

MARCH 2024 / VOLUME 109 / NUMBER 3

ACS/Bulletin

AMERICAN COLLEGE OF SURGEONS



Surgeons, Patients, and the Corporatization of Healthcare

Also Inside:

More Surgeons for Rural Practice

Opioid Use Is Complex



THANK YOUR
MENTOR,
INSPIRE OTHERS



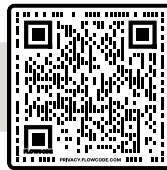


Who inspired you to become a surgeon?

Honor your mentor by making a donation to the ACS Foundation this National Doctors' Day, March 30.

DONATE TODAY

- All donors and their honorees will be featured in a special recognition listing in the *ACS Bulletin* and on the ACS website.
- Donations will be used to support scholarships, grants, and other ACS programs to ultimately promote better patient outcomes.
- Contributions are tax-deductible to the extent allowed by law.



facs.org/honor

Cover Story

8

Surgeons Are Prioritizing Patients amid the Corporatization of Healthcare

Matthew Fox, MSHC



Features

16

The Need to Prepare More Surgeons for Rural Practice Is Urgent

Jim McCartney

24

In Surgical Care, Opioid Use Is Complex

M. Sophia Newman, MPH

32

Low-Cost Box Trainer Guides Learners in LMICs and Students Closer to Home

Serena S. Bidwell, MPH, Ahmad Hider, MPHIL, Chioma Anidi, and Grace J. Kim, MD, FACS

6

Executive Director's Update: Scholarships for Every Kind of Surgeon

Patricia L. Turner, MD, MBA, FACS

38

Viewpoint: Visiting Fellow from Nepal Describes US Experience as "Dream Come True"

Suman Baral, MBBS, FACS

42

Viewpoint: Clinical Congress 2023 Provides Enduring Value

Fabrizio Michelassi, MD, FACS, and Ajit K. Sachdeva, MD, FACS, FRCS

Reports

46

Preanesthesia Assessments
Allow Safer Surgery for
Patients and Surgeons

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

48

Legendary Abdominal
Surgery in 19th Century
Defies Medical Norms

Hugh A. Gamble II, MD, FACS

News

52

Leadership & Advocacy Summit
Will Inspire Action and Drive
Change

54

In Memoriam:
Dr. Robin McLeod, Pioneering
Colorectal Surgeon

56

Report on ACSPA/ACS
Activities, February 2024

Lillian S. Kao, MD, FACS

60

Member News





The American College of Surgeons is dedicated to improving the care of the surgical patient and safeguarding standards of care in an optimal and ethical practice environment.

OFFICERS

PRESIDENT

Henri R. Ford, MD, MHA, FACS
Miami, FL

IMMEDIATE PAST-PRESIDENT

E. Christopher Ellison, MD, FACS
Powell, OH

FIRST VICE-PRESIDENT

Tyler G. Hughes, MD, FACS
Salina, KS

SECOND VICE-PRESIDENT

Deborah A. Kuhls, MD, FACS
Las Vegas, NV

SECRETARY

Sherry M. Wren, MD, FACS
Palo Alto, CA

TREASURER

Don K. Nakayama, MD, MBA, FACS
Columbus, GA

EXECUTIVE DIRECTOR & CEO

Patricia L. Turner, MD, MBA, FACS
Chicago, IL

CHIEF FINANCIAL OFFICER

Paige A. Rodgers, CPA, MBA
Chicago, IL

OFFICERS-ELECT

PRESIDENT-ELECT

Beth H. Sutton, MD, FACS
Wichita Falls, TX

FIRST VICE-PRESIDENT-ELECT

Nancy L. Gantt, MD, FACS
Youngstown, OH

SECOND VICE-PRESIDENT-ELECT

Dennis H. Kraus, MD, FACS
Centennial, CO

BOARD OF REGENTS

CHAIR

Anthony Atala, MD, FACS
Winston-Salem, NC

VICE-CHAIR

Fabrizio Michelassi, MD, FACS
New York, NY

MEMBERS

Carol L. Brown, MD, FACS
New York, NY

Francoise P. Chagnon, MD, FACS, FRCS
Montreal, QC

Annesley W. Copeland, MD, FACS
Bethesda, MD

James C. Denneny III, MD, FACS
Alexandria, VA

Timothy J. Eberlein, MD, FACS
St. Louis, MO

Diana L. Farmer, MD, FACS, FRCS
Sacramento, CA

Liane S. Feldman, MD, FACS
Montreal, QB, CANADA

James W. Fleshman Jr., MD, FACS
Dallas, TX

Andrea A. Hayes Dixon, MD, FACS
Washington, DC

Lena M. Napolitano, MD, FACS
Ann Arbor, MI

Linda G. Phillips, MD, FACS
Galveston, TX

Sarwat Salim, MD, FACS
Boston, MA

Mark T. Savarise, MD, FACS
Salt Lake City, UT

Kenneth W. Sharp, MD, FACS
Nashville, TN

Anton N. Sidawy, MD, FACS
Washington, DC

Steven C. Stain, MD, FACS
Burlington, MA

Gary L. Timmerman, MD, FACS
Sioux Falls, SD

Shelly D. Timmons, MD, FACS
Indianapolis, IN

David J. Welsh, MD, MBA, FACS
Batesville, IN

Philip R. Wolinsky, MD, FACS
Lebanon, NH

Douglas E. Wood, MD, FACS, FRCS
Seattle, WA

BOARD OF GOVERNORS/ EXECUTIVE COMMITTEE

CHAIR

Lillian S. Kao, MD, FACS
Houston, TX

VICE-CHAIR

Marion Curtiss Henry, MD, FACS
Chicago, IL

SECRETARY

Cherisse D. Berry, MD, FACS
New York, NY

MEMBERS

Wendy Ricketts Greene, MD, FACS
Atlanta, GA

Amit R. Joshi, MD, FACS
Moorestown, NJ

Sundeeep G. Keswani, MD, FACS
Houston, TX

Joseph V. Sakran, MD, MPH, MPA, FACS
Baltimore, MD

Don J. Selzer, MD, FACS
Indianapolis, IN

ADVISORY COUNCIL TO THE
BOARD OF REGENTS
(Past-Presidents)

Kathryn D. Anderson, MD, FACS
San Gabriel, CA

Barbara Lee Bass, MD, FACS
Houston, TX

L. D. Britt, MD, MPH, FACS, FCCM
Norfolk, VA

John L. Cameron, MD, FACS
Baltimore, MD

Edward M. Copeland III, MD, FACS
Gainesville, FL

A. Brent Eastman, MD, FACS
San Diego, CA

Julie A. Freischlag, MD, FACS
Winston-Salem, NC

Gerald B. Healy, MD, FACS
Boston, MA

R. Scott Jones, MD, FACS
Charlottesville, VA

Edward R. Laws, MD, FACS
Boston, MA

Ronald V. Maier, MD, FACS
Seattle, WA

LaMar S. McGinnis Jr., MD, FACS
Atlanta, GA

J. Wayne Meredith, MD, FACS
Winston-Salem, NC

David G. Murray, MD, FACS
Syracuse, NY

Patricia J. Numann, MD, FACS
Syracuse, NY

Carlos A. Pellegrini, MD, FACS
Seattle, WA

Valerie W. Rusch, MD, FACS
New York, NY

Richard R. Sabo, MD, FACS
Bozeman, MT

Courtney M. Townsend Jr., MD, FACS
Galveston, TX

Andrew L. Warshaw, MD, FACS
Boston, MA

EXECUTIVE STAFF

EXECUTIVE DIRECTOR & CEO
Patricia L. Turner, MD, MBA, FACS

**DIVISION OF ADVOCACY AND
HEALTH POLICY**

DIRECTOR
Christian Shalgian

MEDICAL DIRECTOR, ADVOCACY
Patrick V. Bailey, MD, MLS, JD, FACS

**AMERICAN COLLEGE OF SURGEONS
FOUNDATION**

DIRECTOR
Beth White Carona, CFRE

CONVENTION AND MEETINGS

DIRECTOR
Cindy Kennedy Airhart, CAE

**OFFICE OF DIVERSITY, EQUITY, AND
INCLUSION**

ADMINISTRATIVE DIRECTOR
Cie Armstead, MPA, DBA

MEDICAL DIRECTOR
Bonnie Simpson Mason, MD

DIVISION OF EDUCATION

DIRECTOR
Ajit K. Sachdeva, MD, FACS, FRCS

EXECUTIVE SERVICES

CHIEF OF STAFF
Connie Bura

**DIRECTOR, LEADERSHIP
OPERATIONS**
Lynese Kelley

FINANCE AND FACILITIES

CHIEF FINANCIAL OFFICER
Paige A. Rodgers, CPA, MBA

**HUMAN RESOURCES AND
OPERATIONS**

**DIRECTOR, STRATEGIC OPERATIONS,
PEOPLE & CULTURE**
Michelle McGovern, MSHRIR, CPSP

INFORMATION TECHNOLOGY

CHIEF INFORMATION OFFICER
Jack King, MBA

**DIVISION OF INTEGRATED
COMMUNICATIONS**

**DIRECTOR, INTERNAL
COMMUNICATIONS**
Natalie Boden, MBA

CHIEF, EXTERNAL COMMUNICATIONS
Brian K. Edwards, MBA

**JOURNAL OF THE AMERICAN
COLLEGE OF SURGEONS**

EDITOR-IN-CHIEF
Timothy J. Eberlein, MD, FACS

DIVISION OF MEMBER SERVICES

DIRECTOR
Michael J. Sutherland, MD, FACS

**MEDICAL DIRECTOR, MILITARY
HEALTH SYSTEMS STRATEGIC
PARTNERSHIP**

Brian J. Eastridge, MD, FACS

DIRECTOR, ACS H.O.P.E.
Girma Tefera, MD, FACS

**DIVISION OF RESEARCH AND
OPTIMAL PATIENT CARE**

DIRECTOR
Clifford Y. Ko, MD, MS, MSHS, FACS

MEDICAL DIRECTOR, CANCER
Ronald J. Weigel, MD, PHD, MBA, FACS

**MEDICAL DIRECTOR, TRAUMA
EDUCATION PROGRAMS**
Eileen M. Bulger, MD, FACS

**MEDICAL DIRECTOR, TRAUMA
QUALITY PROGRAMS**
Avery B. Nathens, MD, PHD, FACS

Bulletin

EDITOR-IN-CHIEF
Jennifer Bagley, MA

**DIRECTOR, DIVISION OF
INTEGRATED COMMUNICATIONS**
Natalie Boden, MBA

**SENIOR GRAPHIC DESIGNER/
PRODUCTION MANAGER**
Tina Woelke

**MANAGING EDITOR,
SPECIAL PROJECTS**
Tony Peregrin

DIGITAL MANAGING EDITOR
Matthew Fox, MSHC

**GRAPHIC DESIGN &
PRODUCTION ASSOCIATE**
Jordan Razowsky

COVER DESIGN
Alicia Márquez

ADDITIONAL DESIGN
Kelly Hyde
Alicia Márquez
Ilona Pawlak



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

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

Periodicals postage paid at Chicago, IL, and additional mailing offices. POSTMASTER: Send address changes to *Bulletin of the American College of Surgeons*, 633 N. Saint Clair St., Chicago, IL 60611-3295. Canadian Publications Mail Agreement No. 40035010. The American College of Surgeons headquarters is located at 633 N. Saint Clair St., Suite 2400, Chicago, IL 60611-3295; tel. 312-202-5000; toll-free: 800-621-4111; email: postmaster@facs.org; website: facs.org. The Washington Office is located at 20 F Street NW, Suite 1000, Washington, DC 20001-6701; tel. 202-337-2701.

Unless specifically stated otherwise, the opinions expressed and statements made in this publication reflect the authors' personal observations and do not imply endorsement by nor official policy of the American College of Surgeons. ©2024 by the American College of Surgeons, all rights reserved. Contents may not be reproduced, stored in a retrieval system, or transmitted in any form by any means without prior written permission of the American College of Surgeons.

Printed in the USA.

Scholarships for Every Kind of Surgeon

Patricia L. Turner, MD, MBA, FACS

EXECUTIVEDIRECTOR@FACS.ORG



SPRING IS EMERGING around us, and with it comes new beginnings in surgery. This March 15, many medical students opening Match Day letters will find themselves invited into the surgical profession.

The ACS is ready to welcome them. As an organization, we work to improve patient outcomes by helping surgeons attain excellence, and a part of that mission is fulfilled when we bring new surgical trainees into the fold. As a result, we have established resources and support that extend

across a surgical career. These include scholarships, fellowships, and other grants designated for surgeons in training and throughout their working lives.

The ACS gave its first scholarship in 1969, when cultural change was driving increased attention to the needs of medical students, surgical residents, and young practicing surgeons, as well as a stronger emphasis on surgical research. Cardiothoracic surgeon **Gary H. Stevens, MD, FACS**, received the first award, likely for research. The same interests underpin many of the scholarships we offer today.

Research Support for Surgical Residents

Surgical residents have a unique opportunity at the ACS. Each year, our Clinical Scholars in Residence program invites a cohort of surgical residents to begin a 2-year fellowship researching surgical outcomes, quality improvement, healthcare policy, and related topics, with a focus in cancer, trauma, and general surgery. The program offers a masters degree from Northwestern University and mentorship from ACS-affiliated

surgeons, and it has created many enduring collegial partnerships. Read more in the September 2023 issue of the *ACS Bulletin*.

An additional Resident Research Scholarship funds 2 years of independent research. This award aims to help a surgical resident pursue an academic surgery career anywhere on the research continuum.

Support for Travel

Surgeons early in their practice years can apply for scholarships aimed at ensuring their growth. Young surgeons with Fellow or Associate Fellow status can apply for the Gerald B. Healy, MD, FACS, Traveling Mentorship Fellowship, the Nizar N. Oweida, MD, FACS, Scholarship, or the Claude H. Organ Jr., MD, FACS, Traveling Fellowship. These support surgeon travel to connect with a mentor, visit an institution to advance their research interests, or attend an educational meeting.

Additional travel fellowships help US surgeons travel to and from Australia, New Zealand, Germany, and Japan to participate in surgical conferences and visit medical

centers to exchange insights with local surgeons.

Finally, this year, we have established a new John M. Daly, MD, FACS, Traveling Fellowship, a semiannual award that helps a young Fellow with a keen interest in cancer care attend Clinical Congress. Interested surgeons should apply soon to the inaugural application round. The deadline is **April 5**.

International Scholarships

While some travel awards permit surgeons in the US and Canada to travel abroad, others allow surgeons outside the US and Canada to visit the US. These awards fund travel to the ACS Quality and Safety Conference for those wishing to know more about the National Surgical Quality Improvement Program, to the headquarters of the National Accreditation Program for Breast Centers in Chicago, Illinois, for surgeons involved with breast cancer surgery, and to Clinical Congress for surgeons interested in surgical education (including awards named for Sir Murray F. Brennan, MD, FACS, and Abdol H. Islami, MD, PhD, FACS). The Duremdes Family Travel Award (from Generoso Duremdes, MD, FACS, wife Janelle Duremdes, MD, son Gene Duremdes, MD, FACS, and daughter-in-law Mary Duremdes, RN) has been established for Filipino surgeons in community practice as well.

Health Policy Scholarships

For surgeons in practice, the ACS also assists with steps into leadership. One such opportunity is via our Health Policy Scholarships, which support participation in the Executive Leadership Program in Health Policy and Management at Brandeis University. Through ACS's partnerships with

16 surgical specialty organizations, these awards are designated for surgeons in 12 specialties. The weeklong intensive program, to be this year June 3–8, will equip participating surgeons with the ability to improve healthcare policy and surgical care. If you are interested, please apply soon. The deadline is **March 15**.

Awards for Burgeoning Surgeon-Scientists

Recognizing the need for support for surgeons with emerging research careers, the ACS has created the Franklin H. Martin, MD, FACS, Faculty Research Fellowship and the C. James Carrico, MD, FACS, Faculty Research Fellowship for the Study of Trauma and Critical Care. Each is a 2-year faculty research fellowship meant to assist a surgeon in establishing a research program, under mentorship, with the goal of becoming an independent investigator.

Support for NIH-Funded Surgeon-Scientists

As research careers progress, surgeon-scientists often receive National Institutes of Health (NIH) K08/K23 awards for mentored research. However, they may still face funding gaps. The ACS has created grants to address this. General, vascular, cardiothoracic, and plastic surgeons can apply for the George H. A. Clowes Jr., MD, FACS, Memorial Research Career Development Award and otolaryngology/head and neck surgeons for the ACS/Triological Society Clinical Scientist Development Award. All provide up to 5 years of financial support.

