patient from diagnosis to treatment as opposed to screening to diagnosis. There is much more to learn from PROMPT, thanks to the many sites and patients who participated. **B**

Dr. Katharine Yao is a clinical professor of surgery with the Pritzker School of Medicine at The University of Chicago in Illinois, and vice chair of research in the Department of Surgery at NorthShore University HealthSystem in Evanston, Illinois. She also is Chair of the ACS NAPBC.



Leadership & Advocacy Summit Unites Surgeons, Inspires Change

Jennifer Bagley, MA

In the heart of Washington, DC, the ACS Leadership & Advocacy Summit became the epicenter for the connection of more than 700 surgeons—in person and virtually—who were galvanized by a shared commitment to advancing leadership skills and driving impactful change within healthcare advocacy.

Left: Dr. Sunil Geevarghese shares a strong message about moral injury within the surgical profession.

Right: Surgeons from the state of Texas discuss their plans for the in-person visits on Capitol Hill.

THIS POWERFUL EVENT, held at The Westin Washington, DC Downtown Hotel, April 13–16, underscored the vital intersection of leadership and advocacy in shaping the future of surgical practice. “The 2024 Leadership & Advocacy Summit was another example of the leadership strength in the ACS,” said Michael J. Sutherland, MD, MBA, FACS, Director of the ACS

Division of Member Services. “We brought together a slate of amazing individuals who all share one common trait: they are all Fellows of the American College of Surgeons. These formidable surgeons shared insights and expertise from their personal journeys to help us all become better leaders.”

Also worth noting, this year, leadership presentations were interspersed with advocacy

topics to help provide the important throughline between learning about leadership to taking action for the profession and surgical patients.

How Do You Control the Risk?

Just before the official start of the leadership portion of the summit, three special preconference seminars were offered, including “Controlling Risk:

The Techniques of Operating Excellence,” presented by Jim Wetherbee, a retired US Navy officer and aviator, aerospace engineer, and astronaut. A veteran of six Space Shuttle missions, the only American astronaut to command five missions in space, and the only person to land the Space Shuttle five times, he holds more than 3 decades of experience in high-hazard operational environments.

Wetherbee shared with a sold-out audience his thoughts on effective leadership behaviors that influence and inspire people to make life-and-death decisions in dynamic, complex situations and safely conduct dangerous endeavors with “critical mission objectives.”

During his talk, Wetherbee delved into the differences between managing risk—which companies do—and controlling risk—which surgeons do. He explained that organizations often issue rules-based procedures that employees are required to follow. But as good as rules-based procedures are, they are specific, limited, and cannot prevent all accidents nor mitigate all risk.

“What the individual does—if they’re good—is augment the rules, policies, and procedures with a suite of principles-based techniques,” he said. “Largely, these techniques are mental attitudes—how you think when you’re operating, flying, or reaching a building if you’re on a SWAT team. These techniques are adaptive and unlimited, and they can help you prevent all accidents and maximize results.”

The techniques of operating excellence include:

- Developing and maintaining risk awareness
- Expecting failures

- Following procedures (and rules) thoughtfully
- Identifying trigger steps
- Being assertive (to authority) when necessary
- Balancing confidence with humility

Additional techniques are examined at length in Wetherbee’s book: *Controlling Risk: Thirty Techniques for Operating Excellence*.

Mitigating Moral Injury

The Leadership Summit officially kicked off on Sunday morning, with compelling messages from Sunil K. Geevarghese, MD, MSCI, FACS, from Vanderbilt University Medical Center in Nashville, Tennessee.

In the session, “Moving Forward after Moral Injury: A Leader’s Perspective,” Dr. Geevarghese explored the dynamics of moral injury that surgeons may experience as a result of major surgical complications and the potential progression to second victim syndrome and burnout. He stressed that moral injury, second victim syndrome, and burnout are not “synonyms,” adding that moral injury happens much earlier.

“Moral injury is going to happen as we operate and care for patients. But second victim syndrome and burnout don’t have to,” Dr. Geevarghese said.

