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ACS Bulletin

AMERICAN COLLEGE OF SURGEONS

Value Congruence Key to Managing Resident Burnout

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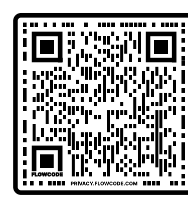
Visit the Surgeon's Dashboard 

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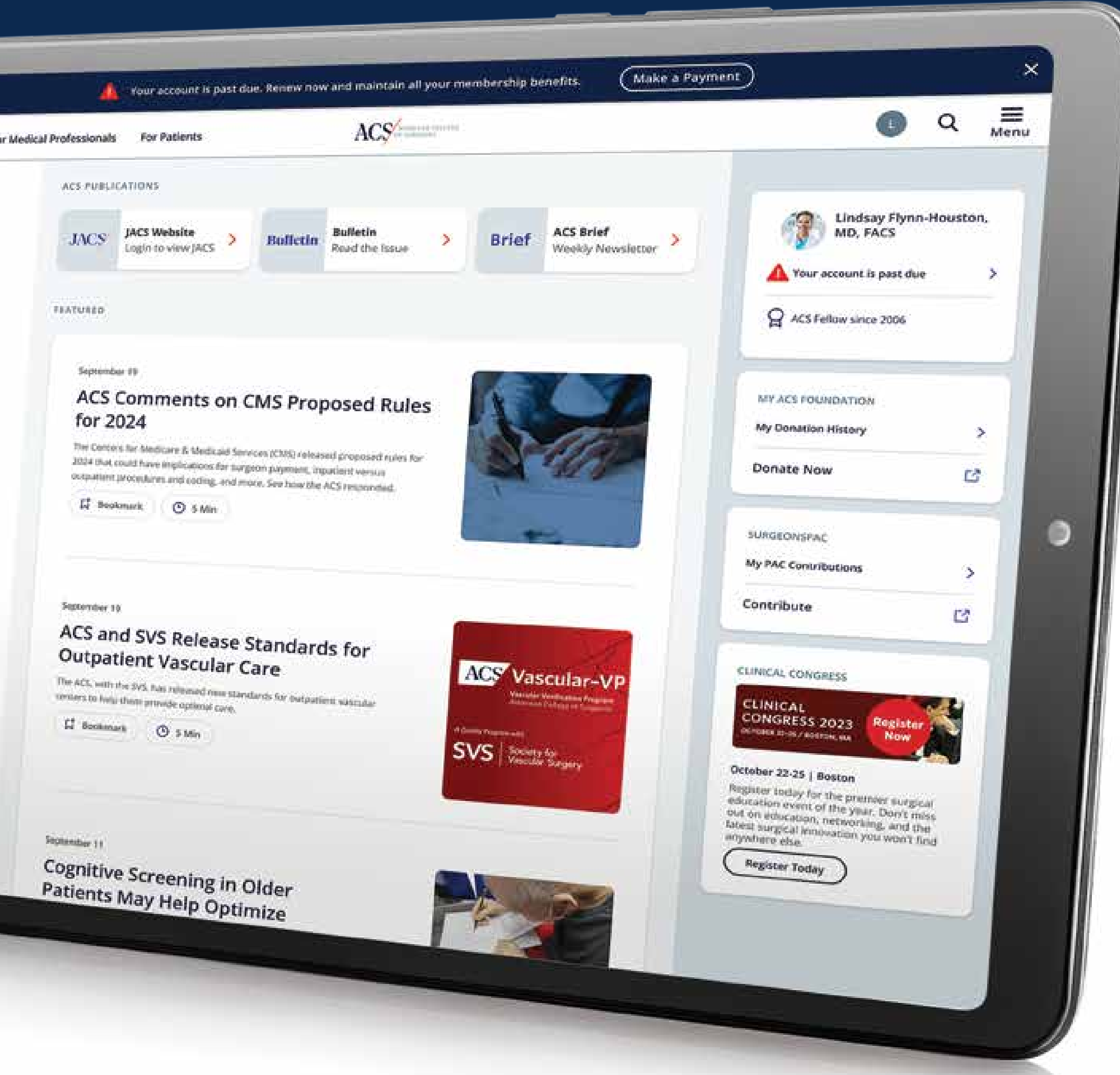

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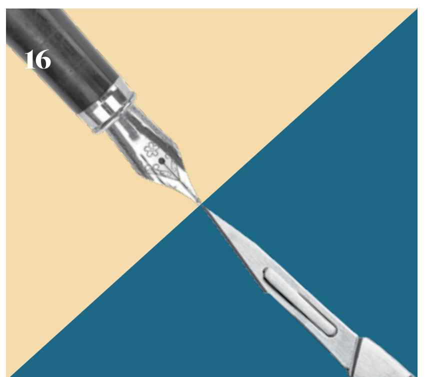

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Bringing Our Cancer Programs to All Who Need Them

Patricia L. Turner, MD, MBA, FACS
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SINCE THE FOUNDING of our first cancer program more than a century ago, the ACS has focused on quality improvement in cancer surgery. This year, approximately 1.9 million people in the US will receive a cancer diagnosis. Of these, 74%, or about 1.4 million, will be treated in hospitals accredited by the ACS through our Commission on Cancer (CoC).

Expanding on our long-standing commitment to cancer care, a goal this year is to increase our impact to include all newly diagnosed cancer patients nationwide.

In October 2023, Ronald J. Weigel, MD, PhD, MBA, FACS, joined the ACS as the new Medical Director of Cancer Programs. His career, like ACS Cancer Programs, is aimed at improving cancer care through research, administration, and clinical means. In his surgical practice at the University of Iowa, he concentrates on oncological and endocrine surgery. He has also sustained a prolific research career focused on understanding how transcription factors interact with the genome to influence cancer phenotypes.

Now that he's at the helm of our Cancer Programs, Dr. Weigel has plans to do even more to improve cancer care.

Cancer Programs, like all ACS Quality Programs, rely on two-way communication between the College and surgeons about patient care. Essentially, CoC accreditation is a feedback loop: starting with information from surgeons nationwide, we created best practices, plus data registries to track the implementation of those practices. With the resulting data, we can develop benchmarks and offer feedback to individual hospitals, programs, and surgeons about the quality of care they provide. We can also offer recommendations for improvement and complete research on new approaches.

"It's got to be a dynamic process with information flowing in both directions to advance the way we take care of patients," Dr. Weigel summarized in conversation, noting that no step in the process deviates from the core tasks of communication and support.

A key aim for Dr. Weigel—and the entire ACS—is to reach more hospitals and surgeons with that support. Creating a tiered system that recognizes those key differences can extend the benefits of CoC accreditation to all hospitals, irrespective of their size and location, as well as to all surgeons and patients.

For hospitals that are smaller, more rural, or community-based, and those treating greater concentrations of indigent patients, a tier that tailors CoC

standards to their unique needs and capabilities may make accreditation more feasible and useful. If the accreditation standards are carefully chosen and well implemented, they can help improve the quality of care available and thus augment nationwide healthcare equity.

We know that bringing accreditation to these hospitals can be impactful. A 2022 study in the *Annals of Surgical Oncology* examined quality measures in urban and rural hospitals in 10,381 patients and found that CoC accreditation was associated with better outcomes in both types of hospitals. Rural hospitals were significantly less likely to be CoC accredited, but when they were, their performances on quality measures were significantly better than those of nonaccredited hospitals in both rural and urban settings.

The improved odds were often substantial; for example, the odds ratio for adequate colon nodal yield in an accredited hospital vs. a nonaccredited one was 3.73 (95% CI, 2.55–5.44; $p < .001$). We know that expanding accreditation to more hospitals will be meaningful to patient outcomes.

For academic medical centers and other large healthcare institutions, which have significantly greater ease achieving accreditation at present, a new, advanced-level tier may involve meeting higher standards than are currently prescribed in the CoC accreditation standards. This would be a meaningful addition to their existing infrastructure, and these hospitals may also be able to help other hospitals in their catchment area deliver high-quality care.

For the ACS, the next step is to create two new tiers capturing the evidence-based practices that positively impact patient care. This is a process that Dr. Weigel and the Cancer Programs team are beginning now.

In April 2023, we publicly launched The Power of Quality campaign to bring our Quality Programs to the attention of every hospital, surgeon, payer, policymaker, and patient in the US. Now more than ever, we want to ensure all 1.9 million patients diagnosed with cancer this year are treated in CoC-accredited hospitals.

Cancer Webinar

The ACS Cancer Programs are creating numerous resources for ACS members, including a new webinar, developed through a partnership with the Society of Surgical Oncology, for community-based surgeons caring for cancer patients. If this is your practice, please consider attending this webinar, which will cover recent practice changes that impact clinical care—such as ensuring surgical interventions are targeted to patients most likely to benefit.

ACS Cancer Conference

Among the many other offerings from Cancer Programs is our annual Cancer Conference. If you are a member of the cancer team, please join us this February 22–24, in Austin, Texas, for 2 days of sessions on standards, quality improvement, survivorship, and more. You can register at *facs.org/cancer.*

In closing, I wish you, your family, and your colleagues a very happy and healthy 2024. Please don't hesitate to reach out to me throughout the year with your feedback. B

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

ACS Cancer Conference 2024

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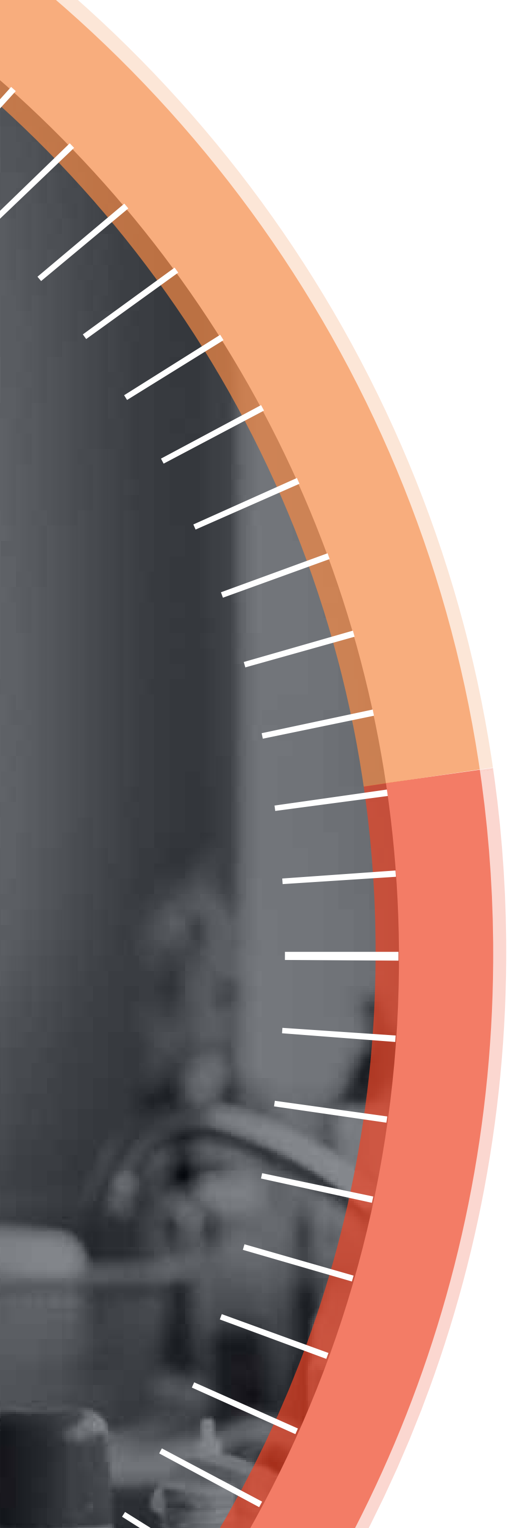
Value Congruence May Be Just What the Doctor Ordered to Manage Burnout

Tony Peregrin



WHILE RESIDENCY PROGRAMS continue to build an elaborate scaffolding of well-being programs to curb burnout, residents are struggling to maintain good mental and physical health, sometimes ignoring their own body's signals to eat, rest, and relieve themselves in the name of patient care and sustaining a rigorous training schedule.[1]

According to a report published in 2023 by the American Medical Association that examined well-being and burnout in residents and fellows, second-year residents demonstrated the "highest job-related stress of any residency training year."[2] When queried about barriers to pursuing mental health services, respondents expressed preferences for pursuing counseling privately, citing concerns related to confidentiality and limited access to services.[2]

Beyond residency, burnout is experienced by many healthcare providers, including general surgeons (58.6%), which can result in diminished patient care and engagement, and poor outcomes.[3]

The authors of a study in the September 2023 issue of the *Journal of the American College of Surgeons* (*JACS*) noted that although the effects of burnout are well documented, strategies to mitigate this condition often have limited effects.[4]

"Focus on resident-level interventions, although valuable, neglects critical system- and cultural-level issues that contribute to burnout's persistence," wrote the authors.[4] They suggest employing the concept of value congruence to "address the intersection between individual-, system-, and cultural-level components of burnout."

Value congruence is a "measure of the salient workplace environment and is defined as the degree of alignment between worker and workplace values, [which may be] a strong measure of person–organization fit." The concept of value congruence is routinely used by business organizations as an indicator of employee job satisfaction and is associated with enhanced levels of wellness and reduced attrition and burnout.

Notably, value congruence also is a strong source of "intrinsic motivation," a driver of employee satisfaction and performance that Carter C. Lebares, MD, FACS, coauthor of the *JACS* study, calls "the brass ring, the golden chalice" for optimizing well-being in residents and surgeons. Dr. Lebares is an associate professor of surgery at the University of California San Francisco (UCSF), and director of the UCSF Center for Mindfulness in Surgery.

"The concept of intrinsic motivation comes from Marylène Gagné's Theory of Self-Determination and it refers to a motivation that is self-generated," explained Dr. Lebares. "It doesn't come from payment for performance or punishment for non-compliance. It comes from within an individual and is typically considered to be derived from the quality of work that one does. This doesn't necessarily mean the qualitative difference between rocket science versus making widgets on an assembly line; it has more to do with the environment in which one works and whether or not that gives you joy, even if you're doing something that's intellectually kind of boring."

The Marylène Gagné Theory of Self-Determination suggests that autonomy, competence, and relatedness are fundamental components of intrinsic motivation, and relatedness in the domain most associated with value congruence.[5]

"Relatedness, in part, refers to the type of culture your institution creates and how it influences your relationship with your peers," Dr. Lebares said. "But it can also refer to the relationship between workers and leaders, which may be even more important. We know that if you trust your leadership, if you feel that what they say is reflected in what they do, and you believe that their motivations and their values align with yours, you get the best work possible from people—they put in the most effort, they're the most creative, and they have the best performance."

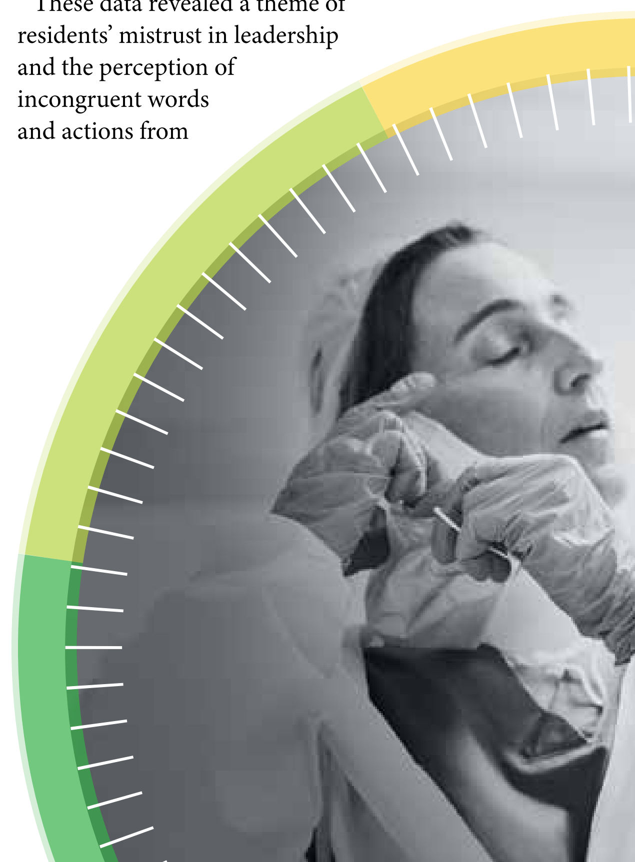
JACS Study Assesses Value Congruence

In an effort to examine general surgery residents' perception of value congruence specifically tied to well-being initiatives and resources, Dr. Lebares and coauthors conducted a two-part, mixed-methods study of trainees from 16 Accreditation Council for Graduate Medical Education-accredited academic programs.