Succeeding Together

Surgeons excel in this profession with guidance and input from others. ACS scholarships, fellowships, and awards


Surgical Specialties Designated for Consideration for Health Policy Scholarships

Breast
Colon and rectal
Gastrointestinal and endoscopic
Neurological
Otolaryngology-head and neck
Pediatric
Plastic
Cardiothoracic
Trauma
Urogynecologic
Urological
Vascular

permit surgeons to do more than research or program attendance. These awards allow connections with other surgeons to collaborate, share insights, and ultimately expand and transform their working lives and the care they give patients.

We welcome scholarship applicants across the career span. We want to help everyone have long, fulfilling, productive surgical careers.

Leadership & Advocacy Summit

From April 13–16, please join us in Washington, DC, for our Leadership & Advocacy Summit, where we will examine how surgeons throughout the span of their careers can influence others, speak up for change, and raise awareness of the issues affecting surgical practice. Register at facs.org/summit. 

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

Surgeons Are Prioritizing Patients amid the Corporatization of Healthcare

Matthew Fox, MSHC



“When individuals outside a patient’s care team try to insert themselves into treatment, through whatever mechanism, it causes problems with the healthcare that we can deliver.”

Dr. Ross Goldberg

IN AN IDEAL PRACTICE ENVIRONMENT, the application of medicine and surgery takes place in a dyadic relationship between a physician and patient where leadership, staff, and care team members provide the clinician with every tool necessary to heal. All efforts should be perfectly aligned to do what is best for the patient.

However, as specialists practicing in a resource-intensive field, contemporary surgeons understand that the physician-patient relationship is not set in a vacuum. That essential dyad is influenced by other systems, including the overall economics of healthcare, which is a particular point of interest in the US with its disparate system of payers, providers, and financial stakeholders. In that space, the so-called “corporatization of healthcare” has seen increased attention.

As a dedicated term, the definition of corporatization in healthcare continues to evolve, but it is commonly understood to refer to both the consolidation of healthcare entities into ownership by a central corporate force that guides or supersedes local autonomy, but it also can refer to the shift in the behavior of hospitals and health systems to focus on profit rather than patient care.¹

The evidence for an increasingly corporatized health system is clear. In 2023 alone, 65 hospitals or health

systems announced transactions regarding mergers or acquisitions, and the transacted revenue totaled more than \$38 billion.² Set against a backdrop of nearly \$5 trillion in health expenditures in the US,³ the business of medicine is a significant economic force.

Still, that ever-increasing financial element may give surgeons pause when considering if and how corporatization affects the practice of surgery, patients, and clinicians themselves.

Dyads, Triads, Tetrads

Even if the ideal dyad of the physician-patient relationship is understood to be subject to outside forces, the directness with which financial concerns impact how a surgeon interacts with a patient can present issues.

“What the key issue is for surgeons is the physician-patient relationship that is at the core of what we do every day,” said Ross F. Goldberg, MD, FACS, chief of perioperative services at Jackson Memorial Hospital in Miami, Florida. “When individuals outside a patient’s care team try to insert themselves into treatment, through whatever mechanism, it causes problems with the healthcare that we can deliver.”

Often, financial considerations from leadership who either direct corporate entities or corporatized health systems, health insurers, and beyond that turn

“If an OR is streamlined for profit without respect for the individual clinician, that really may hurt surgeons in most hospitals.”

Dr. Mary Brandt

the physician-patient dyad into a triad or a tetrad that can complicate patient care. It is inevitable in the current US health system for fiscal interests to affect healthcare overall, but Dr. Goldberg suggests that if it alters patient care decisions, the dynamic is significantly changed.

Although there is a necessary business side to healthcare, the productivity and efficiency “line in the sand” for corporatized medicine threatens to sideline surgical expertise.

“Medicine is not like other industries. We can try to be as efficient as we can, but if we have a complex patient with multiple medical issues that raise their risk profile, that also raises the complexity of what we need to do,” said Dr. Goldberg, who also is Past-Chair of the ACS Health Policy Advisory Council.

“No two gallbladders are the same. I could operate on a gallbladder with the same technique on two very different patients for very different medical issues on a different medical profile, and the case could be vastly different as far as efficiency, time, and instrument utilization. One could be an outpatient and one could be inpatient, and both could be noted as a lap chole,” Dr. Goldberg said.

In such a scenario, the resource expenditure for the more complex care could be seen as less efficient, and the surgeon less productive. In a corporatized system, the nuance and risk stratification that a surgeon or care expert provides could be lost as reimbursement, American Medical Association (AMA) Current Procedural Terminology codes, and insurance claims are applied to a case, which can undermine a surgeon’s value.

Perspectives on Value

The question of value is one that comes up regularly when considering the burdens of productivity, especially when considering the broader operational ownership or culture of a hospital.

In recent years, private-equity investors have entered the US healthcare sector in a significant way, owning more than 30% of hospitals in some markets and nearly 400 hospitals overall.^{4,5} Private

equity explicitly seeks to own businesses and create profit before selling them.⁶ While this transactional form of ownership comes with advantages and disadvantages in other financial sectors, in healthcare, there is concern that private equity creates a conflict of interest between leadership and patients that could lead to reduced quality of care.

This concern has started to bear out. A 2023 *Journal of the American Medical Association* article that examined changes in adverse events and patient outcomes in private equity-owned hospitals found an increased incidence of falls, central line-associated bloodstream infections, and surgical site infections, among others.⁵ Authors theorized that reduced staffing was a contributing factor to these increases.

Private-equity investments represent a small part of hospital and health system ownership, but their implicit or explicit directives to improve productivity and efficiency are alarming, according to Marshall Z. Schwartz, MD, FACS, professor of surgery and urology at the Wake Forest University College of Medicine and professor at the Institute for Regenerative Medicine in Winston-Salem, North Carolina.

“There are easy things to do as a hospital or system to cut costs that are less invisible and don’t really have a major impact on quality of care, but with corporate healthcare, if the hospital isn’t doing as well, they might start looking for other ways to save money. Cutting staff is a common way to do that,” Dr. Schwartz said.

Staffing reductions are a regular, if contentious, event in any hospital, “but there is a point when you reach a threshold where you are significantly impacting quality of care,” said Dr. Schwartz, who also is a past Vice-Chair of the ACS Board of Regents and a longtime contributor to the College’s health policy and advocacy efforts.

The problem in private equity or financially focused leadership is that the aftereffects of staff reduction may be less visible “because the people who are making these decisions are so far away from the needs and operations of any given hospital,” he said.

Growing Nonsurgical Burdens

As medicine has grown in complexity and reach, so too has the need to record patient care in a way that is useful and accessible across care teams. Enter the electronic health record (EHR), a core component of modern healthcare and surgery. The technology is ostensibly aimed at streamlining and improving care but is commonly maligned for its burdensome documentation requirements.

EHRs have become emblematic of the administrative burden that surgeons commonly face in daily practice, and in the US, EHRs present a unique issue.

“There are good data that show physicians in the US spend more time on the EHR than other equivalent countries because there’s so much documentation we have to do for the billing,” according to Mary L. Brandt, MD, FACS, professor emeritus of surgery, pediatrics, and medical ethics at Baylor College of Medicine in Houston, Texas.

If billing is the impetus to implement and use an EHR—a six-figure+ proposition for moderately sized hospitals and health systems⁷—it may represent an issue for its spoken purpose, which is to improve clinical documentation and patient care. A corporatized healthcare environment threatens to put an emphasis on the financial deliverables over a surgeon’s desire to deliver optimal care.

“If the baseline for an EHR is for billing and not clinical activities, you’re going to run into some frustration,” Dr. Goldberg said, noting that his institution allowed him the time needed to specifically work with their EHR provider to build out his desired documentation program.

This is not leeway that all surgeons can expect or will be granted. Even still, Dr. Goldberg said, he often is required to use his personal time away from the hospital to document his cases appropriately or respond to inquiries regarding correct codes.

“There needs to be some system that we all use, but it should be easily accessible, readily understandable, and designed around the people who are using it,” he said.

It is the concept of designing the work environment, in all the forms that implies, for surgeons to do their best for their patients and themselves that can run up against a strictly financial focus. Most surgeons have personal preferences for the tools and instruments they use, but they can be flexible. The issue is when equipment is standardized to an extreme, which may hinder the ability to provide optimal surgical care.

“If an OR is streamlined for profit without respect for the wide variation in surgical technique needed for different patients, pathologies, and surgeons, then both surgeons and patients will suffer,” Dr. Brandt said. “The idea that we are a commodity, there to produce high-profit procedures, is a major root cause of the issues we face.”

Balancing the Ideal and the Pragmatic

As much as the ideal physician-patient relationship, organizational leadership, and workflow can and should be a part of any conversation regarding the intended purpose of healthcare, it is critical to recognize the practical realities that are inherent to modern medicine.

The flow of money into and out of a hospital or health system, whether it is considered corporatized or not, is something that also must be a priority as it supports patient care, according to Julie A. Freischlag, MD, FACS, DFSVS, chief executive officer and chief academic officer of Atrium Health Wake Forest Baptist in Winston-Salem, North Carolina, as well as the executive vice-president and chief academic officer of Advocate Health in Charlotte, North Carolina.

“There is a balance, where you do need to make money—there is no question of that—but at the same time, you always want to do the right thing by the patient,” said Dr. Freischlag, who also is ACS Past-President and Past-Chair of the ACS Board of Regents, among many other College leadership roles.

In her unique role as both an executive and an academic leader of a multistate healthcare system with \$28.2 billion in revenue, as well as a vascular

▶ Access related video content online.



surgeon, Dr. Freischlag has seen how meeting financial obligations allows for care to be delivered in areas that are less economic powerhouses.

“When we set up systems, even for those that are nonprofit, we all talk about what service lines make money,” Dr. Freischlag said. “If you want to take care of trauma, if you want to take care of pediatrics, then you really do need cardiac surgery and cancer surgery service lines, and you need to take care of some patients who have insurance.”

A basic tenet of healthcare in the US is that those who can pay (usually through insurance) take care of those who cannot.

“Surgery is inarguably one of the areas where hospitals make the most money. So having many surgeons performing surgeries is key so you can afford to do other things, because not everything pays as well,” she said. “If there is no margin, there is no mission, including research and training.”

So, what can be considered a corporatized environment that merges hospitals under one banner can open opportunities to expand care. If the corporatization of healthcare is a current reality, then it is important to look to areas where it can be used advantageously such as a larger health system being able to increase access to healthcare either by addressing financial shortfalls in small institutions, building infrastructure, and so on, Dr. Freischlag suggested.

Dr. Freischlag explained that the goal of any hospital is to treat all patients who enter its doors. Purely profit-motivated institutions “that turn away, transfer, or discharge patients for any reason besides medical indication should look at their mission” and remember that patients always come first.

Outside Looking In

While the hallmarks of corporatized healthcare such as hospital mergers, consolidations, and private-equity investment continue to increase as stakeholders continue to work to determine the impact on healthcare quality, there is one area where the impact is immediately noticeable: on clinicians.

For surgeons, the corporatization of medicine can manifest challenges to internal career satisfaction and well-being, with one of the most glaring disruptions being the shift in “social location” within the hospital.

“For a long time, the center of healthcare decision-making, control of the money, decisions about directions, missions—all of that was really in the hands of the physicians and surgeons. Administrators were an important partner to operationalize the decisions made by physician leaders,” said Dr. Brandt, who also is Chair of the ACS Surgeon Well-Being Workgroup.

“Over the last 30 years, physicians and surgeons have lost their positions of power in the hospital. Not only has that resulted in the current disproportionate focus on the business of medicine, it has marginalized physicians, decreased their ability to effect change, and resulted in personal distress in the form of burnout,” she said.

A diminished decision-making authority can have implications for patient care, as treatment options are filtered through financial considerations or professional metrics. This can lead to moral injury for a surgeon because they know the “right thing to do” and yet find themselves unable to do it due to limitations placed on them by the systems they work in.

The challenges are not limited only to surgeons, however, as the essential support staff often face the brunt of a finance-focused environment.

“Everybody reaches a point where they will start to be affected by a cost-cutting measure, and I would say it impacts areas like the nursing staff more than it does the surgeons,” Dr. Schwartz said.

Extra shifts and lack of coverage “ultimately are going to affect their performance, and it’s not their fault,” he said. This is significant because as frontline workers, nurses often can be the first to see that quality is being affected in their hospitals.

Regardless of professional role, in a heavily corporatized environment, there is concern that speaking up to alert leadership about professional and personal well-being could lead to termination

“Everybody reaches a point where they will start to be affected by a cost-cutting measure, and I would say it impacts areas like the nursing staff more than it does the surgeons.”

Dr. Marshall Schwartz

of employment, perpetuating the cycle, and some evidence suggests this is taking place.⁸

Course correcting such an environment requires a different perspective from hospital or health system leadership. Rather than intervene with patient-level initiatives, organizations should consider an “inverted pyramid” approach to management. With patients recognized as the most important element occupying the top of the pyramid, ownership—the “tip” of the pyramid, now at the bottom and the smallest element—should instead focus on helping clinicians as frontline workers.

“I would argue that organizations should be supporting that second layer—clinicians—to provide the care to that top layer, because without the clinicians you can’t provide that care at all,”

Dr. Goldberg said.

“If you dismiss clinicians and act as if they are easily replaceable, that they can be swapped out for a younger, cheaper version that won’t say as much, you’ll run into issues. At any job, if you beat down the people who work for you, they’re not going to be as productive, and they’re not going to be as responsive,” he added.

Protecting the Physician-Patient Relationship

At a time when the market forces of healthcare are growing in strength, it is becoming increasingly clear that medical organizations have a role to play with regulatory bodies by asserting their authority as respected voices and patient advocates. At the 2023 AMA House of Delegates Interim Meeting, for example, the ACS delegation strongly supported a resolution to strengthen efforts against horizontal and vertical consolidation in healthcare.⁹

Horizontal consolidation is when two providers performing similar functions combine, and vertical consolidation is when a healthcare entity purchases another one in the supply chain, such as a hospital acquiring an outside laboratory.¹⁰

But for surgeons, there is no organization that more directly represents their concerns than the ACS.

Part of the College’s ability to blunt the potential deleterious effects of corporate medicine is through its Quality Programs, which each are predicated upon evidence-based standards that require hospitals to have the resources and infrastructure needed to improve patient care and achieve better outcomes. In that sense, a purely profit-driven organization is antithetical to being a Surgical Quality Partner (any hospital participating in a Quality Program), so the ACS’s role as an accrediting and credentialing body acts as a baseline level of patient-focused intent.

Equally as important, though, is the ACS serving as a voice for all surgeons in matters of advocacy and health policy at federal and state levels.

“The ACS is a big enough entity that it has a seat at the table, that it has the presence, the gravitas, the backing, and the clinical experience to be a part of conversations related to safeguarding healthcare against financial interests,” Dr. Goldberg said.

“It is met as an equal voice to counter these large groups. The insurance companies are massive. The private-equity groups are massive. We need to be heard as an important voice at the table to counter them,” he added.

Recently, ACS advocacy efforts have found success in key areas that will allow surgeons to practice in a manner consistent with their expertise and that underscores the influence of the College. The ACS and other stakeholders have persuaded a health insurer to roll back implementation of a policy that would deny coverage for monitored anesthesia for colorectal procedures,¹¹ and, beginning in 2026, the Centers for Medicare & Medicaid Services will ease prior authorization requirements after years of urging from the ACS.¹²

Continuing to support the mission of the organization also is critical for the ACS to maintaining its reputation as the House of Surgery and as a voice for surgeons.


“What’s really important is fighting for good pay, making sure that surgeons have well-supported credentials and are able to earn continuing medical

“The ACS is a big enough entity that it has a seat at the table, that it has the presence, the gravitas, the backing, and the clinical experience to be a part of conversations related to safeguarding healthcare against financial interests.”

Dr. Ross Goldberg

education in a high-quality way, making sure that surgeons stay up to date on the field, and promoting camaraderie—so that we can best care for our patients,” Dr. Freischlag said.

Ultimately, the College’s aim aligns with surgeons’ desire to keep the practice of surgery centered on physicians and the patients they care for—and not allowing the corporatization of healthcare to interfere in that most defining dyad.

According to Dr. Goldberg, “It will take all of us working together to improve the quality of care provided in this country and taking back ownership—and at the middle of it all is that physician-patient relationship.” 