The term “moral injury” was first used to describe soldiers’ responses to their actions in war. It represents “perpetrating,

Attendees listen to inspiring and passionate leaders, including Aneesh Chopra, Leslie Krigstein, and Terry Wilcox.



failing to prevent, bearing witness to, or learning about acts that transgress deeply held moral beliefs and expectations,” according to Dr. Geevarghese. In the context of healthcare, moral injury is being unable to provide high-quality care and healing.

Sustainability in Healthcare

In the session, “Sustainability in Healthcare: Where We Are and Where We Want to Be,” Robin Blackstone, MD, FACS, from Blackstone Health in New York, New York, acknowledged that sustainability awareness is growing in healthcare with “major players” moving into the space.

Dr. Blackstone made mention

healthcare, of which 80% come from the OR.

“We are surgeons. We intervene and get involved. We solve problems, and this is a problem to solve. There is no bigger sustainability space where a difference can be made than in surgery,” she said.

Surgeons as CEO

A distinguished group of surgeon leaders shared important life lessons and valuable insights from their personal journeys to the C-suite: Selwyn M. Vickers, MD, FACS, from Memorial Sloan Kettering Cancer Center in New York, New York; Robert S. D. Higgins, MD, MSHA, FACS, from RUSH University in Chicago,

Medical Center in Baltimore.

The panel, “Surgeons as CEO: Career Paths to the Corner Office,” was moderated by Timothy J. Babineau, MD, MBA, FACS, from The Warren Alpert Medical School of Brown University in Providence, Rhode Island.

Dr. Freischlag shared that her plan was to be “a really good vascular surgeon.” She was only the sixth woman vascular surgeon certified in the US, the only woman division chief in the country when she was leading vascular surgery at the University of California, Los Angeles, and only the fourth woman to be chair of surgery at Johns Hopkins Medicine in Baltimore, Maryland.

“I quickly learned that you can’t change the world unless you’re in charge,” she said.

Dr. Vickers continued the conversation by describing the unique qualities that surgeons bring to the CEO role, such as building and working within teams and maintaining a commitment to rigorous process and accountability.

In addition, surgeons regularly face difficult problems and are often forced to make decisions with incomplete information, which helps prepare them for a CEO role. “We’ve had to learn nuance and perspective on making hard decisions when you don’t have all the data,” he said.

Dr. Steele added that surgeons are grounded in patient care. “Those of us who have been cutters in various specialties—no matter how complex our jobs are and how big our organizations are—are always somehow rooted in how our decisions are going to affect patient care, and that allows us to have credible relationships



Dr. Patricia Turner (third from right) and Dr. Michael Sutherland (second from left) join the prominent panel of surgeon-CEOs who revealed valuable insights about life in a hospital.

of the Science and Technology for Sustainability Program from the National Academy of Sciences, stating that globally, 5% of the overall greenhouse gas emissions are from healthcare. In sophisticated, higher-income countries like the US, 8% to 10% of the overall emissions are from

Illinois; Julie A. Freischlag, MD, DFSVS, FACS, from Atrium Health Wake Forest Baptist in Winston-Salem, North Carolina; Glenn D. Steele Jr., MD, PhD, FACS, formerly from Geisinger Health System in Washington, DC; and Bert W. O’Malley, MD, FACS, from the University of Maryland

with the people who are actually doing the work,” he said.

The ability and willingness to take risks is another quality that surgeons bring to the senior executive offices. Dr. O’Malley explained that surgeons are reputable risk-takers. “We put a knife to patients, and every patient is a life-or-death risk, no matter what you’re doing. As a leader and CEO, taking risks is a big part of what you have to do if you want to change the culture or build the future.”

It can be lonely at the top, though, Dr. Higgins shared. He explained that a coach (he has two of them) can help examine and enhance leadership skills, identify short- and long-term goals, improve communication, foster strategic thinking, and perhaps most importantly, provide psychological safety (see article on page 22).

“A coach will give you the feedback you need to be better as a leader. I recommend that anyone who I hire at the senior management level have a coach,” he said.

A particularly poignant note—which garnered energetic nods and audible agreement from the other panelists—was shared by Dr. Vickers as he described the transition from leading a surgical department to becoming a CEO.