In Part 1 of the study (January 2021), surgical residents from general surgery residency programs answered questions related to well-being in survey 1. In April 2021, interviews with program directors or their proxies also were conducted.

"The first part of our study focused on analyzing the survey 1 responses to the open-ended question exploring residents' training experiences," said study coauthor Paul Adam Gonzales, MD, a research fellow at the UCSF Center for Mindfulness in Surgery. "We asked them questions like what well-being resources were beneficial or not beneficial? Or what elements of their day-to-day experiences were most antagonistic to their well-being? We thought it was important to understand these perceptions in a subjective manner since they are powerful influences of behavior."

These data revealed a theme of residents' mistrust in leadership and the perception of incongruent words and actions from



> "Relatedness, in part, refers to the type of culture your institution creates and how it influences your relationship with your peers."
>
> Dr. Carter Lebares

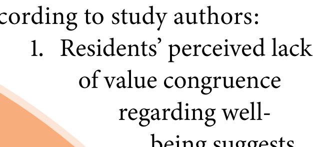
leadership. In part, this was related to COVID-19 pandemic events but also to well-being overall.

For Part 2 (May to June 2022), a similar cohort of surgical residents participated in survey 2 in order to assess the association between perceived trust in leadership (value congruence) and individuals' global well-being (flourishing).

"Flourishing represents the positive end of the Mental Health Continuum-Short Form (a 14-item measure of psychosocial well-being) where individuals with higher scores frequently experienced positive functioning and emotions, 'every day' or 'almost every day'," explained Dr. Gonzales. "In the context of our results, residents who perceived having this shared alignment or perceived authenticity within their residency programs had higher scores of individual well-being, representing a high sense of purpose, motivation, and resilience."

This multicenter study exploring value congruence within the general surgery training setting produced three core findings, according to study authors:

1. Residents' perceived lack of value congruence regarding well-being suggests targets for system- and cultural-level well-being interventions.
2. Program directors' perceptions of issues related to value congruence indicate a need for increased transparency, communication, and shared understanding around well-being intervention selection and implementation.
3. The presence of value congruence among trainees was significantly associated with higher scores of individual global well-being, suggesting value congruence is an important facet of occupational well-being within surgery.



"I think the most important thing to know is that what we're proposing is not the end of the story or the whole story," said Dr. Lebares. "We created a study with a mixed methods approach that allows us to begin to understand what's at work here and provides the opportunity for us to start drilling deeper by looking at much bigger cohorts to understand where the truth lies."

Residents Want Authenticity, Not Mandatory Yoga

Four common "subthemes" related to deficient value congruence and the availability of wellness resources surfaced in the results from Part 1, survey 1: inaccessibility, insufficiency, inconsiderateness, and inauthenticity.

Inaccessibility: The subtheme that was most frequently mentioned was inaccessibility, according to Dr. Gonzales, which refers to interventions that are well-intentioned, but typically cumbersome or difficult to use, such as half-days that directly conflict with residents' other responsibilities.

"We've selected and trained these people to be responsible for patients, and now we're telling them to ignore that responsibility—albeit briefly—for their own well-being. Sort of like, you can have this marvelous reward if you can swim across the ocean to get it. It's just not realistic," Dr. Lebares said.

Insufficiency: Residents identified wellness resources that they perceived to be "unrealistically sparse in quantity or quality," according to the study. Lack of mental health interventions, the desire for

> "A real killer of intrinsic motivation or joy in work or people feeling an affinity for the place where they work has to do with their sense of the authenticity of their leadership."
>
> Dr. Carter Lebares

more frequent or longer wellness days, and the need for these opportunities to become standard practice rather than negotiated one-offs were routinely noted by survey respondents.

Inconsiderateness: Perceptions of an insensitive approach to implementation of wellness programs by residency program directors were expressed by some survey respondents, particularly interventions that were deemed mandatory.

"Program directors told us that making an initiative mandatory was to protect that time," explained Dr. Gonzales. "But I think residents feel like they are being forced to do something, which actually works against the goal of finding peace or engaging in a restorative activity."

He cited an example of an institution requiring residents to take yoga even when they've been on call for 24 hours. (Dr. Lebares pointed out that yoga is often considered to be an evidence-based wellness intervention, although residents may prefer other solutions despite the data, due to their own biases or lack of understanding.)

Inauthenticity: This subtheme refers to resident perception of departmental leadership exhibiting "insincere prioritization" of well-being, or asserting that well-being is critically important but not taking actions that reflect this stated priority, according to the study.

"A real killer of intrinsic motivation or joy in work or people feeling an affinity for the place where they work has to do with their sense of the authenticity of their leadership," said Dr. Lebares. "And it was interesting because what the residents described reflects things that we've been hearing in work with faculty or with practicing surgeons, and it includes the idea that physicians and surgeons feel like they are being exploited by a healthcare system that is increasingly focused on profit."

She was quick to point out that people who select medicine or healthcare as a career overwhelmingly do so because they wish to serve others, although being paid fairly is still important. "However, there isn't enough money in the world to compensate for the heartache, the devotion, the duration of training, the fact that maybe you have to urinate or sleep, but you'll actually subjugate those physical needs to care for someone who you might not even know."

As a result of this reality, a critical "compensation" for surgeons and residents comes in the form of intrinsic motivation, which includes a sense of purpose, enjoyment of the work itself, and overall fulfillment. "When value congruence with one's institution and leadership is perceived as authentic and trustworthy it reinforces these qualitative, intrinsic experiences. When those things are not present, it can feel as if one's intrinsic motivation is being exploited," explained Dr. Lebares.

Comments from survey respondents, some of which are excerpted in the *JACS* study, include the following quote underscoring some residents' deep-rooted desire for authentic leadership and action: "The healthcare hero shirts and mugs…they are not helping. They are propaganda to normalize the oppression and suffering of healthcare workers. Give us better food, adequate PPE, time off, staff coverage and hazard pay…. We are physically and emotionally dying here." This sentiment underscores the fact that material rewards do not replace the fulfilment of essential needs, such as workplace safety and manageable workload, to which residents and all surgeons are entitled.

"In fact, trying to use cheery rewards to offset fundamental problems just exacerbates things by adding a sense of leadership insincerity and utter disconnect," Dr. Lebares said. "This particular quote highlights why trust in leadership and sincere communication is so important."

Preparedness Over Immediate Survival

Program directors from the 16 institutions that participated in the study's Part 1, survey 1, were invited to be part of an interview process to assess leadership perspectives on well-being initiatives. Between April and May 2021, nine program directors or their representatives participated in a 60-minute interview using a semi-structured script.[4]

"We asked them questions like 'What is the overall goal for your resident well-being program?' 'What

are the biggest hurdles to implementation?' and 'What was the rationale behind the decision to implement current wellness interventions?,'" said Dr. Gonzales.

Comparing comments between residents and program directors, it became apparent to researchers that the need for heightened levels of communication and developing a common vision around well-being intervention selection were shared perceptions.

Both groups also concede to the fact that there are inherent barriers to using well-being resources, and that there is a "zero-sum game represented by current workloads and educational requirements," noted the study authors.

Successfully overcoming these barriers starts with "explicitly naming this situation [which] would clarify program directors' intentions and constraints and may improve resident understanding and appreciation for program directors' efforts," wrote the study authors.

"For the most part, program directors agreed with some of the issues raised by residents. However, program directors are up against the wall. They often have these system-level factors that they can't address," said Dr. Gonzales.

Confronting system-level challenges when implementing well-being programs is only part of the solution. The other piece—as described in episode 15 of the *JACS* podcast *The Operative Word*—is related to what Dr. Lebares asserts is the contrast between "immediate survival" and "preparedness."[6]

"This was a pretty interesting finding to us," said Dr. Lebares. "We really saw from the residents a focus on interventions, perks, and proposed next steps that seemed to pertain to immediate survival: What will make my day more livable, my week less horrible, my year more conducive to having friendships or physical health?"

Surgeon Well-Being Resources

Creating Culture in the Workplace

Mary Brandt, MD, MDiv, FACS, discusses with Susan Mackinnon, MD, FACS, the benefits of a professional time-out.

Mental Health Awareness and Resources

The ACS provides curated resources on mental health awareness and resources specific to physicians.

Mindfulness Resources

This mindfulness body scan audio from Dr. Carter Lebares helps alleviate physical tension.

Resources for the Individual

The ACS provides resources to help individuals engage with their own well-being.

Suicide Prevention and Awareness

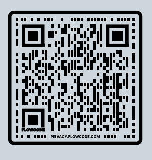
These resources address physician suicide prevention and awareness, including crisis resources, peer support, confidential and professional support, and video resources.

The Whole Surgeon Video Series

ACS members share their hobbies, interests, and passions outside of the OR and discuss how their outside interests support their well-being.

Zeamo

For ACS members, Zeamo provides access to gym membership discounts for month-to-month memberships consultations with registered dietitians, and more.



Program directors generally acknowledge the value of "immediate survival," particularly for overburdened trainees, but they are equally invested in preparing these individuals for the long haul.

In fact, while residents are adult learners in their 20s and 30s (and even older), with varying degrees of life experiences and skills, they tend to know very little about what it means to be an independent practicing surgeon.

"The program directors—I think pretty much unanimously in each their own way—talked about this idea of preparedness that is really critical for things that residents could not know are coming, but that program directors know will be in their future in one way or another," she said.

In other words, a resident might feel the need to spend what precious free time they have going for a long run, for example, but such activities will not prepare them to manage their first case with a complication or how to effectively manage the stress of malpractice litigation.

"Although the concept of immediate survival versus preparedness stems from two different perspectives, they both share a common goal of ensuring resident well-being," explained Dr. Gonzales. "Program directors should set clear expectations regarding wellness interventions and encourage open communication to understand the challenges and needs of residents while ensuring that professional development resources are accessible, including mentorship opportunities and expert workshops on financial literacy, leadership skills training, and so on. It's important for both to understand each of their priorities, knowing they have a common goal in mind, and employ a collaborative approach to create a supportive and holistic training environment."

While residents and program directors may have different views on prioritizing immediate survival and preparedness, both groups continue to work toward building work settings that are drivers of well-being. Attention to promoting value congruence could come in the form of both groups clearly identifying and stating their shared values, which can serve as a North Star.

> "Although the concept of immediate survival versus preparedness stems from two different perspectives, they both share a common goal of ensuring resident well-being."

Dr. Paul Gonzales

Program directors can better explain the rationale behind decisions pertaining to well-being interventions (i.e., why mandatory, why a certain intervention), and residents can work to identify where, when, and how mistrust or perceived incongruence occurs. This can help clarify targets for intervention and clarify if some issue are on the institutional not residency program level.

"No one is the villain in this," said Dr. Lebares. "It's like two super, well-intentioned planes crossing in the night."

Ultimately, successful well-being interventions should support residents and surgeons—individuals who have committed their lives to caring for others—in a way that feels authentic and is considerate of personal preferences, acknowledging that a one-size-fits-all approach does not alleviate burnout for everyone.

Program directors and other administrators are encouraged to ask residents questions such as "What part of your job compels you to show up every day?" or "What is the one thing that seems to actively work against you as a resident?" Leaders should be transparent about plans to decrease these burdens, including any limitations that may untimely stymie these interventions.

"It's important to acknowledge that wellness is going to look different for everyone. Understanding what works and what doesn't with the current interventions, actively listening to proposed solutions, and having open dialogue about the limitations of what can and can't be implemented is essential," said Dr. Gonzales. "This approach ensures both sides are well-informed and have a shared understanding of their goals and priorities." B

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Surgeon-Authors Discover Literature Can Be "Incredibly Helpful"

M. Sophia Newman, MPH

CUTTING FOR STONE, a 2009 novel by Abraham Verghese, MD, MACP, spent 2 years atop *The New York Times* Best Sellers list. As such, the door-stopper bildungsroman about physicians in the US and Ethiopia may be familiar to many surgeons—not least of all for its evocative descriptions of surgery:

> "He cut the peritoneum along the length of the incision. At once, the colon bullied its way out like a zeppelin escaping its hangar. He covered the sides of the wound with wet packs, inserted a large Balfour retractor to hold the edges open, and delivered the twisted loop out of the wound…Ghosh flexed his gloved fingers. They looked competent and powerful—a surgeon's hands. You can't feel this way, he thought, unless you have the ultimate responsibility."[1]

What may be less well-known to some surgeon-readers is the type of literature this novel represents. It is narrative medicine, a subset of literature focused on the lived experience of illness, healing, and clinical medicine, written from the perspective of clinicians and patients.

Larger than a genre, narrative medicine encompasses fiction, nonfiction, and poetry. The term also is applied to hospital- or university-based literary journals, writing workshops, and reading and writing clubs, all aimed at bolstering healthcare professionals' lives and careers by helping them process the emotional burdens of clinical work, strengthen professional competence, and "rehumanize medicine."[2]

In some ways, literature can seem like the exact opposite of surgery: the wispy ethereality of poetic language, contrasted with the weighty literality of altering an anesthetized body. Indeed, some believe narrative medicine is irrelevant to surgeons, despite evidence to the contrary.[3]

But like Dr. Verghese (an internal medicine specialist), some surgeons—including Henry Marsh, CBE, FRCS, John (Jay) Wellons III, MD, MSPH, and Joshua Mezrich, MD, FACS—have become full-fledged authors of narrative works. Seeking them out allows insights into what narrative medicine can offer the surgeon and how to best access its benefits.

Attention: Observing Oneself and Others

The concept of narrative medicine was popularized by internal medicine physician and English professor Rita M. Charon, MD, PhD,[4] about 20 years ago. With colleagues at Columbia University in New York, New York, she generated a framework to clarify the characteristics that define narrative medicine: "We early recognized attention, representation, and affiliation as the three movements of narrative medicine that emerged from our commitment to skilled listening, the power of representation to perceive the other, and the value of the partnerships that result from narrative contact."[5]

But for Dr. Marsh, a retired neurosurgeon from England, finding a reason to write has involved no careful theorizing. He just feels he must. "I always have written to control my feelings, basically. I'm an extremely emotional person. I write compulsively," he said.

A diarist from age 13, Dr. Marsh only began writing his first book, *Do No Harm: Stories of Life, Death, and Brain Surgery,*[6] after his wife, best-selling author Kate Fox, encouraged him to publish stories from his journals. To his surprise, the book hit number 1 on *The New York Times* Best Sellers list. Two subsequent memoirs, *Admissions: A Life in Brain Surgery*[7] and *And Finally: Matters of Life and Death,*[8] have shared further anecdotes, plus Dr. Marsh's recent experience as a prostate cancer patient.

"The writing itself is cathartic," Dr. Marsh said, explaining that publishing was far less emotionally impactful. Still, "I'm rather proud of the fact that I wrote three books in a row, none of which bombed."

“Finding a balance between profound compassion and the necessary clinical, scientific detachment is very, very difficult.”

Dr. Henry Marsh

In fact, the cathartic approach seems essential to his success. “What’s unusual about my books is this brutal honesty,” he said about his emotional responses to his work. Indeed, one sentence in *Do No Harm* is a long string of expletives directed at hospitals in general, ending in a decisive “F*** everybody.”[6]

He added, “I got a lot of comments and letters and emails over the years from doctors, saying ‘I found it incredibly helpful to hear a very senior famous doctor like you saying he was often incredibly anxious and depressed and fed up, and really suffered when patients came to harm,’” a rare contrast to a perceived professional obligation for surgeons to hide their emotions and pretend to be in control.

To Dr. Marsh, reflecting the complex emotional life of a surgeon was the point: “The dividing line between fear and excitement is very, very fine. We become surgeons because we like excitement. And what makes it exciting is our deep anxiety. There’s no contradiction between being a thrill-seeker but actually wanting your patient to do well.”

