


PHYSICIAN WELLNESS

Reducing Burnout


SEE PAGE 12



CLINICAL OBSERVATION

How To Avoid Missing an Aortic Dissection

SEE PAGE 14



TOP TEN

Communicating Empathy in Chaos

SEE PAGE 15

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The Official Voice of Emergency Medicine

JUNE 2023 Volume 42 Number 6

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PEARLS FROM EM LIT

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SEE PAGE 18



PRACTICE CHANGERS

CAP Updates: MRSA and Pseudomonas Coverage

SEE PAGE 21



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Putting a Local Lens on National Issues

West Virginia EPs explain the challenges of rural emergency care to their state legislators at LAC23

Catherine “Kirby” Kirbos, MD, is a fellow at West Virginia University who works at several different emergency department (ED) sites, from the state’s Level I trauma center to rural, critical access sites. When she works overnights at Braxton County Memorial Hospital in Gas-saway, West Virginia, her three-woman team (herself and two nurses) receives pa-

tients from six small towns nearby. “Small but mighty,” is how Dr. Kirbos describes it.

As a member of the West Virginia delegation at ACEP’s Leadership & Advocacy Conference (LAC) in May 2023, Dr. Kirbos got a chance to explain her day-to-day challenges to her state’s legislators, including Sen. Joe Manchin. LAC is all about taking the na-

CONTINUED on page 4

Emergency Physicians as State Legislators

Catching up at LAC

by CEDRIC DARK, MD, MPH

During the recent Leadership and Advocacy Conference (LAC) in Washington, D.C., I met with two emergency physicians who are currently elected to their state legislature, Amish Shah, MD, MPH, and Arvind Venkat, MD, FACEP.

DR. AMISH SHAH

Dr. Shah: I’m in the state legislature in Arizona and I’ve learned a lot about politics during that time [five years]. I got into this because of public service. That is the motivation. I was practicing medicine for 15 years and realized that you can control what happens within the four walls of the ER, but you can’t control what comes in through the front door. Public policy and politicians help decide how that works. I saw that you could multiply your effect many times forward. So it was in that mindset that I decided to run for office for the very first time in 2017, and I won my first election in 2018. I’ve

CONTINUED on page 8

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IN THE EVALUATION OF MILD TRAUMATIC BRAIN INJURY (mTBI)

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The test is to be used with plasma prepared from (EDTA) anticoagulated specimens in clinical laboratory settings by a healthcare professional. The *i-STAT TBI Plasma* test is not intended to be used in point of care settings.

References; 1. i-STAT TBI Plasma Cartridge. Instructions for use. Abbott Point of Care Inc. Abbott Park, IL; 2021. 2. Data on file. Abbott Point of Care Inc.

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NEWS FROM THE COLLEGE

UPDATES AND ALERTS FROM ACEP

Bonus Content: ACEP23 Registration Now Includes Free Access to Virtual ACEP23

For the first time ever, those who register for all four days of ACEP23 will receive Virtual ACEP23 for free (that's a \$259 value!) Now you can avoid having to choose between two equally compelling sessions because you'll automatically have on-demand access to the Virtual ACEP23 courses for 12 months after the conference. Maximize your learning without spreading yourself too thin in Philadelphia this fall—after all, the city itself has a lot to offer, and you don't want to miss out on the fun. We'll need time to soak in the amazing history, delicious food, and brotherly love. In honor of Philly's famous Liberty Bell, save \$50 on registration with promo code BELL at acep.org/acep23.

Two New Pediatric EM Resources Available

Learn all the skills you need to care for and treat even the most complicated pediatric patients with these two new resources.

Virtual PEM23 includes all the educational content from ACEP's 2023 Advanced Pediatric Emergency Medicine Assembly. Featuring the biggest names in pediatric education, this collection includes all 46 courses listed below and provides 23.5 CME hours.



Pediatric Trauma Special Edition of Critical Decisions in Emergency Medicine is focused on the ED evaluation and management of trauma cases in the pediatric population, including information about initial stabilization, cervical spine injuries, burns and inhalation injuries, blunt trauma in athletes, and return-to-play decisions. This issue also looks at nonaccidental trauma, when to have a high index of suspicion for it, and how to treat patients and e



Indiana Now Requires Hospital EDs to Have a Physician On Site

Indiana recently passed legislation that will require every emergency department in the state to have a physician onsite and responsible for the ED. Thanks to the tireless advocacy of Indiana ACEP, patients who need emergency care across the state of Indiana now have reassurance that a physician will be in the emergency department at all hours to provide high quality patient care. Indiana ACEP was directly involved in the legislative process from the start. Emergency physician expertise and support was instrumental in developing the language and rallying support for the new law.

"This victory is a strong example of what's possible with ACEP advocacy and the importance of working with our state chapters," said Christopher Johnson, ACEP senior director of state government relations. "This is a huge win for emergency physicians and patients, and an undeniable testament to the importance of emergency physician leadership." Read more at www.acep.org/indiana-victory.

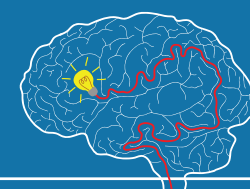
ACEP Nowcast Features ACEP President Dr. Chris Kang

Did you catch our May edition of *ACEP Nowcast*? Podcast host Amy Ho, MD, interviews ACEP President Chris Kang, MD, FACEP, in a wide-spanning discussion touching on ACEP initiatives to improve mental health care access, boarding, workforce, and more. Catch the full interview on your favorite podcast platform or at acepnow.com/podcast.

Caring for Sickle Cell Disease in the Emergency Department

World Sickle Cell Day is June 19, and it's a good opportunity to explore helpful resources related to caring for sickle cell disease in the emergency department. ACEP has a point of care tool that outlines communication, triage, history, evaluation, treatment and disposition that is available at acep.org/sickle-cell or on the *ACEP Mobile* app. ACEP also offers a sickle cell disease CME education bundle in its Online Learning Center at acep.org/OLC. ➕

WHAT ARE YOU THINKING?



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ACEP NOW, P.O. BOX 619911, DALLAS, TX 75261-9911; AND
FAXES TO 972-580-2816, ATTENTION ACEP NOW.



Meet the West Virginia contingent at LAC23: Catherine Kirbos, MD; Adam Crawford, DO; Kaitlyn Meads, DO; Hannah Marvin, DO; Carol Wright Becker, MD; Christopher Goode, MD; Darcy Autry, MD.

LAC WEST VIRGINIA | CONTINUED FROM PAGE 1

tional issues that every emergency physician at the conference is lobbying for—in this case, ED boarding and workplace violence—and making it come to life for legislators by explaining how it is happening in their own backyard.

What is happening in West Virginia's backyard? Quite a bit, actually. In January 2023, *Forbes* ranked West Virginia as the least healthy state in the country.¹ The state tops the country in overdose deaths per population.² West Virginia has the highest percentage of adults who smoke and the second-highest obesity rate in the country. The state's high poverty rate and challenging terrain cause many to defer basic health care, leading West Virginia to rank the highest of all states in mortality rates for cancer, diabetes, heart disease, and kidney disease.²

"Here in West Virginia, we try to take a rural perspective on everything," said Chris Goode, MD, FACEP, who was making his 10th trip to LAC. "When you're working with your local Congressmen, Congresswomen, Senators, it is really important to put that statewide perspective on these very national issues."

Many of these health problems and access-to-care concerns come to a head in West Virginia's emergency departments, both big and small. Like many emergency departments across the nation, the state's larger EDs are

overcrowded. When those facilities have no room to accept transfers, that puts the emergency physicians at the smaller rural facilities, like Dr. Kirbos at Braxton Memorial, in a tough spot.

"We are managing extremely sick patients in small critical access hospitals to the best of our ability, waiting for transfer elsewhere," she explained. "Even worse, when we do finally get a patient accepted at the larger facility for transfer, we often don't have an ambulance or EMS crew to transport them because we are stretched so thin."

The emergency physicians from West Virginia gave their legislators vivid descriptions of how psychiatric boarding, specifically prolonged pediatric psych boarding, can really limit the beds available to see other patients who desperately need care.

They found an understanding ear when meeting with the health advisor for Sen. Shelley Moore Capito, who had recently introduced one of the bills ACEP members were lobbying for during their meetings, S.1346: *Improving Mental Health Access from the Emergency Department Act*. The bill would help address a significant component of psychiatric boarding by providing grants to EDs to increase access to follow-up psychiatric care for patients, such as expedited placement, increased tel-

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The West Virginia group of emergency physicians discusses ED boarding and workplace violence concerns with Sen. Joe Manchin at LAC23.

psychiatry support, expanded availability of inpatient psychiatric beds, increased coordination with regional service providers, and regional bed availability tracking and management programs, based on the individual needs of their EDs and communities.

When the West Virginia contingent explained to their legislators why ED violence is such a concern, Dr. Kirbos set the scene.

“Up until very recently, within the last couple months only, [Braxton Memorial] had no formal security guards,” Dr. Kirbos said. “It can be daunting when you have an all-female night shift team and a belligerent, violent pa-

tient presents. While we have been trained in de-escalation techniques and the use of proper safety chemical and physical restraints, our lack of security and/or police support is a real problem. The police force monitors multiple local towns and are stretched thin with resources overnight as well, so a call for response to our facility often takes at least 20 minutes.”

The group talked extensively about how the state’s high rates of drug use increases the risk of workplace violence for all health care workers. They asked their legislators to support the *Workplace Violence Prevention for Health Care and Social Service Workers Act*, and the *Safe-*

ty from Violence for Healthcare Workers Act, which would require employers to set safety protection standards for workers and provide additional funding and resources for security needs, respectively.


After a big day of meetings, the West Virginia emergency physicians felt like they did their best to help legislators understand how these national problems are affecting them in EDs across the state.

“There’s something special about going in person to speak to our state legislators,” said Dr. Kirbos. “It’s difficult to visualize and understand our needs through email or a phone

call. Change best happens by showing up—telling our personal stories, painting a picture of what the small, critical access ED really looks like, giving a glimpse into the life and challenges that we lead as health care clinicians.”

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TOXICOLOGY Q&A



PHOTO: JASON HACK (OLEANDER PHOTOGRAPHY)

Often Associated with Theology and Infection

by JASON B. HACK, MD

QUESTION: What Biblical plant causes severe eye irritation if handled improperly?

ANSWER on page 16

Back Together Again

A group of emergency physician advocates poses between LAC23 legislative meetings.



PHOTOS BY RENEE FERNANDES/ACEP

LAC23 reminds us we aren't alone as we push for change

by L. ANTHONY CIRILLO, MD, FACEP

ACEP's Annual Leadership & Advocacy Conference (LAC) was held April 30–May 2 in Washington, D.C. With Congressional offices finally back open for in-person meetings, more than 450 emergency physicians from 42 states were back in force in the nation's Capitol to advocate for emergency physicians.

There was a palpable energy and great vibe to the whole meeting, which was literally standing room only for almost every session! Let's be honest, being together matters. Given all of the challenges that we are facing in the ED, being able to share those experiences, and how we are feeling is really important. This LAC was a particularly empowering meeting, reminding us that we are not alone in fighting to improve for the things that make our professional lives and patient care better.

The Emergency Medicine Residency Association (EMRA) and ACEP's Young Physicians Section hosted their annual pre-conference Health Policy Primer, an event geared toward EM physicians who are new to policy and advocacy. They tried a new interactive format for 2023. After hearing about different aspects of the U.S. health care system from Drop the Mic presenters, attendees broke into small groups for an interactive design-thinking challenge to build an ideal health care system from scratch. A panel of experts discussed the pros and cons of each proposed system with the audience. It's amazing how much energy and passion this half-day Policy Primer brings to the conference.



Sen. Maggie Hasan provides an update on mental health legislation during LAC23.

This year's Sunday program also included a meeting of the ACEP Council Steering Committee, a special Chapter Leaders Session, a meeting of the ACEP Board of Directors and a "wicked awesome" half-day conference entitled "Power Up: Women in Emergency Medicine Leadership" which was presented by ACEP's American Association of Women in Emergency Medicine (AAWEP).

In a keynote address to a packed room at ACEP's DC headquarters, Dr. Dara Kass discussed her role with the Department of Health and Human Services and spoke to the passion and purpose she has gained from more than 20 years of serving on the front lines.

"Education and engagement are the key first steps to making everything work better in emergency medicine," Dr. Kass noted. "Things in emergency departments are challenging today. We need to do more for ourselves and our patients—if not us, then who?"

Monday's lineup featured presentations and discussions that were all about empowering individual emergency physicians to



The Rhode Island contingent meets with Sen. Jack Reed.

own their future. Powerful talks on "Influencing Your Workplace from Within" and "Policy Leadership: Opportunities for Emergency Physicians to Govern" provided insights into opportunities for emergency physicians to advocate and lead for the changes needed to improve our practices and the healthcare system.