“When you’re head of a surgical department, it’s like a lion leading a pride of lions. Everybody knows your language. They’re close enough to touch you. They see you in the OR. They see you in the hallways. You share the same pedagogy and pedigree. But when you move to the next level like a dean or CEO, you’re a lion leading a zoo. It’s a totally different animal. Some of the species are predatory; some are nocturnal; all speak different

languages. You really have to learn their world, and you have to be thoughtful.”

Executive Director’s Update

ACS Executive Director and CEO Patricia L. Turner, MD, MBA, FACS, provided a comprehensive overview of the College’s performance, key achievements, current initiatives, and future plans.

“The ACS is a community of surgeons who have an incredibly diverse set of skills and expertise. The camaraderie among surgeons is real,” she said. “All of us are integral to the success of the healthcare system, and I hope you leave this meeting thinking about what you can do to exhibit your leadership in a way that is transformative for your institution, for your patients.”

Dr. Turner outlined the various opportunities for leadership within the ACS, including 14 advisory councils, the Board of Regents, and the Board of Governors. She encouraged member involvement in ACS committees from all surgical specialties and career stages and made special mention of the Resident and Associate Society and the Young Fellows Association, emphasizing that while residents and young fellows are the future of the organization, they already are leaders.

Advocacy Summit

In preparation for in-person visits to Capitol Hill, attendees engaged in several panels and educational sessions to better understand the College’s legislative priorities.

Power of the Patient Story

In the panel, “How to Advance the ACS Agenda in a Divided Congress,” moderator



Rodney Whitlock, PhD, from McDermott+Consulting in Washington, DC, led a strong discussion on best practices when sitting down with members of Congress to discuss issues that impact surgery and patient care.

Don J. Selzer, MD, FACS, from Indiana University Health in Indianapolis, advised that “the long game of Congress” may require patience. “As surgeons, we all like to think about things according to how an operation works. We forget about the fact that many of us spent 8–12 years getting to the point of being able to do that. Congress is a little bit like the process of going from being an undergraduate to being a trained surgeon; it’s not like going from scrubbing in to performing a surgery.”

He also explained that being passionate and enthusiastic about an issue is important, but even more so, is sharing personal stories. In other words, get the right story in front of the right person.

The “personal story” theme also was prevalent in another panel, “Working with Patient Advocacy Groups.” According to Leslie Krigstein, from Translucent in Washington, DC, stories help humanize the request. “Having patient stories takes your ask to a different level.”

Dr. Don Selzer reminds the audience to be patient with “the long game of Congress.”



Left: Sustainability awareness is growing in healthcare, and surgeons need to get involved, says Dr. Robin Blackstone during her presentation.



Right: Dr. Matthew Schiralli stresses the importance of surgical quality programs.

Terry Wilcox, from Patients Rising, said that hearing about patients and hearing from patients are both consequential. “Surgeons commandeer respect. The pairing of surgeons and patients is a match made in heaven.”

AI and Surgery

The “timely and pertinent topic” of artificial intelligence (AI) was at the forefront of the panel “AI and Surgery: Policy Considerations,” led by Genevieve Melton-Meaux, MD, PhD, from the University of Minnesota in Minneapolis. An esteemed group of panelists shared their experiences and expertise in an effort to help the surgeon audience understand the issues related to the use of AI in surgery, and more broadly, in healthcare. The group also tackled the current regulatory landscape surrounding AI, while also identifying opportunities for engagement.

“In many ways, you have the power. You have the judgment to say where we apply the gas and where we apply the brakes,” said Aneesh Chopra, from CareJourney in Arlington, Virginia. “We want to raise our hands and say this is something that will be helpful to the practice of surgery. If you did that, you would make it a lot easier for the

regulators to minimize the bad and maximize the good. We can help shape the future.”

Another panelist, Jeffrey Smith, from the US Office of the National Coordinator for Health Information Technology, agreed that many applications and technologies, such as AI, are destined to be beneficial to surgery, especially in the area of decision-making. He pointed out the “tremendous opportunity” when it comes to AI but shared the reminder that “we are still trying to understand” this evolving technology and “so we have to remain clear-eyed.”