There also is fine balance, he says, in feeling for patients. Dr. Marsh explained that a common motivation behind engaging with narrative medicine—developing empathy for patients and colleagues[9]—is slightly ill-conceived. “As a doctor, you cannot do the work if you are truly empathic,” he wrote in *And Finally*.[8]

In conversation, he clarified, “Empathy in the strict sense of the word means you actually feel what other people are feeling. And of course, you cannot do that if you haven’t had the experience of being a patient yourself. So, it can become a rather artificial exercise.”

What is necessary in his view is “compassion, understanding, and respect for patients.”

“Finding a balance between profound compassion and the necessary clinical, scientific detachment is very, very difficult—for the simple reason that the more you care for your patients, the more it hurts,

when things go wrong or you can't help them," he said.

Ultimately, Dr. Marsh's writing is about observing the narrow divides between pleasure and fear or engagement and equanimity. Attending to himself and his own emotional experiences on the page facilitates attending to others in the clinic—via what Dr. Charon described as "the state of heightened focus and commitment that a listener can donate to a teller."[5]

"What makes the work so interesting is the patients. I spent the whole time talking to them about their lives," Dr. Marsh noted. "I always feel such a privilege to have access to people's lives in the way one does as a doctor."

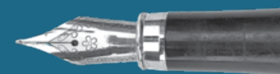
Representation: Writing as a Springboard to Advocacy

For Dr. Wellons, the work of writing has a very different purpose. An academic pediatric neurosurgeon at Vanderbilt University Medical Center in Nashville, Tennessee, he had dabbled in writing privately for years. But he had no intention of authoring a book until a health issue compelled him to undergo 2.5 months of bed rest. Faced with boredom ("there's only so much Netflix you can watch"), Dr. Wellons began recalling stories from his years as a surgeon.

The next step was kismet: submitting his first brief essay on a surgical case to *The New York Times,* he chanced upon a particularly encouraging editor. Then, he said, "I began to think that I've seen so much hope and so much resilience and so much joy and all kinds of human emotions. All these people have been writing about the human condition, and we live it in medicine. So, I just started writing stories down, and that's what ultimately led to the book."

His memoir, *All That Moves Us: A Pediatric Neurosurgeon, His Young Patients, and Their Stories of Grace and Resilience,*[10] was published in July 2023. Dr. Wellons uses its pages to tackle the intensity of life as one of roughly 250 pediatric neurosurgeons

Finding the Time: *Authors' Suggestions*



Start small.

If a few minutes is all you have, reading and writing can still have a positive effect.

Take notes for later.

All three surgeon-authors noted they've jotted notes or journal entries and returned later for more substantive writing—a necessity for capturing thoughts within a busy work life.

Designate a time.

Dr. Wellons set aside time as early as 4:00 am to concentrate on writing; Dr. Mezrich said reading is something "I try to do every night when I go to bed, even if it's 2:00 in the morning," for whatever length of time he can manage.

Use your downtime.

Dr. Marsh wrote his books partly during retirement; Dr. Wellons, partly while on bed rest. A year during residency designated for time away from clinical care may be optimal for narrative medicine as well.

Respond to your circumstances.

If reading or writing every day is unrealistic due to your clinical schedule, narrative medicine is portable and flexible enough to be practiced whenever time and motivation permit.

Join with others.

Signing up for a book or writing group, when and where possible, can help put narrative medicine on your calendar—and add meaningful social connection, too.

in the US, including stories of near-miraculous survival and heartbreaking loss. His prose captures surgical cases in vivid terms ("The infection was worse than I'd expected from the CT. When we opened up the dura, pus came spilling out up and over the surgical field and down the drapes onto the floor"[9]) and fleshes out medical details with social and emotional aspects of patient encounters.

Like Dr. Marsh, Dr. Wellons noted that the experience has made better patient care possible: "I'm much more likely to sit down next to a family and talk to them about what's going on and befriend them in some way. I think I've gotten this sense that we're all just human beings on this earth together, and we're just doing the best we can for one another, and to show that you're a human being and you have strengths and weaknesses is the way I want to practice medicine."

But unlike Dr. Marsh, Dr. Wellons said he is uncertain if he will ever write another book. While he continues to write essays, he is focusing on using his writing to achieve another mission: advocacy, particularly with respect to firearm-related violence affecting children in the US.

This was part of his mission from the start. He had "the idea that I would work toward getting some credibility as a writer with the book, and once that happened, if it did happen, then I would pivot to writing and advocating on a different level."

Since then, he has published an essay about "what it was like to try to save a kid in the OR who had been shot in the head. I wanted people to understand just what it was like at the end, when the families had to say goodbye after all this effort to save this kid's life. We all felt so helpless."

As a result, he accepted invitations to appear

Places to Read, Publish, or Share Narrative Medicine

Outlets for narrative medicine include literary journals focused on medicine, personal essay categories in peer-reviewed academic journals, and narrative medicine publications, groups, and events within healthcare institutions and medical schools.

- *The Intima*
- *The Bellevue Review*
- *Academic Emergency Medicine*
- *ACS Bulletin*
- Several JAMA Network journals
- Your own university or hospital's literary magazine or narrative medicine group

> "I would work toward getting some credibility as a writer with the book, then I would pivot to writing and advocating on a different level."
>
> Dr. Jay Wellons

on CNN, MSNBC, and CBS in the wake of the March 2023 shooting at the Covenant School in Nashville, "to talk about why we don't need assault weapons in society."

For Dr. Wellons, therefore, the mission of writing is representation—which, per Dr. Charon, "confers form on what is heard or perceived, thereby making it newly visible to both the listener and the teller."[5] His writing encapsulates another reason physicians engage with narrative medicine: to make their on-the-ground experiences, including those with grave outcomes, clear to those who most need to know.

Affiliation: Connecting through the Written Word

Sharing information is also a key consideration for liver and kidney transplant surgeon Dr. Mezrich of the University of Wisconsin-Madison. Raised in a "family of readers," Dr. Mezrich has always connected to others through the written word: "We loved books, and we continue to have family book clubs and are always talking about what books we're reading."

Aware that "I had at least one book in me, if not more," he has a standing practice of bringing the written word into the clinical encounter. "When I meet those patients who I find compelling or who I connect with," he explained, "I usually say to the patient, 'You know, I'm really interested in your story. Would you mind if I considered telling it at some point?' And if they are open to that, I'll maybe write something about them in time."

His first book, *When Death Becomes Life: Notes from a Transplant Surgeon* (2019),[11] showcases many of these patients' stories. It also takes an unusual approach to the medical memoir. To his retellings of cases and personal narratives, Dr. Mezrich added a researched history of the entire field of transplantation, including stories of the first patients to undergo groundbreaking procedures and the surgeons who performed those operations. "I wanted people to know who these people were who made transplant happen," he explained. "I wanted to meet with them and understand how they were able to do that despite all the people saying they were crazy."

This included Thomas E. Starzl, MD, FACS, the surgeon who completed the first successful liver transplant. Dr. Mezrich interviewed Dr. Starzl shortly before his 2017 death and researched his work at length. The text makes Dr. Starzl's importance and Dr. Mezrich's admiration clear: "Virtually every liver transplant center in this country can trace its origins to Starzl within one or two generations, and to this day, many leaders in our field are Starzl disciples."[11]

Yet Dr. Mezrich's path is clearly far different from that of Dr. Starzl. Although Dr. Mezrich writes about his experiences with the burdens inherent to patient care, his frank prose about Dr. Starzl's difficulties ("He has been quoted numerous times stating how much he hated surgery"[11]) contrasts strongly with his own views ("There are so many things I love about being a surgeon"[11]). Dr. Starzl was tormented by anxiety

over the patients needing his help; a near-diametric opposite, Dr. Mezrich is open-hearted, extroverted, and even joyful about his.

"A lot of my patients have ended up reading the book," he said. "I sometimes tell them, 'Maybe you should begin after the transplant or after the nephrectomy surgery,' but it's been a really fun way to connect with patients, to have them connect with me as a human being as opposed to just a physician."

Many also find the patients he depicted compelling, often asking how specific surviving individuals are doing now. Moreover, Dr. Mezrich said he routinely receives emails from strangers affected by his writing: "The book came out in 2019, but every week to the current day, I still get an email from someone who is somehow connected to transplant who wants to reach out, whether they had a family member that donated in a sad story or someone who's on a waiting list or someone had a bad outcome."

Noting he is careful to respond to as many as he can, he characterized these connections, even those reflecting deep grief, as "really gratifying and enjoyable."

In these ways, Dr. Mezrich uses writing as a means of human connection, both on the page and well beyond it. In other words, his narrative medicine reflects the principle of affiliation, which Dr. Charon writes "binds patients and clinicians, students and teachers, self and other into relationships that support recognition and action as one stays the course with the other through whatever is to be faced."[5]

"It's been a really fun way to connect with patients, to have them connect with me as a human being as opposed to just a physician."

Dr. Joshua Mezrich

Individuation and Unity

Although Drs. Marsh, Wellons, and Mezrich all wrote books that could be classified as narrative medicine, no book or writer could be substituted for any other. Indeed, the impossibility of interchanging narratives on health and illness is central to the idea of narrative medicine. The entire field is rooted in examining the particular experience, rather than the analytic generalizations scientific thinking requires.[3]

Nonetheless, universalities are clear. Each surgeon succeeds at connecting to readers through honest disclosures—particularly when a situation and the

emotions it evokes are difficult—and benefits from the emotional equilibrium and increased closeness to others that this creates.

All three also were clear that there is no need to publish a book to benefit from narrative medicine. Citing busy schedules, the authors noted that brief periods of reading and writing, even if kept entirely private, are still worthwhile.

In fact, Dr. Mezrich shared his enthusiasm about reading, another core narrative medicine practice: "I can't see a better way to learn about the world around you, to learn about fascinating people, to learn how to balance your own emotions. There's nothing better than reading, in my opinion."

Asked if others should consider keeping journals, as he has, Dr. Marsh—with a rather drier wit than his American counterparts—noted, "It wouldn't do them any harm," adding that a focus on communication was essential to a medical career.

In his book, Dr. Wellons included a chapter on a one-time narrative medicine gathering he led for his neurosurgical residents, "on the theory that telling stories about the things that most affect us is a redemptive act and will help us all—patient and practitioner—in the push to heal."[10]

The robustly attended meeting yielded an outpouring of emotion. About the event, Dr. Wellons offered a comment that might sum up all narrative medicine: "People want to be able to share their stories of joy and grief." B

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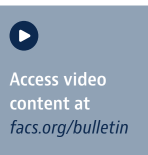

New 2024 CPT Coding Changes Affect General Surgery, Related Specialties

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

The American Medical Association (AMA) Current Procedural Terminology (CPT)* code set is updated annually. This year, many of the updates are for time-based codes, which could affect when they may be reported. This article describes CPT 2024 coding changes that are relevant to general surgery and related specialties.

Hyperthermic Intraperitoneal Chemotherapy

Two new add-on time-based codes have been established to report intraoperative hyperthermic intraperitoneal chemotherapy (HIPEC): CPT code *96547, Intraoperative hyperthermic intraperitoneal chemotherapy (HIPEC) procedure, including separate incision(s) and closure, when performed; first 60 minutes (List separately in addition to code for primary procedure);* and CPT code 96548, *Intraoperative hyperthermic intraperitoneal chemotherapy (HIPEC) procedure, including separate incision(s) and closure, when performed; each additional 30 minutes (List separately in addition to code for primary procedure).*

These codes are reported based on the surgeon's total time for both face-to-face and non-face-to-face activities related to the HIPEC procedure, including chemotherapy agent selection, confirmation of perfusion equipment settings for chemotherapy agent delivery, additional incision(s) for catheter and temperature probe placement, perfusion supervision and manual agitation of the heated chemotherapy agent in the abdominal cavity during chemotherapy agent dwell time, irrigation of the chemotherapy agent, closure of wounds related to HIPEC, and documentation of the chemotherapy agent and HIPEC procedure in the medical record. When reporting 96547 and 96548, do not include time for the typical preoperative, intraoperative, and postoperative work related to the primary procedure(s) that may be separately reported (i.e., 38100-38102, 38120, 43611, 43620-43622, 43631-43634, 44010-44015, 44110-44111, 44120-44125, 44130, 44139, 44140-44147, 44150-44160, 44202-44204, 44207, 44213, 44227, 47001, 47100, 48140-48145, 48152, 48155, 49000, 49010, 49203-49205, 49320, 58200-58210, 58575, 58940, 58943, 58950-58960).

Codes 96547 and 96548 are time-based codes and therefore may not be reported until the midpoint of the time increment in the code descriptors has been reached. Specifically, code 96547 (*first 60 minutes*) may not be reported until at least 31 minutes has been reached unless the procedure is discontinued (e.g., the patient becomes unstable or has an allergic reaction to the chemotherapy agent), in which case modifier 53, *Discontinued Procedure,* should be appended to code 96547. In addition, code 96548 may only be reported after an additional 16 minutes of the HIPEC procedure above the initial 60 minutes reported with code 96547 is attained (i.e., 76 minutes of total time). As an example, if total face-to-face and non-face-to-face time related to HIPEC procedure activities is 100 minutes, you would report 96547 × 1 and 96548 × 1. You would not be able to report a second unit of 96548 until 106 minutes (60 + 30 + 16) has been reached.

For 2024, codes 96547 and 96548 will be contractor priced. Work relative value units (RVUs) are expected to be established for calendar year 2025.

Evaluation and Management and Prolonged Services Codes

For 2024, the CPT Editorial Panel has made further refinements to the evaluation and management (E/M) visit codes. They have eliminated any references to specific time ranges and, instead, introduced a minimum time requirement when using time to select a level of E/M service. These revisions were meant to counter the Centers for Medicare & Medicaid Services (CMS) policy that a full 15 minutes must be spent above the maximum time in the time range for a code before an add-on code for each additional 15 minutes could be reported. Due to CMS's disagreement with the CPT guidelines regarding the threshold time, the agency has introduced Healthcare Common Procedure Coding System (HCPCS) Level II codes with distinct reporting instructions. This dual system of codes, CPT and HCPCS, for prolonged E/M services has led to ongoing confusion. Nevertheless, CMS remains firm in its stance that the full 15 minutes beyond the maximum time threshold, not the minimum time threshold, must be achieved before reporting a prolonged services code.

Although surgeons do not typically report an E/M service using total time on the date of the encounter, there will be instances where the total face-to-face and non-face-to-face time of both the surgeon and the surgeon's physician assistant or nurse practitioner

will exceed the time for the highest level of E/M code and it would be more appropriate to report using total time. When reporting prolonged services codes, it is important to remember that the HCPCS codes must be used for all Medicare claims. Other payers may choose to also require the HCPCS codes and CMS policies or they may allow use of the CPT prolonged services codes and CPT policy. Table 1 on this page provides a side-by-side comparison of the 2024 CPT and HCPCS prolonged services time threshold reporting guidelines that were effective as of the publication of this article.

Critical Care Services

Although the CPT Panel changed the code descriptors for office and hospital E/M codes to include a minimum time for reporting the code instead of a time range, the critical care code (99291,

Table 1. CPT vs. Medicare Time Threshold for Reporting Prolonged Services

Primary E/M Service (minimum time on date of encounter)	CPT Prolonged Services Codes	CPT Time Threshold	Medicare Prolonged Services Codes	Medicare Time Threshold
99205 New Patient Office Visit (60 minutes)	99417	75 minutes	G2212	90 minutes
99215 Established Patient Office Visit (40 minutes)	99417	55 minutes	G2212	70 minutes
99223 Initial Inpatient or Observation Visit (75 minutes)	99418	90 minutes	G0316	105 minutes
99233 Subsequent Inpatient or Observation Visit (50 minutes)	99418	65 minutes	G0316	80 minutes

99417 Prolonged outpatient evaluation and management service(s) time with or without direct patient contact beyond the required time of the primary service when the primary service level has been selected using total time, each 15 minutes of total time (List separately in addition to the code of the outpatient Evaluation and Management service).

99418 Prolonged inpatient or observation evaluation and management service(s) time with or without direct patient contact beyond the required time of the primary service when the primary service level has been selected using total time, each 15 minutes of total time (List separately in addition to the code of the inpatient and observation Evaluation and Management service).

G2212 Prolonged office or other outpatient evaluation and management service(s) beyond the maximum required time of the primary procedure which has been selected using total time on the date of the primary service; each additional 15 minutes by the physician or qualified healthcare professional, with or without direct patient contact (list separately in addition to CPT codes 99205, 99215, 99483 for office or other outpatient evaluation and management services) (Do not report G2212 on the same date of service as 99358, 99359, 99415, 99416) (Do not report G2212 for any time unit less than 15 minutes).