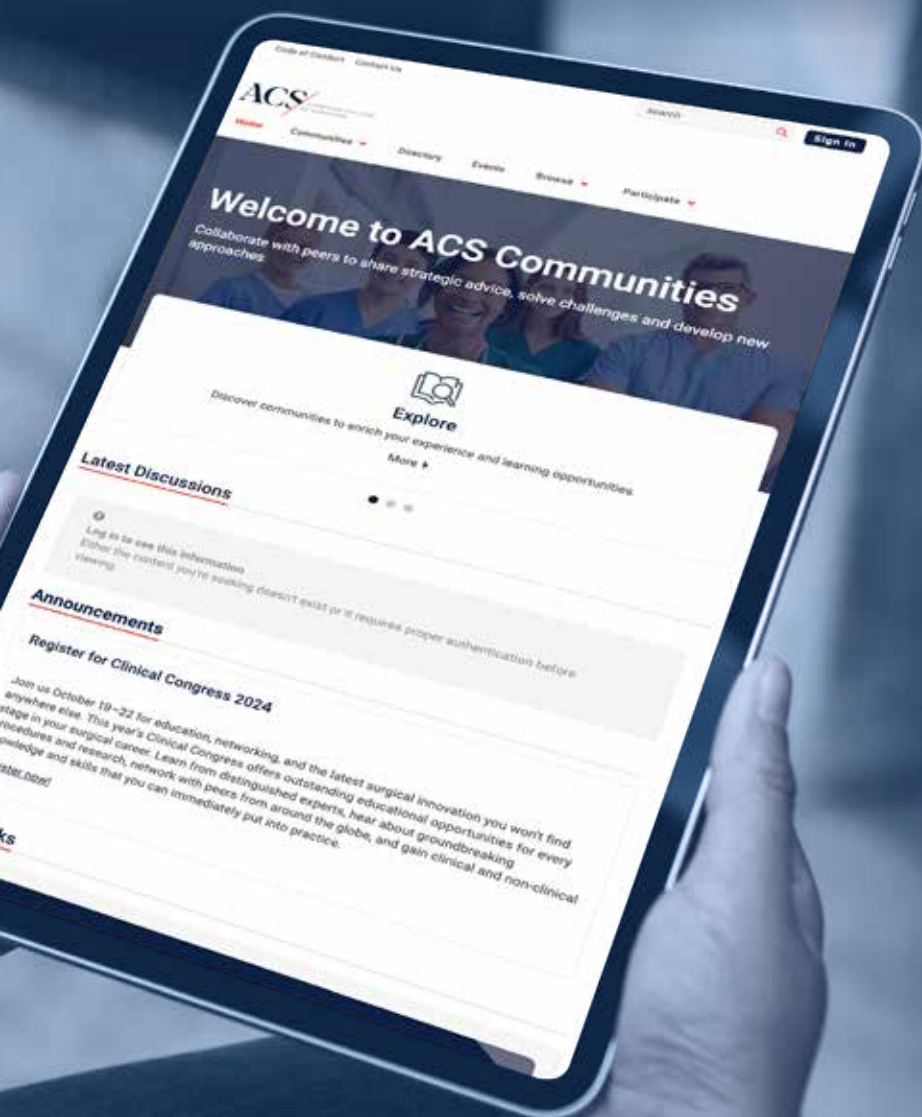
Matthew Fox is the Digital Managing Editor in the ACS Division of Integrated Communications in Chicago, IL.

References

1. Hover AR. Observations on corporatization of healthcare systems in America. *Mo Med*. 2022;119(2):93-97.
2. Singh A. 2023 Hospital and Health System M&A in Review | Kaufman Hall. January 18, 2024. Available at: <https://www.kaufmanhall.com/insights/research-report/2023-hospital-and-health-system-ma-review>. Accessed February 5, 2024.
3. Peter G. Peterson Foundation. Why the American healthcare system underperforms. Available at: <https://www.pgpf.org/blog/2023/07/why-the-american-healthcare-system-underperforms#:~:text=Total%20healthcare%20costs%20%E2%80%94%20including%20all>. Accessed February 7, 2024.
4. Singh Y, Zhu JM, Polsky D, Song Z. Geographic variation in private equity penetration across select office-based physician specialties in the US. *JAMA Health Forum*. 2022;3(4):e220825.
5. Kannan S, Bruch JD, Song Z. Changes in hospital adverse events and patient outcomes associated with private equity acquisition. *JAMA*. 2023;330(24):2365-2375.
6. Chen J. Private equity definition. Investopedia. March 20, 2022. Available at: <https://www.investopedia.com/terms/p/privateequity.asp>. Accessed February 7, 2024.
7. Palabindala V, Pamarthy A, Jonnalagadda NR. Adoption of electronic health records and barriers. *J Community Hosp Intern Med Perspect*. 2016;6(5):32643.
8. Press E. The moral crisis of America’s doctors. *The New York Times*. Available at: <https://www.nytimes.com/2023/06/15/magazine/doctors-moral-crises.html>. Published June 15, 2023. Accessed February 7, 2024.
9. American College of Surgeons. ACS has strong representation at AMA Interim Meeting. *ACS Brief*. December 5, 2023. Available at: <https://www.facs.org/for-medical-professionals/news-publications/news-and-articles/acs-brief/december-5-2023-issue/acs-has-strong-representation-at-ama-interim-meeting/>. Accessed February 7, 2024.
10. Lopez E. What we know about provider consolidation. KFF. Published September 2, 2020. <https://www.kff.org/health-costs/issue-brief/what-we-know-about-provider-consolidation/>. Accessed February 9, 2024.
11. American College of Surgeons. BCBSMA rolls back policy limiting coverage of MAC for gastrointestinal procedures. *ACS Advocacy Brief*. January 25, 2024. Available at: <https://www.facs.org/for-medical-professionals/news-publications/news-and-articles/advocacy-brief/012524/>. Accessed February 7, 2024.
12. American College of Surgeons. ACS celebrates two wins in CMS ruling. *ACS Brief*. January 23, 2024. Available at: <https://www.facs.org/for-medical-professionals/news-publications/news-and-articles/acs-brief/january-23-2024-issue/acs-celebrates-two-wins-in-cms-ruling/>. Accessed February 7, 2024.

Get the Most Out of Your Community

The ACS Communities is an online, members-only forum where you can connect, engage, and share information with colleagues around the world.



Specialty communities focus on issues related to clinical and direct patient care, while nonclinical communities—such as ACS Wellness and Advocacy—focus on those topics.

**FIND THE COMMUNITY
FOR YOU TODAY!**

facs.org/communities

The Need to Prepare More Surgeons for Rural Practice Is Urgent

Jim McCartney

A shortage of surgeons in rural areas of the US has been building for years. Combined with impending surgeon retirements and a lack of new surgeons being prepared for rural practice, the healthcare of an estimated 60 million people living in rural areas throughout the country is threatened.¹



Dr. G. Timmerman

Dr. Gary Timmerman instructs Dr. Shaye Brummett on the Fundamentals of Laparoscopic Surgery Trainer.

RURAL COUNTIES, many of which are in the central US, are defined as having populations of less than 50,000. Access to care is dramatically compromised in these areas due to the long distances (and sometimes challenging weather conditions) that patients need to overcome to see a surgeon. While optimal access to surgical care is generally accepted to be 7.5 general surgeons per 100,000 patients, in 2019, the urban ratio was down to 5.44 general surgeons per 100,000, and the rural ratio decreased to 3.15 per 100,000.² Of the rural counties in the US, 60% were without surgical care in 2019.

“We’re not talking 20 minutes to go to the doctor. We’re talking anywhere from 2 to 6 hours to find a doctor,” said ACS Regent Gary L. Timmerman, MD, FACS, professor and chair of the Department of Surgery at the University of South Dakota (USD) Sanford School of Medicine in Sioux Falls.

And the problem is about to get much worse. The rising demand created by an aging patient population cannot be met by the shrinking supply of surgeons, many of whom are approaching retirement. In rural areas, 55%–60% of surgeons are over 50 years old (versus less than 50% in urban areas).²

Only 200–300 new surgeons are added every year to fill the void of thousands who are retiring, according to Dr. Timmerman.

Brent E. Nykamp, MD, FACS, a general surgeon in Orange City, Iowa—a town of 6,200 people approximately 45 miles southeast of Sioux City—also acknowledged that training programs have not been able to keep up with the demand.

The Health of the Rural Community

What’s at stake in the fate of the rural surgeon is not just the healthcare of rural patients, but the health of rural communities. Rural communities derive significant benefits from surgical practices in their areas. The general surgeon brings an estimated \$1.05 million to \$2.7 million per year to a small hospital, contributing as much as 40% to the overall revenue. If the general surgeon has a busy practice, he or she can generate \$4.4 million in payroll and create 26 jobs in the community.³

“We bring financial stability and viability that keeps these hospitals open,” Dr. Nykamp shared. “Aside from the patients who end up in the operating room, surgeons manage many patients nonoperatively, such as those with bowel

obstructions, diverticulitis, and pancreatitis. These are patients who primary care providers may not be as comfortable managing on their own.”

Dr. Nykamp and his partners provide caesarean section services, which allows the facility to have a robust full-service family practice.

In addition, communities depend on surgeons—who often bring distinct perspectives and life experiences—to be leaders, whether it’s serving on boards, at schools, in churches, or helping with other community activities.

Challenges to Building a Rural Surgeon Workforce

Besides demographics, issues that have led to the shortage of rural surgeons include increasing specialization among general surgery residents, the desire for work-life balance, and limited resources in rural hospitals.

Trend Toward Specialization

General surgery residents are increasingly specializing or even subspecializing in areas of surgery once considered traditional elements of general surgery, such as breast, colorectal, vascular, pancreatic, and biliary surgery. In fact, fewer than 20% of general surgery residents enter practice after 5 years of training.⁴ As a result, they may not be good candidates to be rural surgeons, which requires a more generalist approach.

“All of these were part of the general surgery umbrella that I trained under,” Dr. Timmerman said. “I was expected to know something about and have proficiency in all of them.”

Specialists often aren’t trained

“As a rural surgeon, you become a general practitioner who does surgery as well.”

Dr. Lauren Smithson

in fundamental general surgery services, such as delivering babies or performing vasectomies, he added. One reason is that the increasing demands of training residents in new technologies, including advanced laparoscopy, therapeutic endoscopy, and robotic surgery, make it difficult to teach these fundamental skills. As a result, even residents who don't specialize may not get all the training they need to practice in a rural setting.

Another factor to consider is that many residents hesitate to become rural surgeons due to the lack of surgical volume. Rural surgeons rarely have the steady stream of surgical cases that they might expect in larger settings, and they will not be performing complex oncological surgeries or Whipple procedures, Dr. Nykamp said. Rather, they will focus on standard "bread-and-butter" general surgery, such as hernias, gallbladders, breast cancers, appendectomies, trauma, and colon cancers. They also must be prepared to have a heavy volume of nonsurgical procedures like endoscopies.

"One of the hardest things I found coming out of residency was that my concept of being a general surgeon is not actually what you do," shared Lauren E. Smithson, MD, FACS, who practices in Saint Anthony, a small port on the Great Northern Peninsula on the island portion of Newfoundland and Labrador in Canada. "As a rural surgeon, you become a general practitioner who does surgery as well. You end up managing a lot of functional gastrointestinal cases or managing medical problems that are complex but not necessarily surgical."



In addition, rural surgeons must be prepared to go it alone because they often do not have nearby colleagues with whom to consult. When they encounter unexpected challenges, such as a ruptured appendix, they may end up having to transfer the patient to a larger center because resources, such as interventional radiology, intensivists, or overnight imaging critical to safely treating the patient, are not available.

Surgical residents coming out of training who are concerned about such isolation may prefer the safety of hospitals even if they like a rural setting. "We need to better train surgeons to have the courage and confidence to go out and practice on their own," Dr. Timmerman said.

Desire for Work-Life Balance Is Real

Just as new rural surgeons need to better understand their role, rural hospitals have to understand that young

surgeons may not be willing to take on the heavy workloads of their predecessors. And that could exacerbate the rural surgeon shortage.

Today's young workforce places a high value on work-life balance. Many graduates of surgical residency programs may not be willing to be on call 24 hours a day, 7 days a week, according to Dr. Smithson. Rural hospitals need to embrace this change in culture and understand how it affects their staff.

"We won't have solo surgeons anymore," she said. "You may need to hire and pay two surgeons for every one leaving."

Lack of Resources

Although all hospitals are facing a pinch of financial resources, many rural hospitals face extinction because of a lack of resources. "There's a real pressure to treat hospitals and doctors and medicine like businesses, and that can make it quite difficult for

Dr. Gary Timmerman (left) helps Dr. Eastan Marleau as he performs a colonoscopy using the Fundamentals of Endoscopic Surgery Trainer.



Dr. Lauren Smithson debrides and grafts a diabetic foot ulcer (left) and in her spare time, chops wood in Newfoundland.

some of the smaller hospitals and critical access hospitals to stay open,” Dr. Smithson said.

But it’s not just about money. Small rural hospitals may not have adequate blood banks, support staff, or technology to attract the volume of patients that would support a robust surgical practice.

“There are cases we don’t want to take because things may come up that are going to be a problem with the limited resources that we have,” Dr. Nykamp shared.

Surgical residents are trained in new technologies, so they understand the advantages for the patient, the hospital, and their own practices. Unfortunately, rural hospitals often do not always have the latest technology, and that may deter graduates.

Take robotic surgery. When USD’s new rural surgical residency program began, Dr. Timmerman thought there was little purpose in training his rural surgical

residents on surgical robots because it was unlikely they would ever have access to one where they practiced.

Instead, he found that rural hospitals are striving to acquire robots. Research shows that robotic surgery has advantages over laparoscopic surgery and that patients often recover faster, Dr. Timmerman explained. In addition, robotic surgery can add to a hospital’s financial bottom line.

“Small town hospitals know that it may take a robot to get surgeons to practice there,” he said.

Many rural hospitals also lack surgical staff necessary to support surgeons, which limits their ability to care for certain patients. For example, Dr. Smithson’s hospital does not have an intensivist, nor does it have overnight or weekend ultrasound technicians. Her hospital has mammography, but no stereotactic biopsies

for small breast lesions, so patients must drive 5 hours to have this performed.

Within the province itself, even in the tertiary center, recruiting radiation technicians in the radiation oncology program has proven difficult. As a result, rectal and breast cancer patients must travel off the island—requiring a flight or ferry—to Toronto or Halifax for radiation therapy.

“This really changes your scope of practice,” she said. “You can be the best surgeon in the world, but you can’t work without a team.”

Dr. Timmerman spent a decade in Watertown, a small city in northeast South Dakota, where he was limited in what surgical services he could provide due to a lack of support staff, such as specialty nurses.

It’s not just support during the operation that is the challenge. Lack of postoperative support also can scuttle an operation, Dr. Nykamp said.



Rural Track Training Programs Emphasize Rural Immersion

To support those who want to practice in a rural setting, medical schools need to better train and prepare surgical residents for that practice, Dr. Timmerman said. There's an effort backed by the ACS called "Fix the Five" in which surgical residency programs offer rural surgery opportunities as electives within 5–7-year training programs; 1–3-month rotations in a rural community; and international or missionary care opportunities.

Some programs offer a rural surgery track with up to 6–9 months of rural training. According to Dr. Timmerman, other programs offer residents an immersion approach that could include 1–2 years in a rural community in lieu of "research years" or a fellowship following their 5-year residency. "It gives them the opportunity to know what they're getting themselves into."

In 2013, Dr. Timmerman helped create South Dakota's first new general surgery residency program in decades. Since there was a cap on the number of federally funded residency slots, it was funded by an initial \$2 million grant from Sanford Health.

"These are kids who knew they wanted to go back to the Midwest or return to their small hometown in Wisconsin or Iowa, and they've done that," he said.

One of the goals of the program is to train students in a set of surgical skills broad enough to practice in the rural setting. The program has graduated three residents per year since the first

Dr. Smithson said that treating pediatric patients in rural areas can be limited when the postoperative nursing staff is not comfortable in managing pediatrics or does not have Pediatric Advanced Life Support certification.

How to Build a Rural Surgical Workforce

There are a variety of approaches that could help ease the shortage of rural surgeons. Some of the more promising ones include:

Tapping a Homegrown Resource

Building up the rural surgical workforce starts with doing a better job of drawing from a ready market for rural surgery: medical students who grew up in rural areas and now want to work there. Drs. Timmerman, Smithson, and Nykamp all were born in rural areas and wanted to return to a rural area to practice surgery.

"It's a lot easier to work with

students who want to go into rural, community, or even missionary general surgery," Dr. Timmerman said. "The younger you get them and try to imprint on them the value of a smaller community, the greater the likelihood they'll take a second look at practicing in a small community."

Dr. Nykamp explained that the process of attracting students to rural care should start even before medical school.

According to Dr. Timmerman, it also should include sending medical students to train for a while in a small town so they get an immersive experience of what it's like to be a rural surgeon.