Surgical Quality

“Does what we measure today help patients? Does it help care teams? Or should we be measuring something else?” These thought-provoking questions began the session, “Surgical Quality in Patient-Centered Care.”

According to Matthew P. Schiralli, MD, FACS, from Rochester Regional Health in New York, when building out quality programs—either for the ACS or hospitals—rallying healthcare professionals and gaining their support are crucial. “They understand that these programs are directly benefiting the patients who we serve.”

Data have shown that in hospitals with quality programs, the cost of care is lower, and the quality of care is higher. “And that’s what excites healthcare professionals,” he said.

Missy Danforth, from The Leapfrog Group in Washington, DC, noted that the ACS Geriatric Surgery Verification Program (GSVP), which features 32 surgical standards designed to improve surgical care and outcomes for older adults, is “one of the most innovative types of new measures I’ve seen.”

GSVP is revolutionizing elderly patient care, Dr. Schiralli agreed. “We realized that our area in New York State is aging faster than the rest of the state, which is aging faster than the rest of the country. We naturally said we’re going to latch on to a program for the older patient, and we wanted to be an example for the rest of the country. What has the end result been? We’re on the journey, and we’re never quite done. Our demographic is always changing, but importantly, we’re embracing team-based care and creating systems in our hospitals that are not just surgeon-dependent.”

Congressional Asks

After an almost full day of informative panels, staff members from the ACS DC office

detailed the “asks” and provided background information in preparation for the visits to the Congressional offices. The attendees broke into groups by state and discussed how to:

- Stabilize the Medicare physician payment system (Strengthening Medicare for Patients and Providers Act)
- End costly insurer fees (No Fees for EFTs Act)
- Support the surgical workforce and patient access to care (Ensuring Access to General Surgery Act, Resident Education Deferred Interest Act, Specialty Physicians Advancing Rural Care Act, and the Workforce Mobility Act)
- Increase access to cancer screening (Colorectal Cancer Payment Fairness Act and the Find It Early Act)
- Reauthorize critical trauma programs (Pandemic and All-Hazards Preparedness Act and the Emergency Medical Services for Children Act)
- Support \$10 million for neglected surgical conditions

Several invited congressional speakers—Reps. John Joyce, MD (R-PA), Darin LaHood (R-IL), Angie Craig (D-MN), and Raul Ruiz, MD (D-CA), as well as Sen. John Boozman (R-AR)—shared their thoughts on the important role surgeons play in advocating

for their patients and shaping federal healthcare policy.

“The Leadership & Advocacy Summit is one of my favorite meetings,” said Jason P. Wilson, MD, MBA, FACS, a surgical oncologist from Sentara Health in Hampton, Virginia, and the 2023 ACS Advocate of the Year. “This year, we heard presentations about dealing with moral injury stemming from complications, what sustainability in healthcare looks like, and heard from amazing surgeons who have transitioned into the CEO role. We then moved into the advocacy component and learned how to be effective surgeon advocates. I always learn so much at this meeting and appreciate the chance to meet new colleagues and take practical steps to help the ACS with its advocacy agenda.”

Advocacy and Health Policy Abstract Competition


Residents and trainees also had an important role in the summit content. Nine authors were invited to present their abstracts, and the top three were recognized:

- First place (\$500): Lucero Paredes, MD—An Unconditional Cash Transfer Program for Survivors of Firearm Injury: A Strategy to Address Community Gun Violence
- Second place (\$250): Kranti Rumalla—Evaluating Surgeon

Workforce Adequacy in Metro and Non-Metro Areas: An Analysis of 2035 Projections

- Third place (\$100): Nicole Hatala, MD—STOP THE BLEED® Kits on University of Missouri-Columbia Campus: A Five-Year Follow-up

Individuals still can register for the Leadership portion of the Summit to access on-demand content at facs.org/summit. Registrants can earn up to 5.25 *AMA PRA Category 1 Credits*™ for attending or viewing the Leadership Summit; another 1.75 *AMA PRA Category 1 Credits*™ are available for each of the Practice Management and Controlling Risk workshops (in-person only). The deadline to access content and claim CME credits is June 14, 2024.