G0316 Prolonged hospital inpatient or observation care evaluation and management service(s) beyond the total time for the primary service (when the primary service has been selected using time on the date of the primary service); each additional 15 minutes by the physician or qualified healthcare professional, with or without direct patient contact (list separately in addition to CPT codes 99223, 99233, and 99236 for hospital inpatient or observation care evaluation and management services) (Do not report G0316 on the same date of service as other prolonged services for evaluation and management 99358, 99359, 99418, 99415, 99416) (Do not report G0316 for any time unit less than 15 minutes).

99292) descriptors continue to include time ranges. This has resulted in CPT and CMS having different instructions about when it would be appropriate to report code 99292 for each additional 30 minutes of critical care services. Similar to the discussion above for office and hospital visit E/M codes, CMS requires a full 30 minutes of service above the maximum time in the time range for 99291, while CPT instructs that 99292 can be reported after one minute or additional time.

When reporting critical care services codes, it is important to remember that the CMS policy must be used for all Medicare claims. Other payers may choose to follow the CMS policy or they may allow use of the CPT policy. Table 2 on this page provides a side-by-side comparison of the CPT and CMS policies for correctly reporting codes 99291 and 99292.

Hospital Inpatient or Observation Care Services for Short Stays

Prior to 2024, the CPT codebook was silent on the length of stay or amount of time required to report separate inpatient or observation E/M services codes and/or discharge management E/M codes. To better align with CMS policy for reporting these services, new guidelines were added to the 2024 CPT code set to provide instructions on when it is appropriate to report codes 99234, 99235, or 99236, which describe admission and discharge on the same date. Specifically, these codes are only to be reported by a provider who performs both the initial and discharge services on a single date of service and when the patient stay is more than 8 hours. Other physicians who also provide an E/M service may report 99221-99223, as appropriate.

When a patient receives hospital inpatient or observation care for fewer than 8 hours, only codes 99221-99223 may be reported, and 99234-99236 or 99238-99239 may not be reported. For patients admitted to hospital inpatient or observation care and discharged on a different date, the appropriate level of hospital E/M service is reported on the first date and the appropriate discharge service is reported on the subsequent date. Keep in mind that only one physician may report same date admit/

Table 2. CPT vs. Medicare Reporting for Critical Care Services

Total Duration of Critical Care Services	CPT Reporting Instructions	Medicare Reporting Instructions
Less than 30 minutes	99221-99231, 99231-99233 as appropriate	99221-99231, 99231-99233 as appropriate
30–74 minutes	99291 x 1	99291 x 1
75–104 minutes	99291 x 1 and 99292 x 1	99291 x 1
105–134 minutes	99291 x 1 and 99292 x 2	99291 x 1 and 99292 x 1
135–164 minutes	99291 x 1 and 99292 x 3	99291 x 1 and 99292 x 2
165 minutes or longer	99291 and 99292 using guidelines above	99291 and 99292 using guidelines above

99291 Critical care, evaluation and management of the critically ill or critically injured patient; first 30-74 minutes.

+99292 Critical care, evaluation and management of the critically ill or critically injured patient; each additional 30 minutes (List separately in addition to code for primary service).

Table 3. Reporting E/M Services for Short Stays

Patient Length of Stay	Clinical Scenario	CPT Codes Reported, as Appropriate
Less than 8 hours	Patient arrives and is discharged on the same calendar date	99221, 99222, 99223
	Patient arrives and is discharged on a different calendar date (e.g., arrives 11:00 pm and discharged at 5:00 am the next day)	99221, 99222, 99223 (reported on discharge date)
8 or more hours	Patient arrives and is discharged on the same calendar date	99234, 99235, 99236
	Patient arrives and is discharged on a different calendar date (e.g., arrives 6:00 pm and discharged at 7:00 am the next day)	99221, 99222, 99223 (arrival date) 99238, 99239 (discharge date)

discharge codes 99234-99236 and two or more separate and distinct patient encounters are required to report these codes.

If a surgeon does not admit the patient to inpatient or observation care and instead consults on one or more days, then the surgeon should report the inpatient/observation E/M codes 99221-99223 and 99231-99233 as appropriate. Table 3 on this page provides a quick reference to reporting E/M services codes for short stays.

Looking forward to CPT 2025

The meeting cycle for the CPT 2025 code set has concluded, resulting in new codes and guidelines that will be effective for CPT 2025. Several changes that are important to general surgery and related specialties include: (1) Addition of five codes to report excision/destruction of intra-abdominal peritoneal, mesenteric, and/or retroperitoneal primary or secondary tumor(s)/cyst(s), revision of code 58958, and deletion of codes 49203, 49204, 49205, and 58957; (2) Addition of 17 codes and guidelines for reporting telemedicine E/M office visits, addition of a new E/M subsection for Telemedicine Services, and deletion of codes 99441, 99442, and 99443; and (3) Addition of eight codes and revision of the Skin Replacement Surgery subsection guidelines to report skin cell suspension autograft procedures. Please note that codes are not assigned, nor exact wording finalized, until just prior to publication of the CPT codebook. Release of more specific CPT code set information is timed with the release of the entire set of coding changes in the CPT publication.[†]

Learn More

As part of the College's ongoing efforts to help members and their practices submit clean claims and receive proper reimbursement, a coding consultation service—the ACS Coding Hotline—has been established for coding and billing questions. ACS members are offered five free consultation units (CUs) per calendar year. One CU is a period of up to 10 minutes of coding services time. Access the ACS Coding Hotline website at *tprsnetwork.com/acshotline.* B

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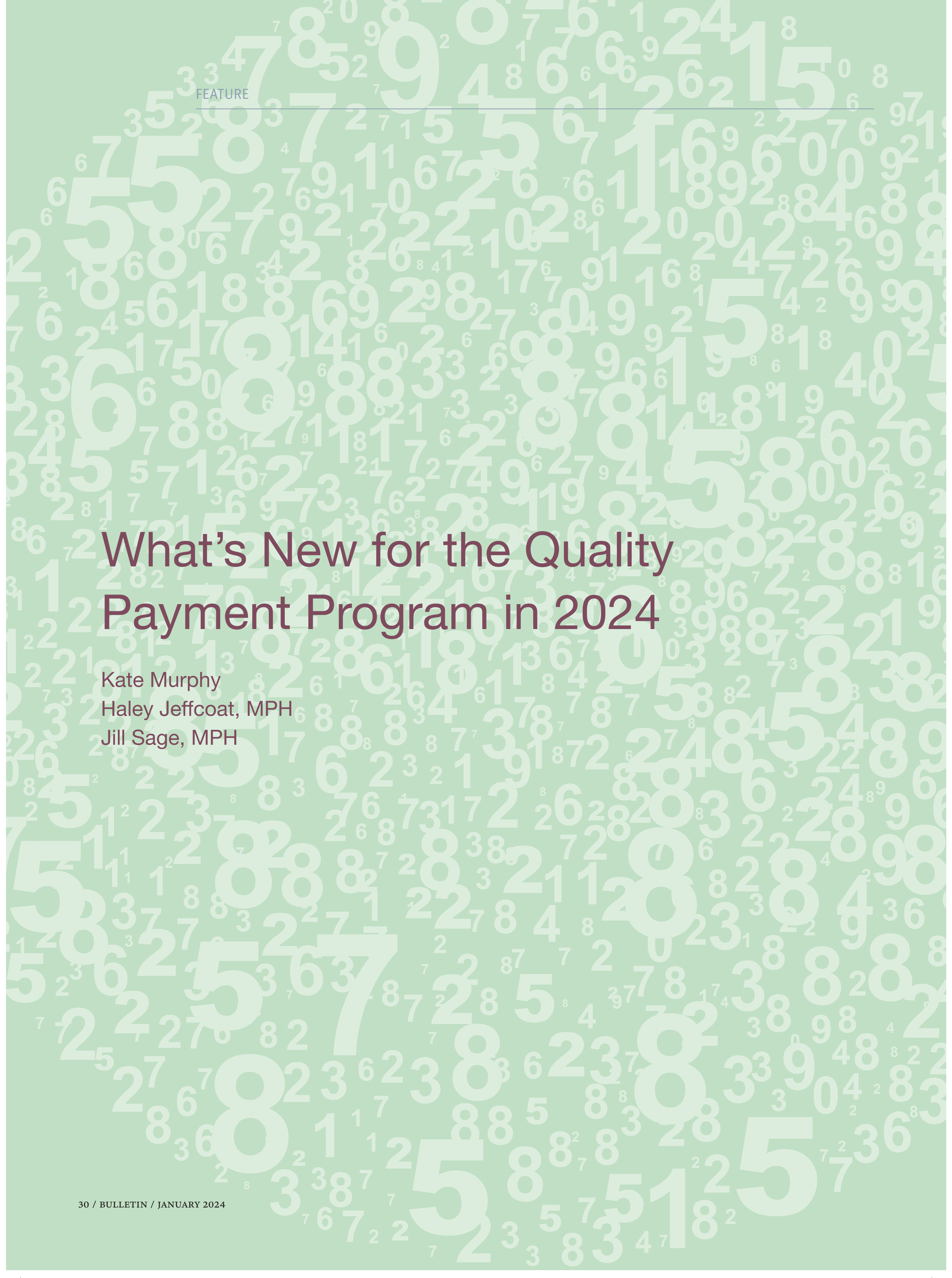
[†]Summary of CPT Editorial Panel action documents accessed October 10, 2023, at www.ama-assn.org/about/cpt-editorial-panel/summary-panel-actions.



What's New for the Quality Payment Program in 2024

Kate Murphy
Haley Jeffcoat, MPH
Jill Sage, MPH

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The Centers for Medicare & Medicaid Services (CMS) finalized several updates to the participation requirements for year 8 of the Quality Payment Program (QPP) as part of the calendar year (CY) 2024 Medicare Physician Fee Schedule (MPFS) released November 2, 2023. This article highlights the finalized QPP policies that are most relevant to surgeons.

Figure 1. MVPs Available for Reporting in 2024

QPP Overview

The QPP comprises two participation tracks; clinicians can report via the Merit-Based Incentive Payment System (MIPS) or participate in an Advanced Alternative Payment Model (APM). Under MIPS, clinicians are scored based on four categories—Quality, Cost, Improvement Activities (IA), and Promoting Interoperability (PI)—that each contribute a specific weight to their final MIPS score. MIPS eligible clinicians who participate in the program in 2024 will receive a positive, neutral, or negative payment adjustment to their 2026 Medicare Part B payments, based on 2024 performance.

In contrast, qualifying participants (QPs) in an Advanced APM, which are clinicians who meet participation thresholds based on Medicare payments or Medicare patients seen through an APM, will receive a higher physician fee schedule base conversion factor update (0.75%) compared to non-QPs (0.25%), starting with the 2024 performance year/2026 payment year.

Surgeons can report individually or as part of a group, subgroup, or APM Entity. However, due to the workforce shift away from private practice toward employed surgery, an increasing percentage of surgeons participate in the QPP through their employer. Because QPP performance is tied to Medicare payment adjustments regardless of employment status, surgeons should keep track of their performance within the program and understand how it might influence compensation within their group or institution. Surgeons can determine QPP eligibility for performance year 2024 by searching the QPP Participation Status Tool (*qpp.cms.gov/participation-lookup).*

MIPS eligible clinicians may also choose to participate through a MIPS Value Pathway (MVP)—an alternative reporting pathway to traditional MIPS. Whether surgeons participate via traditional MIPS or an MVP, their score will continue to be calculated based on the four performance categories.

MVPs

MVPs were first available for voluntary reporting in the CY 2023 performance period. An MVP includes a subset of measures and activities across the quality, IA, and cost performance categories focused on specific specialties, conditions, or patient populations. Each MVP also includes a foundational layer that includes population health measures, as well as all PI

performance category measures.

If a surgeon chooses to participate in an MVP, he or she must register to participate in this pathway and select quality measures and IAs from the MVP to report. CMS automatically calculates the cost and population health measures associated with the MVP using administrative claims measures. A clinician or group is only scored on these measures if enough patients are attributed under each measure (similar to traditional MIPS). For the 2024 performance year, clinicians can choose from 16 MVPs as shown in Figure 1 on page 32.

MVP Scoring

MVP scoring generally aligns with traditional MIPS. The performance category weights will remain consistent with what has been finalized for MIPS in 2024. The MIPS reweighting policies will also be applied to MVPs.

MVP Subgroup Reporting

Multispecialty groups can create subgroups to report MVP performance information relevant to specific specialists or care teams within the larger group (also referred to as the affiliate group) so that participation is more tailored to the care they deliver, such as clinicians who provide cancer care or joint repair. Subgroup reporting is currently voluntary for MVP participants; however, beginning in 2026, multispecialty groups will be required to form subgroups to report MVPs. CMS uses the initial 12-month segment of the 24-month MIPs determination period to determine the eligibility of clinicians intending to participate and register as a subgroup.

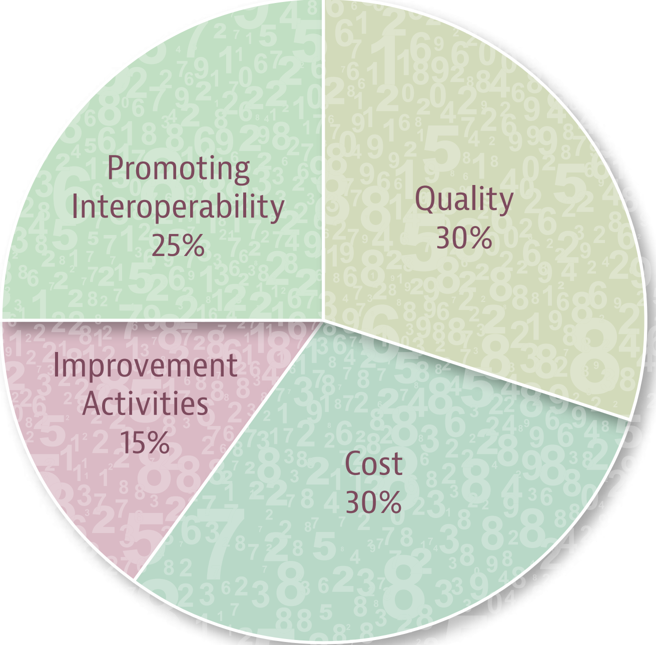
For more information about available MVPs, MVP reporting, and subgroup reporting in CY 2024, visit the ACS QPP Resource Center and/or the CMS MVP web pages: *qpp.cms.gov/mips/explore-mips-value-pathways?py=2024.*

MIPS Scoring Policies for 2024

Many MIPS scoring policies—which apply to both traditional MIPS and the MVP framework—remain the same in 2024. This year, the performance threshold, or the number of overall MIPS points required to avoid a payment penalty for the 2026 payment year, remains at 75 points.

If a surgeon chooses to participate in an MVP, he or she must register to participate in this pathway and select quality measures and IAs from the MVP to report.

Figure 2.
2024 MIPS Performance Category Weights



The performance category weights also are unchanged. In general, quality and cost both contribute 30% to the MIPS overall score, PI contributes 25%, and IA remains at 15% (see Figure 2, this page). However, note that there are specific scenarios that could trigger the redistribution of these weights. *(qpp.cms.gov/mips/special-statuses)* Surgeons should refer to the ACS QPP resources for more details about the 2024 MIPS policies.

Quality Performance Category
The Quality category aims to measure the quality of care provided. For the CY 2024 performance year, the data completeness threshold will increase to 75%. This means a provider must report 75% of their total cases for applicable patients to fully report the quality performance category.

For the CY 2024 performance period, surgeons can choose from 198 clinical quality measures (CQMs), as well as numerous measures offered through Qualified Clinical Data Registries (QCDRs). Participants can explore the 2024 MIPS quality measure inventory at: *qpp.cms.gov/mips/explore-measures.*

Promoting Interoperability Performance Category
The PI category focuses on how clinicians use certified electronic health record technology (CEHRT) to manage patient engagement and the electronic exchange of health information. To receive a score in this category, use of CEHRT is required.

Updates to PI reporting requirements in 2024 include:

- The PI performance period will increase to 180 continuous days.
- One of the attestations required for participation in PI, the Safety Assurance Factor for EHR Resilience (SAFER) Guides measure, now requires a "yes" attestation. A "no" response will result in a score of 0 points for the whole PI category.