"We need to train from the ground up," Dr. Smithson said. "We know from research that exposure to rural rotations in medical school and residency really increases the likelihood that someone will return to a rural area."



Access related video content online.



class graduated in 2018. Of the 20 graduates, 11 (55%) went into general surgery while nine (45%) decided to specialize. All of them practice in communities that have populations of less than 200,000, Dr. Timmerman said.

Other successful rural track programs include:

- *Oregon Health & Science University (OHSU)*: In 2003, OHSU established a rotation for senior-level residents at Asante Three Rivers Medical Center in Grants Pass, Oregon, becoming one of the first universities to train general surgeons to serve in rural communities. The university has since added a second rotation at Bay Area Hospital in the coastal town of Coos Bay, Oregon.
- *University of North Dakota*: The medical school has a rural track in which its students spend a few months training in smaller communities.
- *University of Minnesota*: Third-year medical students in the rural physician associate program go to live and work in a small community; some of them go on to become rural surgeons.
- *University of Washington in Seattle*: The university has a rural surgery training program that enables residents to do a rotation at a rural clinic in Billings, Montana.⁵

Telemedicine Can Help

Telemedicine offers significant support to patients and providers at rural hospitals. In fact, one of the upsides of the COVID pandemic was that the power

of telemedicine was on display. This technology was able to fill in effectively when in-person patient visits, consultations, and training were not options.

For example, telemedicine allows a doctor in a different city to consult on a patient or even watch and help guide an operation. “This helps reduce one of the big drawbacks of rural surgery, which is isolationism,” Dr. Timmerman said.

Surgical patients who need to come in the office to have their wounds checked can do this over their smartphone or personal computer, allowing them to avoid a lengthy trip.

“Since we have Zoom, imaging, and a camera to look at wounds, telemedicine reduces travel time, cost, and inconvenience, and increases the likelihood that people will keep their follow-up visits,” Dr. Smithson explained, adding that she has patients on the south coast of Labrador and Quebec who live in small communities with no doctors available, and they need to take a ferry to her remote hospital. Telemedicine can reduce the burden on patients and their families that is associated with postoperative care.

Although restrictions on the use of telemedicine were loosened during COVID-19, the proven benefits of telemedicine for rural health should be considered as efforts are made to tighten these restrictions once again.

Incentives to Build the Rural Surgeon Workforce

Since rural surgeons earn significantly less than their counterparts in cities, there are efforts to draw more

surgeons into rural practice by offering financial incentives, such as bonuses or student loan forgiveness programs. Organizations such as the Accreditation Council for Graduate Medical Education support government initiatives and grants that would help provide these incentives.

But not everyone agrees that this is the right approach. Dr. Nykamp worries that surgeons who take a rural job to get their student loans paid or receive a bonus will not have a long-term commitment to practicing there.

“We’ve seen different student loan repayment programs where somebody shows up for 3 years, meets the requirements, and they’re off to the next spot,” Dr. Nykamp revealed. “In the long run, that’s not helpful.”

He would rather see financial aid go to help small hospitals buy new technology that can attract more patients and providers. In fact, helping a resource-strapped rural hospital buy a robot could increase the hospital’s revenues and help cut costs. A recent presentation at the Northern Plains Rural Surgical Society meeting showed evidence that adding robotic surgery significantly increased a rural hospital’s revenues, Dr. Smithson said.

In addition, robotic arms can help with retraction during an operation, requiring fewer staff members, Dr. Timmerman shared.

Look to Private Funding for Training

Although government funding for residency programs hasn’t increased in years, in 2021, the Consolidated Appropriations Act



attempted to address disparities in funding for rural graduate medical education, including 1,000 new slots devoted to rural healthcare over 5 years starting in 2023, according to Dr. Timmerman. Unfortunately, many of the initial slots went to hospitals in New York (18), Georgia (9), Florida (7), and California (6), with only a few slots going to the Central states Iowa (2), Kansas (2), South Dakota (1), North Dakota (1), and none for Nebraska or Minnesota, he added.

“The intention was good; the outcome was not,” Dr. Timmerman said.

In lieu of more government funding, another potential source of funding for residency slots are hospital systems and their foundations, he explained. In 2021, USD Sanford School of Medicine pledged \$300 million to transform rural healthcare delivery, including eight new graduate medical residencies and fellowships in critical specialty areas.

“What better way for a foundation to help advance medicine than to help promote the education of people who want to give back to that institution?” Dr. Timmerman asked.

The challenges for rural surgery have increasingly become the focus of many organizations, including the ACS. The College has added advisory groups and supported legislation to help address the shortage, including efforts to restructure the National

Health Service Corps Scholarship and Loan Repayment Programs that help surgeons who choose to practice in rural or underserved areas.

“The ACS has really gone to bat for rural surgeons,” said Dr. Timmerman, who, as an ACS Regent, helps represent the voice of rural surgery. **B**

Jim McCartney is a freelance writer.

Dr. Brent Nykamp (center) is a general surgeon in Orange City, Iowa, along with junior partner Dan Locker, MD (left), and senior partner Steve Locker, MD (right). Dr. Dan Locker, the son of Dr. Steve Locker, is an example of how some surgical practices hope to “grow their own replacements.”

References

1. Ellison EC, Bhagwan S, Way DP, Oslock WM, Santry H, Williams TE. The continued urbanization of American surgery: A threat to rural hospitals. *Surgery*. 2021;169(3):543-549. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S0039606020304207>. Accessed February 22, 2024.
2. WWAMI Rural Health Research Center. The Distribution of the General Surgery Workforce in Rural and Urban America in 2019. Policy brief, March 2021. Available at: https://familymedicine.uw.edu/rhrc/wp-content/uploads/sites/4/2021/03/RHRC_PBMAR2021_LARSON.pdf. Accessed February 22, 2024.
3. Sarap M, Reiss AD. Rewards and Frustrations of Rural Surgery Practice. American College of Surgeons. Available at: <https://www.facs.org/for-medical-professionals/practice-management/private-practice-small-business/rural-surgery-practice/#:~:text=Rural%20communities%20derive%20significant%20benefits,to%20a%20small%20hospital%27s%20revenue>. Accessed February 22, 2024.
4. Sarap M, Reiss AD. Rewards and Frustrations of Rural Surgery Practice. American College of Surgeons. Available at: <https://www.facs.org/for-medical-professionals/practice-management/private-practice-small-business/rural-surgery-practice/#:~:text=Rural%20communities%20derive%20significant%20benefits,to%20a%20small%20hospital%27s%20revenue>. Accessed February 22, 2024.
5. Rural Surgery Training Program. UW Medicine Department of Surgery. Available at: <https://uwsurgery.org/rural-surgery-training-program/>. Accessed February 22, 2024.

IN SURGICAL CARE, OPIOID USE IS COMPLEX

M. Sophia Newman, MPH



ON MEMORIAL DAY WEEKEND IN 2015, Travis N. Rieder, PhD, a bioethicist at Johns Hopkins University in Baltimore, Maryland, hopped on his motorcycle. He didn't know it, but the brief ride would change his life.

A few blocks from home, his motorcycle and a van collided. Tumbling to a stop on the asphalt, Dr. Rieder knew that his foot was badly injured; wrestling his mangled boot off a moment later brought a wave of intense pain. Rushed to the ER, he soon learned the foot might require amputation. Over the next months, he cycled through three hospitals and six operating rooms, receiving surgical care that ultimately kept his foot intact. But before all that could begin—before, in fact, his ambulance left the accident scene—he had his first encounter with a drug that would raise difficult questions he later strove to answer.¹

“What came to define my medical trauma for me was the process of withdrawing from opioids,” Dr. Rieder said.

His experience ultimately revealed a serious gap in surgical care: insufficient assistance for patients discontinuing their use of prescribed opioid medications. As the US continues to confront its long-running, highly complex opioid epidemic, engaging surgeons and other clinicians in ameliorating this painful and potentially deadly treatment gap may be an essential next step.



“Looking back now, what I really identify as the problem is that not that opioids were used aggressively, but that they were used without a plan.”

Dr. Travis Rieder

“Causing an Accident and Leaving the Scene”

The use of medications to manage Dr. Rieder’s pain was initially unremarkable; his level of pain was extreme, and opioids are a standard treatment option. But as his care progressed from acute to reconstructive phases, his opioid use increased, titrated upward by alternatively sympathetic and reluctant clinicians, until he was taking about 200 mg of morphine equivalent, plus gabapentin, each day.

“Looking back now, what I really identify as the problem is that not that opioids were used aggressively, but that they were used without a plan,” he said.

After 2 months of care, a clinician pointed out that Dr. Rieder’s opioid use should have already ended. Dr. Rieder quickly committed to cessation but struggled to find advice on how to do it safely. On one physician’s recommendation, he finally cut his dosage in quarters, dropping one-fourth of the total per week. This taper brought on withdrawal symptoms of unbearable severity: “I had just had my foot blown apart. I had just had all these surgeries. I had just had unanesthetized cauterization of my foot. You know, I had just been through a version of hell. And yet every moment in withdrawal was the worst moment in my life.”

Searching for a clinician who could advise him on how to manage his agonizing withdrawal, Dr. Rieder was alarmed to find no such person. One physician said he was out of his depth. The inpatient pain management team that had dramatically escalated his opioid therapy after one of his surgeries was unwilling to speak to an outpatient. Addiction medicine was limited to patients who had been using opioids for far longer than a couple of months. The sole follow-up advice came from the doctor who’d provided the tapering plan, who eventually advised returning to his full dosage and “trying again later.” Fearing he would

never achieve cessation, Dr. Rieder instead trudged through a successful, albeit miserable, withdrawal.

Afterward, he refocused his career in bioethics on an important question: why were a dozen clinicians able to prescribe him opioids, but not one able to assist him in discontinuing them? “Prescribing opioids and then leaving patients to fend for themselves is not merely ‘not helping,’” he wrote in *In Pain: A Bioethicist’s Struggle with Opioids*, his 2019 book. “It’s causing an accident and then leaving the scene.”¹

Well-reasoned yet bristling with emotion, *In Pain* and Dr. Rieder’s 2023 John J. Conley Ethics and Philosophy Lecture at Clinical Congress examined the complexities of opioid withdrawal and the nationwide structural issues underlying this treatment gap, articulating an obligation for physicians to do better.

Change on a National Scale

What is notable about prescription opioid use in the US today is that physicians, by and large, are doing better. The high tide of the epidemic saw excessive prescription rates—for example, from approximately 2 million opioid prescriptions to Medicare beneficiaries in 1991 to approximately 41.6 million such prescriptions in 2015.² But those rates have now sharply decreased nationwide—in the case of Medicare beneficiaries, to approximately 19.1 million prescriptions in 2019.² A 2024 *Journal of the American College of Surgeons* study showed that declines in rates of surgery-related opioid prescribing occurred in 81.6% of US counties between 2013 and 2017.³

This change has come as the pendulum of culture has swung from cavalier attitudes about opioids to deep concern. Across the US, healthcare centers have implemented programs meant to oversee, standardize, and reduce opioid

KEY POINTS

Start with the goals in mind.

Consider the desired outcomes of pain management (e.g., the patient's ability to undergo rehabilitation, functional outcomes, return to work, or comfort), and tailor methods to match.

Educate yourself about the patient.

Screenings for current and past difficulties with pain control, substance use disorder symptoms, and other variables can help ensure pain relief is effective without introducing avoidable risks.

Consider many modalities.

A wide range of pain relief techniques are available. While opioids may be necessary in the perioperative period, a planned switch to other approaches can be helpful to meet pain relief goals while avoiding long-term opioid use.

Educate the patient.

This can include a psychological approach to pain control and withdrawal symptom management; it also can mean clear advice on the efficacy and risks of prescribed medications.

Expect tapering to be a slow process.

When a patient needs to cease or decrease opioid use after weeks of use, a taper that reduces intake in steps of 5% to 20% of the dosage at the start of the taper is generally recommended.

Engage the team.

Surgeons prescribing opioids may need to engage pain management teams to ensure patients are treated correctly, including being followed up during tapering.

Get more advice.

The 2019 document “HHS Guide for Clinicians on the Appropriate Dosage Reduction or Discontinuation of Long-Term Opioid Analgesics”⁶ offers clear advice in a brief, accessible format.

Accept that no one surgeon can do it all.

Altering opioid prescribing and cessation practices for maximal patient benefit can require buy-in from the entire department or hospital; individual surgeons are an essential factor, but not the sole factor, in getting it right.

prescribing. Although a few doctors persist in giving extraordinarily large opioid doses,⁴ most of the epidemic's ravages (including increases in its toll of more than a half million opioid-related deaths⁵) now come from illicit, not prescribed, drugs.

That said, few expect that opioid drugs will be eliminated from use. They are an effective, well-known, accessible pain management method, available in multiple fast-acting and extended-release formats, often at comparatively low costs—in other words, an option difficult to replace or forgo. Seth Waldman, MD, director of the Division for Pain Management at the Hospital for Special Surgery in New York, New York, said, “Our goal is to make sure that we're using opioids when they're necessary at the lowest possible dose for as short a period of time as possible, but also to make sure that people aren't avoiding opioids when they're necessary—because they are. They're important drugs, still.”

Tapering Safely

However, right-sizing opioid prescribing does not directly amend the problem of absent support for opioid discontinuation. Here, the need for care is significant. Guidelines from the US Department of Health and Human Services (HHS) and the US Centers for Disease Control and Prevention, updated in 2022, state that patients tapering opioid therapy face “clinically significant risks, particularly if opioids are tapered rapidly or patients do not receive effective support.”⁶

These risks extend beyond the physical pain, gastrointestinal symptoms, depressed mood, and ruptured trust in clinicians that Dr. Rieder described. Unassisted opioid cessation also can result in suicidal ideation and self-harm, while failed tapers increase the likelihood of addiction and patients seeking drugs from high-risk sources. In addition, patients returning to a higher dose of opioids after a failed

Some Approaches to Pain Control

discontinuation attempt risk experiencing overdose as a result of decreased tolerance to the drugs.

Avoiding these outcomes requires shifts in patient care—including helping clinicians understand how to taper and when.

In October 2019, HHS also published a brief guide for clinicians on appropriate dosage reduction or discontinuation of long-term opioid use.⁷ It conveys important considerations for tapering, including considering the complicating presence of depression, anxiety, and post-traumatic stress disorder, as well as opioid misuse symptoms or opioid use disorder. Rather than the 25% reduction in dosage per week Dr. Rieder underwent,¹ the guideline advises a reduction every 4 weeks of 5% to 20% of the dose the patient is consuming at the start of the taper, with slowdowns in the decreased amount if withdrawal symptoms require.⁷ This estimated rate converges with Dr. Rieder's own recommendation of roughly 10% per step.¹

Clear advice on tapering is already common practice at some hospitals. Per Dr. Waldman, the Hospital for Special Surgery has designed a tool for modifiable opioid tapering and integrated it into the hospital's electronic health records.⁸ It permits clinicians to autogenerate a calendar for patients who are ready to taper off opioids used for acute perioperative pain. The schedule shows what dosage to take at what date and time and can be tailored to a patient's reduction goal and other factors. Dr. Waldman noted that, while a dosage reduction of 5% to 20% per step is possible, the rate of decrease could be faster than 20% because the tool is primarily for patients not experiencing long-term opioid use.

Following Up While Tapering Down

While prescribing or administering opioids may take seconds, discontinuing usage can take many months—and per HHS, clinical follow-up with these

- Opioid drugs
- Nonsteroidal anti-inflammatory drugs
- Antineuropathic drugs
- Antiarrhythmic drugs
- Antidepressant drugs
- Regional anesthesia (nerve blocks)
- Neuromodulation
- Physical rehabilitation and massage therapy
- Mind-body or psychological approaches, such as cognitive behavioral therapy
- Complementary and alternative medical practices, such as acupuncture and acupressure

“With early intervention and physical therapy massages, you’re able to get that wound stretchy and not as congested, and it requires a lot less pain medication.”

Dr. Lourdes Castañón

patients may be required as frequently as once per week.⁶ As a result, the surgical team that prescribed opioids for perioperative pain are not necessarily the correct healthcare professionals to follow up with the same patient through the process of tapering.

While surgeons should nonetheless know the basics of opioid cessation, the question is, who should do this work? To phrase the issue as Dr. Rieder did: “We need somebody to own the patients long-term right now. At almost all these centers, nobody owns these patients long-term.”

In his Clinical Congress lecture, he proposed assigning mid-level clinicians on surgical teams the responsibility of offering easily accessible support to patients through opioid withdrawal.

This approach is already in practice at some hospitals. Lourdes Castañón, MD, FACS, a trauma surgeon, directs a burn program at the University of Arizona in Tucson, where patients needing burn care receive pain management in acute and longer-term contexts. “We have an open access clinic,” she said, where a multidisciplinary team offers frequent follow-up of patients after discharge. “Since we follow them on a weekly basis, we’re able to monitor their pain and start weaning them off from there.”