As one of the panelists for the "Opportunities to Govern" session, Brendan G. Carr said the creative mindset of an EM physician is an asset in government, as well. "There is enormous opportunity to take the ideas that exist within emergency medicine—the way that we think about health care delivery and our role in the health care delivery system—and bring that strategy to the government and carve out for them what it ought to look like. There's hunger for it."

Breakout lunch sessions included three interactive panel discussions: "Beyond the Burnout: It's Not Just You," "Shaping the Future, Confronting the Past: Fostering the Next Generation of Health Equity Leaders," and a training session for ACEP's new "Advocacy

Leaders" group.

Not to be outdone, the afternoon sessions were just as powerful, including presentations on "The Workforce of Emergency Medicine: Update and Next Steps," "Dobbs v. EMTALA – Emergency Medicine after Roe," "The State of Advocacy: EM Success Stories from State Legislatures," and Advocacy Breakout Sessions on "Scope of Practice Update and Tools You Can Use," "Advanced Advocacy: Influencing from Home" and "How ACEP Advocacy has Turned into Laws."

One of the most impactful presentations was "What Determines Your Paycheck (and How it Can be Influenced)." This presentation by Drs. Jordan Celeste, Nicholas Cozzi, and Jay Mullen provided an easily understandable breakdown of the very complicated system of emergency medicine practice economics and reimbursement. By truly understanding the current realities of reimbursement for ED care, emergency physicians are better equipped to advocate for themselves and for changes to the health care system. (After LAC23, Dr. Celeste

MORE FROM LAC23

Where Are We on ED Boarding Advocacy Efforts?

"Legislators are listening, and I'm confident we can find solutions," said Dr. Nathaniel Schlicher, MD, JD, MBA, FACEP. "The problem isn't us. The problem is that the system is working exactly as it's designed." Read more at www.acep.org/LAC23-boarding.

Lawyers Discuss Emergency Medicine After Roe

"Decisions are being made by folks who don't understand what's happening at the bedside. And that relationship between patient and physician is *our* area of expertise. That's what we know how to do. We know how to care for our patients. And that's why this kind of knowledge, regardless

of your personal ideology, regardless of closely held beliefs and conditions, and of what state you live in, we have to know this," said Diana Nordlund, DO, JD, FACEP. "We have to navigate this. And that's why we're having this conversation." Read more at www.acep.org/DobbsDiscussion.

wrote a guest blog explaining some of the key points from her session that you can read at acep.org/regsandeggs.)

The keynote topic for the afternoon was a “Mental Health Update: What Policymakers Can Do Next.” Sen. Maggie Hassan (D-NH) shared her very clear understanding of the many challenges being faced by emergency physicians today. Sen. Hassan is a passionate advocate for improving the care of patients with mental illness and improving the mental health and wellness of the emergency physicians who provide that care. As she touched on the issues of crowding/boarding, ED violence, and workforce shortages, she acknowledged and validated how difficult it is to be a practicing emergency physician.

“I know this is a really tough time,” Sen. Hassan said. “But the more you all speak up about who you are and why you do what you do—and what a difference it makes in the lives of your patients and your communities—the faster we are going to be able to get our handle around the systemic challenges that we all need know we need to address. I can’t tell you how effective you are and how much I appreciate the fact that you take the time to advocate and do what you do.”

Tuesday’s programming provided attendees with an update on the key federal legislative and regulatory issues facing emergency medicine and prepped them for Capitol Hill meetings. As with every LAC, the College developed a set of priority issues and talking points for the Capitol Hill visits (emergency-physicians.org/issues).

The issues that ACEP brings to Capitol Hill and our “asks” are directly geared toward active bills or other actions that we need members of Congress to support. Each of the meetings held with legislators or their staff help remind them that we share a common bond. The patients we care for back home in their district are their constituents, and together we have a shared responsibility to those people to ensure that there is a viable emergency care system.

This year, our visits focused on improving the ED environment and financial stability of emergency physician practice. We asked members of Congress to:

- Sign the bipartisan “Dear Colleague” letter urging the Biden Administration to convene an ED boarding task force.
- Cosponsor the “*Improving Mental Health Access from the Emergency Department Act*.”
- Cosponsor the “Workplace Violence Prevention for Health Care and Social Service Workers Act” and the “SAVE Act.”
- Cosponsor the bipartisan “Strengthening Medicare for Patients and Providers Act,” which has been introduced by four physician members of Congress: Raul Ruiz, MD, Larry Buschon, MD, Ami Bera, MD, and Mariannette Miller-Meeks, MD. This bill would mandate an inflation-based increase in Medicare reimbursement for physicians every year.

Each year, those of us who attend LAC get to tell our stories. We also understand that we represent emergency physicians across the country and try to tell your stories, too. For many of us, being on duty in the emergency department can feel like an isolating experience that makes it hard to remember we are part of a larger community. Coming to LAC changes that. There is an incredible power in sharing our personal experiences and bringing our collective voices together on Capitol Hill to advocate for our fellow physicians, our



Attendees at the EMRA/YPS Health Policy Primer brainstorm ideal health care models in small groups.



ACEP President-elect Aisha Terry, MD, FACEP, moderates a panel discussion about opportunities for EM physicians to govern with Miriam A. Bukhsh, MD, Brendan G. Carr, MD, MS, and Alister F. Martin, MD, MPP.

patients, and our specialty.

So, come next year to LAC and bring your voice to the meeting! In the meantime, join ACEP’s 911 Grassroots Network (acep.org/federal-advocacy/federal-advocacy-overview/advocacy-action-center/acc-article-pages/911-grassroots-network) to stay updated and informed on federal and state issues. You can also support emergency medicine by contributing to the National Emergency Medicine Political Action Committee (NEMPAC) at acep.org/nempac. There’s one more easy way to help the cause: Go to ACEP’s Advocacy Action Center (acep.org/actioncenter) to quickly send letters to your legislators asking for their support for the aforementioned bills. 🗳️

DR. CIRILLO is Chair of ACEP’s Board of Directors.



Panelists (L-R) Dorothea Lindquist, JD, Skye Perryman, JD, and Diana Nordlund, MD, JD, discuss the legal climate of *Dobbs vs. EMTALA*.



ABOVE: EM physicians caught up with old friends during the NEMPAC VIP Reception hosted at Top of the Hay.

LEFT: Tony Cirillo, MD, FACEP, and Ugo Ezenkwele, MD, FACEP, share a laugh between legislative meetings.



ACEP’s Senior Vice President for Advocacy and Practice Affairs Laura Wooster moderates a panel discussion about ED boarding advocacy efforts with Nathaniel Schlicher, MD, JD, MBA, FACEP, and Daniel Freess, MD, FACEP.

My First Time at LAC

by DANNY AYORINDE, MD

ACEP’s 2023 Leadership and Advocacy Conference was amazing! The aggregation of like-minded, yet unique, individuals coming together as an organized collective power to advocate for our wonderful specialty in the heart of the nation—it was truly something wonderful to be a part of.

The landscape of emergency medicine is changing rapidly; the paradigm of exclusive practice within the walls of the hospital has all but shattered. As more data on health disparities and the interplay amongst social determinants of health and mortality outcomes are being brought to light, we as the safety net, witnessing firsthand their widespread effects on public health, need to be part of the conver-

sation. Legislation directly and indirectly impacts our ability as clinicians to alleviate some of these inequities.

My experience at LAC showed me that sometimes all it takes is one patient encounter, one resident experience, one unique opinion and one ear that is willing to listen, to make widespread change. One thing I will always remember from this conference, was the quote, “If you are not at the table, you are probably on the menu.”

Thank you, LAC. I will definitely be back for more. 🙌



DR. AYORINDE (@doc_mcbuckets) is a PGY-2 emergency medicine resident at Johns Hopkins in Baltimore, MD.

won three elections total now all in resounding fashion. Over the last five years in the Arizona House, my philosophy has been to think critically about the issues in front of us, to read the bills, to consider everybody's viewpoints, to invite people into the conversation, to make arguments for and against every bill and think about the constituents.

My campaign style has been focused on knocking on doors. I've knocked 15,000 doors personally. This is not volunteers. I've had other volunteers knocking doors, but myself, I've knocked on 15,000 doors and the constituents have appreciated that because I'm willing to listen to what they have to say and consider different viewpoints. Listening, thinking about the needs and the problems that constituents have, and then trying to craft solutions to get at those problems, that's the biggest thing politicians are really responsible for.

I'm the ranking member now on the House Health and Human Services Committee And I've had a lot of success, a track record of success.

I think the approach has always been to treat everybody there with dignity and respect, members of the other party, members of your own party that you don't agree with, and try to think about what they have to say, find areas where you can work with people proactively.

I'm a Democrat and I have had more bills passed out of committee, more bills out of the chamber and more bills signed into law by a Republican governor than any member of my party.

Dr. Dark: What's one of the most important things that you've done while you've been in office?

Dr. Shah: The first thing that comes to mind are bills that started with a constituent idea and then it ended up getting signed in the law. A guy who came to me whose son had muscular dystrophy. He was going to the doctor and getting that doctor's



Dr. Amish Shah

prior authorization forms and filling them out because the doctor's staff was so backed up that they couldn't fill them out on time and his son was suffering for lack of care. So I said, this has to be streamlined.

I sponsored a bill to streamline the prior authorization process, simplify it so that it's a single two-page form standardized across the entire state. I created a win for patients, a win

for physicians, and even the insurance companies because it reduced a lot of their cost on the backend.

Another one specifically for emergency medicine is the non-retaliation bill, which ACEP eventually took as a national resolution and pushed it out to the 50 state houses. It started with an emergency physician who was working and he saw a non-medical person monitoring the tele monitors, which is not really monitoring, is it? He did the appropriate thing by relaying his concern and he was taken off the schedule, presumably in retaliation. But Arizona law did not account for that particular circumstance because he wasn't employed by the hospital. The whistleblower law at the time said that the hospital or employer couldn't terminate you, but it didn't say anything about third parties. We had this updated to include third parties.

The third bill, violence against health care providers, partnered up with the nurses who are our chief sponsors on this. But it absolutely affects emergency physicians because I've been assaulted in the ER, as most of my ER colleagues have been. We made a major push and I was able to get that again signed into law. It was in another lawmaker's name, but it was important to get that done and I'm thankful to ACEP Now for featuring it a couple years ago.

Dr. Dark: You want to make your next career move a DC move. What do you want to get accomplished at the federal level?

Dr. Shah: A lot of what happens in health care overall is decided at the federal level. We have patients that are out there that have no coverage. That is a problem. As we all know, we end up doing a lot of primary care in the emergency department. We end up seeing a lot of patients that cannot pay. Those patients don't necessarily have the best outcomes. The cost of care is extraordinarily high. There is an efficiency problem here



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too, where we are spending twice as much per capita as many other countries and not getting the outcomes and not covering everybody, so something's got to give.

Too much money, I believe, is being wasted in the administration aspects. And we just really need to say to ourselves, can we focus some of those dollars on getting them back to physicians, hospitals, providers, and making the system more efficient? I think reducing regulatory burden on some physicians, I'm specifically thinking about our primary care physicians, our family physicians, is super important. Increasing GME spots is super important so that we have adequate number of providers for the entire country.

In a place like Arizona, I have to think about my voters and they're experiencing extremely long delays when it comes to finding outpatient appointments. I can't tell you the number of patients that I see in the ER, some huge percentage that don't want to be discharged because they know that getting an outpatient appointment will be weeks to months.

They want you to take care of everything there or admit them because they know that their problems won't get taken care of in a timely manner.

Dr. Dark: I've heard you burn through a lot of sneakers in knocking on all these doors. What shoes do you primarily wear for this exercise?

Dr. Shah: Believe it or not, I wear a very comfortable dress shoe. I don't wear sneakers. I show up in business casual at most of these doors. In Arizona in the summer, we're talking about 120-degree days. So in order to keep



Dr. Arvind Venkat

knocking, I had to improvise because I suffered from heat exhaustion more than once and nearly collapsed on the street several times.

When you do this alone, it can be kind of scary. So I bought two vests that were about \$200 each. And they contain a material that is kind of like ice that is built into the vest, and you pop into the freezer overnight and you put one of them in your car in a cooler, and I would take them out with me. Each one would last about three hours. So I would go knocking with an ice vest on underneath my shirt. So when was 120 out, underneath my shirt, I

was at 60 degrees. And it kept me cool, then knocked for three hours.

