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Holiday's
Over

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The Official Voice of Emergency Medicine

AUGUST 2021 Volume 40 Number 8 FACEBOOK/ACEPFAN TWITTER/ACEPNOW ACEPNOW.COM

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2021 ACEP ELECTIONS PREVIEW

MEET THE ACEP
COUNCIL OFFICER
CANDIDATES

The candidates discuss
advocating for emergency medicine

Each year, ACEP’s Council elects new leaders for the College at its meeting. The Council, which represents all 53 chapters, 40 sections of membership, the Association of Academic Chairs of Emergency Medicine, the Council of Emergency Medicine Residency Directors, the Emergency Medicine Residents’ Association, and the Society for Academic Emergency Medicine, will elect the College’s President-Elect, Council Speaker and Vice Speaker, and four members to the ACEP Board of Directors when it meets in October. This month, we’ll meet the Council officer candidates.

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Faust.
After,
Dark.

An unexpected journey

by CEDRIC DARK, MD, MPH, FACEP

Thank you for entrusting me with the mantle of Medical Editor in Chief of the “Official Voice of Emergency Medicine.” Assuming the reins of *ACEP Now* from my predecessor is a heady endeavor and one that I do not take lightly. Our award-winning publication, as the voice of emergency physicians, requires that *ACEP Now* represents a diverse swath of our colleagues. Under my forerunner’s leadership, our magazine has accomplished that feat with features like FACEPs in the Crowd, which has highlighted the devotion with which ACEP members pursue interests apart from medicine.

I am blessed to take over as the Medical Editor in Chief for a magazine that already has a tremendously great lineup of columnists who have kept emergency docs—myself included—up-to-date on the latest medical literature, risk management tips, ultrasound pearls, and life hacks. I have no

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UNUSUAL
ETIOLOGY OF
CHEST PAIN

PAGE 10

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1. Journal of Clinical Neurophysiology 2015;32: 87–95

2. Neurology 2016;86:253–260

3. Critical Care Medicine 2020; 48(9):1249-1257

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The Official Voice of Emergency Medicine

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NEWS FROM THE COLLEGE

UPDATES AND ALERTS FROM ACEP

Emergency Physician Elected Chair of AAPI Board

On July 4, 2021, Kusum Punjabi, MD, MBA, FACEP, was unanimously elected Chair of the Board of Trustees for the American Association of Physicians of Indian Origin (AAPI). She is the youngest physician ever to hold the position and is the first AAPI Board Chair to have attended medical school in the United States.



Dr. Punjabi, an emergency physician and associate professor at Rutgers Robert Wood Johnson University Hospital in New Brunswick, New Jersey, has served in many board positions for AAPI in preparation for this role. She said her goal is to develop long-lasting programs that promote professionalism, unity, mentorship, and inclusivity.

Founded in 1982, AAPI represents more than 80,000 practicing physicians and more than 40,000 medical students, residents, and fellows in the United States.

ACEP Honored for COVID-19 Efforts

ACEP recently swept four categories of the 2021 Profiles of Excellence Awards, given out annually by the American Association of Medical Society Executives to recognize programs and campaigns developed by medical societies that advance the field of organized medicine and improve the lives of physicians and the patients they serve. ACEP's COVID-19 response was honored in four categories: Advocacy, Education, Membership, and Communications. For a quick refresher on how ACEP has worked for you, with you, and beside you during this historic pandemic, visit www.acep.org/annualreport.

ACEP also received a 2021 Summit Award, the highest honor given by the American Society for Association Executives, for developing the COVID-19 Field Guide.

Faculty Award Winners Announced

ACEP congratulates the winners of the 2021 Teaching Awards! We're thrilled to honor the contributions of these outstanding educators.

- **National EM Excellence in Bedside Teaching Award**
 - » Chidinma Nwakanma, MD
 - » Hardin Pantle, MD, FACEP
- **National EM Faculty Teaching Award**
 - » Andrew Asimos, MD, FACEP
 - » Heidi Baer, MD, FACEP
 - » Michael Bond, MD, FACEP
 - » Elizabeth DeVos, MD, FACEP
 - » Eric Isaacs, MD, FACEP
- **National EM Junior Faculty Teaching Award**
 - » Frosso Adamakos, MD, FACEP
 - » Sara Andrabi, MD
 - » Jessica Bod, MD
 - » Harman Gill, MD
 - » Dina Wallin, MD, FACEP

CMS Releases Proposed 2022 Physician Fee Schedule

In mid-July, the Centers for Medicare & Medicaid Services (CMS) issued its 2022 Physician Fee Schedule (PFS) and Quality Payment Program (QPP) proposed regulation. The PFS and QPP regulation impacts Medicare payments for physicians and other health care practitioners for the next calendar year. The rates included in the PFS often serve as the basis for which many private payers revise their reimbursement levels, and the regulation includes updates to the Merit-based Incentive Payment System, the quality performance program established by the Medicare Access and CHIP Reauthorization Act (MACRA).

ACEP's regulatory team has provided key takeaways of the 1,700-page regulation on its blog at www.acep.org/PFS2022. All stakeholders, including ACEP, have until Sept. 13 to formally comment on the proposed regulations. If you'd like to stay apprised of the major regulations that affect emergency medicine, subscribe to the weekly Regs & Eggs blog at www.acep.org/regsandeggs.

Surprise Billing Legislation Enters Implementation Phase

The No Surprises Act, passed by Congress at the end of last year, bans balance billing for out-of-network (OON) services starting in 2022 and establishes a back-stop independent dispute resolution process to ensure that clinicians and facilities are paid appropriately for the OON services they deliver. ACEP has advocated on behalf of emergency physicians for two years on this issue and believes the No Surprises Act represents a reasonable solution to this issue, given how damaging initial Congressional proposals would have been for emergency physicians. The interim final regulation was issued by Department of Health and Human Services on July 1, and ACEP's Director of Regulatory Affairs Jeff Davis provides a breakdown of this regulation and how it affects emergency medicine on his Regs & Eggs blog at www.acep.org/IFRnosurprises.

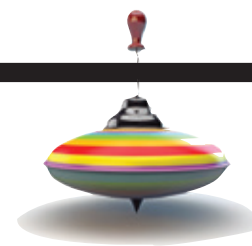
ACEP Now Wins Awards

ACEP Now was recently recognized with APEX Awards for Publication Excellence. Our May 2020 magazine, produced during the early months of the COVID-19 crisis, won an APEX Grand Award (top honors) in the "Magazines, Journals, and Tabloids" category. Our Equity Equation column, a regular feature in the magazine originated by former Medical Editor in Chief Jeremy Faust, MD, MS, MA, FACEP, and curated by Jenice Baker, MD, FACEP; Uché Blackstock, MD; and Dara Kass, MD, was recognized in the "Regular Departments and Columns" section. Some of our 2020 Equity Equation columns on microaggressions, gender discrimination, and social determinants of health were among our most-read articles of the year. The series can be viewed in full at www.acepnow.com/category/equity-equation.