The 2025 Leadership & Advocacy Summit will be held in person only in Washington, DC, April 5–8. 

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



#ACSLAS24 Hill Visits

On Hill Day, 215 Advocacy Summit attendees representing 39 states participated in 212 meetings.





Discover the Power of Value at the 2024 Quality and Safety Conference



Access related video content online.



PROFESSIONALS dedicated to achieving high-quality surgical care and patient safety, including all members of the surgical team, are invited to attend the 2024 ACS Quality and Safety Conference, July 18–21 at the Colorado Convention Center in Denver. Registration is now open at facs.org/qsc2024.

This year, the conference theme is the Power of Value: Expanding Your Impact. Surgeons, nurses, and quality improvement (QI) professionals from around the world will convene to share their perspectives on the value of quality and safety. Sessions are designed to put attendees in conversation with other leaders, from a variety of backgrounds and disciplines, about how to define, measure, and sustain improvements in surgical care.

The Quality and Safety Conference offers educational, interactive sessions meant to provide QI professionals with knowledge and tools they can take back to their home institutions. Attendees can engage directly with staff from the ACS Quality Programs—the National Surgical Quality Improvement Program®, Quality Verification Program, and more—to learn how to meet and exceed standards.

Five optional, preconference workshops will provide hands-on experiences:

- “QI Basics” will teach the fundamentals of quality improvement projects.
- “How to Not Fail at Failing: Mastering the Art of Learning from Failure in QI” will delve into how to recover from QI setbacks.
- “From Apprentice to Master” will promote data abstraction techniques and tools for novice surgical clinical reviewers (SCRs) in all programs, as well as metabolic bariatric SCRs.
- “Harmonizing Excellence: A Symphony of QI” will review how to not only implement QI solutions but maintain them.
- “Health Services Research Methods” will offer practical experience with taking health services and outcomes research from start to finish.

Attendees also can take part in “Measuring Value—From Stakeholder to Stakeholder”—a new general session workshop. During this session, faculty will lead an exercise that allows peers to engage in discussions on what is currently being measured in their programs, areas for opportunity, lessons learned, and actionable next steps.

Other Conference Highlights

A record number of abstracts was submitted this year, as the submission criteria

were expanded to include abstracts from a greater number of surgical disciplines. This year, the Association of periOperative Registered Nurses and the American Society of Anesthesiologists have been invited to each host a breakout session highlighting their initiatives.

To foster networking, several dedicated social events are planned:

- The Welcome Reception will be held Friday, July 19, on the Colorado Convention Center’s Rooftop Terrace, which features breathtaking views of the Rocky Mountains.
- On Saturday, July 20, attendees will be able to speak with the authors during the Abstract Reception and Networking Event.

An opportunity to earn Continuing Medical Education and Continuing Nursing Education credits will be available.

Visit facs.org/qsc2024 to learn more. **B**

Thank You National Doctors' Day Contributors



IN HONOR OF National Doctors' Day on March 30, dozens of people contributed to the ACS Foundation, in special recognition of those who helped inspire their careers.

Donations will be used to support scholarships, grants, and other ACS programs to ultimately promote better patient outcomes.

2024 National Doctors' Day Contributors

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We thank everyone who participated and encourage you to donate throughout the year at facs.org/acsfoundation. 

The following articles appear in the May 2024 issue of the *Journal of the American College of Surgeons*. A complimentary online subscription to JACS is a benefit of ACS membership. See more articles at facs.org/jacs.

Evaluating Outcomes of Non-Accidental Trauma in Military Children

Katie Joskowitz, MAS, Utsav M. Patwardhan, MD, Gretchen M. Floan, MD, and colleagues

Military-affiliated children diagnosed with non-accidental trauma were younger and experienced a higher mortality rate, longer length of hospital stay, and more complications than civilians. This paper identified a high-risk, vulnerable population in need of additional support and research.