Cost Performance Category
The cost performance category aims to evaluate a clinician's total cost of care during the year, a hospital stay, or a specific episode of care for attributed patients. CMS calculates the cost performance category based on claims data. There are no individual reporting requirements for cost. Clinicians who demonstrate improvement in the cost performance category from one performance period to the next are eligible for a cost improvement score; this will be calculated at the performance category level rather than the individual measure level starting in 2023. CMS continues to add episode-based cost measures

to the cost measure inventory. Surgeons can explore these measures on the CMS website: *qpp.cms.gov/mips/explore-measures?tab=costMeasures&py=2023.*

Advanced APMs

Clinicians who receive a substantial portion of their reimbursement or see a substantial number of patients under what CMS designates as an Advanced APM are considered QPs. Advanced APMs bear a certain amount of risk determined by CMS, and all Advanced APM participants must now use CEHRT. In 2024, the payment and patient thresholds to qualify as a QP increased, making it more challenging for clinicians to qualify for this track of the QPP. The incentive policy for Advanced APM participants also changes beginning in CY 2024; rather than a lump-sum incentive payment (5% historically, 3.5% related to 2023 eligibility), QPs will receive a higher MPFS base conversion factor update than non-QPs (0.75% vs. 0.25%) going forward.

For more information about APMs, visit the CMS QPP website: *qpp.cms.gov/apms/advanced-apms.*

The ACS Perspective on MIPS and the QPP

In recent years, the ACS has focused advocacy efforts on the need to reframe the QPP to focus on patient goals, help patients determine where to find the best care for their needs, support the programmatic nature of modern care delivery, and drive quality improvement cycles. In the CY 2024 MPFS proposed rule, CMS discussed its National Quality Strategy goals *(cms.gov/medicare/quality/meaningful-measures-initiative/cms-quality-strategy)* and sought feedback on how it could modify QPP policies to better align with those goals.

In response, the ACS raised concerns that current measures focus on single instances or services delivered in care, which perpetuates care silos created by fee-for-service. This approach detracts from centering care around the patient, pits members of the care team against each other rather than incentivizing integrated care, and wastes resources, among other issues. The College suggested that, in order to resolve these issues, CMS must refocus on the patient and encouraged CMS to rethink how to build a patient-centered quality program that reflects care delivered in a service line while valuing what matters to the patient and create incentives for the team to organize around the patient to deliver on patient goals.

The ACS provides examples of successful programmatic approaches to quality, including ACS Trauma Verification, Commission on Cancer, Children's Surgery Verification, Geriatric Surgery Verification, and so on.

To drive these efforts forward, the ACS has developed a new type of measure, a programmatic measure, that incorporates the essential elements of the ACS Quality Framework. Programmatic measures represent a specific clinical program and combine structure, process, and outcomes measures along with improvement activities in hopes of informing patients about the care they seek and driving care teams to improve. The ACS has submitted programmatic measures to other CMS programs such as the Hospital Inpatient Quality Reporting Program and the Bundled Payments for Care Improvement Advanced model.

The ACS's response to the 2024 MPFS proposed rule can be found on the ACS website: *facs.org/media/sxjntxa1/cy-2024-mpfs-proposed-rule-acs-comment-letter.pdf.* B

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How Will the 2024 MPFS Affect Your Practice?

Lauren M. Foe, MPH

New payment policy, coding, and reimbursement changes set forth in the calendar year (CY) 2024 Medicare Physician Fee Schedule (MPFS) final rule took effect on January 1. The MPFS, which the Centers for Medicare & Medicaid Services (CMS) updates annually, lists payment rates for Medicare Part B services and introduces or modifies other policies and regulations that affect physician reimbursement and quality measurement.

The ACS submitted comments September 8, 2023, in response to the CY 2024 MPFS proposed rule issued by CMS earlier in the year.[1] Some provisions in the final rule,[2] released November 2, 2023, incorporate the College's recommendations. Although the final rule includes important payment and policy decisions that affect all physicians, this article focuses on updates that are particularly relevant to general surgery and its related specialties.

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While guidance remains vague for use of this code, it is not expected that most surgeons will be able to frequently bill for G2211.

E/M Services

Split (or Shared) Visits

CMS implemented a new split (or shared) evaluation and management (E/M) billing policy for E/M visits provided in part by a physician and in part by a nonphysician practitioner (NPP) in hospitals and other institutional settings. The billing provider for such visits will be the physician or NPP who furnished the "substantive portion" of the visit. To align with revised Current Procedural Terminology (CPT)* guidelines, CMS defined "substantive portion" to mean "more than half of the total time" spent by the physician or NPP performing the split/shared visit or the "substantive part of the medical decision-making" during the split/shared visit. The ACS provides additional details and suggested coding and billing guidance for split/shared visits in its online Practice Management Resource Center.[3]

Office and Outpatient E/M Visit "Complexity" Add-On Code

CMS established separate payment for add-on code G2211 to account for visit "complexity" associated with certain office/outpatient E/Ms. Congress had previously placed a moratorium on payment for G2211, and while the ACS supported a continuation of this moratorium, CMS finalized 2024 payment for the add-on code nonetheless.

While guidance remains vague for use of this code, it is not expected that most surgeons will be able to frequently bill for G2211. CMS stated that this add-on code should be reported when furnishing office/outpatient E/M visits associated with medical care services that serve as the continuing focal point for all needed healthcare services and/or with medical care services that are part of ongoing care related to a patient's single, serious condition or a complex condition. CMS noted that application of the add-on code is not based on the characteristics of particular patients (even though the rationale for valuing such a code is based on recognizing the typical complexity of patient needs) but rather the relationship between the patient and the practitioner. The add-on code is also not available for use with an office/outpatient E/M that is billed with modifier 25.

Additional details about updates to E/M and other coding and billing rules effective this year can be found on pages 24–29.

Table. Calculation of the 2024 MPFS Conversion Factor

CY 2023 Conversion Factor	$33.8872
Conversion Factor without the CAA 2023 (2.5% increase for CY 2023)	$33.0607
CY 2024 RVU budget neutrality adjustment	-2.18%
CY 2024 1.25% increase provided by the CAA 2023	1.25%
CY 2024 Conversion Factor	**$32.7442**

Telehealth and Telephone Services

As directed by Congress, CMS expanded the scope of originating sites for services furnished via telehealth to include any site where the beneficiary is located at the time of the telehealth service, including an individual's home, for 2024. CMS also changed its policy for place of service (POS) codes that should be reported for services furnished via telehealth depending on where the patient was located during provision of such services. CMS now requires use of POS 10 (Telehealth Provided in Patient's Home), which will be paid at the higher nonfacility MPFS rate, and POS 02 (Telehealth Provided Other than in Patient's Home), which will continue to be paid at the MPFS facility rate.

In addition to ongoing payment for telephone E/M services through 2024, CMS continues to pay for telephone assessment and management services (CPT codes 98966-98968) for 2024.

AUC for Advanced Diagnostic Imaging

CMS indefinitely paused the appropriate use criteria (AUC) program for advanced diagnostic imaging and rescinded AUC program regulations. Prior to this pause, the AUC program was intended to subject certain providers, specifically those whose ordering patterns for certain imaging services were considered to be "outliers," to prior authorization requirements.

Conversion Factor

Absent Congressional intervention, the 2024 MPFS conversion factor (CF)—which is the amount Medicare pays per relative value unit—is $32.7442, an approximate 3.4% decrease from last year's CF of $33.8872. The 2024 CF reflects the reduction in assistance provided by the Consolidated Appropriations Act 2023 (CAA)—from 2.5% for 2023 to 1.25% for 2024—and an additional 2.18% cut due to budget neutrality adjustments (see Table, page 38). B

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RAS Symposium Essay Contest Highlights Early Specialization and Integrated Subspecialty Training

The Resident and Associate Society (RAS) Advocacy and Issues Committee sponsors an annual essay contest on contemporary topics affecting young surgeons and surgical trainees.

For 2023, RAS members weighed in on the benefits and drawbacks of early specialization and debated the potential impact on trainees, training programs, and surgical patients.

The three winning essays were presented during the RAS Symposium at Clinical Congress 2023 in Boston, Massachusetts. The session is available, to registrants, in the Clinical Congress online platform.

Two honorable mention essays, for and against early specialization, follow.

PRO: Early Specialization Benefits the Surgical Profession

David Blitzer, MD

ONCE UPON A TIME, all surgeons were also barbers. Surgical training was, by definition, nonexistent. Barber surgeons were not medically trained nor were they considered medical professionals; the procedures they performed consisted of bloodletting, abscess lancing, and amputations on top of their usual responsibilities of cutting hair and nails. We should not forget this when we consider the fantasy of the general surgeon, which is actually a relatively recent construct in the medical professions.

William S. Halstead, MD, FACS, is widely considered the father of American surgery; he helped establish the residency model that we continue to use to this day. He even promoted the concept of specialization, with some of his trainees going on to become forerunners in their own surgical subspecialties, including neurosurgery and urology. With this historical framework, it becomes more evident that the trend toward increasing and earlier specialization among surgeons and surgical trainees is not a new phenomenon but rather the continuation of an ongoing process that has been underway since the dawn of surgical practice.

In the standard flow of academic presentations, this is the point at which a presenter would declare their conflicts of interest. Therefore, for the sake of full disclosure, I will state that I am currently a trainee in an integrated cardiothoracic surgery program. My opinion on this issue is largely influenced by my own positive experiences as a trainee.

The advantages of integrated programs are well-known. A training pathway that offers a targeted clinical experience is the first such advantage. In a world where procedures have become increasingly complex, the idea of gaining comfort within a diverse specialty such as cardiothoracic or vascular surgery after a traditional 2-year fellowship seems increasingly fantastical in itself.

Changes in the practice of general surgery also make the experience in general surgery training less applicable to other surgical subspecialties. While there is certainly some overlap, the widespread adoption of minimally invasive techniques in general surgery means that the training in a general surgery program offers diminishing relevance to the budding cardiothoracic or vascular surgeon.

On top of the increased exposure to a specific desired field, integrated pathways offer the opportunity to reduce training time overall. This is an important consideration for trainees navigating an increasingly complex healthcare system and doing so in the prime years of their lives in terms of starting both careers and families.

Widespread adoption of integrated training pathways also could play a role in mitigating a surgical workforce shortage. Not only could the number of graduates from surgical training programs increase, but the number of applicants to such programs would likely increase, as has been the case with the

With fewer trainees in general surgery programs, those remaining could benefit from a more concentrated experience, which also minimizes the need for many of the nonaccredited fellowship pathways that are now so prevalent.

rapid expansion of integrated cardiothoracic surgery programs.

A reduction in total training time could serve as a major pipeline for increasing the surgical workforce and possibly even help reduce gender and racial disparity in the surgical workforce at the same time. Furthermore, an accelerated training timeline also offers an earlier path toward independent practice, which could play a major role in mitigating the pandemic of burnout afflicting the surgical workforce.

What, then, are the potential disadvantages of the widespread adoption of integrated programs? Clearly, general surgeons are still a necessary part of the surgical workforce, and some would argue that increasing specialization will lead to a decrease in access to general surgeons, particularly in the rural setting.

Frankly, this argument seems to put the cart before the horse.

Smaller and more rural hospitals are closing because of market forces and the corporatization of healthcare. There is no question that this is an incredibly important issue, but there isn't a number of qualified general surgeons that will mitigate it. This issue needs to be resolved in the halls of the state and federal capitols.

Next, it would clearly be unreasonable to expect every medical student with an interest in surgery narrow their focus so early in their training. Quality general surgery training programs will always be needed to train anyone looking to pursue a career in general surgery without any further specialization. Furthermore, while general surgery experience is not always transferable to other surgical specialties, there are certainly a number of specialties where general surgery experience is critical.

The proliferation of integrated pathways may actually improve the training for many of these individuals. With fewer trainees in general surgery programs, those remaining could benefit from a more concentrated experience, which also minimizes the need for many of the nonaccredited fellowship pathways that are now so prevalent.

For others, greater adoption of hybrid pathways, such as the 4+3 programs in cardiothoracic surgery may be relevant. In this pathway, trainees do 4 years of general surgery training and then progress into a 3-year cardiothoracic training program. Such a hybrid process readily could be applied to other surgical specialties and offer some of the advantages of both the integrated and traditional training pathways.

Ultimately, we know that the arc of the surgical universe bends toward specialization and that integrated training pathways are more likely to proliferate than not. I firmly believe that this process is ultimately to the benefit of surgical trainees and to the field of surgery as a whole, and I hope this brief argument has convinced you, dear reader, to think likewise. B

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CON: Defaulting to Early Specialization Will Be the Death of the General Surgeon

Madhuri Nagaraj, MD, MS

DISTINGUISHABLE BY THEIR scrub caps, confident demeanors, and dexterity with tools, the species known as "general surgeons" are critically endangered today. Threats of early specialization and integrated training accelerate habitat destruction of this beloved creature.

In 1995, the American Board of Plastic Surgery first recognized a 6-year integrated plastic surgery training model.[1] Vascular surgery followed suit in 2006, with the "certificate in vascular surgery" from the American Board of Surgery.[2] And cardiothoracic surgery in 2013, recognized the first integrated 6-year (I-6) graduates.[3]

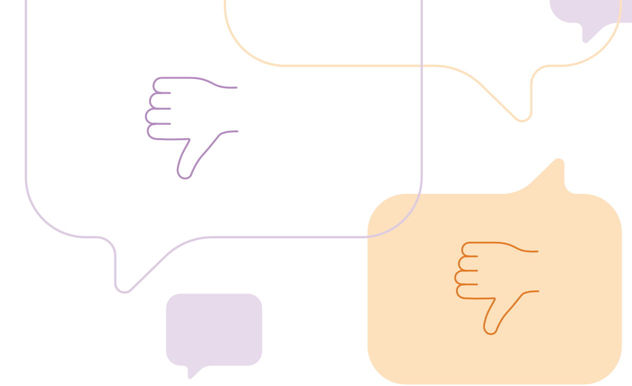
These hard-fought battles for recognition aimed to prove the benefits of early and focused subspecialty training, reduce training time, and accelerate the supply of surgeons. However, in this essay, I aim to prove that these rationales oversell the benefits of integrated training models. Rather, the negative implications of making early specialization the default training model scale local to global—with the lack of training structure and oversight, the trainee selection bias, and the death of the general surgeon as we know it.

Lack of Training Structure

As opposed to independent trainees who present with experience and maturity, trainees who join an integrated surgical model are just out of medical school. This raw potential requires both appropriate mentorship and curricular structure to thrive. And yet despite having existed for nearly 2 decades with an emphasis on "focused" training, a major disadvantage of integrated training programs remains the lack of curriculum structure and faculty preparation.[3]

Despite residents finding critical care training the most helpful, integrated cardiothoracic surgery residents spend a variable amount of time (ranging 0–42 weeks) with this experience.[4] This variability carries over to exposure of general surgery subspecialties, adjunct fields of importance (i.e., cardiology, catheterization, perfusion), and dedicated research time. The dramatic lack of standardization was reflected in an analysis of plastic surgery curricula, as well as by concerns expressed by 58% of integrated vascular surgery program directors.[5,6] Given the diminishing exposure to open principles in vascular surgery training, these inconsistencies in training can produce highly variable products.[7]

A more alarming aspect is the lack of faculty preparedness "to teach junior residents" as demonstrated by cardiothoracic surgery trainee perceptions.[8] This lack of faculty buy-in is bolstered by 45% of cardiothoracic faculty after 10 years of exposure to the integrated model still preferring the traditional pathway.[9,10]



There is no default surgeon; therefore, we should not create a default training paradigm.

Selection Bias

As of recent National Resident Matching Program data, integrated fellowships such as plastics, cardiothoracic, and vascular rank as some of the most competitive fields. Smood and colleagues recommend that those interested in applying for cardiothoracic integrated programs have US Medical Licensing Examination Step scores greater than 230, have nine work and volunteer experiences, and 10.5 publications, with ambitious research goals.[11]

Those who argue that integrated positions decrease training time do not recognize that 59% of medical students going into competitive specialties took research time, of whom, 32% intended it to increase their application competitiveness.[12] This competitiveness, however, allows for selection bias and the development of a cookie-cutter resident.