Dr. Rieder worried that the frequent, long-term follow-up with a patient discontinuing opioids may be a money loser for healthcare facilities. “The financial incentive is not to have the extra appointment.”

But Dr. Waldman raised the idea that the economics of not serving patients as they withdraw from opioids is a false one. “Not only is it good to provide these services, it is ultimately in the financial and administrative interests of the hospital to do that. Every bad outcome has a cost associated with it. When patients are dissatisfied, they are liable to sue. Patients who have additional complications are liable to stay in the hospital longer than they otherwise would. If you take all the money you would spend on

those things and instead spend it on having someone evaluate and treat those patients properly with regard to pain medications, you’ll end up saving money by doing the right thing.”

Starting with the End in Mind

Dr. Waldman’s comment underscores that the best patient outcomes depend on clinical foresight that aims to avoid risks—an obligation that may fall squarely on a surgeon and his or her team.

Some of this foresight is focused on a shift away from opioids entirely, which obviates managing difficult opioid withdrawal. This is underway across the healthcare environment. Dr. Castañón, who spoke at a session on burn care at Clinical Congress 2023, described a strong emphasis in her department on using regional anesthesia in lieu of opioids. “When we use regional anesthesia intraoperatively, our patients require a lot less anesthesia, a lot less narcotics during the procedure,” she said, adding that the same technique can then fully obviate the need for opioids during postoperative inpatient care.

In addition, Dr. Castañón said, “With early intervention and physical therapy massages, you’re able to get that wound stretchy and not as congested, and it requires a lot less pain medication. We’re able to get patients to a point where we’re actually able to wean them off pain medication completely.”

Beth Darnall, PhD, who directs the Pain Relief Innovations Lab at Stanford University in Palo Alto, California, has innovated in this mode as well. “I would say the one piece that’s really crucial is that we provide education around how people can best control their pain,” she said.

In addition to helping individual patients slowly reduce their opioid use, Dr. Darnall has developed a proactive patient education program called Empowered Relief, which offers one-time,

Although individual surgeons are not the sole factor in effective perioperative pain management, surgeons are important participants in improving opioid use and cessation for patients nationwide.

2-hour sessions on pain relief skills for perioperative patients and people with chronic pain. The program has now certified 1,100 clinicians in 27 countries. “If you go to the Cleveland Clinic for spinal surgery, you will receive Empowered Relief before or after surgery,” she said.

The program has generated evidence in clinical trials that it reduces pain levels and painkiller use, even though it does not mandate ceasing or avoiding use of any drug. “We don’t direct people to use less opioid medication” as part of the program, Dr. Darnall said, but rather provide skills that may reduce the need for medication-based pain relief.

When perioperative pain management requires medication, Sean Mackey, MD, PhD, Redlich Professor and chief of the Division of Pain Medicine at Stanford University, noted, “There is a very large number of medications that have been tested in human randomized controlled trials that have shown some efficacy in some aspect of pain.”

To select one that best fits a perioperative patient’s needs, he says, “Start with the goals in mind,” noting these may extend beyond pain relief per se to include quality of life, functional status, and a return to work—all of which may inform which pain relief methods a surgical team may choose early in the perioperative period.

One Size Does Not Fit All

Starting with an individual patient’s goals in mind is one facet of what nearly everyone interviewed for this article said in almost identical words: “One size does not fit all.”

Indeed, most enumerated that the personal nature of pain medicine extended beyond the articulated goals of a patient to the intensity of their disease or injury, the type of surgery a patient receives, the patient’s specific pain response, their receptivity

to and tolerance of specific pain relief options, and any existing level of substance use disorder. Tailoring pain relief to the specific patient often requires careful assessment by pain management teams, including for medical history, previous difficulties with pain control, and any current use of illicit drugs. Although this is time-consuming and not always possible (as in the case of Dr. Rieder, who needed urgent surgical intervention to save his injured foot), these efforts pay off in lowered risk of adverse outcomes.


A Paradigm Shift

Other observations resonated across all interviews for this article. First, not all clinical interactions affecting a patient’s opioid use and cessation happen with surgeons; many members of the healthcare team may be involved. As a result, shifting to better management of opioid use goes beyond the behavior of individual surgeons, requiring the buy-in of an entire department or hospital.

Indeed, Dr. Rieder noted that this perspective was the point of his writing a book about the bioethical aspects of his injury: to prompt systematic change.

Although individual surgeons are not the sole factor in effective perioperative pain management, surgeons are important participants in improving opioid use and cessation for patients nationwide. As Dr. Waldman, a pain specialist, noted about the Hospital for Special Surgery’s improved processes for standardizing, reducing, screening for, and tapering opioid use: “The system worked here because we had a surgeon-in-chief and the president of the hospital who were willing to say to all the surgeons, ‘This is the way it’s going to be.’”

As a result, he said, “The surgical departments are very invested in this. They see the value of it, and

I think they want to see it succeed. But it was a real paradigm shift, and it didn't happen until we had the surgeons on board.” 

M. Sophia Newman is the Medical Writer and Speechwriter in the ACS Division of Integrated Communications in Chicago, IL.

References

1. Reider T. *In Pain: A Bioethicist's Personal Struggle With Opioids*. HarperCollins, 2019.
2. Alsultan MM, Guo JJ. Utilization, spending, and price of opioid medications in the US Medicaid programs between 1991 and 2019. *Am Health Drug Benefits*. 2022; 15(1):31-37.
3. Gaitanidis A, Gallastegi AD, Van Erp I, et al. Nationwide, county-level analysis of the patterns, trends, and system-level predictors of opioid prescribing in surgery in the US: Social determinants and access to mental health services matter. *J Am Coll Surg*. 2024;238(3):280-288.
4. Beaulieu-Jones BR, Marwaha JS, Kennedy CJ, et al. Comparing rationale for opioid prescribing decisions after surgery with subsequent patient consumption: A survey of the highest quartile of prescribers. *J Am Coll Surg*. 2023;237(6):835-843.
5. Deaton A, Case A. *Deaths of Despair and the Future of Capitalism*. Princeton University Press, 2020.
6. US Department of Health and Human Services/Centers for Disease Control and Prevention. CDC clinical practice guideline for prescribing opioids for pain—United States, 2022. *MMWR*. 2022;71(3).
7. US Department of Health and Human Services. HHS guide for clinicians on the appropriate dosage reduction or discontinuation of long-term opioid analgesics. Published October 2019. Accessed January 24, 2024. <https://nida.nih.gov/nidamed-medical-health-professionals/opioid-crisis-pain-management/hhs-guide-clinicians-appropriate-dosage-reduction-or-discontinuation-long-term-opioid>.
8. Schuessler S, Magid S, Stack R, Sideris A, Liguori G, Wu C, Waldman S. B301 Development of a novel opioid tapering tool in the electronic health record for non-discharge prescriptions. *Regional Anesthesia & Pain Medicine*. 2022;47:A225.



Low-Cost Box Trainer Guides Learners in LMICs



and Students Closer to Home

Serena S. Bidwell, MPH

Ahmad Hider, MPHIL

Chioma Anidi

Grace J. Kim, MD, FACS





Overleaf and
this page:
The ALL-SAFE
box trainer was
available at a
laparoscopic
training course for
surgeons in Nigeria.

In an effort to increase educational opportunities for surgeons to learn laparoscopic techniques in low- and middle-income countries (LMICs), ALL-SAFE (African Laparoscopic Learners— Safe Advancement for Ectopic Pregnancy) was created by a global collaboration of surgeons, researchers, and technical developers.^{1,2}

ALL-SAFE is an educational platform that includes both cognitive and psychomotor components to guide learners through surgical case scenarios and develop laparoscopic skills on a low-cost box trainer.

The box trainer—as well as anatomic simulations for trocar placement, appendectomy, salpingostomy, small bowel manipulation, and intracorporeal suturing—are created from materials readily available in LMICs. While use of laparoscopic surgery currently is limited in several LMICs due to lack of training and simulation opportunities, ALL-SAFE provides an educational tool that can be built and used at the point of care.^{3,4}

Notably, ALL-SAFE is an innovative tool in laparoscopic training throughout teaching hospitals in Africa, with 320 users in more than 65 countries.

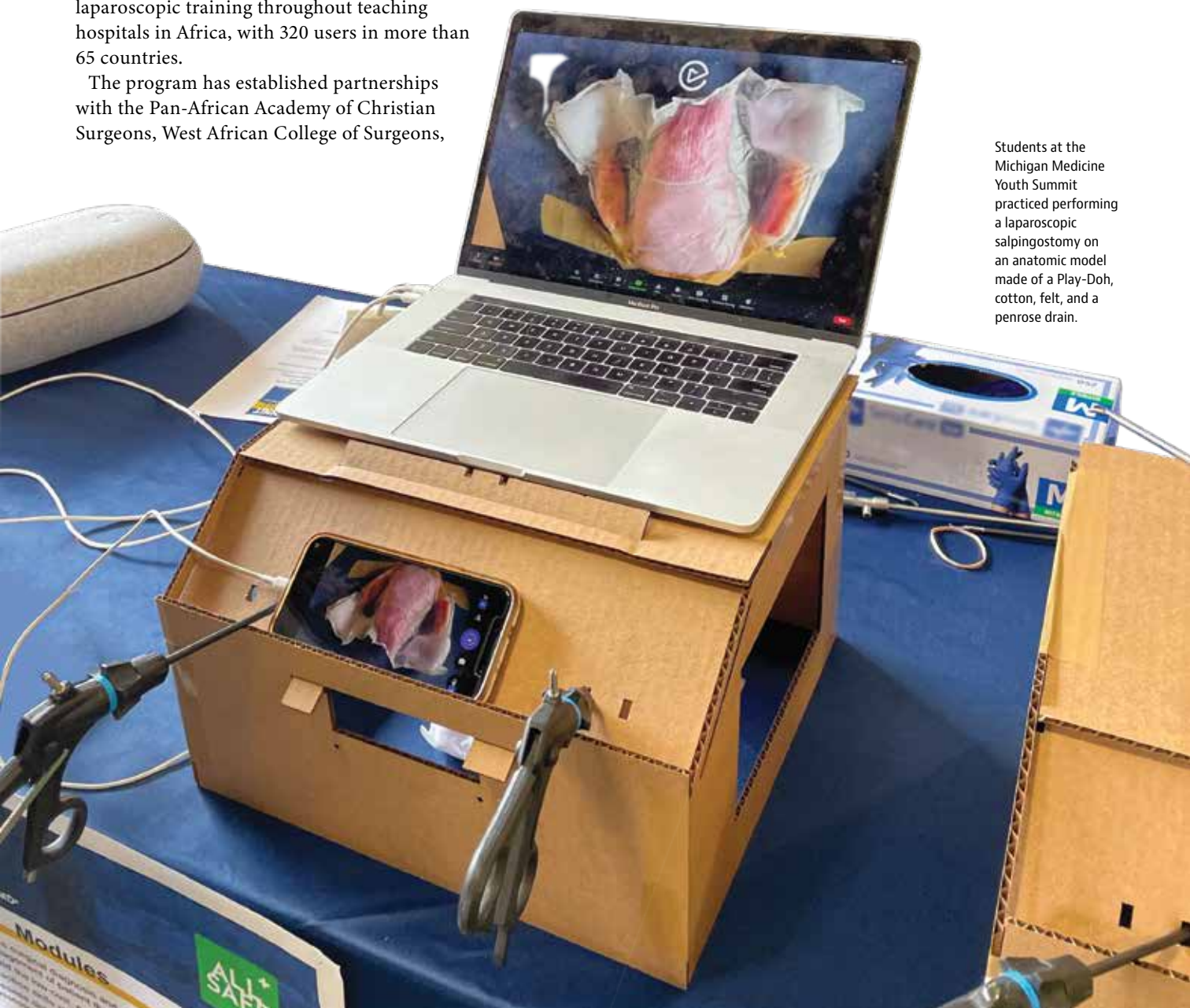
The program has established partnerships with the Pan-African Academy of Christian Surgeons, West African College of Surgeons,

and College of Surgeons of East, Central, and Southern Africa. Additionally, the ALL-SAFE team received the 2023 Global Surgical Training Challenge grand prize, an initiative that supports the creation of low-cost training modules for surgeons in LMICs.⁵

Learning Opportunities for US Students

Not only has the tool increased in popularity throughout Africa, ALL-SAFE also was unexpectedly used by eager learners in a setting closer to home.

Students at the Michigan Medicine Youth Summit practiced performing a laparoscopic salpingostomy on an anatomic model made of a Play-Doh, cotton, felt, and a penrose drain.





During the 2023 Youth Summit at Michigan Medicine, students were lined up to try the ALL-SAFE box trainer.

During the annual Youth Summit at the Big House in Ann Arbor, middle school students from underserved communities in Southeast Michigan learned about health sciences and medical careers through hands-on medical activities on the campus of the University of Michigan.^{6,7} Each year, the Youth Summit brings hundreds of students to rotate through activities sponsored by several Michigan Medicine departments. For example, a radiology booth may feature ultrasound machines; an emergency medicine table may teach CPR; and a physical therapy activity may involve a series of exercises and stretches. For many students, the Youth Summit is their first exposure to the medical field.

ALL-SAFE partnered with the HOPE Collaborative, an initiative within the Department of Surgery of the University of Michigan that works to increase health equity and opportunities for children.⁸ In 2023, ALL-SAFE created a simulation booth for the Youth Summit where young learners could use the ALL-SAFE box trainer and models. HOPE scholars—older students from Detroit who have graduated from college and are preparing for medical school—were instructors at the ALL-SAFE simulation booth to teach the middle schoolers how to use the simulation platform.

Because the ALL-SAFE box trainer and models easily can be constructed from inexpensive, readily available materials—cardboard, tape, plastic wrap, gloves, socks, cotton, etc.—learners as well as instructors discovered that they could build the platform in their own homes and practice laparoscopic surgery.

The ALL-SAFE booth proved to be one of the most popular stations at the Youth Summit. Students had an opportunity to learn about appendicitis and ectopic pregnancy and try their hand at performing a laparoscopic salpingostomy on a simple anatomic model made of a Play-Doh, cotton, felt, and a penrose drain.⁹

When students were asked to rotate to different stations, several were hesitant to walk away from the ALL-SAFE box trainers, determined to complete the procedure. Some students even returned to the station later in the day or brought their chaperones over to proudly show off their successes. By giving these students an opportunity to access this low-cost technology and discover how they could build the tool themselves, they were able to learn about surgery while hopefully developing an interest in pursuing a career in medicine.

Even though Detroit-area middle schools and hospitals in sub-Saharan Africa are vastly different environments, there are some notable similarities. In both settings, learners are hampered by a lack of accessibility, exposure, and learning opportunities in medicine. These factors have acute downstream ramifications that impact healthcare disparities, such as reduced access to laparoscopic surgical care and worse outcomes following surgery.^{10,11}

The ALL-SAFE box trainer serves the same purpose in both local and global environments—to increase access to surgical education. Whether the ALL-SAFE box trainer is being used at a laparoscopic training course for surgeons in Abuja, Nigeria, or at a medical exposure event in Ann Arbor, Michigan, the responses from learners were strikingly similar. They could not walk away from the simulators; they were excited and determined to finish the task at hand; and they desired more time interacting with the simple box trainer.

While global surgery training programs continue to gain interest, it is important to consider how we may advance the goal of tackling healthcare disparities locally. The ALL-SAFE box trainer and educational platform is one approach to bring global surgery tools to more communities, and developing similar hands-on training tools specific to various cultural contexts can further engage and empower communities.

Promoting mentorship programs and fostering long-term partnerships with local educational

institutions to integrate healthcare awareness into school curricula can instill health-conscious behaviors from an early age. Lastly, using data analytics and community-driven research initiatives can identify specific healthcare disparities and tailor interventions. These approaches, when combined, can form a comprehensive strategy to promote equitable healthcare access and outcomes for all.

Although the ALL-SAFE box trainer was designed for use in LMICs, it may have a dual purpose of sparking interest and excitement for surgical careers among a wider audience. We were struck by the simplicity of this approach, as well as the ability to multipurpose low-cost technology to develop this learning tool. As our emphasis on global surgery expands within the academic surgery context, we should consider how strategies for combating healthcare inequities internationally may inform, support, and uphold our efforts to tackle disparities domestically. **B**

Serena Bidwell is a fourth-year medical student at the University of Michigan in Ann Arbor and is a member of the ALL-SAFE global surgery collaborative. She also is pursuing her master of business administration degree with a focus on nonprofit management and hospital administration.