CONTINUED on page 17

A NEW SPIN



My Breaking Point

A mental health crisis in residency showed me the importance of getting help

by SCOTT H. PASICHOW, MD, MPH

HOW TO FIND HELP

Not sure where to start? Here are some options to consider:

- Does your employer offer a peer support program or other mental health support services?
- Do you have any friends or family receiving mental health care who could refer you to speak with someone they trust?
- Your ACEP membership comes with access to the Wellness & Assistance Program (www.acep.org/life-as-a-physician/ACEP-Wellness-and-Assistance-Program). Through this program, you can get three free counseling or crisis coaching sessions in whatever format you prefer (online chat, text, virtual, face-to-face).
- The Physician Wellness Hub (www.acep.org/covid19wellness) has a helpful library of resources, and you can search by topic or source of stress.
- *Psychology Today* (www.psychologytoday.com/us) has a "Find a Therapist" section where you can sort by ZIP code, insurance accepted, issues, types of therapy, etc., which can be helpful if you'd like to speak with someone local.
- If you are having a mental health emergency or are considering self-harm, call the National Suicide Prevention Lifeline at 800-273-8255.



Dr. Scott Pasichow

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I've been in emergency services for years. I've done CPR on infants after a drowning and children who were accidentally shot by their friends. I've told the parents of teens that their children were dead. But despite the tragedy I witnessed, I always felt like I could bounce back. OK, I had to take a day off after the infant drowned, but that was one day—that's it!

When I entered my EM residency, treating patients with horrific injuries began to take its toll.

Maybe it was the volume and frequency, or maybe it was the pressure of being the final "decision maker" and having to make hard choices that had a big impact on my patients. As a PGY-2, one case hit differently than all the rest, and it pushed me over the edge into anxiety and depression; I needed help.

Looking back, it wasn't a terribly steep drop-off. After that shift, I took my anger out on a traffic cone with my car. Still, feeling out of control in that moment indicated to me the pressure was getting to be too much. I had been to therapy before, but now, I was a doctor. I had medical licenses to obtain, ones that people told me I might not be able to get if I had a mental health "problem," and I had a family depending on my professional livelihood. I had just

stepped into a national leadership role. I couldn't afford to give it all up that quickly. And what about my residency program—would they force me to give something up or delay my graduation?

Eventually, my supportive wife convinced me none of that was as important as my taking the first step toward my treatment, whatever that step was.

My Journey

Starting therapy wasn't the hardest part. The hardest part was not giving up on therapy after only a few weeks of sessions. Unpacking and acknowledging all of the anxiety, frustration, fear, anger, and sadness I had pushed down for so long made me feel even worse, and truthfully, that made me feel like I wanted to end it all.

Thankfully, my support network was there for me. It only took the encouragement of a few close friends

SENATE PASSES DR. LORNA BREEN BILL

On Aug. 6, the Senate approved S. 610, the "Dr. Lorna Breen Health Care Provider Protection Act" that prioritizes physician mental health. This comes on the heels of hundreds of ACEP members joining together to lobby for this legislation during last month's Leadership & Advocacy Conference, conducting 287 meetings with legislators and staff from 44 states. ACEP will now focus on gaining support for the House version, H.R. 1677. Get more details at www.acep.org/senate-passes-breen-bill.

and family members to convince me that therapy *would* help—that and starting medication.

Selective serotonin reuptake inhibitors (SSRIs) were a step I never thought I would have to take; to this day, I still sometimes feel like I don't "need" them. Just like I tell hypertensive patients: taking medication only controls the illness but doesn't remove it. I am starting to believe that about my own anxiety.

Therapy taught me how to talk to myself. I learned how the words I used to knock myself down when I didn't "do it right" (whatever that meant) were just stories in my head. I saw how confronting those falsehoods, by asking for people's feedback about a case or conversation, made me realize how untrue the negative stories were. It also revealed that the concern I had about "doing it right" showed on every patient, every time, and is what makes me a good doctor.

Eating well and exercising never really worked well enough to curb my anxiety, but grounding myself, taking deep breaths, and repeating the mantra "I've got this" were the short breaks I needed in the middle of or after a shift to regroup and respond better.

My residency program was there for me. Their focus was to continue to support me in being successful, whatever that entailed, not to stand in my way and tell me how to handle my mental health. Allowing me to retain that power was key to moving past the depths of my depression. So was finding things outside of clinical care. For me, education, working out, and national advocacy proved the remedy. Feeling like I'm working to better the system I'm stuck in day in and day out gives me some sense of control. It has also enabled me to advocate within local systems for positive change. Sure, this is all extra work, but for me, this is what makes me able to do my clinical work. The licensing concerns are still a work in progress, but about three-quarters of states only ask about a mental health diagnosis when it impacts our job, and the Federation of State Medical Boards (FSMB) has policy that seeks to push this number to 100 percent.^{1,2} FSMB is a powerful ally for us to have in breaking down the barriers we face in managing our mental health.

On a Better Path

Why am I telling you this? Because back then, I needed to hear it myself. At local and national meetings, I've begun finding myself in conversations with people about their anxiety, depression, and SSRI use. Frankly, I was shocked how many

FROM THE EDITOR | CONTINUED FROM PAGE 1

plans to change what *ACEP Now* has done well over the years.

But I do think we can improve on showing the emergency medicine community what ACEP members do, whether it is in grueling and often unnoticed committee work or fascinating activities undertaken by sections where we make a difference for our patients and our profession away from the bedside.

I also feel that, as the “Official Voice of Emergency Medicine,” *ACEP Now* must represent multiple viewpoints and address myriad concerns. Whether you practice in a community or academic setting, a rural or urban environment, whether you live in a blue state or red, and regardless of whether you are a member of ACEP or not, you can expect an editorially independent perspective that respects the inputs of every emergency physician.

We are the protagonists of our own stories, and *ACEP Now* is our means of speaking—not only to ourselves but to the world. When patients complain that “the doctor didn’t do anything” and reporters claim that emergency docs are responsible for a \$600 Band-Aid, it is our duty to focus that narrative on the burdens we face taking care of every person who walks through our doors, 24-7-365, regardless of their ability to pay. Our EMTALA mandate gives the emergency physician an ethical construct that no other physician—dare I say no other American—can rival. Emergency physicians meet this challenge on every shift and for every patient, so whenever employers threaten to fire us for speaking out about the lack of safeguards to protect ourselves, our families, and our communities amid a hopefully once-in-a-lifetime pandemic, it is *ACEP Now*’s duty to be the voice of emergency physicians.

But it all starts with content.

In 1996, Bill Gates wrote an essay entitled “Content Is King.” The lessons from that now-25-year-old treatise are still true today. Our content is the heart of *ACEP Now*. Pearls from the Medi-



cal Literature, Medicolegal Mind, Forensic Facts, Kids Korner, Skeptics’ Guide to Emergency Medicine—these columns are among my personal favorites to read every month when the magazine hits my mailbox. In a rapidly evolving profession, it is impossible to keep up with the latest research and with the best tricks of the trade. Our columnists make that task possible for me.

As much as I love to learn from my colleagues and feel the glossy pages under my fingers, a print magazine is simply a

delivery mechanism for content. My goal is to get *ACEP Now* in front of the eyes (and ears) of more and more emergency physicians in their preferred medium. We should have a more multimedia-rich experience to *ACEP Now*—podcasts, videos, maybe one day virtual reality—based content to help hone our technical skills.

ACEP Now is for you, the emergency physician, to educate you, to inspire you, and to change the world for the better. To that effect, I want us to look at emergency medicine more globally, pulling stories and learning from across the continents. Do you remember the fascinating piece in the February issue about Wade Wernecke, MD, FACEP, FAAFP, detailing his near-death experiences while volunteering in Asia? Incredible stories like that are what make our specialty the most exciting in all the house of medicine.