Data from 2015 demonstrate that, with time, the proportion of White integrated trainees has increased; conversely those of women, Black, and Hispanic trainees remain disproportionately lower than the medical school demographic.[13-16] Furthermore, 2023 data show that despite all integrated residencies increasing the number of offered positions, the MD match rate grossly outbalanced the DO match rate (43%–82% vs. 0%–23.5%, respectively).[17]

Many medical schools lack these highly specialized departments, thus inadvertently limiting the early access and exposure to research and mentors required of an integrated applicant.[1] These systems clearly select against many diverse and potentially brilliant trainees and should not represent the sole opportunity of the future.[18]

Losing General Surgery

Finally, it is well established that there is a critical shortage of general surgeons that continues to widen as the population ages.[19] Nearly half of the most frequently performed operations nationally fall under the purview of general surgeons, including herniorrhaphies, appendectomies, cholecystectomies, breast biopsies, wound debridement, endoscopies, hemorrhoidectomies, and skin procedures.

It is well known that the first years of practice comprise building clientele and taking the “bread-and-butter” cases. Indeed, a study of community vascular surgeons found that 10% reported covering general surgery in their practice, 17% felt that covering general surgery was important for a potential hire, and a significantly higher proportion felt independent graduates were more mature and technically capable.[20] And yet, the early introduction of specialty training necessitates a loss of training in general surgery.

Data demonstrate that integrated residents are far more likely to pursue academic medicine careers and thereby concentrate themselves in urban settings.[19] This not only directly widens the urban-rural divide in access to specialty care but also indirectly widens the gap in general surgery care. In the US, general surgeons perform 50% of thoracic surgery procedures.[21] It is simple mathematics that specialty cases logged by integrated residents necessitates

a subtraction in the order of hundreds for the training general surgeon.[22]

I went into general surgery for one main reason. When I was enjoying the breadth of medicine too much that I could not decide a residency, a surgeon mentor said to me "a good surgeon is a good doctor with an extra skillset." There is no default surgeon; therefore, we should not create a default training paradigm.

It is important to provide all trainees, regardless of background, access, and education, with every opportunity to maximize their potential. And while early specialization and integrated pathways have their place, making these pathways the default of training will cause ramifications that will affect the survival of surgeons and their patients for generations to come. B

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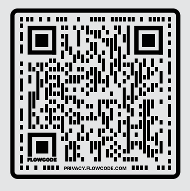

Dr. Passant Ezz Abdelrahman

Ophthalmic Surgery in Egypt Thrives with Partnerships, Innovation, and Healthcare Reform

Passant Ezz Abdelrahman, MBBCH

I AM AN OPHTHALMOLOGY resident, from Cairo, Egypt, where I serve as the Resident and Associate Society (RAS) liaison for the Egypt Chapter of the ACS. I also was recently appointed to the position of RAS liaison to the ACS Advisory Council for Ophthalmic Surgery.

As part of my liaison tenure, I'd like to share my unique experiences as a trainee in Egypt and discuss how partnering with the ACS has encouraged growth in the field of ophthalmology, fostered international collaboration, and promoted excellence in patient care.

Very much a modern medical system, ophthalmologic surgery in Egypt looks remarkably similar to how it is practiced in the US. With public, private, and military hospital systems within the country, trainees have the opportunity to experience a broad diversity of work settings to foster clinical and academic growth. Since I spent my early junior career in a military hospital, I experienced the best of three worlds.

To become a physician in Egypt, students enter medical school right after high school graduation. After completing my International General Certificate of Secondary Education (IGCSE–British high school diploma), I achieved a high score that secured me a place at Benha University–Faculty of Medicine. This placement required long travel every day for 2 months, passing by many rural areas on the way.

Having had this exposure and spending time at a noncentral governorate where people are not as privileged as those coming from and residing in Cairo and Giza definitely shaped my social responsibility early. It amazed me how professors at Benha University tirelessly cared for their patients, and despite many obstacles, they were able to provide the best care.

They also were very sincere academically with us as their students. I was able to transfer to Cairo University–Kasr Al Ainy School of Medicine 2 months later. Studying in Cairo, I met patients coming from rural and noncentral governorates seeking medical help that was not available for them at home.

Medical training in Egypt used to include 7 years of academic time with a 1-year internship, but recent governmental reforms have been instituted to include more clinical experience for students. Medical school now requires 5 years of training with 2-year clinical internships. Medical schools in the country also have expanded, ballooning from just under 20 schools in 2008 to more than 45 schools as of 2023.

Unlike the US where graduation from medical school is followed by residency placement through a national matching system, Egyptian physicians, especially those interested in ophthalmology, have several available routes for specialization. An Egyptian ophthalmology fellowship, obtaining a master's degree, or acquiring an equivalent international qualification are all acceptable routes of specialization, although recent changes from the Egyptian Ministry of Health and Population are impacting these options by validating a single route of specialization—the Egyptian Board—similar to the American Board of Ophthalmology.

I specialized in ophthalmology by enrolling in an accredited master of science (MSc) degree program at Helwan University. It was my first mentor,

A phacoemulsification wet lab was available for attendees of the Egyptian Society of Ocular Implants and Refractive Surgery meeting, including Dr. Passant Abdelrahman, in May 2023.

Professor Fawzi El Shahed, supervisor of postgraduate studies, who inspired me to become clinically competent and eagerly seek continuing medical education (CME). Studying ophthalmic modules, paramedical modules, research, and medical statistics modules at Helwan University pushed me further to also pursue my MSc in Global Health at The University of Manchester in the UK. Studying vulnerability, ethical considerations, and global medical issues was a life changer for me.

Once in training, Egyptian residents have access to most of the state-of-the-art resources familiar to US providers. I am currently a physician in training at Watany Eye Hospitals (WEH) and the Memorial Institute for Ophthalmic Research (MIOR). My ophthalmic training has included various subspecialty clinical rotations: comprehensive ophthalmology, ophthalmic investigations, pediatric ophthalmology and strabismology, surgical hands-on, and more.

Working at WEH–Thawra Branch, a private hospital on the outskirts of Cairo, I am fortunate to have available 10 operation theaters, femtosecond laser machines in two refractive suites, and 16 fully equipped clinics that have provided me with robust technical and clinical experiences.

Home to the Association for Research in Vision and Ophthalmology, Egypt Chapter, WEH also offers trainees opportunities to continue extensive research on how the eye functions. These experiences all occur in the context of a commitment to high-quality healthcare standards. Like every other ophthalmic institute, WEH follows the General Authority for Healthcare Accreditation and Regulation standards with a focus on quality standards, CME, and paramedical fields.

MIOR is a public institute established by Sir Arthur Ferguson MacCallan, CBE, MD, FRCS—an ophthalmic surgeon who pioneered the first classification system for trachoma, which is still in use today. An English surgeon, Dr. MacCallan took his pioneering work to Egypt where his profound contributions to the country and the field of ophthalmic surgery would result in the erection of a statue of honor at MIOR.

MIOR offers clinical examinations, surgical healthcare services, visiting residency programs and fellowships to enhance knowledge exchange, and has the Memorial Institute Kids Eye Center, a specialized hospital offering a full range of pediatric ophthalmic care.

Committed to the advancement of not just ophthalmology, but medicine as a whole, much of the innovation and growth in Egypt's medical sector has come through international partnerships with other surgical organizations such as the ACS, the Royal College of Physicians and Surgeons of Glasgow, and The Royal College of Ophthalmologists (RCO).

In April 2022, through collaboration with the RCO, the first Refraction Certificate examination in Egypt was held at the Kobri Al-Kobba Medical Complex. The addition of this certificate allowed for all four parts of the prestigious Fellowship of the RCO (FRCOphth) qualification exam to be held within Egypt.

Later that year, in November 2022, the RCO's first hybrid

In addition to high-quality training and international collaboration, ophthalmic surgery in Egypt also is supported by society and institute meetings where scientific talks are held, dry and wet labs are provided, and instructive courses are made available for residents.

Dr. Passant Abdelrahman speaks at the 2023 Watany Ophthalmology Summit about the ACS and RAS.

exam, including eye simulators and human retinoscopy, was introduced worldwide and held in Cairo. I was one of the first 11 candidates to pass this examination format.

These additions allow Egyptian providers to participate in international standardized assessment and be held to similar quality standards without the undue burden and cost of international travel to achieve these certifications.

In addition to high-quality training and international collaboration, ophthalmic surgery in Egypt also is supported by society and institute meetings where scientific talks are held, dry and wet labs are provided, and instructive courses are made available for residents. These are amazing educational opportunities to meet with colleagues and enjoy time at different cities in Egypt.

As a member of the ACS and RAS, representing my local chapter and the ACS Advisory Council for Ophthalmic Surgery, I have gained skills and knowledge by attending webinars, making many friends and networking with junior and senior surgeons from different parts of the world. I attended the first Africa Health ExCon in 2022, the largest medical meeting in Africa to date, representing RAS and discussing medical issues, surgical techniques, research, healthcare leadership skills, medico-legal and ethical issues, quality of patient care, and more.

Providers also are able to attend international meetings such as the ACS Clinical Congress and bring back to Egypt what they learned from these experiences. At the 2023 Watany Ophthalmology Summit, I led a panel discussion, ACS: Ophthalmic Surgery and Resident Opportunities. Through partnership with the ACS and participation in RAS, I hope to embody the motto of the ACS, “To Heal All with Skill and Trust,” by fostering international partnerships, innovation, and growth for ophthalmologists on a global scale.

Also, Dr. El Shahed was my academic support while applying for membership at the American Academy of Ophthalmology (AAO), and 3 years later, I am now a member of the AAO International Meetings Committee. I will represent the organization next month at an international meeting, discussing future retinal advances as a moderator and speaker.

I am happily working toward my career as a young ophthalmologist, subspecializing in vitreoretinal surgery and serving my patients in Egypt every day. The ACS continues to support me and other residents through webinars, CME, and volunteer opportunities that serve as reminders of the importance of coming together to maintain excellence in healthcare and eradicate inequities.

I would like to extend a special thank you to Professor Fathy Fawzy, chair of WEH, and Professor Mohey Eldine Elbanna, Governor of the ACS Egypt Chapter, for their kind support and guidance, and for facilitating the partnership between WEH and the ACS. B

Disclaimer

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

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Sympathectomy Has Two-Decade Prominence in Treating Peripheral Arterial Disease

Justin Barr, MD, PHD

In 1924, Australian surgeon Norman D. Royale, MD, delivered the keynote John B. Murphy Oration in Surgery at the ACS Clinical Congress on an unfamiliar topic—sympathectomy.

ALONG WITH HIS COLLEAGUE John I. Hunter, MD, Dr. Royale proposed severing the sympathetic nerve bundle as it exited the vertebral column to treat spastic paralysis.[1] The presentation inspired William J. Mayo, MD, FACS, and ACS founder Franklin H. Martin, MD, FACS, to visit Australia, learn the intricacies of the new technique, and bring it back to the US, where *The New York Times* announced hope for a cure of this intractable condition. In disproving its efficacy against paralysis, physicians discovered its utility in redressing peripheral arterial disease (PAD), where it flourished as a mainstay of treatment for the next 20 years.

Physicians had conceived a very rough equivalent of the autonomic nervous system since at least the Middle Ages, with anatomical investigations in the 16th century further defining their course. Anatomist Jacques B. Winslow—credited with first documenting the existence of the foramen that bears this name—called them "sympathetic" in 1752.

In 1851, French physiologist Claude Bernard reported that severing a sympathetic nerve resulted in the dilation of blood vessels. His countryman, surgeon Mathieu Jaboulay, performed the first known sympathectomy when he extirpated pelvic rami to relieve pain in a patient's lower urinary system. Dr. Jaboulay's student, vascular surgeon and physiologist René Leriche, conducted the first sympathectomy for peripheral vascular disease in 1913.[2] Dr. Leriche's work, however, remained confined to France; while later seen as inspiring and revelatory, it initially had only local effect.

Peripheral vascular disease at the time had few therapeutic options. Scottish surgeon John Hunter had demonstrated the value of ligation, but that therapy was appropriate only for aneurysms and

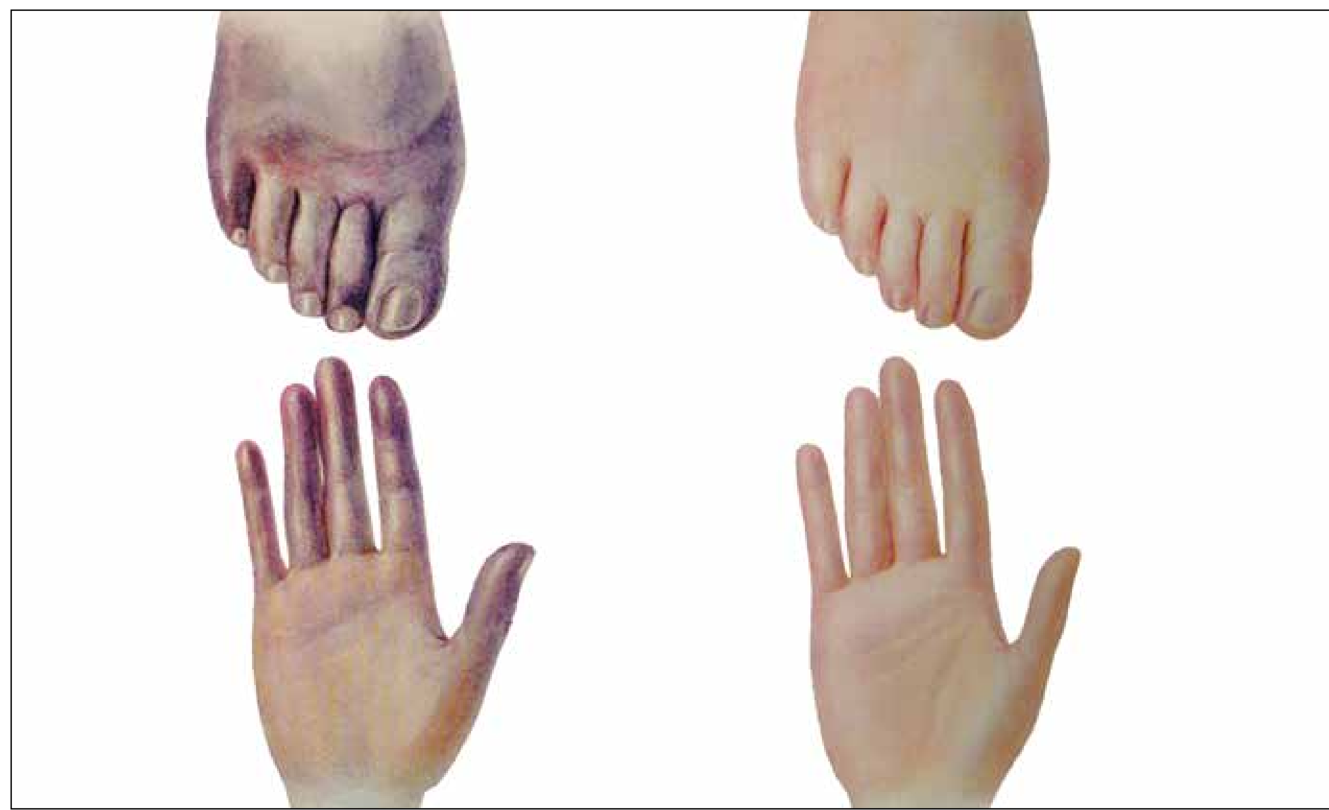

Figure 1.
Illustrations show patients who suffered from Raynaud's disease before and after sympathectomy, as performed by Drs. Adson and Brown.

Source: Adson, Alfred W. and Brown, George E. "The treatment of Raynaud's disease by resection of the upper thoracic and lumbar sympathetic ganglia and trunks." *Surg Gynecol Obstet* 48, no. 577-603 (1929): 186.

carried a significant risk of amputation. What we now call atherosclerotic vascular disease was becoming increasingly common in 20th century America as deaths from infectious etiologies, such as cholera and tuberculosis, fell and lifestyle changes led to calcified vessels throughout the body. Surgeons and other physicians quickly learned to diagnose the condition but lacked drugs or interventions to remedy it.