I would stop at a restaurant, eat lunch, change the vest out to the other vest, and then keep going for three more hours. And that's how I was able to keep going through the 120-degree heat. It became something that I got known for in the state of Arizona—the ice vest.

DR. ARVIND VENKAT

Dr. Venkat: I'm a state representative for the 30th legislative district in Pennsylvania, which is the North Hills suburbs of Pittsburgh.

Dr. Cedric Dark: What do you feel is the most similar thing what you're doing now with emergency medicine?

Dr. Venkat: The key thing as a state representative, whether as a candidate or as an office holder, is to make that quick trusting connection with an individual, with a voter, with constituent. And we do that as an emergency physician all the time in the emergency department. We see complete strangers in a time of crisis and we establish a quick and trusting relationship with that individual. In many ways, that one-on-one connection that you need to establish with people in your community and voters is the same thing that we do as emergency physicians on a day-to-day basis.

Dr. Dark: Okay. What's the most different?

Dr. Venkat: Oh, asking people for money. As an elected official, especially as a state representative where you have two-year terms, you're essentially running all the time. And so part of the political process is raising money. And that's clearly not something we generally have to do as emergency physicians. We're fortunate to have a good salary to be able to support our families. And so financial pressures are there, but not in the same way as what happens in a political campaign.

Dr. Dark: Why'd you make that sacrifice to become a public servant?

Dr. Venkat: I had been very involved with the ACEP. I've been very involved with the Pennsylvania ACEP and I had gotten involved with ACEP because of advocacy. I had seen what happens outside the four walls of the emergency department, whether we're talking about the opioid crisis or scope of practice or malpractice or even just being able to care for patients in a resource-limited environment. A

lot of the decisions that were being made in state and government had a direct impact on that. And when COVID hit, I happened to be president of the state emergency physicians' chapter in Pennsylvania. And so I was very involved with our state government and with the local community about how to stay safe and move forward.

And what really motivated me to run was seeing over the course of the two or three years at the height of the pandemic how divided we were and how we needed more people with perspectives from health care and science in the political arena to be able to inform public policy. I very much focused on investment in our first responders and making health care more affordable and accessible because we saw during the height of the pandemic how challenged that was. And so that's what motivated me to get involved in public office.

Dr. Dark: What have you learned in the time you've been in the Pennsylvania House?

Dr. Venkat: The most important thing I've learned is that there's a real hunger among government officials for people who have backgrounds in health care and in science to be involved in the public arena. I know when I was president of the Pennsylvania chapter, I didn't necessarily think that there was a lot of attention paid to our voice in the advocacy process. But now being on the inside, I get calls from people on both sides of the aisle saying, "What do you think about this? And how is this going to affect my constituents in terms of their receiving healthcare?" Or, "What are the implications of this?" So I've been very gratified and humbled to be a resource for my colleagues on both sides of the aisle in terms of trying to generate good policy in the area of health care.

Dr. Dark: What do you hope to get accomplished in the short-term and long-term?

Dr. Venkat: My major legislative priority for this legislative session is medical debt relief for impoverished Pennsylvanians. There are examples in local government across the country where small amounts of money being appropriated in partnership with charitable groups that can identify and discharge or dismiss medical debt can make a huge difference for thousands of people.

These are our patients who we see who don't get care elsewhere or are scared to get care because of the cost of health care and the debt that they incur.

Over the medium and long-term, I'm very fortunate to be the only physician in our general assembly and to be on committees that have jurisdiction over health care. So I'm very focused on, how do we make health care more affordable and accessible for the people in my district and for all Pennsylvanians? We have a health care staffing crisis. The cost of health care is prohibitive. Insurance coverage can feel like you don't actually have insurance. We have scope of practice issues. So I think on all of those issues, my voice as a physician in the legislature can be helpful. That's what I plan to focus on.

To read an extended interview, visit acepnow.com. ➕

DR. DARK is an associate professor of emergency medicine at Baylor College of Medicine and the medical editor in chief of *ACEP Now*.



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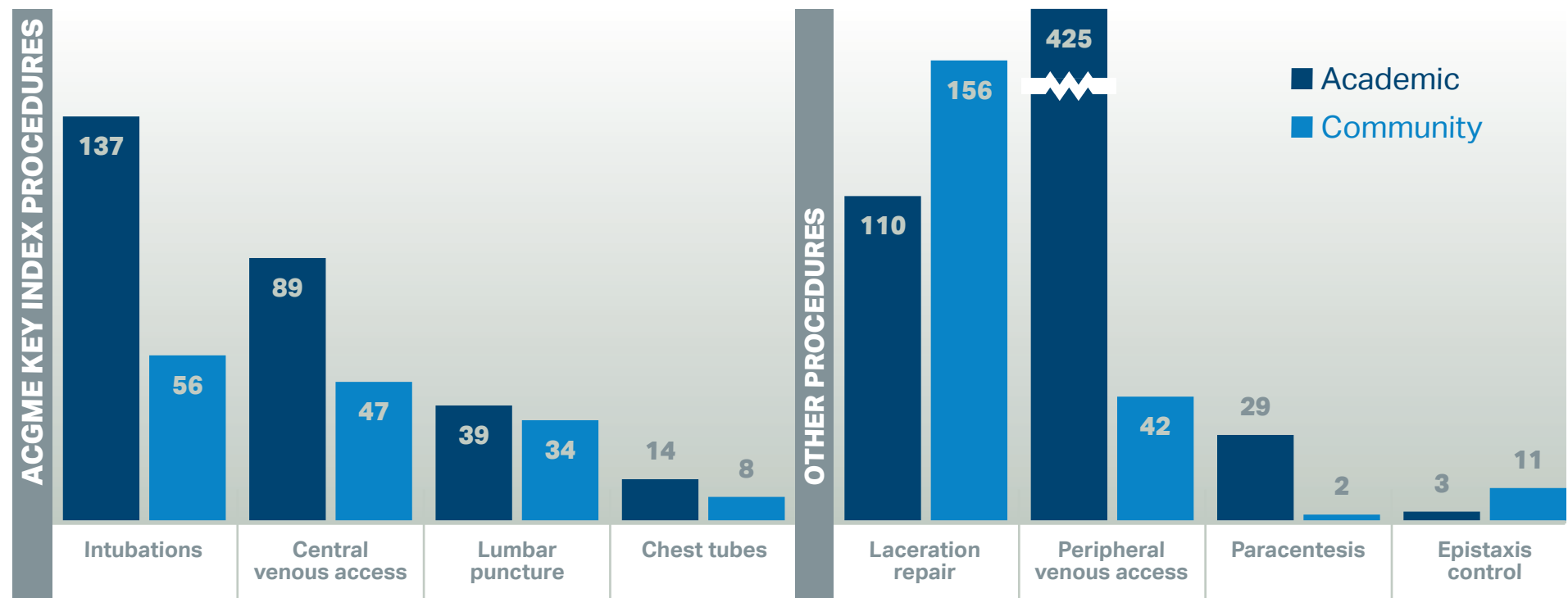
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FOCUSES ON:**

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- Developing your niche
- Negotiations
- Communication
- Simulation
- EM career success

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ACEP4U: The Surprise Billing Fight Continues

ACEP PUSHES TO HOLD ADMINISTRATION ACCOUNTABLE FOR FAILED IMPLEMENTATION OF NO SURPRISES ACT

by LESLIE MOORE, JD

For nearly two years, ACEP has been fighting to ensure that the federal government’s implementation of the *No Surprises Act* has been in accordance with Congressional intent. Using every channel available on the federal, state, regulatory and legal channels, we have pushed for comprehensive policy and the fair implementation of those policies. Despite our gains on the policy side, the implementation of the law continues to be problematic.

We’re pushing to fix the flawed implementation on several fronts. From a legal perspective, we have asked the courts to stop the unlawful requirement by the Departments of Health and Human Services, Labor, and Treasury (the Departments) that forces arbiters during the federal independent dispute resolution (IDR) process to illegally emphasize the qualifying payment amount (the QPA, or the median contracted amount) over other factors listed in the statute (patient acuity and complexity; training and experience of the provider; market share of provider/health plan; teaching status and case mix of facility; and previous experience attempting to enter into contractual agreements).

On the regulatory front, our team is pressing HHS to implement *and* enforce the policy the way it was written. We’re also pressing CMS to: 1) address its excessive increase of the IDR fees; 2) modify the flawed policy that allows limited batching of claims; 3) require more transparency around the calculation of the QPA; and 4) improve its enforcement over health plans that are skirting numerous requirements—most notably not providing the required information that identifies whether a claim is subject to the federal IDR process and not paying physicians what they owe after an arbitration in which the physicians win.

Finally, on the legislative side, we are working with our Congressional allies to put pressure on the Administration to address these significant implementation issues.

Much has happened since the *No Surprises Act* moved into the implementation phase, so let’s walk through the timeline of key events.

December 2021

ACEP, along with the American Society of Anesthesiologists and the American College of Radiology, filed a lawsuit against the government in Illinois in December 2021, arguing that the second Interim Final Regulation (Final Reg) implementing the *No Surprises Act* was fatally flawed and should be vacated. The Interim Final Reg set the QPA as the presumptive payment amount for out-of-network services during the IDR process. The Texas Medical Association (TMA) and other plaintiffs filed a similar suit in the Eastern District of Texas,

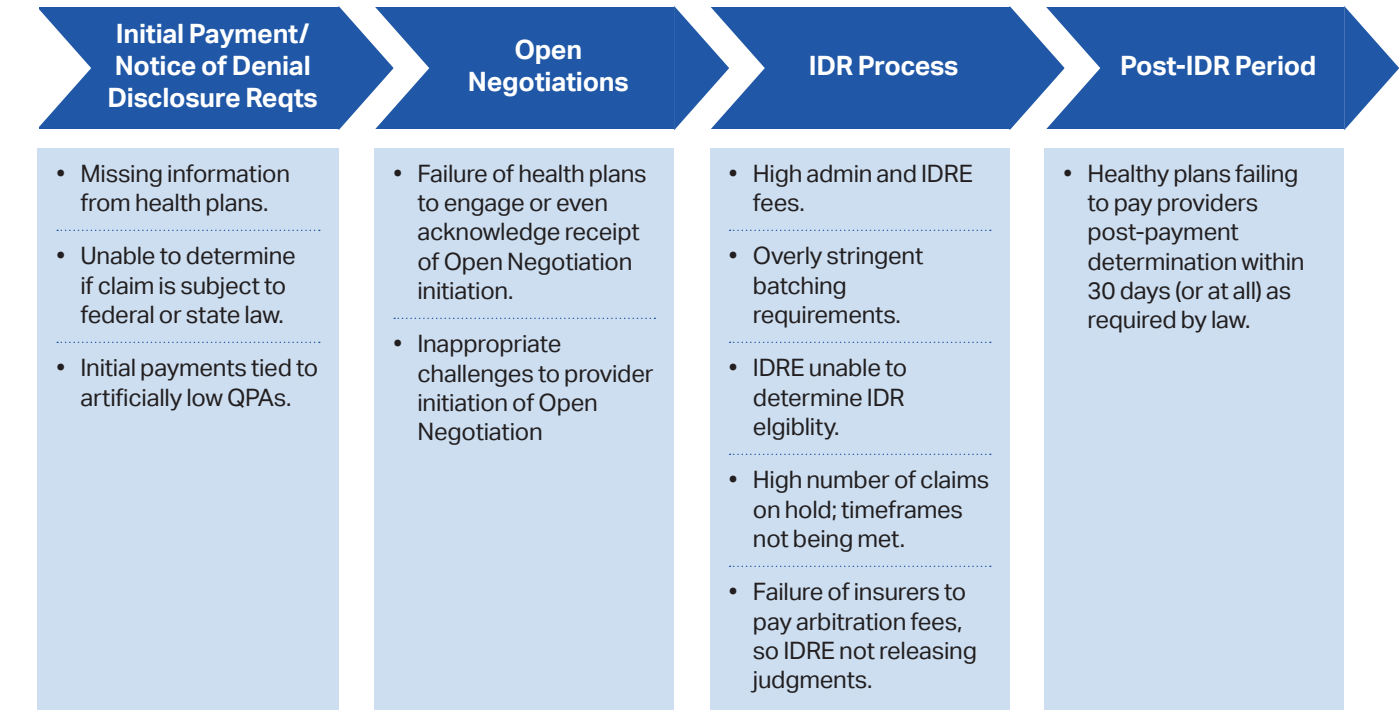


FIGURE 1: This graphic was included in the letter ACEP sent to CMS in January 2023, outlining the specific recommendations on how each phase of the IDR process could be improved.

and in early 2022, the court ruled in favor of those plaintiffs, vacating the Interim Final Reg nationwide. ACEP then withdrew its lawsuit and joined other societies in filing amicus briefs in support of the TMA case.