During our daily grind, we experience the greatest of human stories. Our oaths forbid us from sharing many of the details we see or hear about the lives of the patients for whom we care, but when we can, we should share these revelations with one another in these pages. So please, bring your stories forward and, above all else, share the knowledge you have gleaned with other emergency physicians. Email me at cdark@acep.org.

To conclude, I’d like to reflect on a phrase that former Medical Editor in Chief Kevin Klauer, DO, EJD, FACEP, wrote in his May 2019 farewell article for *ACEP Now*, that “opportunity often finds you when you’re ready but not, necessarily, when you’re looking for it.” I certainly was not looking for this assignment, but I know that I am ready to experience the journey upon which we are about to embark. ➕

DR. DARK is assistant professor of emergency medicine at Baylor College of Medicine in Houston, on the Board of Directors of Doctors for America, and Medical Editor in Chief of *ACEP Now*.

there were. Like me initially, they didn’t talk about it publicly either. But knowing that people around me also had their own struggles was invaluable to my own mental well-being. I shouldn’t have been surprised: As many as 60 percent of people in our profession experience some level of burnout due to work.³ I’m sure there are more people out there struggling than you or I know about. You might be struggling right now.

I still work at this. Some days are better than others. COVID-19 was a big blow, but having been in therapy for the two years prior made it much more manageable. I increased my therapy, reminded myself of my grounding while on shift, made a ritual around personal protective equipment usage, and subsequently felt more in control.

During the pandemic, my family moved cross-country, and I started my first job as an attending. This obviously wasn’t easy either, but I had tools to manage. Being postresidency means I have more time for the things I love to do outside of the department, even if most of them relate to my work in the emergency department. During residency, I had to block that time out more intentionally. No one should fear asking for the time off they need to be themselves, but make sure you’re willing to pitch in to help others whenever they need time.

The biggest surprise to me was the ability for people around me to notice my progress. Yes, my wife knows when I’m having a good day or a bad day; she lives with me every day. After about six months of therapy and medi-

cation, one of the interpreters where I trained said that he was glad to see my smile back. This entire time I didn’t think anyone else around me noticed I was struggling. Let that be a reminder—just because someone isn’t saying something doesn’t mean they don’t see it. Just because you think you’re passing doesn’t mean you are. The people around you every day see you; they want you there, and they want you to be happy, even if they haven’t found the way to verbalize it yet.

In the end, take time, find your joy, and, most of all, reach out for help. No one learns emergency medicine alone, and no one will conquer their mental health struggles alone either. ➕

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“A New Spin” is the personal perspective of the author and does not represent an official position of *ACEP Now* or ACEP.

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ACEP4U: Latest Updates from Sections and Committees

MEMBER GROUPS TACKLE HYPERACTIVE DELIRIUM, ULTRASOUND, WORKFORCE, AND MORE

by JORDAN GRANTHAM

ACEP has 30 committees and 40 sections working year-round to advance emergency medicine. Led by emergency physician volunteers, these groups focus on specific niches or clinical topics within the field and regularly produce new policies, webinars, and resources to benefit ACEP members. Here are a few recent highlights:

Task Force Addresses Management of Hyperactive Delirium

The ACEP Task Force Report on Hyperactive Delirium with Severe Agitation in Emergency Settings was approved by the ACEP Board of Directors during their June 23 meeting. The report synthesizes the most current information available regarding the recognition, evaluation, and management of patients in the prehospital or emergency department setting presenting with hyperactive delirium accompanied by severe agitation.

To engage a broad array of experts with the goal of maximizing the task force's recommendations across many audiences, the ACEP Hyperactive Delirium Task Force identified and invited several medical specialty societies to review the text and recommendations. Seventeen reviewers representing the American Academy of Clinical Toxicology, American College of Medical Toxicology, American Society of Anesthesiologists, American Society of Health-System Pharmacists, the Emergency Nurses Association, the National Association of EMS Physicians, the National Association of Medical Examiners, and an advocate for patient safety participated in the review.

The task force strove to create text and recommendations that emphasize safety, professional education, patient evaluation, physiologic monitoring, and other critical safeguards. View the report at www.acep.org/hyperactive-delirium.

Geriatric EM Section Launches New Courses

The Geriatric Emergency Medicine Section recently launched two free online courses that provide a total of five hours of CME credit toward geriatric emergency department accreditation (www.geda.org). The first course, "Excellence in Geriatric Emergency Care: Administrative Know-How," is designed for those interested in implementing initiatives to improve care for geriatric patients in the emergency department. It covers different models of care, measuring continuous improvement processes, and includes tips on how to engage the stakeholders needed to start the process of building a geriatric emergency department.

The second course, "Excellence in Geriatric Emergency Care: Core Content Competencies," focuses on how to implement strategies to improve geriatric care and is perfect for those who are interested in becoming the director of a geriatric emergency department. Both courses are available in ACEP's Online Learning Collaborative at www.ecme.acep.org.

Ultrasound Section Converting iBooks to a New App

The ACEP Emergency Ultrasound Section is combining two former iBooks into a new app called "Practical Guide to Critical Care Ultrasound," which will soon be available for download. The process to convert the books into an app is being led by Rachel B. Liu, MD, FACEP; and Cristi-

ana Baloesescu, MD. The original iBooks, *Practical Guide to Critical Ultrasound Volume 1* and *Volume 2*, were penned by Resa Lewiss, MD, FACEP; Robert Strony, DO, FACEP; and Robert Jones, MD.

PHIC Consolidates Motor Vehicle Policy Statements

The Public Health & Injury Prevention Committee (PHIC), led by Chair Antony Hsu, MD, FACEP, recently revised the "Motor Vehicle Safety" policy statement to incorporate content from two other statements: "Distracted and Impaired Driving" and "Small Motorized Recreational Vehicles." This revised statement was approved by the Board during its June 2021 meeting. Scan the QR code to read the full statement.



Young Physicians Host Workforce Discussion

ACEP's Young Physicians Section (YPS) and Online Education Committee are collaborating on a new content series called EM L.I.F.E.R.S. focused on EM lifestyle concerns: career advancement, finances, work-life balance, parenthood, and more. The most recent episode, filmed in late July, was a discussion about the future of the EM workforce with ACEP President-Elect Gillian Schmitz, MD, FACEP, and EMRA President-Elect Angela Cai, MD, MBA, FACEP. YPS solicited questions from its members to guide the conversation. View the discussion at www.acep.org/ypsworkforce.

EMPC Tackles ED Observation, Optimization

The Emergency Medicine Practice Committee (EMPC), led by chair Daniel Freess, MD, FACEP, revised the following policy statements as part of ACEP's sunset review process for all policy statements. The revisions were approved by the Board at its June 2021 meeting and can be viewed in full at www.acep.org/policystatements.

- "Standardized Protocols for Optimizing Emergency Department Care," a joint statement with the Emergency Nurses Association (ENA), was updated to remove the term "advanced practice provider" in favor of the more specific terminology "nurse practitioners" and "physician assistants."
- "Emergency Department Observation Services" policy statement was revised to expand upon scope of practice/supervision, best practices, telehealth, clinical algorithms and continuous quality improvement. The committee continues to work with the Observation Medicine Section to revise the Policy Resource and Education Paper that is an adjunct to this policy statement and anticipates submitting it to the Board for review by Oct. 2021.