References

1. ALL-SAFE. Training Courses in Laparoscopic Surgery. Available at: <https://www.allsafe.education/>. Accessed January 24, 2024.
2. ALL-SAFE. Overview of our platform. Available at: <https://www.appropedia.org/ALL-SAFE>. Accessed January 24, 2024.
3. Nyundo M, Umugwaneza N, Bekele A, Chikoya L, et al. Assessment of resource capacity and barriers to effective practice of laparoscopic surgery in training hospitals affiliated with the College of Surgeons of East, Central and Southern Africa (COSECSA). *Surg Endosc*. 2023;37(3):5121-5128.
4. Farrow NE, Commander SJ, Reed CR, et al. Laparoscopic experience and attitudes toward a low-cost laparoscopic system among surgeons in East, Central, and Southern Africa: A survey study. *Surg Endosc*. 2021;35(12):6539-6548.
5. Global Surgical Training Challenge: Congratulations to the Winners. Available at: <https://globalsurgicaltraining.challenges.org/>. Accessed January 24, 2024.
6. OHEI Youth Summit at the Big House. Available at: <https://medicine.umich.edu/dept/obstetrics-gynecology/events/202205/ohei-youth-summit-big-house>. Accessed January 24, 2024.
7. Youth Summit at the Big House 2023. Available at: <https://www.youtube.com/watch?v=2yb81vNeNYs>. Accessed January 24, 2024.
8. Impacting HOPE Collaborative. Available at: <https://medicine.umich.edu/medschool/about/key-initiatives/health-equity-inclusion/impacting-hope-collaborative>. Accessed January 24, 2024.
9. Rooney DM, Mott NM, Ryder CY, Snell MJ, et al. Evidence supporting performance measures of laparoscopic salpingostomy using novel low-cost ectopic pregnancy simulator. *Global Surgical Education—Journal of the Association of Surgical Education*. 2020;1(41):1-7.
10. Pizzol D, Trott M, Grabovac I, Antunes M, et al. Laparoscopy in low-income countries: 10-year experience and systematic literature review. *Int J Environ Res Public Health*. 2021;18(11):5796.
11. Meara JG, Leather AJ, Hagander L, Alkire BC, et al. Global Surgery 2030: Evidence and solutions for achieving health, welfare, and economic development. *Int J Obstet Anesth*. 2016;25:75-78.



Dr. Suman Baral

Visiting Fellow from Nepal Describes US Experience as “Dream Come True”

Suman Baral, MBBS, FACS

While visiting Memorial Sloan Kettering Cancer Center, Dr. Suman Baral spent time with oncologic surgeon-scientist Dr. Murray Brennan.

From Machhapuchchhre to Manhattan

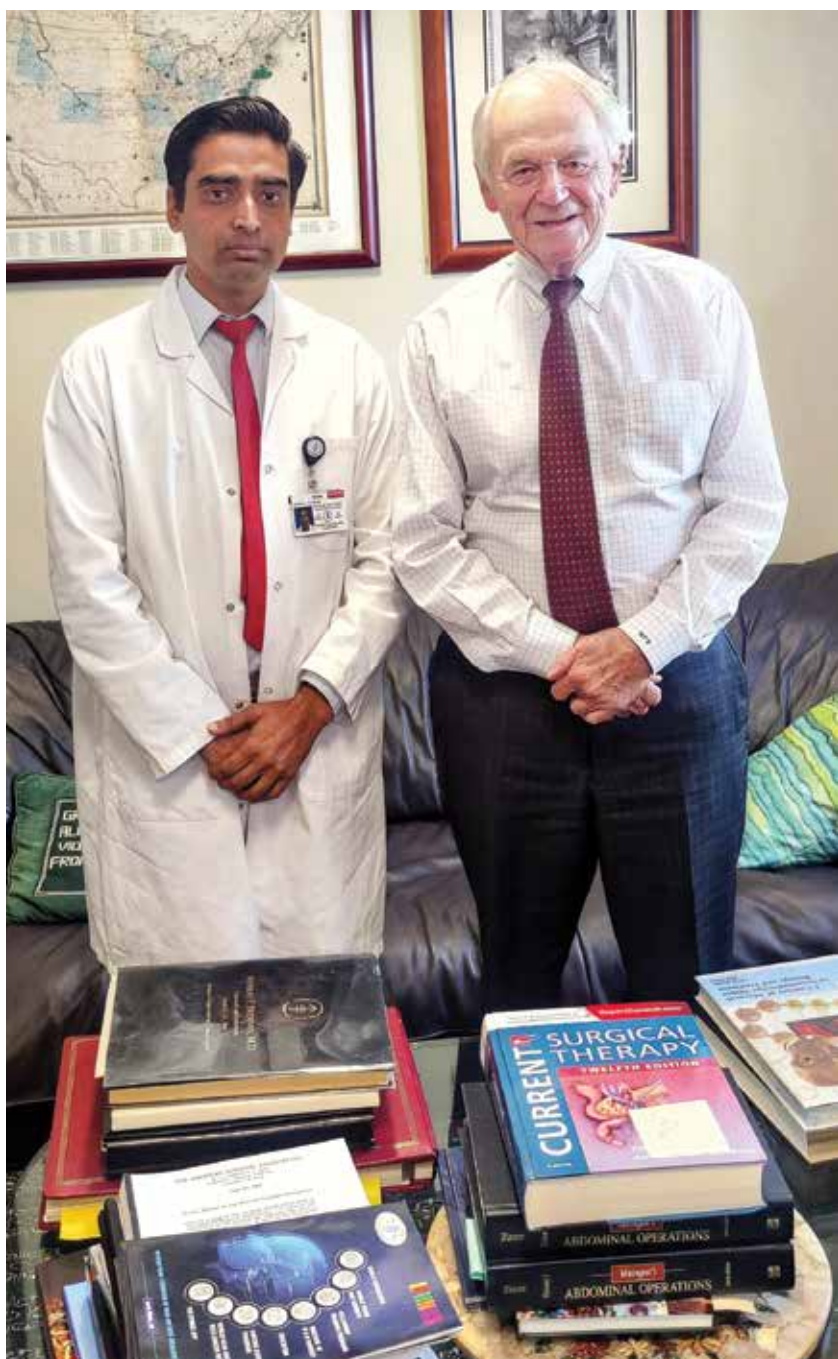
NEPAL IS A MOUNTAINOUS and landlocked country between India and China, with a population of 30.8 million people as of 2023. The unique geographical landscape of Nepal, including the never summited Machhapuchchhre, presents both opportunities and challenges. Nepal is rich in natural resources, but the craggy mountains that dominate the terrain act as a barrier to the transfer of knowledge about and access to healthcare.

Despite sophisticated oncologic technology and earlier detection, the cancer burden in Nepal is on the rise. In addition, a lack of standard treatment facilities persists, largely due to the country's poor economic status. Healthcare providers offer the best services they can, as far as they can.

I feel privileged to have been selected as one of New York Community Trust's Mammadi Soudavar Traveling Fellows for 2023, which allowed me to spend 3 months at the renowned Memorial Sloan Kettering Cancer Center (MSKCC) in New York and interact with US colleagues who are also members of the American College of Surgeons. This experience stands as a pinnacle in my academic and professional journey.

As a scholar from a low-income country, visiting one of the world's best cancer centers is a dream come true. I was particularly excited to join the hepatopancreaticobiliary (HPB) department at MSKCC, led for many years by the esteemed late professor Leslie H. Blumgart, MD, FACS. In fact, the bible in HPB surgery, Dr. Blumgart's *Surgery of the Liver, Biliary Tract, and Pancreas*, was my textbook during my surgical residency in Nepal. Meeting with eminent surgeons and learning from their legacies allowed me to achieve one of my professional dreams.

My rotational fellowship started with 3 weeks in HPB surgery, witnessing intricate procedures such as liver resections and the Whipple procedure, whether performed through open or robotic methods. In fact, robotics captured my fascination—this was my first-ever experience



We could all agree, that despite the physical distance between rural Kansas and rural Nepal, fostering collaboration and exchanging ideas between the two communities was essential.

watching surgery from a robotic console. Engaging in multidisciplinary team (MDT) Zoom meetings and in-person academic sessions with other general surgical oncology fellows and friendly attendings also enriched my stay.

Subsequently, I joined gastric and mixed tumors surgery for the next 3 weeks, encountering complex cases like retroperitoneal sarcomas, melanomas, extensive metastases, and peripheral extremity malignancies daily. The MDT discussions on these topics were incredibly enlightening, with faculty members deliberating on the best procedural approaches for the best outcomes. The humility of the attendings, particularly Sir Murray F. Brennan, MD, FACS, impressed and inspired me.

Breast cancer surgeries were mainly performed at Josie Robertson Surgery Center, which has breathtaking views of the Queensboro Bridge over the East River along with Manhattan's skyline. I observed various breast cancer surgeries, mainly axillary dissections, radical mastectomies, and breast reconstruction surgeries.

Later, I spent a day with Neil M. Iyengar, MD, a breast medicine oncologist, to witness the complete continuum of care at his outpatient clinic. I spent the following 2 weeks in radiology, where I was accompanied by an international fellow from Mexico, Gustavo Barraza, MD—a radiologist specializing in oncologic imaging, who was very kind and expanded my horizons in the oncological aspects of CT scans and MRIs.

My journey at MSKCC concluded with colorectal surgery, where I observed robotic and open procedures, such as total colectomies and

hemicolectomies, along with active participation via Zoom meetings and MDT sessions. Overall, my dream visit to MSKCC ended with beautiful memories.

During weekends, I explored Boston, visiting and making new friends while touring the prestigious Harvard University and Harvard Medical School. My short excursion to Maryland and exploring Johns Hopkins University marked another memorable chapter. I am also glad I visited Washington, DC, and enjoyed every moment scenic America offers.

Kathmandu University to The University of Kansas

As I bid farewell to MSKCC, with 22 days to spare before returning to Nepal, I traveled to Dallas, Texas, to reconnect with my cousins and share the warmth of family during the Dashain festival.

Later, I accepted an invitation from the honorable dean of the of The University of Kansas (KU) School of Medicine—Salina Tyler G. Hughes, MD, FACS. Dr. Hughes and his wife Mary graciously received me at the airport, and we proceeded to McPherson, where they reside.

The following day, Dr. Hughes introduced me to the KU-Salina campus, nestled in the rural landscape of Kansas. The campus hospital serves around 50,000 residents, and I was impressed by the well-managed Emergency Department and overall facilities provided to the local population in such a rural community. Drawing from my experiences in a resource-challenged part of Nepal, I could empathize with the difficulties of geographic diversity and financial constraints.



During an honorary presentation at the campus, I highlighted these challenges and engaged in fruitful discussions with medical students, including Samir, a Nepali MBBS student who migrated to the US. We could all agree, that despite the physical distance between rural Kansas and rural Nepal, fostering collaboration and exchanging ideas between the two communities was essential. Dr. Hughes then kindly dropped me off in Topeka, where I was received by a friend. I concluded my journey on October 22, 2023, with beautiful memories.

Now, I am equipped clinically and academically in the field of surgical oncology, and I am committed to dedicating myself to this sector in my home country. The conclusion of my tenure at MSKCC marks the beginning of my surgical career in the realm of surgical oncology.

I extend my heartfelt appreciation to MSKCC, and especially Dr. Brennan, for their efforts in developing oncological health in low-resource settings and providing opportunities for clinicians

like me. Additionally, I am very grateful to Dr. Hughes for the invitation and chance to share my experiences serving rural Nepal.

Meeting friends and fostering new relationships in person was a wonderful experience.

Disclaimer

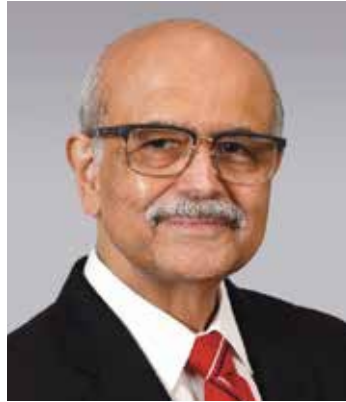
The thoughts and opinions expressed in this viewpoint article are solely those of the author and do not necessarily reflect those of the ACS.

Dr. Suman Baral is a consultant general surgeon in one of the private hospitals in Pokhara, Nepal, and assistant professor of surgery at Kathmandu University in Dhulikhel, Nepal.

Dr. Suman Baral joined Dr. Tyler Hughes at The University of Kansas School of Medicine-Salina where he discussed providing care in resource-challenged communities.



Dr. Fabrizio Michelassi



Dr. Ajit Sachdeva

Clinical Congress 2023 Provides Enduring Value

Fabrizio Michelassi, MD, FACS, and Ajit K. Sachdeva, MD, FACS, FRCSC

Clinical Congress is an annual capstone for the ACS, providing a dynamic surgical education program for surgeons, trainees, and other healthcare professionals. The 2023 Clinical Congress in Boston, Massachusetts, was one of the College's most-attended conferences in recent years and had the highest attendee satisfaction rating for quality and quantity of content.

INEVITABLY, THOUGH, some clinicians may not have been able to attend due to scheduling conflicts, and those who attended needed to prioritize engagement among the many simultaneous sessions offered. The good news is that the ACS has helped ensure that you don't have to miss any of the important content. A significant number of impressive scientific program sessions is available through Clinical Congress 2023 On Demand, as well as through other new and enduring educational opportunities.

A Wealth of Relevant Content

Available through May 1, the Clinical Congress 2023 on-demand platform provides a treasure trove of on-demand content that covers a wide selection of clinical and nonclinical topics. Access was included with registration for both in-person and virtual attendees, as well as for individuals who purchase new virtual registration.

The convenience of on-demand access to nearly 100 Panel Sessions, 11 Named Lectures, three Special Sessions, Poster Hall, and a Video Hall—at any time—means this is the most flexible way to take part in Clinical Congress. By using granular filters on the on-demand platform, it is possible to customize the content to specifications.

For example, you can find the latest updates on hernia repair and gallbladder disease management by entering the meeting portal, searching

for “inguinal hernia” or “cholecystectomy,” and filtering by the “on demand” modality. There you'll find the inaugural “Great Debates” session, where you can learn about different treatment paradigms for common general surgery conditions.

If the surgical and nonsurgical treatment of appendicitis is a concern in your practice—search for “appendectomy” on demand, and the popular “Appendicitis: Antibiotics or Surgery? When and Why?” Panel Session will be available to view at any time.

The nonclinical content of Clinical Congress 2023 provides an important look at topics that span all surgical disciplines. The Academy of Master Surgeon Educators Special Session, for example, examined the acquisition of new skills, learning new procedures, and incorporation of new technologies into a surgical practice—a topic relevant to all surgeons, from surgical trainees to experienced surgeon leaders.

Other broadly interesting nonclinical sessions included the Special Sessions on firearm injury prevention and the ACS Power of Quality campaign, the Ethics Colloquium, a panel discussing the shifting surgical workplace culture, surgeon safety in the workplace, and much more.

Whether you have previously registered and attended in-person or virtually, or registered virtually after the conference, the ability to repeatedly view, pause, and replay sessions and sections of interest will help you acquire and retain valuable information.

Convenient Resource for Regulatory Requirements

This wealth of educational materials can have an immediate impact on your practice and your professional work. Clinical Congress 2023 On Demand also represents an extraordinary means for meeting regulatory requirements.

For virtual and on-demand attendees, 182 *AMA PRA Category 1 Credits™* are available, and 201.5 credits are available for in-person attendees who also can take advantage of the on-demand platform. All attendees can claim credit up to the May 1 deadline.

In addition, select content can be applied as Credit to Address State Regulatory Mandates and Credit to Address ACS Accreditation and Verification Requirements.

Even now, Clinical Congress 2023 remains an unbeatable value for your professional requirements and development.

Expanding Popular Sessions through Interactive Webinars

Although May 1 is the deadline to claim credit and access the content through the on-demand platform, you'll still have exciting opportunities to access valuable sessions from Clinical Congress 2023 throughout the spring and summer.

The ACS is offering two new webinar series that extend and augment the most popular Panel Sessions and Video-Based Education sessions.

The first webinar series—to be launched this spring—will have three programs. The first program will be

based on the very popular Panel Session, “Diverticulitis: The Widening Gap between Data and Practice,” and will include a two-part model.

The first part will include access to the on-demand recording of the original session. Individuals who have previously registered for Clinical Congress 2023 will be able to view the session through the on-demand meeting platform, and individuals who have not registered for Clinical Congress will be able to purchase access to this individual recording.

The second and most exciting part will be the interactive live webinar. The original session moderators and panelists, as well as new content-area experts, will engage participants on the topic of the session, provide updates and new data that have been gathered since October, and answer questions from the audience. In this format, the most popular clinical sessions from the conference will be made available for access throughout the year, with extended opportunities to claim continuing medical education.