August 2022

When the Departments published the Final Reg, they retracted the rebuttable presumption in favor of the QPA but replaced the presumption with provisions that still tilted the arbitration process in its favor. The TMA again filed suit (TMA II), and again ACEP made the decision to support the TMA case by filing an amicus brief supporting its claims.

January 2023

ACEP sent a letter to CMS outlining our concerns with the implementation of the *No Surprises Act*. We provided specific recommendations on how each phase of the dispute resolution process can be improved. We pointed out that there are issues at every step along the way, from the time physicians receive the initial payment or notice of denial for an out-of-network service, to the Open Negotiations and IDR processes, and ultimately to the post-IDR period.

February 2023

In a big win for ACEP and all emergency physicians, the same federal judge in Texas who ruled in the first TMA lawsuit, Judge Jeremy Kernodle, ruled in favor of the TMA again. The Court’s ruling vacated the sections of the August 2022 Final Reg that require the independent arbiters to consider the QPA first in the IDR process and only to consider other factors in so much as they believe those factors are not already represented in the QPA. Again, the ruling applies to the entire fed-

eral IDR process nationwide.

In its opinion, the Court mentioned ACEP’s amicus brief, along with briefs filed by other medical societies. Among other important points regarding the illegality of the Reg’s application, ACEP’s brief emphasized that our members would suffer financial harm because the Reg creates an arbitration process that systematically reduces payments to out-of-network physicians. Judge Kernodle’s opinion stated that “the Final Rule nevertheless continues to place a thumb on the scale for the QPA by requiring arbitrators to begin with the QPA and then imposing restrictions on the non-QPA factors that appear nowhere in the statute.”

Judge Kernodle then rejected the Government’s request that the decision be limited to only the Plaintiffs in the case, holding that vacatur is not unduly disruptive and that the decision must be enforced globally. Arbitrators will continue to decide disputes using all statutory factors as clearly set forth in the Act. He stated, “And here, vacatur would preserve the status quo because arbitrators have been—and are presently—deciding payment disputes pursuant to the statute since the Court vacated the interim final rule nearly a year ago.”

March 2023

In another important advocacy win, CMS issued revised guidance for the independent dispute resolution (IDR) process that took into account the Texas Medical Association court order. The new guidance removed the flawed “double counting” provision and states that independent arbiters must consider all evidence presented to them by the disputing parties (without weighting the qualifying payment amount more heavily than any other factor or assuming

that other factors are already incorporated into the qualifying payment amount).

The guidance finally seems to closely reflect what the *No Surprises Act* statute actually says. We celebrated this as an important advancement in ACEP’s advocacy push to make the arbitration process more fair and balanced.

Also in March, ACEP’s federal advocacy team worked with members of Congress to ensure that HHS Secretary Xavier Becerra would be asked to answer key questions about the implementation of the IDR process during his testimony before several congressional committees regarding President Biden’s fiscal year (FY) 2024 budget.

April 2023

On April 22, the Department of Health and Human Services filed to appeal the ruling to the U.S. Court of Appeals for the Fifth Circuit. If they win their appeal, it could change the guidance that was released in March. For now, that guidance still stands, even though the administration is not enforcing it.

Hearings were held for TMA III, which questions the methodology used to calculate the QPA, and TMA IV that argues against the significant increase in the administration fee from \$50 to \$350 in 2023. ACEP submitted amicus briefs for both earlier this year.

What’s Next?

Our fight continues. We are monitoring the legal situation closely and working with legislators to ensure Congress holds the Administration accountable and implements the carefully-crafted statute to the letter of the law. 🗳️

LESLIE MOORE is ACEP General Council.

Conversations on Burnout

Burnout has become a ubiquitous topic in medicine and especially emergency medicine

by MITCHELL KENTOR, MD, MBA

Author's Note: This interview has been edited for brevity and clarity.

With recent studies showing emergency physicians topping the charts with 65 percent reporting burnout, the specialty is facing a crisis.¹ I'm joined by several experts, Dr. Daven Morrison (DM), Dr. Greg Couser (GC), and Dr. Andrew Brown (AB), all of whom are psychiatrists and published authors on burnout, to explore this crucial problem and how we can begin to address it.

Dr. Mitch Kentor: What got you interested in studying burnout?

Dr. Greg Couser: I have been following the literature for burnout, which actually has been around since the 70s, but it was more in industrial study populations at that time. In the early 2000s, it seemed to become more vogue, to study it within health care populations. We all know it's a big problem, but at a certain time we sort of all get burned out about hearing about burnout and wanted to know: What are the solutions?

I think eight years ago or so, I started a CME course regarding preventive mental health concepts. A lot of it was around also some burnout models, like the effort-reward imbalance model, and the demand-control-support model, and things that people could do on an individual level to help their own burnout while some of the more organizational concepts were being developed.

Dr. Kentor: Can we define burnout and talk about what's the scale of the problem that we're facing in medicine right now?

Dr. Couser: As far as classical definitions, burnout is decreased effectiveness at work. There's certainly a depersonalization component. Then there's an emotional-exhaustion component as well. People just sort of feel like they're spinning their wheels.

Christina Maslach was one of the original people who started to measure burnout back in the 70s. It's been measured over time with lots of different inventories. There's been lots of different ways to measure. How do you define it?

Do you say you're burnt out if you just have emotional exhaustion or do you have to have depersonalization and feelings of decreased personal accomplishment as well? There hadn't been a consistent way of measuring burnout over time.

Dr. Kentor: How about the scale of the problem? You made several references in your recent work, *Getting Serious About People Over Profit: Addressing Burnout by Establishing Meaning and Connection*, to very high burnout rates.² It certainly seems that from what we're seeing in the data, this is a really sizable issue that we're facing, not just in emergency medicine, but medicine in general.

Dr. Couser: It's huge. And part of it might be a publication bias, just from the standpoint that for a long time, burnout really wasn't measured that much in health care popula-

tions. Now it is being measured and we're paying more attention to it and numbers are rising. But even anecdotally, I've seen in my own career and work at the same institution for 18 years, it's accelerated in what I've seen for the acuity of people and issues they present with: not just burnout, but mental-health issues in general.

Prior to the pandemic we were used to being really connected. I didn't even know how to use Zoom before the pandemic, and now we're on Zoom pretty much every single day in some form or another. There's some good things that came out, but people were a lot less connected, people were feeling a lot more alone, and still the world is changing at such a rapid pace. Meanwhile, you had all these health care workers trying to respond to everything related to the pandemic, initially with all the COVID deaths that came about and changes in policies and competing worries while you take care of your patients.

Moral and ethical issues come up, and then people get to a point where they're working so hard and they're just tired, particularly in nursing where there's a big shortage and people leaving.

Then we have a millennial generation at the same time coming up that is valuing, things differently than the previous generation. And they're looking at work-life balance.

Dr. Kentor: What are the implications of this for health care in this country?

Dr. Couser: There's a lot of opportunity in this chaos right now. I think that hospital systems are scrambling to figure out how to do this because this is uncharted territory. And meanwhile, things leading to burnout like electronic medical records and documentation aren't going away. If anything, that's continuing to get worse.

I think the hospital systems that figure it out are going to be the ones that survive throughout all this too; it's not just how much throughput that you can have. It's how can we sustain an organization? Which means that you can push people to a certain extent, but then at a certain point, there's going to be diminishing returns.

Dr. Kentor: In some of your work, you coined a term that I found particularly impactful, "high effort, low reward conditions." Can you talk a little bit about it?

Dr. Andrew Brown: Work should be rewarded, and we want to reward our physicians in a manner that's commensurate with their value. One of the problems we run into when we transpose the business model onto the medical model is that rewards for physicians tend to be conceptualized almost exclusively in terms of extrinsic reward. If we think of extrinsic rewards, the question becomes, "How am I going to be compensated as a physician for the work that I perform?"

That's obviously very necessary. People need to feel that their material needs and their need for social recognition are satisfied. Unfortunately, one thing that's often missed is—and this is critically important in terms of the quality of the work we perform—is that the rewards that are derived are intrinsic to the work itself.

In order to create conditions that are conducive to the performance of quality work, we need to find some way of finding meaning and satisfaction in the work that we're performing.

How can organizations organize work in a way that's not demoralizing? And demoralizing is an interesting way of putting it, because it's at once a psychological and an ethical phenomenon. If I feel demoralized in my work, it can have a literally *de-moralizing* impact. Emergency physicians perform a role that has a moral dimension. Their job is to alleviate suffering and cure disease. Yet there's something about the way health care organizations sometimes do business that can distract us from this reality. Part of the challenge arises when we approach health care as a business.

Dr. Kentor: We're in a situation where, post-COVID, health care systems are still struggling financially. To talk about the first part of the rewards, how can health systems try to balance their own financial stresses with the need to be rewarding people?

Dr. Brown: The general principles that should inform decision-making involve ensuring that emergency physicians are compensated in a manner that is commensurate with the value that they're providing. There's all this pressure to ensure that quality of care remains high. But such decisions also need to be informed by considerations that have to do with the on-the-job experience of physicians. When changes are considered we need to ask: How will such changes affect the way we do medicine and our on-the-job experience? How is it going to affect the minute-by-minute experience of the patient, obviously, but also the physician? This is the critically important ingredient that is often missing. I don't think the physician's capacity to derive meaning from his or her work is consistently considered.

One would expect that this problem would never arise, that it would be reasonable to assume that an emergency physician would rarely if ever feel that their work lacks meaning. [But] it does arise because the problem doesn't necessarily have to do with the nature of work itself, but rather with the way the work is organized. There's a system of incentives and expectations that aren't precisely aligned with the interests, inclinations and intentions that motivated physicians to pursue this type of work. Why would an emergency physician ever, how could they even *possibly* feel burned out? It's the most meaningful job on earth and yet, as you know, it doesn't necessarily have to do with the nature of work itself. It's the way the work is organized. It's the incentives that are in front of you. It's the expectations of the work that aren't precisely aligned with or don't conform precisely to the way that you would work, to what brought you to this profession.

Dr. Kentor: That brings up a crucial question, are we considering how our compensation and reward models are impacting patient care?

Despite everybody's absolute best intentions in medicine, systems are perfectly designed to get the results they get. If you reward people in a specific way, you are going to incentivize specific behavior. You can be well meaning and

yet still find yourself with some difficulties.

Dr. Brown: The last thing you want is to create incentives and conditions where physicians are showing up to work exclusively to get paid. Or a system that induces physicians to work in ways that maximize their income. Ultimately, that's going to be to the physician's own detriment. They're going to begin to feel a sense of meaninglessness because these are not the kind of values that are sustaining or that produce quality work.

Dr. Daven Morrison: All of you are closer to the clinical action than I am. But what I've seen outside looking in at the system level is concerning to all organizations. And we can use the ER doc to highlight the challenge. The ER doc is caught between two pressures. As Andy notes, one of the intrinsic rewards is inside, "I feel good about my work, and my work is meaningful. I see that others appreciate the meaning of my work." Meanwhile from leadership, they are saying, "No, you're just a cog in the machine, pump out the patient visits. We want to see these kind of numbers. You don't need any more support. You don't need any more pats on the back. I'm not going to come down and see you in the emergency room, just show up and see patients."

Then on the other side, outside the clinical workplace, I'm curious particularly with you both, Mitch and Greg, how much burnout follows from the disinformation and nastiness in the broader society about experts and physicians? You come in to work and usually, the tradition and the way we were trained is to lean into our expertise. We think, "Look how well respected the attending doctor is, or the chief physician in the highest-ranking team." If you're the head doctor in the emergency room and you're getting yelled at or told that it's a farce or people are coming in to look for whatever the latest made-up story is, that's got to be exhausting as well. There is a real pinch between leadership demands and societal hostility.

Dr. Brown: I would be very surprised if that's not a major factor because what we've got now is a really unviable cultural phenomenon. It's not about formal education or academic credentials. It's about having appropriate respect for people who know something about the subject matter that is most relevant to the problem one is confronting. If your pipes burst and your home is underwater, you need a plumber. You want the plumber in there because he or she knows more about fixing plumbing and pipes than you do. Our culture is really in a very dysfunctional place right now, such that this basic fact—that when you have a problem you want to consult someone who can reasonably be expected to know something about the problem you have—is constantly questioned. If you're having a medical emergency, an emergency medicine doctor is going to know a lot more about what's ailing you than you do. Doctors feel a lot of disrespect now, they don't feel that patients are appreciating their skills, their expertise, their training, or their experience. One of the things that helps sustain us as physicians is the sense that our knowledge, skills and experience are appreciated. If you

CONTINUED on page 17

Hidradenitis suppurativa

HS hides in the shadows

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Under-recognized and undiagnosed, patients with HS may suffer an average of up to 10 years before accurate diagnosis.¹⁻³ Meanwhile, HS may wreak havoc, causing irreversible scarring, debilitating pain, and emotional burden.²⁻⁵ If your patient suffers from recurring or persistent abscesses at flexural sites, consider referring them to a dermatologist. This may be HS.