DIHE and AAWEP Host Reception During Leadership & Advocacy Conference (LAC)

In an effort to highlight the importance of women in science and politics, ACEP's Diversity, Inclusion, and Health

Equity (DIHE) Section and the American Association of Women Emergency Physicians (AAWEP) cohosted a reception during LAC21 in Washington, D.C. The event featured speakers Hiral Tipirneni, MD, and Rep. Kim Schrier discussing how to increase representation from women, especially women physicians, in medicine and politics.

AAC Develops EM Residency Definition, Updates Policy Statement

The Academic Affairs Committee (AAC), led by Chair Bruce Lo, MD, MBA, RDMS, FACEP, developed the policy statement "Definition of Emergency Medicine Residency," which was approved by the ACEP Board of Directors during its June meeting. The definition is: "The term 'resident' and 'residency training' in a medical setting should only apply to postgraduate training of physicians within Graduate Medical Education (GME) training programs and should not be used for the post-graduate training of other health professions." The committee did not define "fellow/fellowship" or "intern" because of the use of fellow in the medical setting in various capacities (eg, FACEP) and use of the term in Accreditation Council for Graduate Medical Education (ACGME)/non-ACGME post-residency training programs (especially nonclinical fellowships that are common in large health systems). This definition was created in response to the 2020 Council resolution Amended Resolution 27(20) "Attributing the Unqualified Term 'Resident' to Physicians." Scan the QR code for more background.



The AAC was also asked to review the 2018 policy statement "Financing of Graduate Medical Education in Emergency Medicine" based on the workforce data released in early 2021. The revised statement, which removes prior references to a shortage of emergency physicians, was approved by the Board in June.

Health IT Committee Addresses "Open Notes" Provision

Earlier this spring, ACEP's Health Innovation Technology Committee developed resources to help ACEP members navigate the "Open Notes" provision in the 21st Century Cares Act, which made ED notes visible to patients via the electronic health record portal. It hosted a webinar that is now available on-demand and penned several articles to help emergency physicians navigate this change. View all the resources at www.acep.org/healthinfotech.

Medical Humanities Section Seeks Art and Writing Submissions

The Section of Medical Humanities is accepting submissions for its annual writing and visual arts awards. Submissions are due Sept. 13. Learn more at www.acep.org/medical-humanities-awards. ➦

MS. GRANTHAM is ACEP communications manager.

Is it bacterial or viral meningitis?

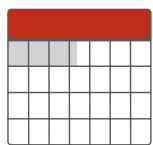
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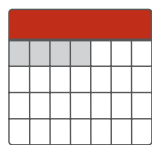
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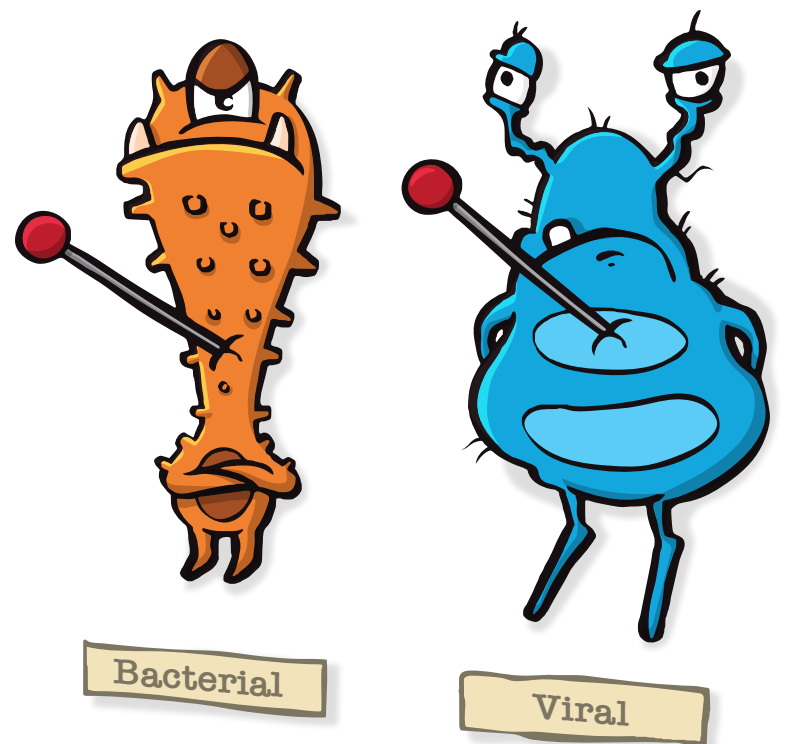


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EMERGEN-SEA MEDICINE

AN OVERVIEW OF SEA URCHINS, CORAL, STARFISH, AND MORE



PHANIE/SCIENCE SOURCE

by CHRISTOPHER HAUGLID, DO; JOHN KIEL DO, MPH; AND ANDREW SCHMIDT, DO

Editor's Note: This is Part 3 of a 3-part series on managing marine envenomations. So far, we've reviewed some general tips and strategies for jellyfish, coral, sea anemones, sea urchins, starfish, and sponges. This month, we'll examine other chordates.

Phylum: Chordata

Subphylum: Vertebrata

Family: Elapidae

Subfamilies: Hydrophiinae and Laticaudinae

Stokes' Sea Snake (*Astoria stokesii*), Beaked Sea Snake (*Enhydrina schistose*), and Yellow-Bellied Sea Snake (*Pelamis platurus*)

Location: Indo-Pacific Ocean (as far north as San Diego, Calif.), Central and South America

Appearance: Variable appearance. All species are venomous and deliver their venom via a set of small front fangs.

Pathophysiology and Symptoms: Initially, symptoms include a painless or mildly painful bite with local inflammation. However, this can rapidly progress to rhabdomyolysis, hemolysis, cardiac dysrhythmias, renal failure, hepatic failure, seizures, and ascending paralysis with subsequent respiratory failure within minutes to hours. Additional symptoms include cranial nerve abnormalities (eg, dysphasia, dysphagia, ptosis), nausea, and vomiting.

Management: A broad laboratory workup with serial measurements should be undertaken, including complete blood count, chemistry panel, creatine phosphokinase, liver function tests (transaminitis is seen in severe toxicity), and urinalysis. Pressure immobilization (*not* tourniquets) of an affected extremity should be performed. Supportive care, including IV

fluids, and observation for at least eight hours is indicated.⁵ Multiple antivenoms are available though no evidence suggests any one preferred agent—if you have antivenom, give it. Antivenoms include:

1. **Commonwealth Serum Laboratories sea snake antivenom:** Administer one to three vials (1,000 units per vial) for any evidence of envenomation (with a 1:10 dilution (1:5 for small children) with 0.9% sodium chloride given via IV over 30 minutes). It is reported that up to seven vials have been safely administered.⁶
2. **Terrestrial tiger snake antivenom:** Effective for *all* sea snakes. Administer one vial (3,000 units).
3. **Thai neuro polyvalent antivenom (NPAV):** Effective for beaked sea snake or spine-bellied sea snake.

Class: Chondrichthyes

Order: Myliobatiformes

Suborder: Myliobatoidei

Stingrays

Location: Worldwide

Appearance: Flat and cartilaginous with a stinger containing a retroserrate barb and venom glands located on the ventral aspect of the tail.