Continued Diabetes Remission Despite Weight Recurrence: Gastric Bypass Long-Term Metabolic Benefit

Omar M. Ghanem, MD, FACS, Kamal Abi Mosleh, MD, Anthony Kerbage, MD, and colleagues

Gastric bypass demonstrates a high rate of type 2 diabetes remission, a phenomenon hypothesized to be mediated mainly by weight loss. This study found a significantly higher rate of continued diabetes remission after gastric bypass compared with a sleeve gastrectomy cohort, despite weight recurrence.

From Patients to Providers: Assessing the Impact of Normothermic Machine Perfusion on Liver Transplant Practices in the US


Benjamin K. Wang, MD, Andrew D. Shubin, MD, PhD, Jalen A. Harvey, MD, and colleagues

Normothermic machine perfusion preservation before liver transplantation has demonstrated noteworthy benefits for both patients and providers. This study found similar recipient outcomes to those of established static cold storage preservation techniques, a potential shift of peak caseloads for liver transplantations from nighttime to daytime, and decreased discard rates.

Judgment Errors in Surgical Care

Katherine M. Marsh, MD, MPH, Florence E. Turrentine, PhD, RN, Ruyun Jin, MD, MCR, and colleagues

This study found that patients undergoing a hepatobiliary procedure and patients with certain preoperative variables (insulin-dependent diabetes, severe COPD, or infected wounds) were at increased risk for judgment errors during their hospitalization. Preventing or mitigating errors and closely monitoring patients after an error in judgment are prudent steps that may improve surgical safety, the authors suggested.

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The ACS is seeking a widely published surgeon-scientist, inspirational leader, visionary, and strategic organizational thinker to serve as the next Editor-in-Chief of the *Journal of the American College of Surgeons (JACS)*.

With a current impact factor of 5.2, *JACS* publishes high-quality original articles on all aspects of surgery, including clinical studies, review articles, and experimental investigations with clear clinical relevance. The Editor-in-Chief will be responsible for growing and modernizing the monthly online-only journal that is a benefit of ACS membership, as well as available to subscribers worldwide.

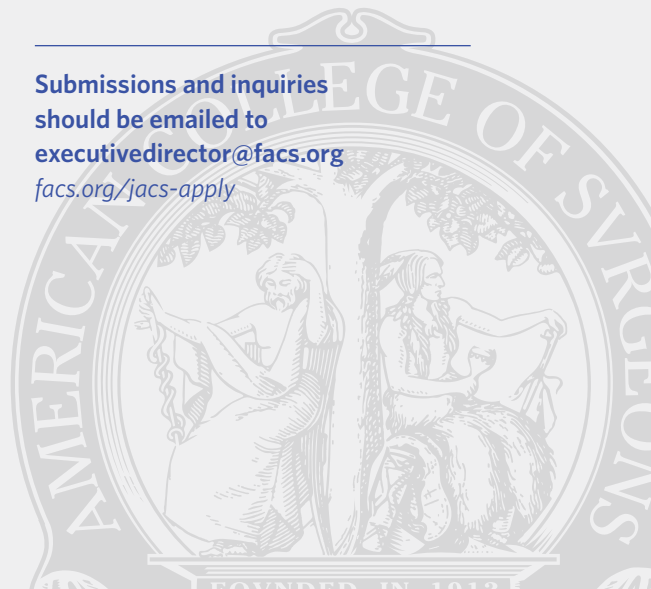
The ideal candidate will be an enthusiastic ambassador for *JACS*, developing the journal's profile and reputation, as well as using the latest technology and digital tools to innovate and evolve it to engage the next generation of surgeons. The successful candidate will also be responsible for providing editorial direction; ensuring the journal operates in accordance with the highest standards of scientific integrity; interfacing with the editors, editorial board members, and the Chicago-based staff; soliciting and identifying appropriate content; and fielding relevant submission inquiries. Only Fellows of the College in good standing will be considered.

Interested candidates should submit the following by **Monday, June 17, 2024**:

- Curriculum vitae
- Vision for the journal (500-750 words)
- Attestation of his/her ability to devote a minimum of 20 hours per week to *JACS*

Candidate interviews will take place virtually this summer, with subsequent rounds in person in Chicago. It is expected that the next Editor-in-Chief will be announced during Clinical Congress 2024 in San Francisco, October 19-22. A 5-year term, with an option for a renewal, will begin at the end of February 2025 after a period of transition with current Editor-in-Chief Timothy J. Eberlein, MD, FACS.