Drs. Martin and Mayo brought sympathectomy back to Chicago, Illinois, and Rochester, Minnesota, respectively, where surgeons quickly demonstrated its futility in curing paralysis. But Mayo Clinic physician George E. Brown, MD, had observed experiments by neurosurgeon Alfred W. Adson, MD, and noted that while paralysis remain unchanged, the limb on the side where Dr. Adson operated was markedly warmer than the contralateral extremity. Dr. Brown, already interested in PAD, hypothesized that the operation might benefit those patients instead, and performed a number of controlled experiments on animals to test this theory. In March 1925, Drs. Brown and Adson performed the first sympathectomy for vascular disease in a patient suffering from Raynaud's disease, curing him (see Figure 1, this page).[3]

As the operation spread, techniques changed. Dr. Adson initially made a midline laparotomy, accessing the spinal column anteriorly. W. McKay Craig, MD, another neurosurgeon at the Mayo Clinic, modified the exposure, approaching the spinal column posteriorly, which is a much less invasive intervention. James White, MD, and Paul G. Flothow, MD, both surgical residents at Mayo at the time, recognized the possibility of chemically interrupting the sympathetic chain with injections of ethanol.

Indications also broadened widely. Physicians recommended applying sympathectomies for conditions as varied as migraines, menstrual cramps, constipation, and epilepsy. Ultimately, research proved its inefficacy for most of these pathologies, but repeated studies, including those using recently invented angiography, consistently demonstrated benefit for patients suffering from PAD.

The operation gained widespread attention. The surgical literature featured hundreds of articles describing technical modifications, indications, and outcomes. The operation was featured as the topic for both the presidential address to the American Surgical Association in 1932 and the Hunterian Lecture at the Royal College of Surgeons in 1933 in London.

The Mayo Clinic was performing more than 200 sympathectomies per year by the late 1930s. In fact, the procedure received a "royal endorsement" when, in 1949, King George VI of England asked Scottish

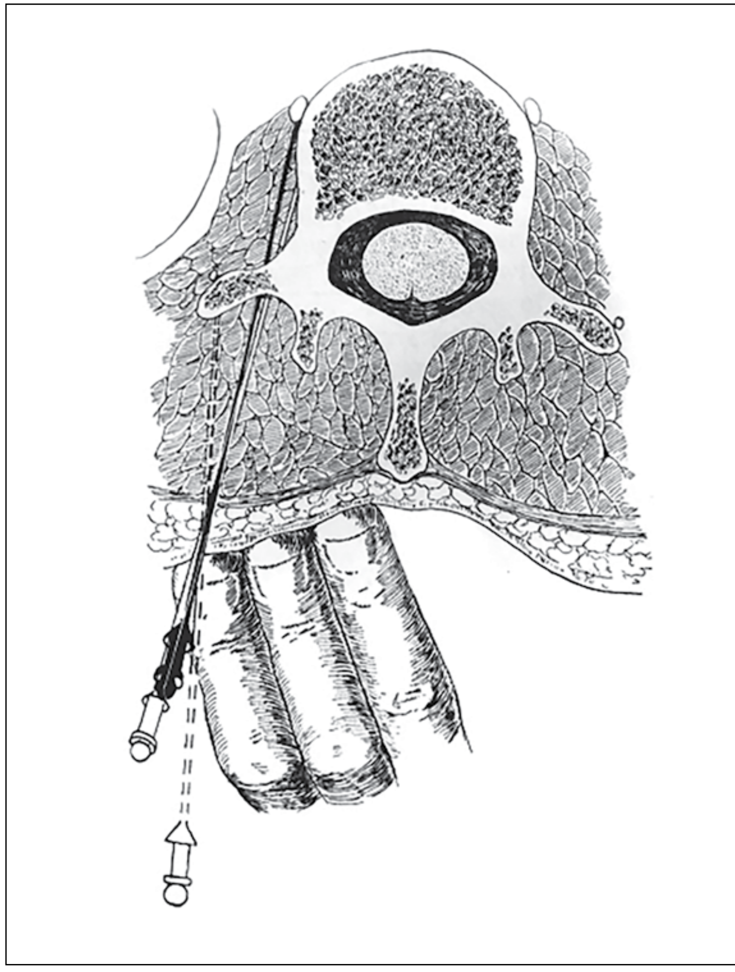

Figure 2. Illustration by Michael E. DeBakey, MD, FACS, shows how to perform a chemical sympathectomy to US military doctors.

Source: DeBakey, Michael E., "Traumatic Vasospasm," *Bulletin of the US Army Medical Department* 73 (1944):23-28.

surgeon James R. Learmonth to treat his Buerger's disease. Dr. Learmonth performed a lumbar sympathectomy, sparing the king an amputation.[4]

While the operation proved most successful in treating spastic diseases like Buerger's and Raynaud's, surgeons applied it to every vascular condition, including aneurysms and trauma. In an era when arterial ligation predominated as the treatment of choice, surgeons—and patients—depended upon collateral circulation to preserve their extremities. Dilating those vessels promised to increase the success of ligation and avoid limb loss.

Mims Gage, MD, a surgeon at Tulane University in New Orleans, LA, who had apprenticed with Rudolph Matas, MD, FACS, first proposed applying the technique for aneurysms. In 1934, Dr. Gage ligated the iliac artery while simultaneously performing a sympathectomy, treating a patient's iliac aneurysm while avoiding amputation. The combination approach quickly gained favor.

Based on these outcomes from civilian experiences, the Office of the Surgeon General insisted that military surgeons perform ligation plus sympathectomy for traumatically injured arteries during World War II (see Figure 2, this page).[5]

The Inter-Allied Surgery Conference continued to call for "more general use…of sympathetic blocks in an attempt to improve collateral circulation," demonstrating its perceived effectiveness. Actual use seemed to vary by unit. The 95th Evacuation Hospital reported performing sympathetic blocks in "nearly most every" case. In their 487 vascular cases, the 3rd Auxiliary Surgical Group applied sympathetic blocks in 340 patients—and in 94% of the ones requiring ligation.

Other hospitals reported far less frequent use. Both contemporary and retrospective data failed to demonstrate significant benefit of sympathectomy in the trauma population, likely due to wound patterns annihilating whatever collateral circulation might benefit from vasodilation. Despite the statistical ambivalence, most American surgeons remained convinced of the importance of the technique and regularly credited sympathectomy for saving limbs.

Importantly, World War II also provided preliminary data on the efficacy of repairing injured blood vessels through arteriorrhaphy, end to end anastomoses, and venous bypass grafts. While it would ultimately require another war, the Korean War, for these techniques to establish themselves as standard of care, they quickly overtook sympathectomies in the 1950s.

Sympathectomy retained a selective role for some vasospastic conditions like Raynaud's, but otherwise largely faded from use. For 2 decades, however, it represented one of the only physiologically sound surgical treatments for vascular disease. B

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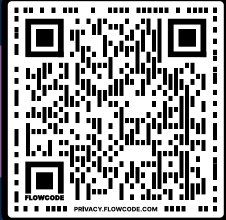

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New *Sentinel Event Alert* Updates Guidance on Preventing Surgical Fires

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

Any surgeon who has experienced a surgical fire knows how horrifying the event can be, and the results can be devastating for patients and their families.

SURGICAL FIRES CONTINUE TO OCCUR, causing significant harm not only to patients, but also to the surgical team and the operating room (OR) environment.

There isn't a national repository that collects data on surgical fires; ECRI estimates that 90 to 100 surgical fires occur annually in the US.[1]

In order to help healthcare organizations and surgical teams recommit to surgical fire prevention, The Joint Commission issued a new *Sentinel Event Alert*, "Updated surgical fire prevention for the 21st century."

The *Alert* stresses that each member of the surgical team is responsible for assessing all hazards that could contribute to a surgical fire, as well as observing the action of all other team members and speaking up immediately if any preventive risk or evidence of a possible fire is observed.

Perfect Conditions Exist for Fire in the OR

It is critically important that surgical teams become vigilant in preventing surgical fires in order to keep everyone safe. The operating theater has the perfect conditions for fire: ignition sources, oxygen, and fuel.

- **Ignition sources:** Sparks and/or heat from electrosurgical devices cause about 70% of the surgical fires occurring annually in the US.[2] One study found that surgical fires were most common with monopolar "Bovie" instruments, causing 88% of fires versus other instruments.[3]
- **Oxygen or oxidizing agents:** An elevated concentration of oxygen and other oxidizing agents that together is greater than the normal atmospheric oxygen level of 21% increases the risk of fire by decreasing the temperature at which

fuels ignite.[4] Oxygen-enriched atmospheres are reportedly involved in 75% of surgical fires.[5]

- **Fuel sources:** Alcohol-based skin preparations are common fuel sources during surgical fires when not allowed to completely evaporate. Other potential fuel sources include surgical drapes, sponges, towels, gauze, methane in bowel gas, and the patient's body hair.

From January 1, 2018, to March 29, 2023, 85 sentinel events related to fires or burns during surgery or a procedure were reported to The Joint Commission. Of these fires or burns, 58% were associated with electrosurgical devices, and approximately 15% were related to light sources for electrosurgical devices.

The Joint Commission's sentinel event database indicates that the leading factors contributing to surgical fires include shortcomings in teamwork and communication, work design, workforce/staff, and equipment. These include:

- A lack of a shared understanding and communication among surgical team members before or during the procedure
- An insufficient time-out to assess fire risk or perform a workflow verification step or safeguard
- A lack of competency to understand or recognize risks
- Overconfidence and risky behavior as well as distraction or loss of situational awareness
- Equipment malfunction or failure
- A lack of training or orientation with the equipment in the OR

Healthcare organizations can significantly lower fire risk to patients, surgical teams, and the OR environment by developing processes and procedures that prevent dangerous interactions between oxygen, ignition sources, and fuel.

The *Alert* identifies the following evidence-backed actions to prevent fires:

1. Ensure that the pre-surgery time-out includes a robust fire risk assessment for each surgical and endoscopic procedure
2. Maintain the local oxygen concentration at less than 30%, whenever possible
3. Carefully manage electrosurgical devices, light sources and cables, surgical draping, and other risks during a procedure
4. Provide training to OR staff on how to avoid and manage fires and conduct fire drills
5. Report all surgical fires via your facility's incident reporting system
6. Educate all OR personnel and team members about the risks of surgical fires

The *Alert* details these safety steps and more at: *jointcommission.org/resources/sentinel-event/sentinel-event-alert-newsletters/sentinel-event-alert-68-updating-surgical-fire-prevention-in-the-21st-century.* B

Disclaimer

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

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New ACS Surgeon Coalition Helps Bring Well-Being into Daily Practice

Surgeon well-being is recognized as a critical component of individual and institutional surgical success.

IN 2020, the ACS established a Surgeon Well-Being Workgroup to take on the consultation and initiation of new well-being programs in the College. As the group laid the foundation for the ACS's efforts, it was recognized that other surgical societies and organizations were doing similar work, and so, the entire House of Surgery was invited to be included. In spring 2023, the ACS asked more than 75 surgical societies and organizations to join the Surgeon Well-Being Coalition. Representatives from 40+ organizations met in October during Clinical Congress 2023 in Boston in order to officially establish this new Coalition.

During that meeting, the group decided that the Surgeon Well-Being Coalition will formulate, design, and enact wellness practices to benefit all surgeons, patients, and families at individual, group, and system levels. The coalition will advocate for healthy, sustainable systems and practices that bring well-being into the daily lives of surgeons as well as provide resources for crisis management by:

- Sharing materials and best practices, supporting research, learning about well-being initiatives, and leveraging infrastructure and support to benefit the well-being of all surgeons
- Bringing together all stakeholders, including practice, hospital, and university administrators, to work together to address systemic change needed to support surgeon well-being
- Solving roadblocks present for surgeons who feel they can no longer practice safely without professional assistance, especially access and barriers to Physician Health Programs
- Defining and sharing appropriate and effective metrics of well-being to include in the ACS's verification and accreditation programs

There are many exciting initiatives that already are underway as a result of this initial meeting, such as collating a living resource book of current and future well-being resources from each member organization.

Other high-priority goals defined by the group to be initiated in the coming year include:

- Standardizing a definition of well-being as it applies to surgeons, and developing surgeon-specific metrics to follow well-being over time
- Developing robust prevention strategies to help surgeons maintain their well-being
- Advocating for surgeon support at all levels and for all surgeons after adverse outcomes or other major personal injuries

The coalition is open to all surgical organizations and societies.

More information—including an interest form, resource book, and upcoming meeting details—is available at *facs.org/wellbeing-coalition*.

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Dr. Anthony Atala Is New Board of Regents Chair

ANTHONY ATALA, MD, FACS, is the new Chair of the ACS Board of Regents (BoR). The announcement of his election to a 1-year term came during Clinical Congress 2023 in Boston, Massachusetts.

Dr. Atala, a pediatric urologist, is the George Link Jr. professor and director of the Wake Forest Institute for Regenerative Medicine, and the W. H. Boyce professor and chair of urology at the Wake Forest University School of Medicine in Winston-Salem, North Carolina. He is recognized for his groundbreaking work in regenerative medicine and tissue engineering.

"It's an honor and a privilege to chair the Board of Regents of the ACS," said Dr. Atala. "I look forward to collaborating with my colleagues as we continue to work collectively to improve the care of the surgical patient and serve our members as they strive to deliver the highest quality of surgical care."

As Chair, Dr. Atala also will lead the BoR Finance and Executive Committees, as well as work in concert with ACS Executive Director and CEO Patricia L. Turner, MD, MBA, FACS. The Board, comprised of 24 members, shapes policies and supervises the overall management of the College. The varied backgrounds and expertise of the Board members allow for a broad representation of the surgical community and its multifaceted perspectives on current issues.

An ACS Fellow since 1996, Dr. Atala has served as a member and Chair of the Advisory Council for Urology, a member of the Board of Governors, and has been a strong and thoughtful contributor to the ACS Surgical Forum and Surgical Research Committee. He presented the prestigious Martin Memorial Named Lecture, titled Regenerative Medicine: New Approaches to Health Care, during the ACS Clinical Congress in 2010.

Dr. Atala's innovations in regenerative medicine have earned a reputation as a pioneer in the field and numerous accolades, including the 2022 ACS Jacobson Innovation Award.

In addition to his role with the ACS, Dr. Atala has been an active member and leader in several professional and governmental organizations, contributing his expertise to the National Institutes of Health, the National Cancer Institute's Advisory Board, and founding multiple societies dedicated to the advancement of regenerative medicine. He has published more than 800 peer-reviewed journal articles and holds more than 300 national and international patents.

Dr. Michelassi Is Vice-Chair

Fabrizio Michelassi, MD, FACS, a gastrointestinal surgeon, was elected Vice-Chair of the BoR.

Dr. 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 is renowned for his expertise in the surgical treatment of gastrointestinal and pancreatic cancers, as well as for his innovative treatments for inflammatory bowel disease, such as Crohn's disease and ulcerative colitis.

An ACS Fellow since 1987, Dr. Michelassi has held several leadership positions in the organization. He has been Regent since 2016, serving on the BoR's Research and Optimal Patient Care Committee, Antiracism Committee, and others. Since 2021, Dr. Michelassi has been Chair of the Program Committee, which designs the educational program of Clinical Congress. He also has been Chair of the Board of Governors and served on numerous other ACS committees. B

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NEWS

2023 TQIP Annual Conference Focuses on Trauma Center Readiness and Survivorship

Tony Peregrin

The 2023 Trauma Quality Improvement Program (TQIP) Annual Conference, which took place December 1–3 in Louisville, Kentucky, featured educational programming tethered to the meeting's theme—Road to Recovery—and included presentations describing clinical best practices, the value of ACS Quality Programs, and a powerful story of trauma survivorship.

THE CONFERENCE DREW 1,916 in-person and 387 on-demand registrants. On-demand registration remains open through April 3, 2024.

Trauma Center Preparedness

"We know there are significant benefits to being cared for in a trauma center," said Avery B. Nathens, MD, PhD, MPH, FACS, FRCSC, Medical Director of ACS Trauma Quality Programs. He cited a study published in *The New England Journal of Medicine* that found patients cared for in a trauma center have a 20% lower mortality rate and a better quality of life. (The study, published in 2006, was coauthored by TQIP keynote speaker, Ellen J. MacKenzie, PhD.)