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Patient portrayal.

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How To Avoid Missing an Aortic Dissection

Studying this often mysterious case

by CHARLES PILCHER, MD, AND ANTONIO DAJER, MD

A 50-year-old female develops chest pain radiating to the neck and left arm. ECG, CXR, and troponin are negative. She is given morphine for pain. Four hours later she develops back pain and bilateral leg paresthesias. CT angiography shows aortic dissection which is treated surgically, but she is left with paraplegia.

Notoriously elusive, with a high misdiagnosis rate, thoracic aortic dissection (AD) can mimic many conditions, including acute coronary syndrome (ACS, the most common), gastroesophageal reflux disease (GERD), stroke, and spinal-cord compression.¹ Opioids or anxiolytics are often given to patients whose diagnosis of AD is missed or delayed. The fact is that no benign thoracic disease such as non-ischemic ACS or GERD should require morphine or benzodiazepines.

The varied clinical presentations described below illustrate some of the many faces of AD.

Trap #1: Walks like a duck, quacks like a duck, but it's not a duck. Then what?

1. A 42-year-old male develops sudden an-

terior chest pain radiating to his jaw while eating. He denies back pain. A medical student reports a murmur, not documented by either the emergency physician or the cardiologist. Troponins #1 and #2 are borderline and ECG is non-specific. The patient is admitted for ACS to a cardiologist who says he will see the patient in the morning. An echocardiogram the following morning shows 4+ aortic regurgitation and aortic dissection. The murmur is readily auscultated. The patient is treated surgically and survives.

2. A 35-year-old male develops sudden chest pain during an argument with his girlfriend over the phone. EMS is called and finds his blood pressure 175/100. He is given aspirin 162 mg and two doses of nitroglycerin, and his pain improves. On arrival his blood pressure is 126/90. In the ED, his troponin, ECG, and chest X-ray (CXR) are normal. He is given alprazolam for persistent symptoms and discharged. An aortic dissection is discovered when he bounces back to the ED. He survives.

Takeaway: AD does not have a classic presentation. In fact, 7 percent of ADs have none of the triad of acute tearing chest or back pain, mediastinal widening, or pulse or blood

pressure differential. ACS is the most common misdiagnosis and often leads to inappropriate anticoagulation.^{1,2} Too often AD is missed due to anchoring or confirmation bias, where one assumes that the evidence supports one's initial opinion. When the initial chest pain work-up is complete, but the numbers don't add up, broaden your differential. Listen to your gut. Morphine and benzos are rarely needed for stable ACS. Avoid looking for evidence to support your initial impression and instead start looking for evidence to prove yourself wrong.

Trap #2: Chest pain plus anxiety and neurological complaints. What if the anxiety is not the cause of the neuro symptoms?

1. A 55-year-old female with a history of GERD has rapid onset of epigastric pain, right hand numbness, blurry vision, and decreased sense of taste. ECG, CXR, and troponin are all normal. She is diagnosed with anxiety and given alprazolam, and dies eight hours later of aortic dissection.
2. A 38-year-old male feels a "pop" in his chest while lifting weights, followed a minute later by severe pain radiating into both legs. He arrives in the ED stating, "I can't move my legs." A consulting surgeon notes that he "is able to move his legs" and suspects malingering. He is given morphine and sent for a CT scan of the lumbar spine which reveals "multiple lumbar disc herniations." While awaiting admission for "intractable back pain," he dies of pericardial tamponade. A later review of the CT scan shows a visible abdominal aortic dissection flap that was missed.

Takeaway: Chest pain with neuro symptoms and anxiety can be the yellow brick road to disaster. Thoracic pain and any neurological complaint must include aortic dissection in the differential.

Any artery can be affected (e.g., a dissection can mimic lumbar disc herniation when it extends into the anterior spinal artery causing sudden paraplegia), which can wax and wane. Adding to the temptation to attribute the patient's symptoms to anxiety, micro-emboli from a dissection's turbulent flow can cause scattered, non-anatomic, sensorimotor symptoms, (e.g., loss of taste or tongue and hand numbness). And only a psychiatrist is allowed to use the word "malingering" in a medical record.

Trap #3: You're too young to have an aortic dissection

A 20-year-old male pushes a car up a hill when he notes sudden chest pain. An ECG and CXR are negative. He is given morphine for "costochondritis" and is discharged. He sees his primary doctor the next day, who schedules a stress test. The next day he collapses and dies. An autopsy shows a typical aortic dissection with tamponade and a bicuspid aortic valve.

Takeaway: Young people can have an aortic dissection, especially those with Marfan syndrome.

Trap #4: It's been going on for days so you're probably fine

A 64-year-old smoker with hypertension de-

velops chest pain and "pressure" in his neck. An ECG, CXR, and two troponins are normal. Symptoms improve with nitroglycerin and 1 mg of intravenous morphine. He is discharged and returns 4 days later with worse chest pain aggravated by breathing or moving. ECG, CXR, and troponins are again normal. He is again discharged and returns in another four days with chest pressure radiating to his right back and neck, left arm weakness, and shortness of breath. A third ECG and troponin are normal, but the CXR now shows the heart size to be at the "upper limits of normal." A cervical CT is ordered and shows only degenerative joint disease. He is sent home a third time and dies of an aortic dissection four days later. The most recent CXR is reread and reported as showing a widened mediastinum.

Takeaway: Aortic dissection may progress slowly. The sooner it is diagnosed, the better. New onset chest pain requiring morphine should be a red flag.

Diagnostic Aids

Prediction Scores: The Aortic Dissection Detection Risk Score (ADD-RS) can reduce the chance of missing the diagnosis.³ It emphasizes three areas of focus:

1. High-risk conditions (family history, aortic valve disease, Marfan's, etc.)
2. High-risk pain features (sudden onset, severity, quality)
3. High-risk examination findings (pulse deficit, murmur, neurological deficit, etc.)

POCUS: Point-of-care ultrasound for AD is highly specific, but operator-dependent, and lacking in sensitivity—although late-model units can have sensitivity as high as 80-85 percent.⁴ It can be quick, if positive, and reduce time to surgery while awaiting a confirmatory CT angiography. Views of the carotids and the abdominal aorta if stroke symptoms or abdominal pain is present is an added benefit. +

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COMMUNICATING EMPATHY IN CHAOS

Communicating with patients is the most common task we do

by ALEXANDER ZIRULNIK, MD, AND
EMILY AARONSON, MD

When considering an optimized environment for compassionate patient communication, the chaotic emergency department (ED) probably gives some clinicians pause. EDs, filled with alarms, frequent interruptions, hurried paramedics and consultants, hallway beds, and the looming sense that clinicians are out of time, is rarely thought of as a place for empathetic communication. Indeed, the evidence would suggest that the environment is challenging. On average, physicians only allow patients to speak for about 18 to 23 seconds before an interruption.¹ Yet, empathetic communication is paramount to the patient-physician relationship.² Empathy is not feeling sorry for your patient or mere sympathy. Empathetic communication means listening to the total communication (words, gestures, or feelings) of your patient and letting them know you are really listening.³ Communication with patients is the most common task we do as clinicians. It is estimated that physicians each conduct about 150,000 patient interviews throughout their careers.² Hurried and fragmented histories can lead to diagnostic uncertainty and error.⁴ Algorithmic histories lacking empathy can leave patients feeling unheard and anxious.⁴ Worse, they won't disclose critical information that would unlock the diagnostic puzzle. Depending on the clinical setting, patients typically share their story multiple times with nurses, advanced practice providers, residents, and attending physicians, creating an environment ripe for dropped information and fragmented relationships.

As challenging as soliciting information is, so is sharing it back with patients. Studies show that less than half of hospitalized patients could identify their diagnosis or name their medications at discharge.⁵ Despite how critical communication is, structured training on communication remains muted.⁶ If we approached patient interviews and communication the same way we approached any other procedure, the rates of error and patient frustration may decrease. There are, however, ways that we can optimize our communication with patients. Here, we share a framework of our Top 10 communication skills aiding in empathetic communication in the chaos:

1 Ask Permission

It is often difficult for a patient to feel any sense of control in a health care setting, let alone the emergency department. Asking permission allows the patient to feel a sense of control and prepare emotionally for the interview.

Example: "Would it be okay for me to share some of my concerns?" Or, "Is this a good time to discuss what brought you in?"

2 Name Any Dilemmas

Inevitably, problems arise when communicating with patients. To ensure clinician-patient alignment, any dilemmas need to be identified



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and discussed. This will help you as a clinician get a better sense of the patient's perspective and provide goal-concordant care.

Example: "On the one hand, I can hear this is hard to talk about and that you would rather have this conversation another time. On the other hand, I am worried that your dad's body is very sick and that decisions need to be made now."

3 Reflect and Affirm

Another fundamental skill in communication that will add to any therapeutic alliance is reflecting and affirming. This concept assures the patient that you are listening to their story and understanding their experience.

Example: "You've done so much to try to stay out of the hospital, and it's just so disappointing to be back here again."

4 Establish Urgency

As emergency medicine clinicians, we are under the impression that we are best at this skill. However, it can be difficult to relay a sense of urgency in many situations. Ending phrases with the statement, "We have to make a decision quickly," can set the stage.

Example: "I expect your breathing only to get worse, we have to make a decision quickly."

5 Responding to Hopes of Miracles

When patients respond with "trusting in a miracle," or "my spirituality will bring me a miracle," clinicians are often left speechless. Leading with affirmations such as "I can see your faith brings you strength," followed by, "If a miracle was not possible, what would be most important?" may empower some clinicians to respond more appropriately.

6 Responding to Emotion (Imagining)

This step allows the clinician to respond to any emotions that arise during the interview. Of-

ten, patients are going through physical, emotional, or spiritual discomfort and this step allows for us to recognize their discomfort.

Example: "I can imagine this comes as a shock" or "I can hear how upset you are."

7 Focus on What We Can Do

Many patients and family members arrive in the ED with expectations set from television dramas or third-party experiences that may not correlate to their current situation. Often, we need to reiterate the reality of their clinical presentation and focus on what is possible.

Example: "I think we should focus on treatments that would be helpful."

8 Use "Yes and..." Statements

It is vital that your patient feels empowered through collaboration in their workup and treatment plan. Using "Yes and..." statements allows the patient to express their wishes while allowing the clinician to add on their concerns.

Example: "You want to go home, and I'm worried you could fall again, and I think you need to work with physical therapy to make sure it's safe."

9 Tell Me More, or What Else, Statements

Admittedly, this proficiency can be difficult in the busy emergency department. Yet, this phrase can be crucial in eliciting a history from a stoic or minimizing patient. It allows you to get to root of the visitation reason.

Example: "My spouse said I should come in."

"Tell me more."

"For some chest pain I had last night."

10 Pair Hope with Worry

This final skill allows for the clinician to remain emotionally connected but candid with their patient. Often, the outcome of an ED visit is not what the patient wants, but this skill prepares the patient for the reality.

Example: "I hope we can find you a bed in the hospital quickly, and I'm worried it may not be until tomorrow."

Despite the inevitable time constraints, interruptions, and chaos of the emergency department, every patient should leave feeling heard and empowered. Using these fundamental communication skills, we hope the clinician is enabled to have an empathetic, goal-oriented conversation with each patient. ➔



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Toxicology Q&A Answer

QUESTION ON PAGE 5

Answer: The fig tree

Background

My favorite part of the fig plant (*Ficus carica* L.) is the fruit, of course. These sweet, refreshing waterdrop-shaped packages of goodness are exactly what I need some days to keep going. So much so, that in every home I've owned, I've planted a fig tree; enjoying the fruit of my labors while acknowledging the link this plant has with humans and culture over time.

History

The fig (*Ficus carica*) is part of the mulberry family. It was among the first plants deliberately bred as a food source more than 11,000 years ago—predating cultivated grains by a thousand years.¹

The fig features prominently in art, history, and theology, tightly wrapped within human experience. It is used symbolically to represent various human attributes including abundance, prosperity, fertility, wisdom, and strength. Being native and abundant in the Middle East, Asia, and the Mediterranean, it figures prominently in historical writings—Emperor Tiberius describes supporting a thriving fig trade; Theophrastus, Pliny, and Cato often discussed them; and they were mentioned in the Old Testament and the Koran, and described frequently in ancient Greek. In Homer's *Odyssey*, Tantalus reached out for figs in his agony; Venus and also Adam and Eve covered up with fig leaves; the goddess Isis is described teaching humans how to eat figs; and more recently D. H. Lawrence, in "Figs," described how to eat one in Proper society.