Pathophysiology and Symptoms: There are two phases to injury. Phase one is due to traumatic injury from the barb and is characterized by significant pain, usually peaking around 60 minutes post-exposure, but which can persist for up to 48 hours.² This phase accounts for most of the morbidity and mortality due to hemorrhage, injury to vital organs (as was the case with wildlife expert and television personality Steve Irwin), or subsequent infection. Additional symptoms include nausea, vomiting, diarrhea, muscle cramps, and wound necrosis. Phase two is due to venom release, which causes vasospasm and other significant sequelae, including limb ischemia, car-

diotoxicity (eg, dysrhythmias, heart block, non-ST segment elevation myocardial infarction, etc.) seizures, coma, and death.

Management: Pain control is best achieved with hot-water immersion and/or local lidocaine administration. Patients should be brought to the operating room for removal of any barbs in the chest or abdomen. Infusion of prostaglandin E1 has resulted in successful salvage of an ischemic leg, but insufficient data exists to recommend this as routine therapy. There is no antivenom available.^{2,7}

Family: Synanceiidae (*Also classified in the family Scorpaenidae)

Stonefish

Location: Indo-Pacific Ocean

Appearance: Grey, mottled, and often covered with algae that allow for camouflage. These fish possess multiple spines that release venom in response to external pressure.

Pathophysiology and Symptoms: These are *the most venomous fishes known*, with venom likened to that of a cobra. The venom blocks cardiac calcium channels, increases systemic catecholamine release, simultaneously causing diffuse vasodilation, and increased tissue destruction which propagates uptake of its own venom. Initial effects include rapid onset of severe pain, edema, necrosis, and ulceration. Pain tends to peak at 60 minutes but can persist for several days. Additional symptoms include fatigue, weakness, hyper-/hypotension, syncope, dyspnea, delirium, seizures, and limb paralysis. Severe complications include dysrhythmias, heart failure, heart block, cardiogenic pulmonary edema, hemolysis, and compartment syndrome. Death can occur in as few as six hours from the time of envenomation. Venom remains stable for up to 48 hours after the fish has died, and delayed wound healing for weeks to several months is common.⁸

Management: Pain control and venom neutralization is

FACEPs IN THE CROWD

More than 12,000 ACEP members have achieved Fellow status with the College and use the FACEP designation with pride! Here, we highlight ACEP Fellows who have fascinating hobbies and passions outside the emergency department.

BROOKE THOMAS, MD, FACEP

Brooke Thomas, MD, FACEP, an emergency physician who works in North Carolina and Virginia, volunteers with Mill Swamp Indian Horses. The program works to prevent the extinction of the Corolla Spanish mustang, perhaps the oldest and rarest distinct genetic grouping of American horses, along with a few more rare breeds. Dr. Thomas got involved when her daughter showed an interest; they found it to be the ideal combination of animal preservation, exercise, and community service. She now serves on the board and is involved in the day-to-day running of the program. After it had success with programs helping veterans who suffered from posttraumatic stress disorder, Dr. Thomas recently started a wellness program for first responders who are dealing with vicarious trauma from their continuous exposure to victims of trauma. Dr. Thomas said working with the horses is both fun and challenging—the work can be unpredictable because of the mix of children and animals. She loves that it helps her get outside and still allows her to care for others in an environment of controlled chaos. The combination of animals and people working together to help one another brings her joy—it's her "happy place."



WALTER L. GREEN, MD, FACEP

Walter L. Green, MD, FACEP, associate professor and emergency medicine residency director at University of Texas Southwestern Medical Center in Dallas, started cultivating his interest in silviculture back in 1971 when he and his brother spent their days thinning trees at their parents' farm in Mississippi. Fast-forward to 1992, when he and his wife decided to convert their 210 acres, some of which had been used as pastureland for their cattle farm, into a properly managed forest that could serve as a renewable resource. Now Dr. Green recharges his batteries out in the woods, under a canopy of pine and cypress. Forest management suits his lifestyle better than cattle farming because it requires more of a long-term plan rather than daily management. ("And no crazy cows!" he jokes.) When he's not managing his farm, he's teaching his grandkids the art of woodworking. They recently won an art competition by handcrafting a chess set out of magnolia and cherry tree wood from the farm. He sees commonalities between his work in the emergency department and his time in the woods: "Too many patients in one area is a really bad idea, just like too many trees."



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achieved with hot-water immersion. Heating the site of a stonefish venom injury to 122 degrees F (50 degrees C) for five minutes prevents wound necrosis and hypotension in animal models.⁹ Local lidocaine can also be used for pain management. Patients should be observed for 6 to 12 hours.

Antivenom includes Commonwealth Serum Laboratories stonefish antivenom. All doses are recommended to be given intramuscular due to an increased risk of anaphylactoid reaction. One vial is equivalent to 2,000 units and neutralizes 20 mg of venom. Give one vial for one to two puncture wounds, two vials for three to four puncture wounds, and three vials for five or more puncture wounds.²

Caveats: Watch closely for signs of necrotizing fasciitis due to a high risk for *Vibrio vulnificus* co-infection—give antibiotics early and observe for signs of compartment syndrome.¹⁰

Family: Scorpaenidae (Scorpionfish)

Lionfish (*Pterois volitans* and *Pterois lunulata*)

Location: Indo-Pacific Ocean

Appearance: Similar to stonefish, lionfish possess multiple spines that release venom in response to pressure. Their appearance is variable across 12 species in the *Pterois* genus, but they generally have alternating brown to orange and white stripes or spots.

Pathophysiology and Symptoms: These fish are common to home aquariums and account for the majority of spiny fish-related calls to poison control centers in the United States.¹² Initial symptoms include severe pain that peaks within one to two hours with variable skin changes (eg, erythema versus pallor versus cyanosis). Lesions can progress to hem-

orrhagic bullae with necrosis. Systemic effects are similar to stonefish (see above).

Management: Management is similar to the approach for stonefish envenomation (see above), with the caveat that there is no antivenom for lionfish.⊕

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DR. SCHMIDT is assistant professor of emergency medicine at the University of Florida College of Medicine-Jacksonville.