Trauma center care, while cost effective, also is expensive. Outlining the costs associated with trauma center preparedness (including program leadership/support, clinical medical staff, education/outreach, and in-house OR availability), Dr. Nathens suggested that trauma activation fees represent part of the solution. Costs also can be offset by providing high-value care driven by benchmarking reports, conducting effective quality improvement initiatives, and by ensuring high-quality documentation that reflects case complexity.

After discussing the benefits and costs associated with trauma care, Dr. Nathens provided an update on key TQIP initiatives such as the new Verification, Review, and Consultation Program standards, which were implemented September 1, 2023, with 67 site visits as of November 15.

"We don't intend to go back to every site visit being conducted in person…and the perceptions of value of virtual versus in-person visits are variable. I think a reasonable compromise is that if we're seeing your center for the first time then there's a significant chance it will be an in-person site visit," he said.

Dr. Nathens also provided

Dr. Patricia Turner

Dr. Avery Nathens

updates regarding the program's renewed focus on rural trauma; the statuses of the Patient Reported Outcomes pilot and the TQIP Mortality Reporting System; and changes to the ACS TQIP Benchmark Report expected this spring.

Executive Session

The Executive Session—part of the new Executive Track developed with hospital quality thought leaders in mind—highlighted the value of ACS Quality Programs, including the trauma center verification program, and provided insights on The Power of Quality Campaign presented by ACS Executive Director and CEO Patricia L. Turner, MD, MBA, FACS.

"There are more than 1,200 hospitals participating in our Quality Programs that are already displaying the ACS Surgical Quality Partner diamond plaques," said Dr. Turner. "By October 2024, we aim to have the diamond in 2,500 US hospitals."

There are four primary stakeholders connected to the Quality Campaign: patients, surgeons, hospital systems, and payers and policymakers.

"Quality is not an act, it is a habit," said Dr. Turner, quoting Aristotle. "This is something that all of you do. You are, in many ways, our best ambassadors."

Clifford Y. Ko, MD, MS, MSHS, FACS, Director of the ACS Division of Research and Optimal Patient Care, compared the value of ACS and Vizient in terms of measuring outcomes. "I can't say wholeheartedly that one is better than the other. Both organizations seek to improve care, outcomes, and value. Some aspects overlap and some are unique. To achieve data validity, completeness, and feasibility—a combination of ACS and Vizient data might be ideal—and early discussions are underway."

"TQIP standards will continue to support the structure and processes that are fundamental to achieving quality, while also supporting reliability," he said. "The ability to evaluate, surveil, and benchmark [performance] will advance as technology, such as automation and artificial intelligence, continues to advance."

The next presentation described the "halo effect" of trauma centers on the hospital's overall quality improvement initiatives. "The presence of a Committee on Trauma (COT)-verified trauma center hardwires a culture of high reliability across the entire hospital," said Michael Chang, MD, FACS, system chief medical officer and associate vice president for medical affairs at USA Health in Mobile, Alabama.

Dr. Chang noted that this influential halo effect is driven by the 109 distinct standards outlined in the *Resources for Optimal Care of the Injured Patient* manual. Each standard is organized

into nine domains, including patient care expectations/protocols, data surveillance, research, and others. Adherence to these standards means that performance and processes are consistent from center to center, and this uniformity helps achieve better outcomes.

"The maturity of the COT verification program has led to an extraordinary opportunity for hospitals in the quality space. It is our obligation as trauma leaders to own this opportunity and ensure that our hospital and health system leaders understand what our trauma programs have to offer," he said.

Deb Brown, RN, BSN, MHA, vice-president and chief operating office of Dell Children's Medical Center in Austin, Texas, outlined strategies for securing C-suite support for the trauma program. "Why do we invest in trauma? It's really about the patients, and at the end of the day, you know that [these programs] provide improved outcomes with organized, high-quality, effective, and efficient care," explained Brown.

Trauma care also enhances a hospital's reputation, which can result in support and resources at the local, state, and national levels. "We're taking care of the most vulnerable patients in our communities...We get to publicize our outcomes and what we're doing with patient families," she said, noting that promoting trauma care and injury prevention is "like mom and apple pie."

Obtaining resources for a trauma center should be based on a 3-year strategic plan with quarterly reviews that examine market share, staffing, equipment, and programs. Fostering 100% engagement with surgeon leaders is the "secret sauce" to achieving buy-in, she said, primarily by educating hospital administrators on ACS

During the Trauma Survivor session, Tate and his mother Nicole Reynolds joined Dr. Anne Rizzo to discuss the story of Tate's recovery.

“We learned something about family and bonds. These are my people. We are a trauma family. I want you all to build that family at your center as well because that is when you get these outcomes.”

Dr. Anne Rizzo

and state standards and best practices, and by describing to them what other successful organizations are doing.

Come prepared when making a request to administrators, advises Brown. Be aware of the current state of affairs; provide background (history and data); and make a recommendation that includes financial implications, describing the return on investment—which might not be monetary.

Trauma Survivor Session/ Tate’s Story

Illustrating the collaborative nature of the entire trauma care team, this year’s Trauma Survivor session featured Tate and his mother Nicole Reynolds, who shared the story of Tate’s remarkable recovery after leaping over the back of a couch and landing on a misplaced steak knife. Tate, 11 years old at the time (2017), coded three times—his aorta sliced in half, his kidney lacerated, and the knife lodged into his spine.

Anne G. Rizzo, MD, FACS, the system surgical chair at Guthrie Clinic in Sayre, Pennsylvania, was Tate’s attending surgeon at Inova Fairfax Hospital in Falls Church, Virginia. Dr. Rizzo moderated the session and shared her perspective as a trauma care provider.

Dr. Rizzo described trauma surgery as “the ultimate puzzle” that requires all the pieces to work together correctly: “It was just about at shift change. We had the crew that was basically getting ready to go home—they stayed. The new crew came in, and they assisted as well so we actually had two crews of people working for hours to keep this boy alive.”

“When Tate came in and I looked at his initial x-ray as we were rushing him to the operating room, I thought ‘Oh my god, I don’t know that I can save this boy,’ because that knife was in the center of his ability to live,” said Dr. Rizzo in a video developed by the Inova Health Foundation and presented during the session.

Despite the severity of his injuries, Tate is alive today due to the excellent care he received from Dr. Rizzo and the entire trauma care team. “We learned something about family and bonds,” Dr. Rizzo said. “These are my people. We are a trauma family. I want you all to build that family at your center as well because that is when you get these outcomes.”

Keynote Address: Assessing Trauma Survivorship

In the 2023 TQIP Keynote Address, Dr. MacKenzie, dean and Bloomberg Distinguished Professor at Johns Hopkins Bloomberg School of Public Health in Baltimore, Maryland, described the impact of individual and environmental factors on the recovery process for trauma survivors.

“TQIP has played an important role in assessing the data for risk-adjusted benchmarking and so much more,” Dr. MacKenzie said. “Your efforts as stewards of the National Trauma Data Bank®, your local registries, as well as TQIP are no small measure responsible for the major advances we’ve seen in the quality of trauma care and its impact on trauma case fatality and morbidity.”

Unfortunately, routine data collection ends once the patient

is discharged by the trauma center, which is a missed opportunity for identifying areas for systemic improvement.

Dr. MacKenzie cited the landmark report *A National Trauma Care System: Integrating Military and Civilian Trauma Systems to Achieve Zero Preventable Deaths After Injury*, which called for existing trauma registries to develop mechanisms for incorporating long-term outcomes (e.g., patient-centered functional outcomes, mortality data at 1 year, and cost data).

She highlighted the evolving recognition of patient-reported outcomes, which she said provided an "important perspective of treatment and efficacy and complements what is captured by what many clinicians would view as more objective measures such clinical assessments."

Dr. MacKenzie also outlined the psychosocial and mental health sequalae of physical trauma, noting that psychological distress following trauma is common, and while most patients do not meet the diagnostic criteria for major disorders, even moderately elevated levels lead to poor outcomes.

Resources such as the ACS Trauma Quality Programs (TQP) *Best Practices Guidelines for Screening and Intervention for Mental Health Disorders and Substance Use and Misuse in the Acute Trauma Patient* are recommended to aid in the recovery process for trauma survivors.

"This is a great source of information on screening. It reviews several brief screening tools that have been validated specifically for hospitalized trauma patients, both adults and children," she said. "And while some questions remain regarding who should do the screening, when it should be done…we do have a set of tools that we can fall back on and deploy."

No Margin, No Mission

"The annual national inpatient trauma costs are estimated to be $30,741,846,525," said session moderator Andrew Bernard, MD, FACS, trauma medical director at the University of Kentucky in Lexington, citing a study published in the *Journal of Surgical Research*.

In this session, panelists outlined potential trauma center revenue streams and strategies for reducing costs. "Cost analysis and economic evaluation are critical to allow hospital to remain open and to continue to provide care," said Dr. Bernard.

R. Shanyn Martin, MD, MBA, FACS, professor of surgery at Atrium Health Wake Forest Baptist in Winston-Salem, North Carolina, described three sources that generate revenue for trauma centers: diagnosis-related groups (DRGs)—a system that groups patients with similar diagnoses together and associates the type of patients a hospital manages to the cost of care; Case Mix Index (which includes DRG weights for all cases); and professional billing (driven by Current Procedural Terminology codes, and is predominately fee-for-service).

After highlighting potential sources of revenue, Dr. Martin addressed key costing methodologies, including micro-costing, time-driven/activity-based costing, gross costing, and expenditure-based costing. "Highly accurate healthcare costing can be challenging. You often need to use a surrogate of actual costs," he said.

The next presentation—delivered by Elliott R. Haut, MD, PhD, FACS, vice-chair of quality, safety, and service and professor of surgery at Johns Hopkins Medicine in Baltimore, Maryland—considered the benefits and challenges associated with trauma center activation fees.

"Trauma centers are like fire and police departments because we are required to be available 24 hours, 7 days a week," Dr. Haut said. That level of expectation compels these centers to make "considerable investments in readiness," regardless of patient volume or insurance status.

"Readiness costs are real, and someone has to pay for them," he said, noting that trauma activation fees may be a viable solution. Trauma activation fees, which Dr. Nathens mentioned in his opening remarks, bills patients, via their insurance, for the readiness of the trauma center. This bill is in addition to other bills (emergency department-related changes, facility fees, and so on), and is a tiered charge based on trauma activation level.

"Trauma center activation fees are here to stay," said Dr. Haut.

“The way you manage people is the most important part of implementing anything you do in trauma care.”

Robbie Dumond

“I think standardizing the fee is a good idea as is in greater parity and transparency with these fees.”

Kimberly Davis, MD, MBA, FACS, chief of the Division of General Surgery, Trauma, and Surgical Critical Care at Yale School of Medicine in New Haven, Connecticut, offered practical suggestions for increasing revenue, including optimizing coding (considering conditions unrelated to the incident procedure in the perioperative period); standardizing order sets and care pathways to minimize complications; and understanding quality data and where there are opportunities (mortality index and the case mix index).

Closing out the session, Jason W. Smith, MD, PhD, MBA, FACS, chief medical officer at the University of Louisville Health in Kentucky, emphasized reducing variability in practice, specifically through external benchmarking and adherence to best practice guidelines, such as TQIP’s, as an approach to reduce costs and increase value in trauma care.

TQP Best Practices Guidelines in the Management of TBI: A Revision

“There has been an exponential increase in traumatic brain injury (TBI) data since 2015,” said J. Claude Hemphill III, MD, MAS, professor of neurology at the University of California San Francisco, referring to the year the TBI best practices guidelines originally were published.

The soon-to-be released updated guidelines feature input from every specialty that manages TBI care, from triage to follow-up and recovery, and includes new or expanded content sections on the following topics: blood-based biomarkers, tiered management of intracranial pressure, prognostic assessment and family communication, pharmacological management, and more.

One important update to the new best practices guidelines occurs in the imaging section. According to Dr. Hemphill, the guidelines now suggest that a negative head computed tomography scan no longer rules out TBI.

Strategies for implementing the best practices guidelines into a trauma center should include a gap analysis (determine current state and desired future state); an action/education plan (set expectations, establish leadership and other roles); and performance review (develop performance improvement metrics and a plan, integrate with TQIP outcomes).

“The way you manage people is the most important part of implementing anything you do in trauma care,” said Robbie Dumond, MHA, BSN, TCRN, AEMT, vice-president of operations at the University of Colorado Hospital in Aurora. “Change readiness should not be assumed.”

The 2023 TQIP Annual Conference on-demand content (general and breakout sessions) will be available for both in-person and on-demand registrants this month.

The 2024 TQIP Annual Conference will take place November 12–14, in Denver, Colorado. B

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

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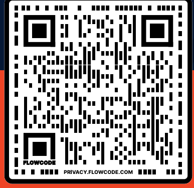

Member News

Rodriguez Takes Helm as SBAS President

Dr. Luz Rodríguez

Luz María Rodríguez, MD, FACS, was elected president of the Society of Black Academic Surgeons (SBAS). This marks the beginning of a historic presidency as Dr. Rodriguez is the first Afro-Latina surgeon and the fourth woman to lead the organization, which works to improve health, advance science, and foster careers of African American and other underrepresented minority surgeons. Dr. Rodríguez is a board-certified general surgeon and a dual fellowship-trained surgical oncologist and colorectal surgeon who serves as program director and medical officer in the gastrointestinal and other cancers research group of the National Cancer Institute Division of Cancer Prevention. She also is a senior staff/faculty surgeon at the Uniformed Services University of the Health Sciences and Walter Reed National Military Medical Center, both in Bethesda, Maryland.

Stewart Is Named SBAS President-Elect

Dr. John Stewart

Oncologic surgeon John H. Stewart IV, MD, MBA, FACS, was named president-elect of the Society of Black Academic Surgeons (SBAS). Dr. Stewart currently serves as the chair of the Department of Surgery at Morehouse School of Medicine (MSM), chief of surgery for MSM at Grady Health System, and associate dean for oncological programs at MSM, all located in Atlanta, Georgia. For the ACS, he is the former Chair for the Advisory Council Chairs and Advisory Council for General Surgery, and is a member of the ACS Foundation Board of Directors.

Gillaspie Is Chief of Thoracic Surgery at Creighton

Dr. Erin Gillaspie

Erin A. Gillaspie, MD, MPH, FACS—a cardiothoracic surgeon—is the founding chief of thoracic surgery at Creighton University Medical Center in Omaha, Nebraska. Previously, Dr. Gillaspie was assistant professor and head of thoracic surgery robotics in the Department of Thoracic Surgery at Vanderbilt University Medical Center in Nashville, Tennessee.

Cooke Takes Over as Interim Physician-in-Chief

Dr. David Cooke

David Tom Cooke, MD, FACS, has been appointed interim physician-in-chief for the University of California (UC) Davis Comprehensive Cancer Center and UC Davis Health in Sacramento. In this position, he will lead the development and oversight of the cancer center's performance targets and metrics, setting standards of care, measuring and improving clinical outcomes, and disseminating best practices. At UC Davis, Dr. Cooke, who is a cardiothoracic surgeon, also is vice-chair for faculty development and wellness in the Department of Surgery and founding chief of the Division of General Thoracic Surgery.

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.

Wong Will Lead Emory School of Medicine

Dr. Sandra Wong

Surgical oncologist Sandra L. Wong, MD, MS, FACS, has been named the dean of Emory University School of Medicine and chief academic officer for Emory Healthcare in Atlanta, Georgia. She will be the first female dean of the School of Medicine when she joins Emory in March. Dr. Wong currently is chair in the Department of Surgery at Dartmouth Hitchcock Medical Center Lebanon, New Hampshire, and professor of surgery in the Geisel School of Medicine at Dartmouth in Hanover, New Hampshire.

Becker Joins LifeGift as Chief Medical Officer

Dr. Yolanda Becker

Yolanda Becker, MD, FACS, a general surgeon, is the new chief medical officer and vice president at LifeGift—the organ procurement organization for North, Southeast, and West Texas. In addition to her role at LifeGift, Dr. Becker has a dual appointment as professor of medical education and surgery, and director of career and professional development at the Burnett School of Medicine at Texas Christian University in Fort Worth. Previously, she served as professor of surgery and director of pediatric and adult kidney transplant in the Department of Surgery at The University of Chicago Medicine in Illinois.

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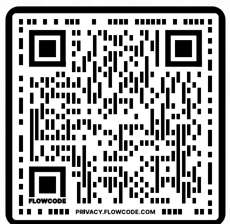

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