Description of the Plant

The fig tree is a deciduous, multi-trunk tree with smooth, gray, finely coarse bark that grows 15 to 30 feet high with a low canopy of green. There are many varieties of the fig tree, but most common are Black Mission and Brown Turkey. The trees are native to Southeast Asia and Eastern Mediterranean areas, where they grow in rocky and shrubby areas. In the U.S. it is grown commercially in the West and South—California, Texas, Oregon, and Washington.

The leaves are easily identified: toothed and deeply lobed with symmetrical sinuses. The fuzzy surfaces (the indumentum) are coarse on the upper surface and soft on the underside (see Figure 1).

They also have a "fig plant" smell that you either love or hate.

Once mature (four to five years) the tree produces one or two fig crops of brown-purplish fruit a year—often only one of them is deliciously edible.

Favorites

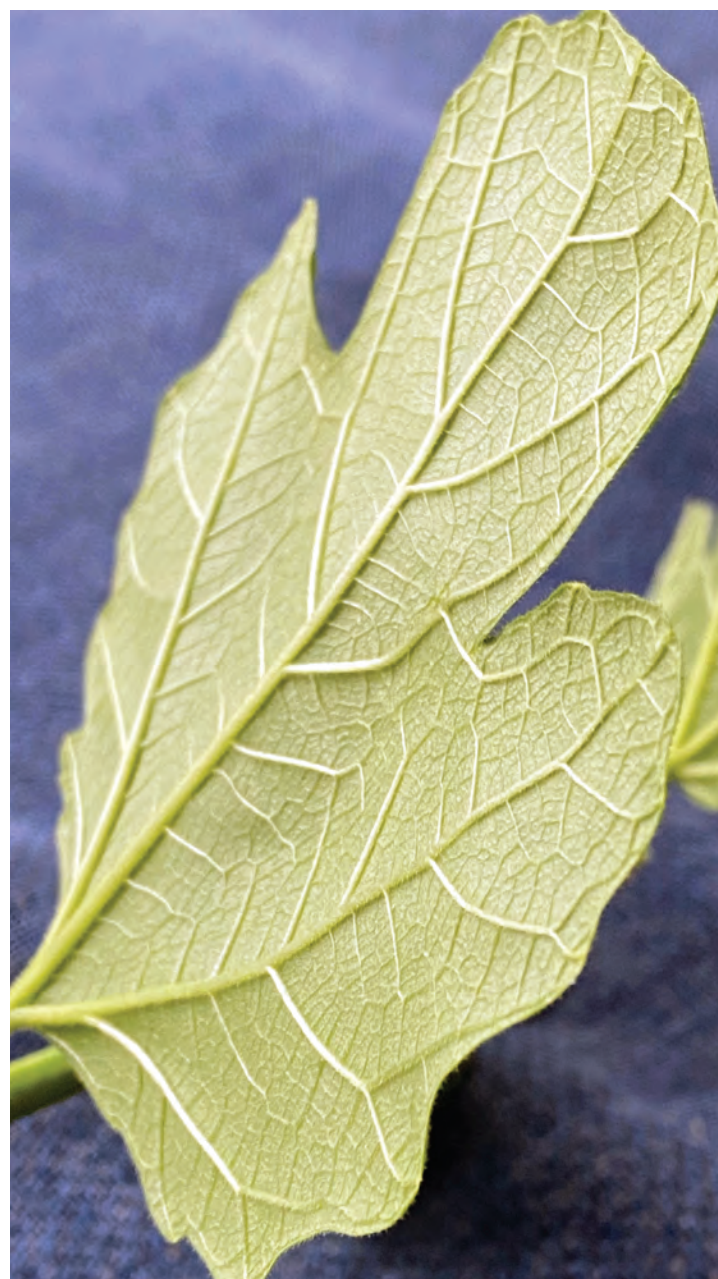
My second favorite thing about the fig is that they are simple-appearing, but amazingly complex—very few things about this plant are straightforward.

Its complexity is reflected in the descriptions one encounters when reading the scientific literature about figs. The volume and variety of strange, wonderful terms brings me back to the first year in medical school—a straight-up learning curve to try and wrap your head around.

Plant leaves are boring, except when it's a fig leaf. A quote from Giordano's 2020 paper about the fig's leaf is a case in point. They analyzed leaves with light, confocal laser scanning, and electronic microscopes which revealed "Protective trichomes are located on both [leaf] surfaces while capitate secretive hairs and stomata appear only abaxially." The fig uses ground-water-absorbed silicate to create a crystalline scaffolding "armor" (assisted by the calcium oxalate inclusions) that strengthen the leaf, protect delicate cells from the sun, and act as defense for hungry insects and herbivores.²

The fig "fruit" is another example of simple hidden complexity. Although called a fruit, it is actually an infructescence (an urn-like structure lined internally with tiny flowers that develop into multiple ovaries on the inside surface), also known as a false fruit or multiple fruit. The fruit itself is anatomically a hollow-ended stem that swells to contain many flowers. Think of that next time you take a bite! (see Figure 2)

And don't get me started on how the fig is pollinated in the



PHOTOS: JASON HACK (GLEANDER PHOTOGRAPHY)

Figure 1 (LEFT): The fuzzy surfaces (the indumentum) are coarse on the upper surface and soft on the underside.

Figures 2 (BOTH RIGHT): The fruit itself is anatomically a hollow-ended stem that swells to contain many flowers.

wild—no fuzzy bumblebee for this plant. Instead, it is a classic example of obligate mutualism, where each type of fig relies on a specific type of fig wasp (*Blastophaga psenes*) for their mutual survival. A female wasp, attracted to the plant by the odor that the leaves emit, enters the fruiting body with pollen attached to her from her hatchery, fertilizes the internal flowers, and lays her eggs; but it's a one-way trip, because her wings and antennae are ripped off as she enters the fig's infructescence due to the narrow entry passage.

She lives out the rest of her days inside the fruit. The eggs hatch and the males mate with their sisters and tunnel out of the fruit; the newly hatched and fertilized females leave through these open tunnels carrying their incubator's pollen and begin to search for their own fig fruit. Any remaining wasps are digested and absorbed by the fruit using ficin (a special fig-produced wasp dissolvent) for nutrients.

Etymology

According to Merriam-Webster, in ancient Greece, sykophantēs meant "slanderer." This word is derived from sykon (meaning "fig") and *phainein* (meaning "to show or reveal"). Fig farmers had to pay taxes on the number of figs brought to market, and sometimes they counted low. Someone else might tell the tax collector on them—the "fig revealers"—and they would be forced to pay. Through time the meaning of sykophantēs evolved from *squealer* to *flatterer*.³

Medical Uses

Fig plants and derivatives have been used for a variety of illness through time.

Wound coverings from fresh or dried figs, fig leaves, or fig wines have been used. The sap has been used as an expectorant, diuretic, and de-worming agent.

Fig leaves have been used for their antidiabetic and vermifugal effect.

Toxicity

Handling the plant, especially the leaves and sap, can cause a contact phytophotodermatitis and eye irritation if topically introduced.

The sap of fig trees contains furocoumarins (5-methoxypsoralen) and other defensive chemicals to protect the tree from fungal pathogens. When the fig latex (white sap) comes in contact with skin it causes a keratolytic effect, resulting in delayed blistering and vesicle formation.

The main symptoms of phytophotodermatitis are burning, itchy erythema, and edema, which usually begin 24 hours after exposure. Post-burn, it can also cause long term hyperpigmentation.

Imen describes four young children who used fig leaves to create a paste that they colored and spread on their skin in play resulting in severe second-degree burns sending them to the burn unit for care. The article's pictures of blistering and skin sloughing clearly demonstrate the severe dermatological reactions that can occur.⁴

There is no antidote. +

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REDUCING BURNOUT | CONTINUED FROM PAGE 12

take that out of the equation, you're going to deprive the physician from a very important source of meaning and sustenance.

Dr. Couser: Physicians want to be part of the decision-making process by personality. Physicians are hard-working. They're self-driven and so they are looking for intrinsic rewards, but then I hear from many workplaces, they're sometimes held to metrics that they can't change and that might seem meaningless to them or might not even be explained. There might be one set of metrics that they're beholden to one week and that changes the next week, sort of a management du jour.

Dr. Kentor: I think many people who became emergency physicians did so because they believe strongly that emergency departments are the safety net in this country. You go into this job knowing that you're going to see some very difficult situations and that you're going to be that person that's there for whatever walks through that door at any time of day or night. Then if you've got people that don't respect that expertise or that role, that certainly weighs on physicians who are making big sacrifices, being there at three in the morning, being there on major holidays, or missing family events, and making the sacrifices that are asked of physicians. How does that social contract hold up in this post-COVID world?

Dr. Morrison: I was watching the hostility and bizarre theories escalate on social media and Twitter in particular. As I did, medical students, residents, fellows, and practicing physicians, were basically throwing up their hands and walking away from the profession. Not as much from the volume of COVID-19 related work, that played a significant role, but it was this social dynamic.

All of us can envision that really decompensated, mentally ill person, who's out of touch with reality, and hurling insults and everything else at us; that's what we train for. We know how to deal with that, but not when it's a systemized broader cultural attack on all of medicine. We see it on the news, and then maybe we see it on a bumper sticker as we're driving into work, or in some other way. We appreciate that the pathology is no longer in this really severely mentally ill person, but there's some kind of attack on our profession coming from the broader society.

In the 90s at the VA there were Vietnam veterans. Although it had been 20+ years since returning, the wounds they had from coming back to this world, a world that had been very positive about a soldier, was not anymore. Previously, the world was generally very happy about the U.S. World War II veteran. They were seen as soldiers of the just war. But the Vietnam veteran came back to this hostile world with accusations. For many who had seen combat, they've been through misery, they've been through hell. I think the ER doctors are kind of experiencing a little bit of that as, "Whoa! This is not the deal. This is not what I signed up for. This is not my social contract to be treated this way," to be accused of "injecting some weird mRNA" or other amplified disinformation. Doctors have been generally

immune from that.

Dr. Kentor: The emergency medicine match saw a significant number of unfilled emergency medicine slots, I believe roughly 550 slots, about one sixth. People are taking notice of what's going on. I think this is now the second year in a row where we've seen a significant number of unfilled slots from what was, pre-COVID, becoming a very competitive specialty.

Dr. Couser: Well, along that line, I don't know if medical students are looking at the burnout stats for emergency medicine physicians, because Shanafelt looked across all specialties at the burnout rate, and emergency medicine was the highest, but it also was really interesting because on the flip side, they had reported that they were having good work-life balance overall.

Dr. Kentor: We did get viewed for a long time by people as a lifestyle specialty. Anecdotally, I think that viewpoint has changed. People have started to see that the constantly rotating schedules, the night shifts, and the holidays all take a special toll on you. Certainly, we as physicians and definitely in the emergency department are all familiar with metrics such as what are your patients per hour? How long until discharge or admission? It seems like we often jump from one metric to another. Is it a potentially helpful solution to say we need to expand metrics to include administrators and say we need to be tying compensation to burnout percentages as well, as a counter measure to physician metrics?

Dr. Couser: I think you're talking about the quadruple aim, and employee satisfaction is an important part of that. We're so focused on patient satisfaction. What is the employee satisfaction? I think at times, I've heard, it's sort of a Dilbert-esque management philosophy that, we'll just push these people towards these metrics without considering how it affects employees.

Dr. Morrison: Yes, exactly. Carin Knoop, who directs the case writing department for Harvard Business School, has been writing and thinking about the importance of mental health in the workplace from the management perspective. She talks about this catch that managers fall into, but physicians are particularly vulnerable to is, "The hero: I'm the only one. When everything else fails, I will be there. I will show up." There's this hero syndrome, where we figure we have to do it all. They never say no to anything. What ends up happening is they get worn down and by the time they realize that they're worn down, it's too late. So that was an interesting crossover between management and doctoring.

Dr. Kentor: That's an interesting topic and also comes back to staffing, right? With this idea of, if I don't show up, who's going to replace me? These days that's an increasingly big question mark in a lot of systems that struggle to have adequate staffing.

Dr. Couser: That also gets back to the business case though, because you need to look at turnover. It's six figures to replace a physician. Retention is important for organizations. When turnover gets to a certain point and everyone's leaving, that is when hospitals start closing. The ones that figure out how to retain the physicians are at an extreme competitive advantage.

Dr. Brown: While these are not easy problems to solve, they are simple in the sense that we already know what drives people, whether physicians or other professions, to look for other work.