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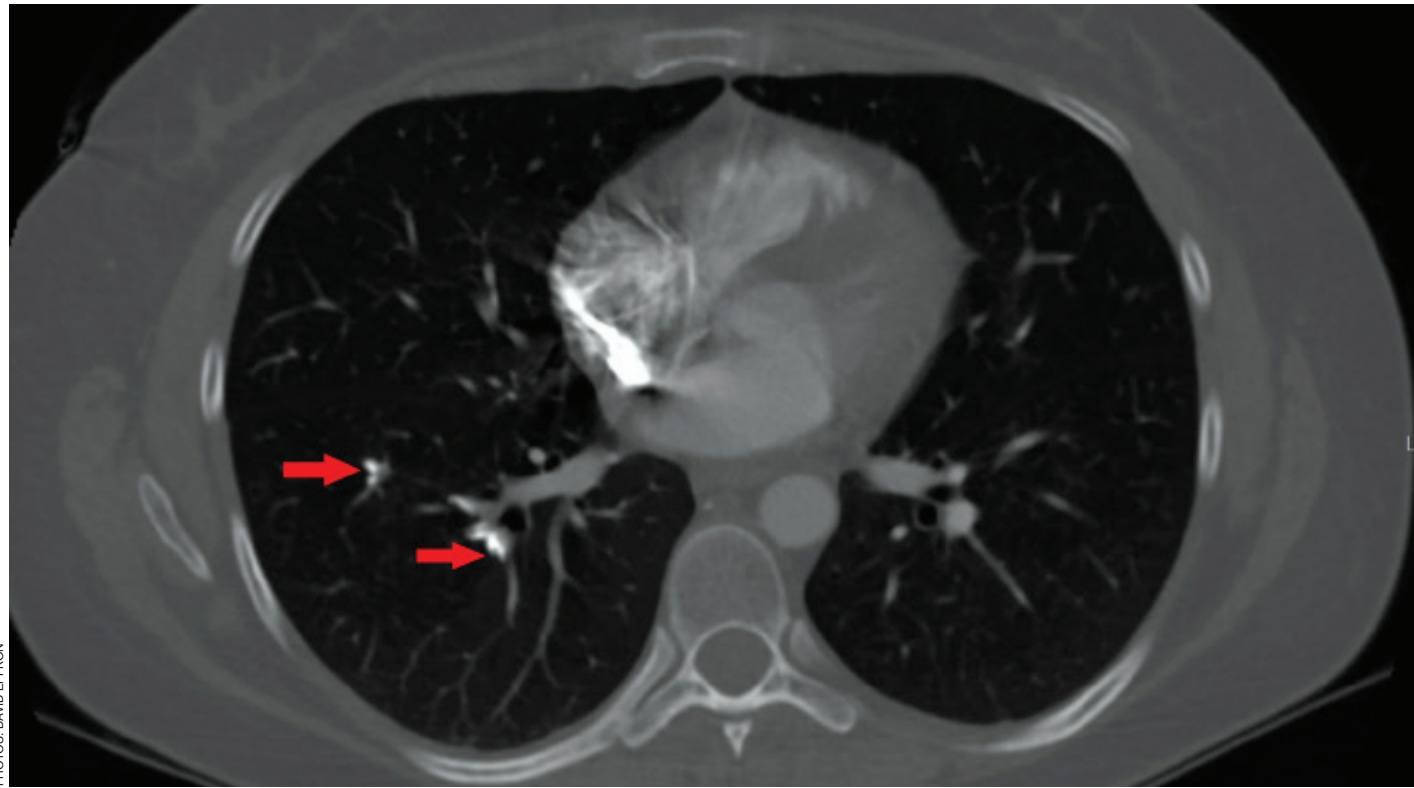
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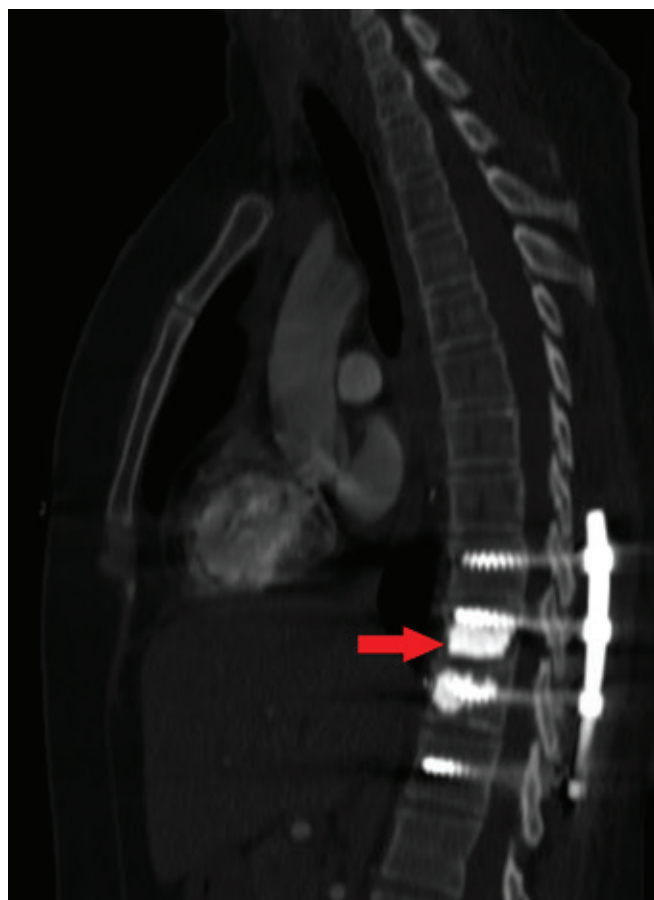
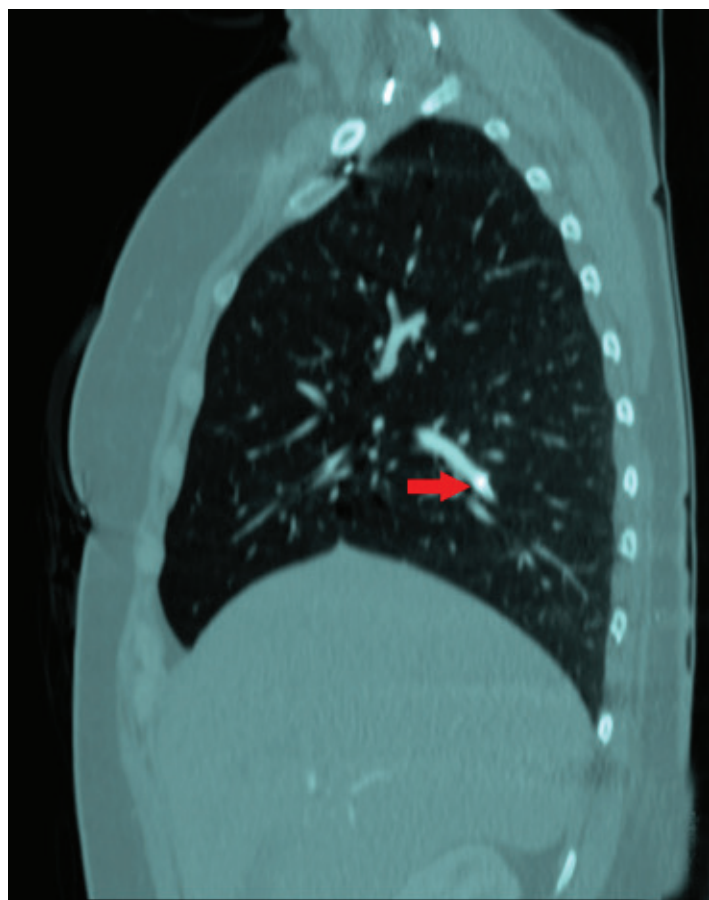
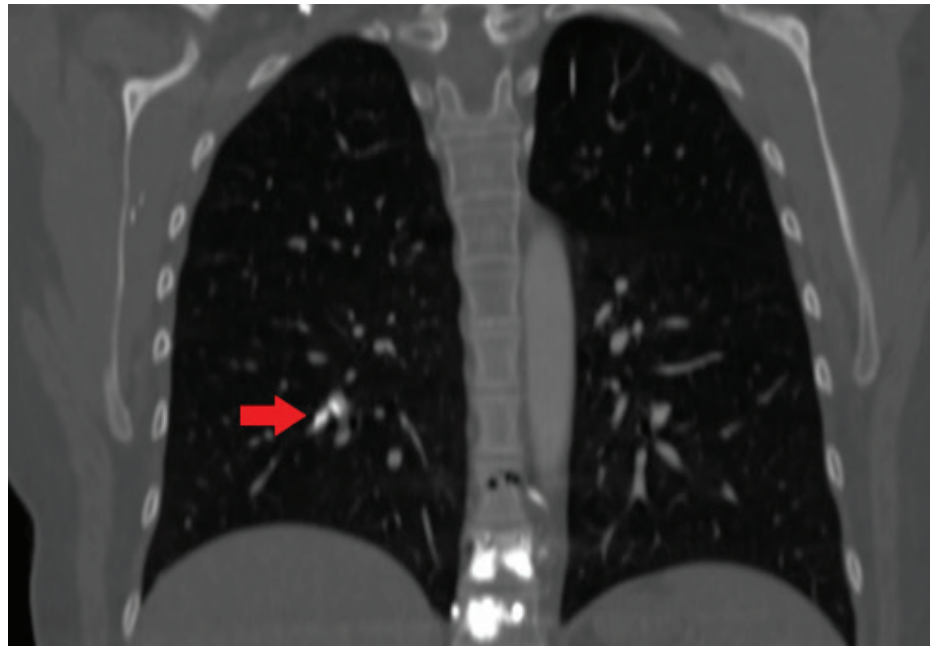
Unusual Etiology of Chest Pain