In addition, six Video-Based Education sessions from Clinical Congress 2023 will be offered through a webinar series. These will be presented via Zoom and are anticipated to include the original moderators and authors of that session to answer questions from the audience.

Although both webinar series are based on Clinical Congress 2023 content, they offer enhanced, interactive experiences.

Exciting Changes for Clinical Congress 2024

Certainly, there remains much to gain from Clinical Congress 2023. But looking ahead to this October in San Francisco, California, we are excited to touch on some of the changes coming for Clinical Congress 2024.

A major change will be to the conference schedule. The ACS has listened to the requests from our busy surgeons and shifted the format for Clinical Congress 2024 to a Saturday-to-Tuesday meeting, October 19–22, meaning you’ll have less time away from your practice and your patients if you attend the entire event.

And for those who will need to head home before the end of the Congress, they can look forward to additional thematic and specialty content included in the conference’s first 2 days. Thematic tracks on education and quality, in addition to specialty sessions on cardiothoracic surgery, vascular surgery, neurosurgery, and more will be available on Sunday and Monday.

In addition, there will be an even greater emphasis on multidisciplinary panels that surgeons from many fields can look forward to, such as a session on fistula of interest to gastrointestinal surgeons, urologists, and obstetric and gynecologic surgeons; a session on trauma of the head and orbit for ENTs, oral maxillofacial surgeons, neurologists, ophthalmologists, and trauma surgeons; and several more. With these sessions, the ACS will

emphasize its role as the true House of Surgery, relevant to surgeons in all disciplines.

There will be much more to come regarding Clinical Congress 2024 in the months ahead, and we look forward to sharing the developments with you. But before this year’s conference, we encourage all surgeons and surgical team members to take advantage of the enduring value of Clinical Congress 2023 through the on-demand platform by May 1 and the ongoing webinars throughout the year. We know you will find much to learn and enjoy. **B**

Disclaimer

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

Dr. Fabrizio Michelassi is the Lewis Atterbury Stimson Professor and chair of the Department of Surgery at Weill Cornell Medicine, and surgeon-in-chief of NewYork-Presbyterian/Weill Cornell Medicine, both in New York. He also is Chair of the Clinical Congress Program Committee and Vice-Chair of the ACS Board of Regents.

Dr. Ajit Sachdeva is Director of the ACS Division of Education and adjunct professor of surgery at the Northwestern University Feinberg School of Medicine, both in Chicago, IL.

SURGEONS UNITED

CLINICAL CONGRESS 2023

OCTOBER 22-25 / BOSTON, MA

Access Clinical Congress 2023 content
on demand until May 1, 2024



**Available
on Demand**

ACS / AMERICAN COLLEGE
OF SURGEONS



Preanesthesia Assessments Allow Safer Surgery for Patients and Surgeons

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

One of the most common fears surgeons hear from patients who are about to enter surgery is that they will experience a severe complication with anesthesia and won't wake up.

WHILE EXCEEDINGLY RARE, these types of complications can happen. Alternatively, there is a risk that they will wake up and experience some level of consciousness during surgery. For surgeons, it is shocking and distressing to have a patient describe some part of the procedure or recall that they felt discomfort or pain during the surgery. These impressions can remain with the patient for long periods of time and cause significant emotional distress.

Estimates show that among 20 million anesthetics administered, 26,000 incidents of a patient experiencing some level of awareness during surgery—such as pain, auditory perceptions, the sensation of the endotracheal tube, or dreaming during surgery—occur in the US each year.¹

These errors with anesthesia can have long-term impacts on patients, well past the initial postoperative period. After experiencing awareness during surgery, patients reported significant postoperative distress

related to feeling unable to communicate, unsafe, terrified, abandoned, and betrayed, resulting in many patients developing post-traumatic stress disorder.²

Not only can these events cause long-term emotional harm for patients, but they also can result in a mental toll on the surgeon. One study found a strong connection between reported major medical errors and degree of burnout, mental quality of life, and depression for surgeons.³ These findings suggest that preventing anesthesia-related errors is in the interest of patients and surgeons.

The Preanesthesia Assessment

Anesthesia-related events can happen if the correct precautions aren't taken prior to surgery. Surgeons and anesthesiologists must work together to ensure these “never events” never happen.

Surgeons and anesthesiologists have tools at their disposal to prevent these kinds of errors. Preanesthesia assessments allow the surgery team

to identify perioperative risks as well as implement interventions to mitigate them. Preanesthesia assessments, conducted by an individual qualified to administer anesthesia, provide an opportunity to build rapport between the anesthetist and patient, while reducing patient anxiety about the procedure.⁴

Elements of a Preanesthesia Assessment

A thorough preanesthesia assessment is critical to reducing risks associated with anesthesia and developing an anesthesia plan.

While required by The Joint Commission, the preanesthesia assessment is an underutilized tool. In 2022, The Joint Commission found that approximately one-in-five hospitals surveyed were not in compliance with this requirement, either missing elements of a preanesthesia assessment or not performing an assessment at all.⁵ Surgical teams should have the proper policies and procedures in place to ensure the assessment occurs according to requirements.

According to the American Society of Anesthesiologists (ASA), a preanesthesia assessment should involve:⁶

- Reviewing the patient's medical history, including anesthesia, drug and allergy history, and a physical examination
- Formally assessing anesthesia risks and identifying potential problems, particularly those that may suggest complications or contraindications to the planned procedure
- Collecting additional preanesthesia data or information, such as stress tests or other specialist consultations
- Discussing risks and benefits of anesthesia
- Obtaining informed consent
- Developing a plan for the patient's anesthesia care, including the discussion and potential use of an amnestic agent

A proper preanesthesia assessment should be conducted within 48 hours of the day of surgery. The ASA provides additional guidance on preanesthesia assessments and how they differ from a general preoperative assessment as well as example scenarios on its website.

After the Preanesthesia Assessment

Surgeons should discuss the findings of a preanesthesia assessment with the anesthesiologist and potentially other specialists to determine impacts to the surgery plan. Surgeons may have to modify their plans to ensure the patient is safe and the procedure is in the patient's best interest.

If an error occurs, whether related to anesthesia or another part of the surgery, best practice for surgeons is to have an immediate conversation with the patient and his or her family about what happened and how it was resolved. These conversations are undoubtedly challenging, but they are necessary to foster trust between surgeons and patients. **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 ACS.

Dr. Lenworth Jacobs is a professor of surgery and professor of traumatology and emergency medicine at the University of Connecticut in Farmington and director of the Trauma Institute at Hartford Hospital, CT. He is Medical Director of the ACS STOP THE BLEED® program.

References

1. Sebel PS, Bowdle TA, Ghoneim MM, Rampil IJ, et al. The incidence of awareness during anesthesia: A multicenter United States study. *Anesth Analg*. 2004;99(3):833-839.
2. Osterman JE, Hopper J, Heran WJ, Keane TM, et al. Awareness under anesthesia and the development of posttraumatic stress disorder. *Gen Hosp Psychiatry*. 2001;23(4):198-204.
3. Shanafelt TD, Balch CM, Bechamps G, et al. Burnout and medical errors among American surgeons. *Ann Surg*. 2010;251(6):995-1000.
4. Omole OB, Torlutter M, Akii AJ. Preanaesthetic assessment and management in the context of the district hospital. *S Afr Fam Pract*. 2021;63(1):e1-e7.
5. The Joint Commission. *Joint Commission Perspectives*. 2024;44(1).
6. American Society of Anesthesiologists. ASA Committee on Economics. Distinguishing between a pre-anesthesia evaluation and a separately reportable evaluation and management service. Available at: <https://www.asahq.org/quality-and-practice-management/managing-your-practice/timely-topics-in-payment-and-practice-management/distinguishing-between-a-pre-anesthesia-evaluation-and-a-separately-reportable-evaluation-and-management-service>. Accessed January 2, 2024.



Legendary Abdominal Surgery in 19th Century Defies Medical Norms

Hugh A. Gamble II, MD, FACS

Christmas Day in 1809 changed the path of surgery forever. Abdominal surgeon Ephraim McDowell performed an operation that universally was considered to be fatal, but the “experiment” was actually not foolhardy; McDowell’s background and education provided him with the knowledge to proceed.

AT 19 YEARS OLD, McDowell entered a 2-year preceptorship with Alexander Humphreys, MD, in Staunton, Virginia. At that time, Dr. Humphreys was known as an excellent surgeon and the premier lithotomist in the country.

After completing the preceptorship, McDowell entered The University of Edinburgh in Scotland for 2 years but left without obtaining a medical degree. He decided to take private classes with John Bell, the historic Scottish surgeon and anatomist. Upon identifying an ovarian cyst during postmortem examination, Bell speculated that premortem removal would be possible.

A hundred years earlier, John Hunter said, “I cannot see any reason why, when the disease can be ascertained in an early stage, we should not make an opening into the abdomen and extract the cyst itself,” and “Why should not a woman suffer spaying without danger as well as animals do?”¹

McDowell returned to his home on the frontier in Danville, Kentucky, in 1795. He opened his practice without the benefit of a medical degree but was soon recognized as one of the best surgeons west of Philadelphia. His repertoire included amputations, strangulated hernias, lithotomy, drainage of abscesses, resection of parotid tumors, and tracheotomy.

In 1809, two Danville physicians consulted McDowell about 45-year-old patient Jane Todd Crawford, who thought she had been “pregnant” for more than a year. She could stand and walk only with great difficulty, experiencing abdominal pain much of the time.

Upon examination, McDowell found her uterus to be of normal size, but he discovered a large abdominal mass that was easily movable from one side to the other. In other words, she had an ovarian cyst—a diagnosis that, at the time, resulted in progressive debilitation and death within 2 years.

McDowell discussed in detail the theoretical possibility of removing her tumor, explaining that abdominal surgery had never been performed successfully. She understood the risks and agreed to the “experimental” surgery.

Crawford traveled 60 miles over 3 days on horseback to Danville because the roads were too bad for a cart.² Surgery was performed on Sunday, December 25. McDowell preferred to operate on Sundays because his schedule was less hectic, and he drew inspiration from the hymns being sung in the church next door.

On this day, a group of approximately 100 people were gathered outside and could be easily heard and

The entrance doors of the John B. Murphy Memorial Auditorium in Chicago, Illinois, are a tribute to the past achievements of important contributors to medical science, including Ephraim McDowell.

seen. The crowd was very critical of the planned operation, suggesting that McDowell's life was at risk should the patient die.

Psalms, Moonshine, and Surgery

Major elements of modern surgery were not available to McDowell. William T. G. Morton's development of anesthesia and Joseph Lister's sterile techniques were unknown at the time; however, he addressed both to some degree.³ Crawford was

reported to calm herself by singing hymns and quoting Psalms during the surgery. She also was given a mixture of cherry bounce moonshine and laudanum, followed by a few sips of barley water whiskey.

In lieu of sterile techniques, several factors came into play. McDowell's surgeries were known to be much like his personal life with an emphasis on cleanliness, neatness, and precision. His habit of aggressive cleanliness was present in his own





This famous stamp from 1959 honors Ephraim McDowell.

attire, as well as his home. There were no bloody frock coats used in one operation after another. His pristine home provided the advantage of avoiding the large bacterial load of hospitals during that time.

The operation was straightforward and probably done in the morning to coincide with church services and daylight. A 9-inch incision was made lateral to the left rectus muscle. The cyst was so large that it could not be removed through this incision. All the intestines were displaced on to the operating table. A ligature was placed around the fallopian tube and ovarian ligament. The cyst was incised, and 15 pounds of gelatinous material were removed. The fallopian tube and ligament were divided, and a 7.5-pound cyst sack was removed.

At the end of the procedure, the patient was turned onto her left side to evacuate blood from the abdomen. The abdominal cavity and intestine were irrigated with warm water.⁴ Since surgery was in December, the only way the irrigation could have been warm would be for the water to be heated on a stove. If it were heated enough, it might have been sterile. The abdomen was closed with interrupted sutures, probably of silk.⁵

The suture on the fallopian tube was left long and brought out through the incision as a drain. Adhesive plaster strips were used between the sutures to approximate the skin edges. The operation lasted only 25 minutes; therefore, exposure of the peritoneal cavity was limited. Less than a month post-op, Crawford got back on her horse and rode home. She lived for 32 more years, outliving McDowell.

McDowell had an extensive education in the anatomy of both normal and pathologic processes of the ovary and he was noted by Bell and others to have excellent mechanical skills. Both were major assets that remain critical to successful surgery.

He did not report this operation until 1817, after he had completed three successful procedures. His delay was in part because he felt that his writing ability was inadequate, and he expected the universal criticism he received from the medical community. He had difficulty finding a journal that would publish such an impossible feat.

Ultimately, the *Philadelphia Eclectic Repertory and Review* published his report.

In his second and final report, McDowell had performed 13 operations. Eight patients survived, four patients died, and one operation was terminated due to extensive adhesions. The Medical Society of Philadelphia gave McDowell a diploma of membership. The University of Maryland gave him an honorary doctor of medicine degree. In time, other physicians followed him, and the world of abdominal surgery had begun. **B**

Dr. Hugh Gamble II is a retired cardiothoracic surgeon.

References

1. Haggard WD. Surgeon of the wilderness—Ephraim McDowell. *Surgery, Gynecology & Obstetrics*. 1934;58:415-419. Available at: <https://www.facs.org/media/yez5i4h/haggardpres1933.pdf>. Accessed January 24, 2024.
2. Sparkman RS. Presidential address: The woman in the case. Jane Todd Crawford, 1763-1842. *Ann Surg*. 1979;189(5):529-545.
3. Darby A. Ephraim McDowell (1771-1830). Embryo Project Encyclopedia. Arizona State University. December 12, 2017. Available at: <https://embryo.asu.edu/pages/ephraim-mcdowell-1771-1830>. Accessed January 24, 2024.
4. Othersen HB Jr. Ephraim McDowell: The qualities of a good surgeon. *Ann Surg*. 2004;239(5):648-650.
5. Meade WH, Ochsner A. The relative value of catgut, silk, linen, and cotton as suture materials. *Surgery*. 1940;7(4):485-514.

Leadership & Advocacy Summit Will Inspire Action and Drive Change

THE ACS LEADERSHIP & ADVOCACY Summit is next month, taking place at The Westin Washington, DC Downtown hotel, April 13–16. This dual meeting offers a comprehensive program designed to enhance surgeon leadership skills and provides interactive advocacy training with coordinated, in-person visits to Congressional offices.

Registration for the 2024 summit is now open at facs.org/summit.

Leadership Summit April 13–14

The Leadership Summit—open to all US and international ACS members and nonmembers—kicks off Saturday evening, April 13, with a networking event, followed by a full day of programming on Sunday, April 14. ACS members may attend for free. A virtual option also is available.

With a theme of “A Surgeon’s Journey,” the Leadership Summit will be a powerful event with a lineup that includes compelling speakers offering real-world know-how and skills-building guidance. The content will be geared toward well-being, engaging in the surgical practice environment, and looking to the future. Featured topics will include dealing with moral injury, sustainability in healthcare, quality and safety at a national level, surgical advocacy and

engagement, and career paths to becoming CEO.

Throughout the day, attendees also will have the opportunity to share best practices, while networking with ACS leaders and engaging with colleagues.

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

Leadership in Action: Making an Impact in the Media and on Social Workshop

Practice real-world scenarios, hone your content creation skills, perfect interview techniques, and identify opportunities to increase your engagement in this interactive media training and social media development workshop. Capacity is limited.

Practice Management Workshop

Learn about the tools available to benchmark the value that surgeons bring to the negotiation table with their employers and the importance of obtaining expert





professional assistance in those contract negotiations.

Controlling Risk: The Techniques of Operating Excellence Workshop

Hear from Jim Wetherbee, a former astronaut, on predicting and preventing the next tragedy, how to inspire medical teams to be more productive, and astronaut-developed techniques that can supplement rules-based procedures to optimize performance in high-risk operations.

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

Advocacy Summit April 14–16

Surgeon-advocates play a critical role in educating lawmakers about important healthcare issues and effecting positive change, while also broadening the ACS's visibility and influence

in Congress. Participation of ACS members at the Advocacy Summit is essential to the College's success.


Informative and inspirational, the Advocacy Summit will connect attendees with policymakers and advocacy experts to discuss the latest developments in key healthcare policy and legislation. In-depth advocacy training, including effective tips and tactics to help communicate policy priorities on Capitol Hill and at home, along with lively panels and educational sessions, will be a part of the agenda.

After the informative panels, staff members from the ACS Washington, DC, office will detail the "asks" and provide background information in preparation for the in-person visits to the Congressional offices.