The first fact, you mentioned it already: A leader and a supervisory staff that's capable of establishing a personal connection with the people who work with them. That's invaluable.

Second, we need to create workplaces where doctors and other health care workers actually like each other and enjoy each other's company. Under such circumstances people look forward to going to work because they look forward to seeing their friends and colleagues there.

Dr. Morrison: That sense of, I have a friend at work, is such a competitive advantage. I can imagine it would be very true for emergency rooms. That if you can build that core group of people that like each other, the nursing staff, the ancillary staff, the phlebotomists, even the shrink that shows up to do calls. Then at

least there's that core group that changes the mindset of I don't *have* to go to the emergency room, I *get* to go.

Dr. Brown: I think one of the problems we have culturally in medicine is competitiveness. I think that creates a challenge because it's not necessarily aligned with the goal of collegiality and it can interfere sometimes with our ability to support one another.

I would like to see medicine create and develop the kinds of peer support systems that the police have developed. In Boston this has helped mitigate some of the impacts of public hostility. A culture of collegiality and mutual support would go a long way towards improving the work experience of physicians. +

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Dr. Chatbot Will See You Now

Resistance is futile

by RYAN RADECKI, MD, MS

If you're wondering about the hype with chatbots in medicine, perhaps it's because they're nothing new: the first medical chatbot, after all, was developed back in 1964. Using a simple pattern-matching and reflection script entitled DOCTOR, the ELIZA program simulated a Rogerian psychotherapist. Even this basic initial experiment evoked unique responses from those interacting with the software, and a new field of human-computer interaction was born. These natural-language capabilities have evolved over many years, from those found as digital assistants ubiquitous on websites, to the current state-of-the-art ChatGPT, currently based on the generative pre-trained transformer-4 architecture, better known as GPT-4.

The GPT-4 used in ChatGPT and Bing and its cousins Language Model for Dialogue Applications, or LaMDA, at Google and Large Language Model Meta AI, or LLaMA, at Meta, are examples of large language models, or LLMs. These are neural-network models tuned and trained on vast amounts of data, on the order of hundreds of billions of words) split into smaller components called to-

kens. These models take prompts (again in tokens) comprised usually of words, numbers, and text annotations, and generate an output based on statistical predictions of the next token in sequence. As all the tokens in sequence are words and parts of words, the form of this output takes the form of coherent sentences. This is similar to the "auto-complete" sometimes seen in word-processing applications, or in text messaging on mobile phones, but dramatically more sophisticated.

The power of being able to prompt using natural language and generate output based on, effectively, near-encyclopedic knowledge of everything is immediately obvious and easy to demonstrate. One of the most-publicized demonstrations by the team responsible for the development of GPT-4 involves its performances on medical licensing examinations.¹ The team responsible for GPT-4 obtained a set of questions from the United States Medical Licensing Examination (USMLE) for Step 1, 2 and 3, and prompted the GPT-4 LLM with the questions as text-only prompts precisely as they would appear in a live examination. The model was asked to simply supply a response indicating the correct answer from the multiple-choice set presented. Whereas previous versions of GPT were unable to pass the medical examinations, GPT-4 demonstrated scores of approximately 85 percent correct on each Step of USMLE, well above the passing threshold.

If the response to such an achievement is "that's all well and good, but basic science and general medical knowledge ain't brain surgery," that line of investigation has already been covered as well.² A team from Brown University obtained the Self-Assessment Neurosurgery (SANS) from the American Board of Neurological Surgery and administered its content to GPT-4. The average performance of a neurosurgical trainee on this examination is 73 percent, with a passing threshold of 69 percent. The GPT-4 model scored 83.4 percent, obtaining a passing score and comfortably exceeding the average human performance. Given these examples, it seems likely LLMs can competently guess the correct answers with sufficient accuracy to pass any multiple-choice medical examination.

In the New England Journal of Medicine, members of the team from Microsoft Research and OpenAI give a high-level overview of performance on question banks, but also explore additional avenues for LLM applications.³ In one example provided, a GPT-4-based chatbot provides answers to a simulated use case with questions regarding medications for diabetes. Unsurprisingly, considering the large body of content available regarding the diabetes medication metformin, GPT-4 is able to provide a



coherent and accurate informational response to a simple initial query. However, the example also demonstrates a common problem with LLMs termed "hallucinations," in which the output is grossly incorrect. In subsequent follow-up prompts in the example provided, the GPT-4-based chatbot claims to have a master's degree in public health, as well as personal family experience with diabetes. These spurious generative examples demonstrate some of the limitations of LLMs; specifically that they do not rely upon underlying reasoning and insight.

The effects of "hallucinations" become more apparent when these models are prompted to add rigor and explanation to their answers. A project based on a previous version of GPT, GPT-3.5, prompted the LLM to provide answers to a set of medical questions and provided them to experts to rate their content.⁴ Out of 20 questions and responses, the experts identified five major and seven minor factual errors. More interestingly, the authors also asked GPT-3.5 to supply references for their medical explanations. The LLM generated 59 supporting references, 70 percent of which the authors determined were outright fabrications. These fabrications were usually composed in the proper journal citation format, sometimes used author names from published articles relevant to the question prompt, and otherwise outwardly appeared legitimate, but simple verification steps revealed them to be fiction. While this experiment was performed using GPT-3.5, these errors persist in GPT-4.

Another proposed application for LLMs involves transcription and summarization services to reduce administrative overhead. The aforementioned New England Journal of Medicine article was also authored in part by representatives from Nuance Communications, in Burlington, Mass., highlighting this future product offering. In their example, the software passively listens to, and creates a transcript of, a conversation between a clinician and a patient. Following the patient encounter, the software then summarizes the encounter in the form of a doctor's note. Generally speaking, the LLM creates a narrative matching the input, but also hallucinates details not present in the original encounter. The example provided illustrates both the potential and current limitations of the technology,

Leveraging Large Language Models (like ChatGPT) in Emergency Medicine

What are the opportunities, risks, and cautions with AI technology in the ED?

by NICHOLAS ASHENBURG, MD; CHRISTIAN ROSE, MD; JOHN DAYTON, MD

Recently, large language models (LLMs), like ChatGPT and Med-PaLM, have generated a lot of buzz in the press and among emergency physicians. LLM's are designed to process large amounts of data, synthesize information, generate text, and even translate it to other languages. These abilities are similar to those performed by emergency physicians.

Our specialty is a fast-paced, dynamic medical field that demands rapid decision-making and adaptability. But it also entails some mundane, repetitive tasks which demand our time and focus. Advances in artificial intelligence (AI) and the development of LLMs, could assist emergency physicians in their daily practice and research endeavors.

However, the implementation of these models also comes with potential risks and downsides.

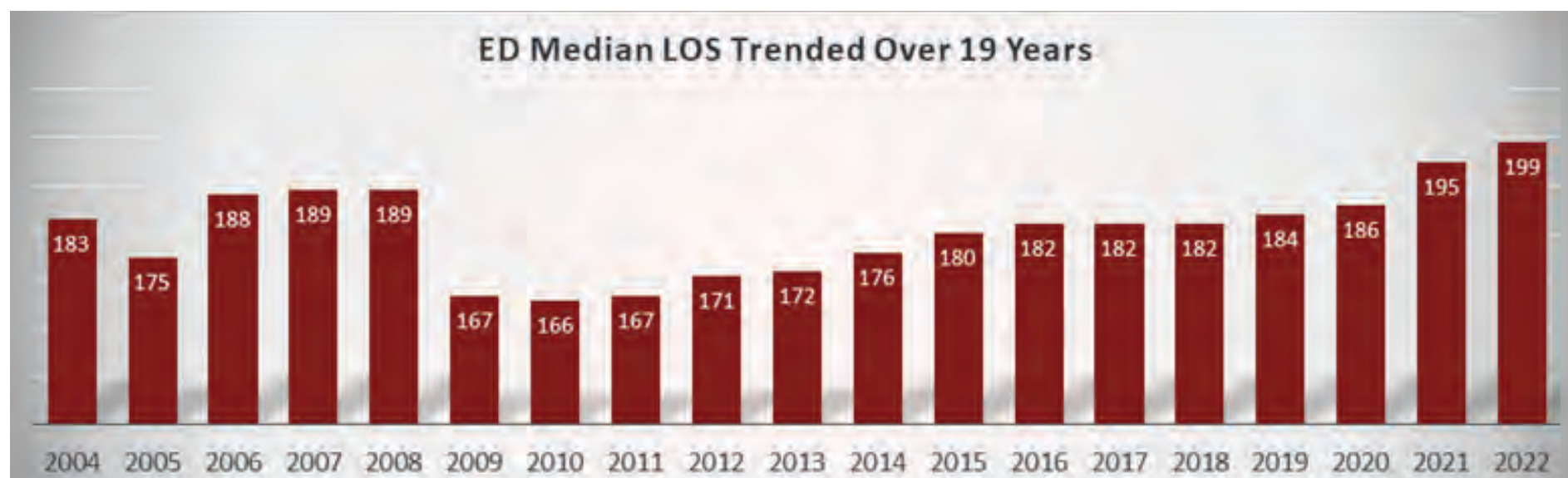
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CONTINUED on page 23

BRINGING DATA
TO THE
BEDSIDEBENCHMARKING
ALLIANCE

DR. AUGUSTINE is national director of prehospital strategy for US Acute Care Solutions based in Canton, Ohio; clinical professor of emergency medicine at Wright State University in Dayton, Ohio; and vice president of the Emergency Department Benchmarking Alliance.



The Year of Survival

First report on ED data for 2022

by JAMES AUGUSTINE, MD

The role of emergency physicians has been made dramatically more important due to the pandemic. The performance of EDs in 2020 and into 2021 changed abruptly, and that carried through into 2022.

EDs weathered attacks from a variety of sources in recent years. Commercial payers aggressively abused the *No Surprises Act* as a method to delay, downcode, and deny payment for emergency services. ED leaders worked to develop new physician documentation and coding guidelines that needed to be implemented at the beginning of 2023. Software attacks crippled operations in large hospital chains, and physical assaults on ED staff continued unabated.

The preliminary results of the 2022 Emergency Department Benchmarking Alliance performance measures survey found a significant deterioration in patient processing due to inpatient boarding. Preliminary results of the survey are being released to help emergency physicians understand that current challenges are occurring nationwide. These data can be shared with hospital administration as there is mutual need to find solutions to the current ED flow challenges and very high ED walkway rates.

Patient volume losses in 2020 reversed in 2021. After drops of about 14 percent in overall ED volumes in 2020 compared to 2019, many EDs are managing patients at volumes near those of 2019 again.

A Lower Percentage of Children Present to EDs That are Not Designated as Children's Hospitals

In general community EDs, the decrease in visits by patients under age 18 bounced back from about 13 percent in 2021 to about 15 percent in 2022. The resurgence of respiratory syncytial virus and respiratory infections other than COVID-19 may explain this.

Patient arrival by EMS increased and more of those patients were admitted. About 20 percent of ED arrivals in 2022 came by ambulance,

and 36 percent of those EMS patients were subsequently admitted, compared to about 14 percent of ambulatory arrivals.

ED patient throughput improved in 2022 in some regards, which is an incredible accomplishment in a very difficult year. Median "door to doctor" time remained steady at about 14 minutes. Long-term trends of improving ED patient intake remain intact, as times decreased in most years since 2008, when the intake time was about 41 minutes.

All ED patient-processing times increased remarkably in EDs, related to lengthy hospital boarding times. This necessarily increased ED walkway rates. The overall length of stay for all ED patients increased to 199 minutes in 2022, up from 182 minutes in 2018 (see Figure).

Despite the work of many ED physicians and leaders to preserve flow, boarding times in 2022 jumped to 192 minutes, from 121 minutes in 2020. This time interval is very cohort-dependent, depending on ED volume. The time from "door to decision" was about 198 minutes in 2022, despite increased use of diagnostic testing.

The percentage of patients who leave the ED prior to the completion of treatment (LBTC) increased to 4.6 percent in 2022, compared to 2.7 percent in 2019. This is the highest LBTC rate that has ever been seen, and means that about 7 million patients who wanted ED care left without that service. That amounts to more than \$1 billion dollars in lost ED physician revenue.

The Challenges to Emergency Physicians are Significant

Reflecting on the management challenges

of EDs in the upcoming years, there is need to improve hospital flow, safety, and quality. With the lessons and data of 2022 in mind, the need to move admitted patients up to inpatient units is an obvious management priority.

Executive Summary of ED Operations in 2022

Volume was up from 2021. Volumes collapsed in 2020, but in 2023 ED's are now nearly back to 2019 volumes.

Outstanding ED work through the pandemic saved patients, hospitals, and medical staffs.