PHOTOS: DAVID EFFRON

FIGURE 1: CT angiography showing numerous hyperdense foci (red arrows) within the pulmonary arteries.

(TOP): CT axial bone window.
(RIGHT): CT coronal bone window.
(BOTTOM LEFT): CT sagittal bone window;
(BOTTOM RIGHT): CT sagittal bone window.



What's the surprising reason for this patient's pain and weakness?

by GREGORY ADAMS, DO; AND DAVID EFFRON, MD

The Case

A 36-year-old woman presented to the emergency department for generalized weakness. The patient stated that over the past few days she was having a more difficult time getting out of bed. Along with this, she complained of a chronic right-sided chest pain and intermittent lightheadedness. Vital signs showed a heart rate of 123 bpm without any evidence of hypoxia or tachypnea. Physical exam showed normal S1 and S2 heart sounds without any murmurs, gallops, or rubs. Her lungs were clear to auscultation bilaterally, and she had no focal neurological deficit.

Laboratory testing was significant for a white blood cell count of 14.3 K/uL, hemoglobin of 17.8 g/dL, and a platelet count of 548 k/uL, all of which were consistent with hemoconcentration. ECG showed sinus tachycardia with a rate of 111 bpm. There were no ischemic changes or evidence of right heart strain. Troponin T and brain natriuretic peptide were within normal limits. CT angiography was obtained due to concern for pulmonary embolism and showed numerous hyperdense foci within the pulmonary arteries (see arrows in Figure 1) consistent with embolized polymethyl methacrylate (PMMA). While in the emergency department, the patient's pain and nausea were treated symptomatically. She was given lactated ringers due to concern for dehydration. After a period of observation in the department, the patient requested discharge.

The patient stated that one year prior she was involved in a fall and as a result suffered T₁₀–T₁₁ compression fractures resulting in a kyphoplasty. Imaging after the procedure showed evidence of cement noted in the subsegmental pulmonary arteries of the right lower and left upper lobes. She had a resulting follow-up transthoracic echocardiogram that showed elements of pulmonary hypertension, which was confirmed with right heart catheterization. As a result, the patient had been dealing with chronic right-sided chest pain since the event and required pain management intervention. In addition, her hematologist recommended anticoagulation with warfarin for six months, which she had completed.

Discussion

Pulmonary cement embolisms occur after kyphoplasty by two primary mechanisms: spilling into venous plexuses or retrograde leakage into the arterial system.¹ This occurs when the cement placed is not solid enough or is under elevated pressure.¹ The prevalence is widely variable in the literature, with ranges varying from 3.5 to 23 percent, depending on the diagnostic study used.² Some patients are asymptomatic; others can have typical symptoms of pulmonary emboli such as dyspnea, chest pain, hypoxia, or arrhythmia.³ There have been some reports of patients experiencing cardiac tamponade and cardiac perforation.¹ Symptoms rarely occur during the procedure, and most are noted days to weeks after.³

There is no consensus on treatment for this condition. One group proposed an algorithm for treatment options based on location and symptomatology (see Figure 2).² If a patient is asymptomatic with a central clot or symptomatic with a peripheral clot, anticoagulation is recommended. Patients who are symptomatic with a central clot should have surgical removal considered. Finally, asymptomatic patients with peripheral emboli can be safely monitored. Others suggest endovascular removal of the emboli to prevent further migration of central clots and symptomatic peripheral ones.³ Based on one in vitro study, it does not appear that PMMA facilitates platelet aggravation or clot formation.⁴ Overall the prognosis for pulmonary cement embolism appears to be good, and in the literature, there are only six associated mortalities reported.¹ ⁺

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DR. ADAMS (left) is a third-year resident and **DR. EFFRON** (right) is an attending physician in the department of emergency medicine at MetroHealth Medical Center and Case Western Reserve University in Cleveland.