Open only to ACS members in the US, the Advocacy Summit begins Sunday evening, April 14, with a welcome reception and keynote dinner featuring Anna Palmer, CEO and founder of

Punchbowl News. Palmer has covered congressional leadership, the lobbying industry, presidential campaigns, and the politics of governing for more than 15 years.

A full day of panels, training, and programming is scheduled for Monday, April 15; in-person meetings with members of Congress and congressional staff will be on Tuesday, April 16. No virtual option is available for the Advocacy Summit.

More information is available at facs.org/summit. Share updates or follow the Leadership & Advocacy Summit on X using #ACSLAS24. 



Dr. Robin McLeod, Pioneering Colorectal Surgeon

A globally renowned clinical surgeon, teacher, and investigator Robin S. McLeod, MD, FACS, FRCSC, passed away February 6, at the age of 73.

DR. MCLEOD WAS a leader in colorectal cancer surgery and most recently served as vice president of clinical programs and quality initiatives at Cancer Care Ontario, a professor and vice chair of quality and best performance in the Department of Surgery at the University of Toronto (U of T) in Canada,

and a professor for the Institute of Health Policy Management and Evaluation at U of T.

“Dr. Robin McLeod was one of the most accomplished colorectal surgeons during recent decades,” said Steven D. Wexner, MD, FACS, from the Cleveland Clinic Florida in Weston, and Chair of the ACS

National Accreditation Program for Rectal Cancer. “Her work in inflammatory bowel disease, familial adenomatous polyposis, and many other areas have made important indelible changes which were implemented and have become standard around the globe. She was tremendously insightful and had a unique

ability to pose and solve cutting-edge problems.”

An ACS Fellow for more than 30 years, Dr. McLeod was a member of the Board of Governors (1998–2003) and an ACS Regent (2002–2011). She held several senior leadership positions in other organizations, as well. Dr. McLeod was a past president of the Canadian Association of General Surgeons (CAGS), Society for Surgery of the Alimentary Tract, and American Surgical Association.

Dr. McLeod’s professional affiliations—each a testament to her unwavering focus on providing optimal care to the surgical patient—also included her fellowship in the Royal College of Physicians and Surgeons of Canada and fellowship *ad hominem* in the Royal College of Surgeons of Edinburgh. In addition, she was an honorary member of the Association of Coloproctology of Great Britain and Ireland and Canadian Society of Colon and Rectal Surgeons. Dr. McLeod served as a diplomat of the American Board of Surgery and American Board of Colon and Rectal Surgery.

“Her superlative communication and inspirational leadership skills were recognized by her election to the presidency of many societies and organizations and her conferral of myriad honorary fellowships. We mourn and grieve her tragic death, which came at a very young age and leaves not only the world of surgery, but the entire world with a huge void,” said Dr. Wexner.


An icon of Canadian surgery, Dr. McLeod received her bachelor of science and medical doctor degrees from the University of Alberta in Edmonton. She completed her general surgery training at the U of T, followed by a colorectal surgery fellowship at the Cleveland Clinic in Ohio and training in clinical epidemiology at McMaster University in Ontario, Canada, before joining the faculty at the U of T in 1985.

In addition to colorectal cancer, Dr. McLeod’s clinical focus included inflammatory bowel disease, evidence-based medicine, and quality and knowledge translation. She published more than 350 peer-reviewed articles and 50 book chapters on these and other

research topics, while also leading several multicenter clinical trials and quality initiatives. Additionally, she received several honors, including the Order of Canada from the Governor General of Canada in 2019.

With an interest in training practicing surgeons on how to critically evaluate research articles, Dr. McLeod became founding chair of the Evidence-Based Reviews in Surgery—an online journal club jointly sponsored by the ACS and CAGS. In this role, she helped guide the collaborative effort with the goal of enhancing surgeons’ acquisition of current, evidence-based knowledge.

Among her colleagues, Dr. McLeod was known to be an inspiring role model with a clear-eyed vision for quality improvement that had enormous impact on the practice of surgery in Canada. Her legacy is marked by her dedication to compassionate patient care and her commitment to excellence and evidence-based research.

Dr. McLeod is survived by her husband John Fauquier and two daughters, Stephanie and Claire. 



Report on ACSPA/ ACS Activities

February 2024

Lillian S. Kao, MD, FACS

The Board of Directors of the American College of Surgeons Professional Association (ACSPA) and the ACS Board of Regents (BoR) met February 9–10 in Washington, DC.

Program development continues for Clinical Congress 2024 in San Francisco, California, which will begin on Saturday, October 19, and end on Tuesday, October 22.

THE FOLLOWING IS A SUMMARY of key activities discussed and was current as of the date of the meeting.

ACSPA

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

From January 1 to December 31, 2023, the ACSPA-SurgeonsPAC raised more than \$306,000 from 749 ACS members and eligible contributors and disbursed nearly \$284,000 to more than 100 bipartisan candidates seeking federal office, political campaigns, and other PACs. Fund distribution focuses on health professionals, key congressional leaders, and members who serve on US House and Senate committees with jurisdiction over various healthcare policies and issues that align with ACS-supported legislative priorities.

ACS

The BoR accepted resignations from 31 Fellows and changed the status from Active or Senior to Retired for 104 Fellows. The Regents also approved the following items:

- Statement on the Importance and Standards of Telehealth in Surgical Practice
- Statement on the Importance of Workplace Support for Pregnancy, Parental Leave, and Lactation for Practicing Surgeons (revision)
- Statement on the Importance of Workplace Support

for Pregnancy, Parental Leave, and Lactation for Surgical Trainees (revision)

- Statement on Sustaining the Lifelong Competency of Surgeons (revision)

These statements will be available later this year at facs.org/statements; additional details from these statements will be available in the *Bulletin* and weekly *ACS Brief* email.

Education

The Division of Education reported on the following key activities.

Clinical Congress 2024

Program development continues for Clinical Congress 2024 in San Francisco, California, which will begin on Saturday, October 19, and end on Tuesday, October 22. Multidisciplinary sessions for all surgical disciplines and additional thematic sessions on quality and education will be scheduled during the first 2 days. New tracks for surgical education and quality also will be implemented. The Program Committee continues to identify transformational changes to the program that will be implemented over the next several years.

Committee on Ethics

The Committee on Ethics is developing several sessions for Clinical Congress 2024, including the John J. Conley Ethics and Philosophy Lecture by Mark C. Weessler, MD, FACS. The Ethics Colloquium will be “The Ethics of Trainee

Involvement in Surgery: Patient, Surgeon, and Trainee Perspectives.” Panel Sessions will include “We Believe in Miracles: Responding to Patient and Family Requests to ‘Do Everything’ or Provide Nonbeneficial Surgical Care;” “Artificial Intelligence in Surgery: The Good, the Bad, and the Ugly;” and “Fundamentals of Communication in Surgery.” A Meet-the-Expert session will be “Ethical Considerations in Managing Unexpected Intraoperative Findings.”

Information Technology

Among the key accomplishments reported in Information Technology were a HIPAA/cybersecurity assessment of ACS systems and helping to lay the groundwork, with the Divisions of Integrated Communications and Member Services, to address digital transformation.

Research and Optimal Patient Care

The Division of Research and Optimal Patient Care (DROPC) reported on the following.

Cancer Programs

A strategic analysis was conducted to review programs and products, identify internal and external challenges, define future vision, and establish priorities for moving forward.

Reviewed programs included:

- Commission on Cancer (CoC) Accreditation
- National Cancer Database (NCDB)

Recommendations presented and discussed included:

- Improving the value of the NCDB
 - Creating a cancer survival calculator
 - Developing a new annual report
 - Moving toward concurrent abstraction

- Releasing new reports
- Using data to show the value of accreditation
- Increasing CoC accreditation participation
 - Adding a small/rural accreditation option
 - Developing a tiered system of accredited hospitals
 - Evaluating the impact of standards
 - Exploring strategic relationships with interested parties

Trauma Programs

Follow-up information was provided on a 2022 strategic analysis of Trauma Programs.

Recommendations:

- Developing an advocacy effort to advance the development of a National Trauma and Emergency Preparedness System (NTEPS)
 - Collaborating with the Division of Advocacy and Health Policy to identify the key decision makers and assess federal and military interest
 - Identifying the recommended tactics and timeline needed to promote NTEPS
 - Developing infrastructure for global promulgation of Trauma Quality Programs
 - Exploring structured observational opportunities of US site visits and access to current trauma quality program materials for educational purposes
 - Assessing the operational, resource, and program efforts required to provide direct services outside the US and Canada
 - Researching and analyzing comparable global initiatives
- Optimizing the Trauma Education experience and sustainability
 - Establishing comprehensive educational management systems to optimize technology support and enhance the user experience

The Division of Member Services and the Foundation continue to partner on soliciting and securing major gifts for the ACS Health Outreach Program for Equity in Global Surgery (ACS H.O.P.E.).

- Conducting comprehensive educational needs and business model assessments to enhance and personalize educational experiences and ensure sustainability of the core education programs
- Strengthening core Trauma Quality Programs to increase impact and expand research
 - Identifying the technical requirements needed for improved business intelligence and the analytical tools necessary to improve experience for participants
 - Increasing penetration of programs in current markets via expanded participation in Level III Trauma Quality Improvement Program (TQIP) and verification; TQIP participation of non-ACS verified centers; and repackaging of TQIP collaboratives
 - Addressing the needs of new markets, including a longitudinal consultation program, rural/Level IV centers, and specialty-specific TQIP data/reports

program, creating three new chapter funds, bringing the total to 17. The Division of Member Services and the Foundation continue to partner on soliciting and securing major gifts for the ACS Health Outreach Program for Equity in Global Surgery (ACS H.O.P.E.).

During Clinical Congress 2023, the Foundation received more than \$35,000 in gifts and held the first combined donor and scholarship luncheon with more than 200 donors and scholars in attendance. **B**

Dr. Lillian Kao is Chair of the ACS Board of Governors, as well as division director of acute care surgery, the Jack H. Mayfield, MD, Chair in Surgery (endowed), and vice-chair for quality of care in the Department of Surgery at the McGovern Medical School at The University of Texas Health Science Center at Houston.

ACS Foundation

The ACS Foundation, a separate 501(c)(3) organization, remains focused on securing and growing financial support for the College's charitable, educational, and patient-focused initiatives. As of December 31, 2023, the Foundation had met 66% of its goal of securing \$2,218,403 in restricted and unrestricted funds for the College. This success has been achieved through campaigns, including the Fall Appeal, Giving Tuesday, Year-End Giving Reminders, and requests for support via the annual collection of dues.

The Foundation was successful in partnering with DROPC to secure a \$1 million gift to support research into surgical adhesions. The Foundation also worked closely with the Division of Member Services to promote and grow the Chapter Initiatives

Member News

Higgins Returns to RUSH University as President



Dr. Robert Higgins

Robert S. D. Higgins, MD, MSHA, FACS, will serve as president and chief academic officer at RUSH University and chief academic officer and senior vice president at RUSH University System for Health in Chicago, Illinois. Most recently, Dr. Higgins—a heart and lung transplant surgeon—was president of Brigham and Women’s Hospital and executive vice president at Mass General Brigham in Boston, Massachusetts. From 2003 to 2010, he served as the Mary and John Bent Professor and chair of the Department of Cardiovascular-Thoracic Surgery at RUSH.

Humphries Is Elected President of VESS



Dr. Misty Humphries

Vascular surgeon Misty D. Humphries, MD, FACS, has been elected president of the Vascular & Endovascular Surgery Society (VESS). She is an associate professor in the Department of Surgery and interim chief of the Division of Vascular Surgery at the University of California (UC) Davis Health in Sacramento, as well as interim director of the UC Davis Vascular Center and UC Davis Advanced Wound Care Center.

Hameed Joins Stanford Surgery as Trauma Chief



Dr. Morad Hameed

S. Morad Hameed, MD, MPH, FACS, FRCSC, is the new chief of trauma and critical care surgery at Stanford Surgery in California. Dr. Hameed previously was chief of the Division of General Surgery at The University of British Columbia in Vancouver, Canada.

Romano Leads The Society of Thoracic Surgeons



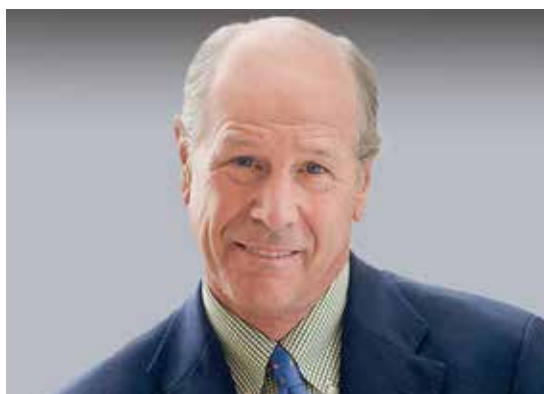
Dr. Jennifer Romano

Jennifer C. Romano, MD, MS, was elected president of The Society of Thoracic Surgeons. Dr. Romano is a congenital heart surgeon at the University of Michigan Health C. S. Mott Children's Hospital and service chief of the Section of Pediatric Cardiovascular Surgery at Michigan Medicine in Ann Arbor.



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.

Griffith Is Vice Chair for Innovation in Maryland



Dr. Bartley Griffith

Heart and lung transplant surgeon Bartley P. Griffith, MD, FACS, has been appointed the first vice chair for innovation in the Department of Surgery at the University of Maryland School of Medicine (UMSOM) in Baltimore. In this role, Dr. Griffith will expand the integration of related sciences into surgical practice. He also serves as the director of the Cardiac and Lung Transplant Programs and the Thomas E. and Alice Marie Hales Distinguished Professor of Transplant Surgery at UMSOM.

Raval Takes Pediatric Surgery Reins at Lurie's



Dr. Mehul Raval

Mehul V. Raval, MD, MS, FACS, is the division head of pediatric surgery and holds the Orvar Swenson Founders' Board Chair in Pediatric Surgery at Ann & Robert H. Lurie Children's Hospital of Chicago in Illinois. He also is the vice chair of quality and safety in the Department of Surgery at Lurie and a professor of pediatric surgery and pediatrics at the Northwestern University Feinberg School of Medicine in Chicago, Illinois.

Wren Is Honored with VA Presidential Citation



Dr. Sherry Wren

Sherry M. Wren, MD, FACS, is the recipient of a Presidential Citation from the Association of VA Surgeons. This honor is in special recognition for her dedication to championing care for traditionally underserved populations and for her outstanding contributions to furthering the well-being of US veterans. Dr. Wren has served as chief of general surgery at the VA Palo Alto Health Care in California since 1997. She also is the ACS Secretary.

Pugh Receives Trailblazer Award



Dr. Carla Pugh

Carla M. Pugh, MD, PhD, was awarded the 2023 Society of University Surgeons Trailblazer Award. The award recognizes individuals who have developed a new area of academic pursuit or opened new avenues of investigation or academic thought that have the potential to be groundbreaking for years to come. A general surgeon, Dr. Pugh is the director of the Technology Enabled Clinical Improvement Center and the Thomas Krummel Professor of Surgery at Stanford Medicine in California. **B**

The Operative Word

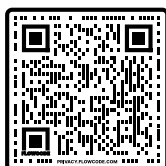
Now Offering CME!



Podcast from the *Journal of the American College of Surgeons*

The Operative Word is a monthly podcast series in which the hosts speak with recently published authors about the motivation behind their latest research and the clinical implications it has for the practicing surgeon.

Listeners also have the opportunity to claim 0.25 *AMA PRA Category 1 Credits*[™] for select episodes in the series. Learn more at [facs.org/podcast](https://www.facs.org/podcast) or scan the QR code. You can also access the series on Apple Podcasts, Spotify, or wherever you get your podcasts.



#JACSOperativeWord



Annual Conference | December 1-3 | Louisville, KY

On Demand

TQIP23 content now available
on demand.



TQIP23

LEADERSHIP & ADVOCACY SUMMIT 2024

AMERICAN COLLEGE OF SURGEONS

REGISTER NOW

Grow as a leader, speak up for surgery

▶ Register now for the 2024 Leadership & Advocacy Summit

Saturday, April 13 - Tuesday, April 16

The Westin Washington, DC Hotel

LEADERSHIP SUMMIT

Open to ACS members and nonmembers in the United States and internationally, the Leadership Summit offers compelling speakers addressing key topics in surgical leadership.

ADVOCACY SUMMIT

Open to US/domestic ACS members only, the Advocacy Summit offers attendees the opportunity to develop their advocacy skills, learn more about ACS legislative and health policy priorities, and engage with members of Congress and their staffs.

#ACSLAS24

facs.org/summit

ACS / AMERICAN COLLEGE
OF SURGEONS