Submissions and inquiries should be emailed to executivedirector@facs.org
facs.org/jacs-apply



Member News

Gilliland Is President and Future CEO of Geisinger



Dr. Terry Gilliland

Terry Gilliland, MD, FACS, a general surgeon in Steamboat, Colorado, has been named president of Geisinger Health in Danville, Pennsylvania. He also will assume the role of chief executive officer (CEO) at Geisinger once the current CEO transitions to a new position. Previously, Dr. Gilliland was chief medical officer at the artificial intelligence precision health company Cogitativo in Berkeley, California.

Woo Is Promoted in Hawaii



Dr. Russell Woo

Pediatric surgeon Russell K. Woo, MD, FACS, is the first associate dean for clinical programs at Hawaii Pacific Health (HPH) and chief academic officer for the HPH Medical Group, both in Honolulu. Before these new roles, Dr. Woo was a professor and associate chair for research in the Department of Surgery at the University of Hawaii John A. Burns School of Medicine (JABSOM) in Honolulu. He also served as the JABSOM Department of Surgery's director of surgical education at the Kapi'olani Medical Center for Women and Children in Honolulu. Dr. Woo is a Governor-at-Large on the ACS Board of Governors and holds other ACS roles.

Backhus Receives Named Professorship at Stanford



Dr. Leah Backhus

Leah Backhus, MD, MPH, FACS, was named the Thelma and Henry Doelger Professor of Cardiovascular Surgery in the Department of Surgery at Stanford Medicine in California. Dr. Backhus—a cardiothoracic surgeon—serves as chief of thoracic surgery at the VA Palo Alto Health Care in California, as well as co-director of the Thoracic Surgery Clinical Research Program and associate program director of the thoracic track in the CT Surgery Residency Training Program, both with Stanford Medicine.

Fraser Takes Over Pediatric Surgery in Phoenix



Dr. Jason Fraser

Jason D. Fraser, MD, FACS, is the new division chief of pediatric surgery at Phoenix Children's Hospital in Arizona. He also serves as a professor at the Mayo Clinic, Creighton University School of Medicine, and University of Arizona College of Medicine–Phoenix, all in Arizona. Dr. Fraser previously served as medical director of the Opioid Stewardship Program, director of the Pediatric Surgery Fellowship Program, director of bariatric surgery, and director of general surgery residents at Children's Mercy in Kansas City, Missouri.



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.

Hasson Leads DEI at the Brigham



Dr. Rian Hasson

Rian M. Hasson, MD, MPH, FACS, has taken on a first-of-its-kind role in the Department of Surgery at Brigham Women's Hospital in Boston, Massachusetts—vice chair for diversity, equity, and inclusion. A cardiothoracic surgeon, she also will serve as an associate surgeon in the Division of Thoracic Surgery. Before joining the Brigham, Dr. Hasson was an assistant professor of surgery at the Dartmouth-Hitchcock Medical Center and the Dartmouth Institute for Health Policy and Clinical Practice, both in Lebanon, New Hampshire, and at the Geisel School of Medicine at Dartmouth in Hanover, New Hampshire. She also was the director of the Lung Cancer Screening Program and the founding co-director of the Lung Health and Pulmonary Nodule Clinic at the Dartmouth-Hitchcock Medical Center.

Dissanaike Will Become Chair of Surgery in New Mexico



Dr. Sharmila Dissanaike

Sharmila Dissanaike, MD, FACS, FCCM, will take over as chair of the Department of Surgery at The University of New Mexico School of Medicine in Albuquerque. She will assume the new role in August. Dr. Dissanaike currently is the Peter C. Canizaro Chair and University Distinguished Professor at Texas Tech University Health Sciences Center in Lubbock. For the ACS, she is a member of the Board of Governors Physician Competency and Health Workgroup, a Governor of the North Texas Chapter, Vice-Chair of the Clinical Congress Program Committee, and holds other ACS roles. **B**

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