There is an increasing percentage of patients arriving in EDs via EMS, now averaging about 19.7 percent. Admission rates for EMS patients is about 36 percent. Pediatric volume in community EDs is up.

Mental health cases and ED violence

lence up significantly.

Door-to-clinician median time is down to 14 minutes. But overall ED flow has deteriorated, with ED median length of stay for all patients 199 minutes in 2022.

Processing of ED patients to inpatient units is crippling ED operations. Boarding times crashed all types of EDs. The median boarding time across all EDs was about 192 minutes in 2022, up from 119 minutes in 2019.

Poor flow is an incredible stress on ED staff, resulting in loss of ED staff of all disciplines.

Walkaways have more than doubled. ➕

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STEPAN BORMOTOV - STOCKADORE.COM



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Deaf and Hard of Hearing (DHH) Patients in the ED

by KEN MILNE, MD

Case

You enter the room to see the next case and find two people. One is the patient and the other is a friend. Before you can introduce yourself, the friend interrupts you to let you know the patient is hard of hearing and needs a sign language interpreter. The patient is stable, so you acknowledge the situation and excuse yourself to arrange interpreter services.

Clinical Question

What is the Emergency Severity Index (ESI), triage pain score, emergency department (ED) length of stay (LOS), and acute ED revisit rate in deaf and hard-of-hearing (DHH) American Sign Language speakers and DHH English speakers who utilize the ED?

Background

DHH patients experience disparities in social outcomes as well as health inequities.¹ This is likely due to audism, which creates privilege for non-DHH people in our society.²

It has been reported that DHH patients are more likely to use the ED than non-DHH patients. However, little research has been done to compare ED-focused outcomes for these two groups of patients.^{1,3,4} DHH patients are heterogeneous, with adult-onset DHH patients being less likely to use American Sign Language (ASL) with proficiency.⁵ DHH ASL users may also have delays due to interpreter availability, potentially resulting in care discrepancies.^{1,6}

Reference: James TG, et al. Emergency department condition acuity, length of stay, and revisits among deaf and hard-of-hearing patients: A retrospective chart review. *Acad Emerg Med.* 2022;29(11):1290-1300.

- **Population:** Patients presenting to a single academic center for care between June 2011 and April 2020
- **Excluded:** Patients who had not had an ED visit during that time or who were non-English-speaking
- **Intervention:** None
- **Comparison:** Non-DHH English speakers were compared to DHH ASL users and DHH English speakers
- **Outcomes:** Emergency severity index (ESI), triage pain score, ED length of stay (LOS), and acute ED revisit (defined as within 9 days)
- **Type of Study:** Retrospective chart review of a single health care system

Authors' Conclusions

"Our study identified that DHH ASL-users have longer ED LOS than non-DHH English-speakers. Additional research is needed to further explain the association between DHH status and ED care outcomes (including ED LOS, and acute revisit), which may be used to identify intervention targets to improve health equity."



Results

This study included 100 percent of DHH-ASL people (n=277) and compared them to 1,000 randomly sampled DHH English speakers and 1,000 randomly sampled non-DHH English speakers. During the time frame, 39 percent, 36 percent, and 30 percent, respectively, had an ED visit that could be analyzed. The mean age of the cohort was mid to late 40s, just over half were women, and about two-thirds identified as white.

Key Result

No statistical differences were reported in ESI, triage pain score, or acute ED visits but there was a longer ED LOS observed in DHH ASL patients.

- **Emergency Severity Index (ESI):** When compared to non-DHH English speakers, neither DHH ASL users nor DHH English speakers had higher odds of being classified into lower-acuity ESI levels.
- **Triage Pain Score:** On a scale of 0 to 10 the mean score was 5.8 and the median was 7. Neither of the DHH patient groups had pain scale ratings significantly different than non-DHH English speakers.
- **Acute ED Revisit:** This was defined as a return within nine days; 10 percent of patients had acute revisits to the ED. There was no statistical difference between the groups for this metric.
- **Length of Stay (LOS):** DHH ASL-using patients stayed in the ED 9 percent longer than non-DHH English-speaking pa-

tients (IRR, 1.09; 95 percent CI, 1.05 to 1.13; $P=0.016$). On average, this equated to approximately 30 min longer ED LOS (95 percent CI, 17 to 44 min). There were no significant differences between DHH English-speaking patients and non-DHH English speakers

EBM Commentary

1. **Cohort Selection:** The authors of this study selected the cohort based upon patients who utilized any of the medical center facilities and then select those who presented to the ED, as opposed to just isolating DHH patients from all ED visits.
2. **Nine Day Return Visit:** It was unusual for the authors to select nine days for the return visit metric. Often in ED literature, we see 72-hour or one-week return visit reported.
3. **Length of Stay:** The only metric measured that was statistically different was the ED LOS. It was 30 minutes longer in DHH ASL-using patients or approximately 9 percent compared to non-DHH English-speaking patients. It is unclear if this is clinically significant, and we should be cautious not to over-interpret single-center, retrospective, observational data.

Skeptic's Guide Bottom Line

Deaf and hard-of-hearing patients should be triaged and treated with the same level of concern and care as other patients. Use of interpreter services is essential, as with any non-

English speaking patient.

Case Resolution

Obtain an on-site interpreter ASL services in your ED. This is preferred to online, remote interpreter systems due to technical difficulties and lack of staff training.⁷

Remember to be skeptical of anything you learn, even if you heard it on the Skeptics' Guide to Emergency Medicine.

Thank you to Dr. Corey Heitz, an emergency physician in Roanoke, Virginia, for his help with this review. ➔

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DR. WESTAFER (@Lwestafer) is an attending physician and research fellow at Baystate Medical Center, clinical instructor at the University of Massachusetts Medical School in Worcester, and co-host of FOAMcast.

CAP Updates: MRSA and *Pseudomonas* Coverage

They're
(mostly) out,
steroids are in

by LAUREN WESTAFER, MD

Although the treatment of community-acquired pneumonia (CAP) is bread-and-butter emergency medicine, several guidelines and landmark studies have called for fairly big changes in clinical practice.¹⁻⁴ Two recommendations deserve particular attention. Importantly, recommendations include significantly narrowing the use of antibiotics that cover methicillin resistant *Staphylococcus aureus* (MRSA) and *Pseudomonas aeruginosa* (*P. aeruginosa*), even in severe pneumonia. That's right, empiric vancomycin and piperacillin-tazobactam or cefepime only applies to a subset of "high risk" patients or those with severe pneumonia. Additionally, select patients with CAP requiring ventilatory support may benefit from hydrocortisone.

Antibiotics

For years, antibiotic selection has been largely dependent on the presumed location or source of the development of the pneumonia. Categories of pneumonia have included CAP, hospital-acquired (HAP), ventilator-associated (VAP), and, beginning in 2005, health care-acquired (HCAP). Although these categories were created to help predict risk for multidrug resistance (MDR), data demonstrated that patients who fell into the HCAP group did not have higher prevalence of antibiotic-resistant pathogens. As a result, the 2019 guidelines from the Infectious Disease Society of America (IDSA) significantly rein in those patients who should receive empiric coverage for MRSA or *P. aeruginosa*. The recommendations can be seen across cat-

CONTINUED on page 22

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egories, but notably empiric treatment with the beloved combination of vancomycin and piperacillin-tazobactam (or cefepime) is not recommended in CAP, even severe CAP, unless very specific risk factors are present.

For example, inpatients with a history of prior respiratory isolation of MRSA or *P. aeruginosa* should receive the addition of antimicrobial coverage targeted to the prior isolate, but not necessarily targeted to both MRSA and *P. aeruginosa*. Additionally, those with a hospitalization and receipt of parenteral antibiotics in the last 90 days should receive extended coverage for MRSA and/or *P. aeruginosa* only if they have specific locally identified risk factors for those organisms.

Lastly, given widespread macrolide resistance in the U.S., it's unlikely that many clinicians are treating CAP with macrolide monotherapy. However, these guidelines also serve as a reminder that if you are routinely treating CAP with macrolide monotherapy and you are not certain that local resistance levels are less than 25 percent, it is time to choose a different antibiotic.

Corticosteroid Use

Historically, the administration of corticosteroids in patients hospitalized with pneumonia has been controversial. In 2017, the Society of Critical Care Medicine (SCCM) and the European Society of Intensive Care Medicine (ESICM) stated, "We suggest the use of corticosteroids for 5–7 days at a daily dose <400 mg intravenous hydrocortisone or equivalent in hospitalized patients with CAP," citing moderate-quality evidence.²

Interestingly, the 2019 IDSA guidelines recommended that adults with CAP, including those with severe pneumonia, not routinely receive corticosteroids in the absence of refractory septic shock.¹ What do we do with conflicting recommendations? Many clinicians, including myself, opted to wait for additional data—which we now have.

The tides have shifted towards administration of hydrocortisone to a select group of patients admitted with pneumonia. The CAPE COD trial, published early this year, demonstrated a 5.6 percent (95 percent CI, 1.7 to 9.6 percent) absolute reduction in mortality by day 28 in patients with severe CAP randomized to receive adjunct hydrocortisone 200 mg intravenously daily compared with those who received placebo.³ Additionally, fewer patients in the hydrocortisone arm were intubated, at 19.5 percent, compared with those in the placebo group, at 27.7 percent (Hazard Ratio, 0.69 [95 percent CI 0.60–0.94]). Although patients in the hydrocortisone group had more hyperglycemia, this did not translate into an increase in measurable adverse events. Crucially, to be included in the pivotal CAPE COD study, patients had to meet one of the following criteria: Pulmonary Severity Index score of >130, or ventilatory support (invasive mechanical ventilation, non-invasive ventilation (NIV), high-flow nasal cannula with fraction of inspired oxygen (FiO₂) >0.5 and PaO₂/FiO₂ (P/F) ratio <300, or nonre-breather mask with a P/F ratio dependent on the oxygen flow rate).

The impressive results of the CAPE COD study should not be interpreted as "all hospitalized patients with CAP should receive steroids." First, patient selection is critical. The patients in the CAPE COD trial were sick; nearly half of the cohort was intubated or on NIV. This is consistent with a 2018 meta-analysis of 11 trials that

found steroids were associated with a reduced odds of death compared to control groups (relative risk, 0.66; 95 percent CI, 0.47–0.92). In subgroup analyses of severity of illness, the mortality benefit was only statistically significant in those with severe pneumonia. Further, the trial excluded those with influenza or aspiration pneumonia. Second, steroid choice is important. The CAPE COD trial used hydrocortisone, which has more mineralocorticoid activity than most other glucocorticoids. This may explain some differences between the results of CAPE COD and negative trials that used

steroids with less mineralocorticoid activity.⁵ Third, hydrocortisone was early in the hospital course—an average of 20 hours from hospital admission. Future trials will provide additional insight, but in the interim, the data suggest we should administer hydrocortisone administration to patients who would meet the CAPE COD inclusion criteria. ➔

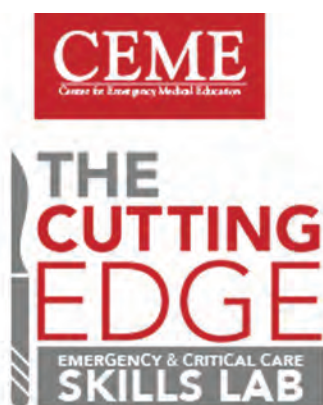
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PEARLS FROM EM LIT | CONTINUED FROM PAGE 18

presently requiring careful review to ensure spurious extrapolations have not been inserted into the medical documentation.

From these applications, it is clear these models in their present form have real potential pitfalls. Simply predicting the next entry in a sequence of words is divorced from the “real” intelligence and critical appraisal of a medical decision-making process. The current state of the art is in a sort of so-called “uncanny valley,” in which the realism is near-human, but remains problematic enough to become disconcertingly unnatural. Likewise, the danger of confidently imperfect natural language output is immediately obvious, requiring vigilant error-checking and potentially negating some of the advantages in time saved. Only an expert-level clinician may be capable of identifying minor

inaccuracies in clinical guidance, while identifying transcription and coding errors may prove practically impossible, given the content necessary for review for validation.



These concerns aside, however, it is worth noting the leap from GPT-3.5 to GPT-4 required only a few months of additional development, while adding a significant leap in performance. The teams developing and tuning these models are acutely aware of the issues and obstacles present in their models. Future versions are likely to have greater accuracy and error-checking abilities, as well as improved domain-specific generative abilities. Just a few months ago, these models were hardly part of the public consciousness, and these are just the first initial steps in determining their potential applications and

the refinements necessary. Even if these models are not quite yet ready for use today, their future use to augment decision making and productivity is inevitable. 🧠

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