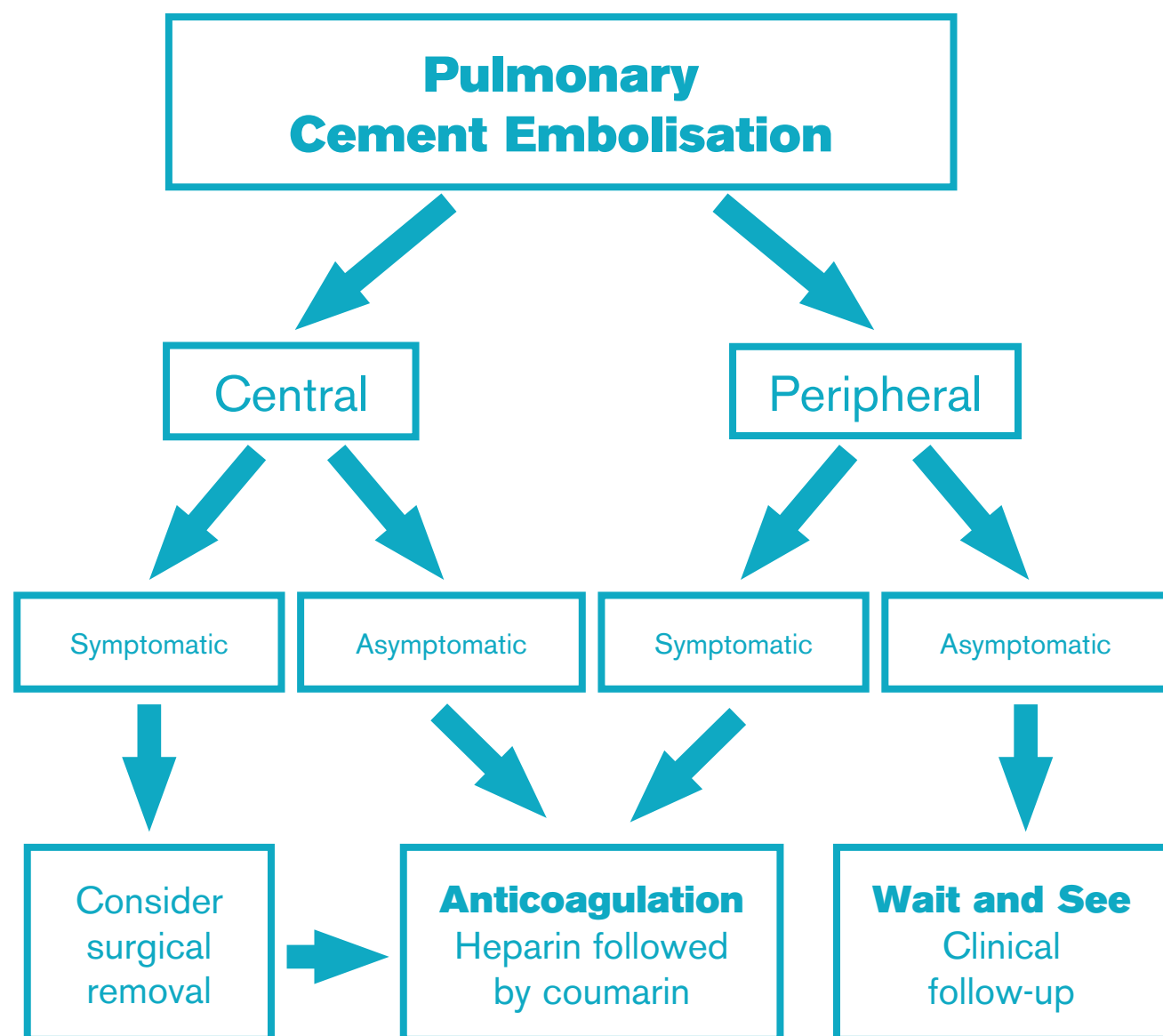


FIGURE 2: Decision tree for the management of pulmonary cement embolism.

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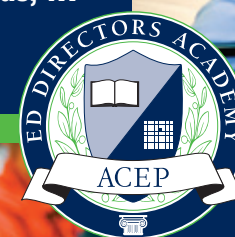
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TERMINAL EXTUBATION

A patient- and family-focused approach to performing this palliative procedure in the ED

by FATIMA HOSAIN, MD; GREG WALLINGFORD, MD, MBA; AND KAREN JUBANYIK, MD

During a busy ED shift, you are called to the resuscitation bay to evaluate an 86-year-old woman found by EMS. She was found alone and unconscious and was intubated in the field for airway protection. Your workup in the emergency department reveals a large ascending aortic dissection that, per the surgeon, is likely fatal without emergent surgery. Soon, her family arrives and informs your team that the patient had previously requested “do not resuscitate” and “do not intubate” (DNI) directives and would not want invasive surgery. After speaking with the surgeons, the family requests that the patient be taken off the ventilator in keeping with the patient’s wishes. What are your next steps?

As emergency physicians, intubating patients is an essential component of our job. We are well-versed in the procedures, medications, and equipment available to swiftly and safely secure a patient’s airway. But sometimes, as we gather more information, we will be asked to perform the opposite: to assist with terminal extubation. Although this decision may seem daunting, under the correct circumstances, terminal extubation is an important skill that, according to the American Board of Emergency Medicine Model of the Clinical Practice of Emergency Medicine, should be within the scope of practice of all emergency medicine clinicians.¹

Terminal extubation should be considered if the patient has an advance directive specifying DNI or their decision maker clearly states that intubation is not consistent with the patient’s established wishes. Specific circumstances in which intubation may occur, then need to be reversed include cases in which a patient arrives actively coding with limited information, cannot communicate and has no decision maker readily available, arrives prior to discovering medical history that worsens prognosis, or is discovered to have a new fatal diagnosis for which intubation is deemed nonbeneficial.

Once the decision to proceed is made and appropriate team members have been mobilized, emergency physicians should consider the timing of the extubation process. Depending on the circumstances, it may be prudent to await the arrival of other family members.

In the most straightforward scenarios, there is a clear decision maker or written documentation requesting DNI and no prohibitive time nor resource constraints in the emergency department. One simple communication tip to help decision makers with this difficult decision is to refocus the discussion on the patient and their wishes: “Tell me about [patient name]. If [patient name] could talk with us right now, what do you think they would tell us to do?” If intubation is not part of the patient’s goals of care, the emergency physician should move forward with terminal extubation.

Terminal extubation may also be an appropriate option if a physician concludes aggressive care is nonbeneficial or not

appropriate. For example, during the COVID-19 pandemic, with limited life-sustaining equipment (ventilators, extracorporeal membrane oxygenation) and limited ICU bed availability, some emergency physicians were asked to terminally extubate moribund patients. We acknowledge that there will also be circumstances in which the decision to terminally extubate is better made as an inpatient, including patients who lack a clear decision maker, a code status that cannot be clearly elucidated, an unclear prognosis, or prohibitive resource or time constraints in the emergency department. Despite this, we believe that terminal extubation in the emergency department is appropriate in some situations and therefore an important skill set for emergency physicians.

Preparation

Appropriate preparation for terminal extubation is a critical, often overlooked step to ensure a smooth process for all parties. We must educate and prepare staff about this procedure before the need acutely arises. Consider identifying nurses in advance who can have reduced assignments while they assist with patients undergoing terminal extubation. If available, resources to offer spiritual and emotional support are especially valuable. Many inpatient palliative care teams have a dedicated chaplain and social worker who are specifically trained for these scenarios, and their expertise should be utilized.

Once the decision to proceed is made and appropriate team members have been mobilized, emergency physicians should consider the timing of the extubation process. Depending on the circumstances, it may be prudent to await the arrival of other family members. Understanding the hospital’s visitation policy is also important, as the inability to allow certain family members to visit may affect the decision of when to extubate. For example, some adult emergency departments do not allow visitors under age 18, which might push family to instead pursue extubation as an inpatient, where visitation rules are less stringent.

Once family is gathered, it is essential to set expectations and provide anticipatory guidance regarding what might happen and what symptoms the patient might experience. One common question from family members is how long the process will take. Although this can vary, studies indicate median time to death after ventilatory withdrawal for terminal extubation is 0.9 hours, and the vast majority die within 10 hours.² As physicians, we should clarify this uncertainty in advance. “I wish I knew exactly how long this might take. It usually happens within 10 hours, but I can’t give you an exact answer. I can promise we will do our best to make your loved one comfortable.”

After communicating with the family, identify an appropriate room for the extubation to occur. Ideally, this space should be private, quiet, and spacious enough to accommodate family members; some emergency departments have had success in utilizing observation or “flex” rooms for this purpose. With the assistance of the registered nurse and patient technicians, take a moment to set up the room by muting monitors and providing water, chairs, tissues, and blankets for loved ones.

Extubation Management and Disposition

Once the patient and family are ready, the emergency physician should shift focus to the medical management of extubation. In anticipation of common post-extubation symptoms, emergency clinicians should have push-dose medications readily available, including opioids for pain or dyspnea, benzodiazepines for anxiety, glycopyrrolate for terminal secretions, and steroids or nebulized epinephrine for stridor.³ In addition to medications, a towel and suction are helpful to manage excess secretions on the endotracheal tube and in the oropharynx. Depending on the patient’s current respiratory status, we may opt for either direct terminal extubation or a terminal wean in which ventilatory settings are reduced in a stepwise fashion every few minutes to provide a more gradual decrease in respiratory support.⁴ The respiratory therapist may be able to assist with this process. After assembling the multidisciplinary team, communicating with family, and preparing the room and medications, the extubation itself may often feel like the easiest part of this process.

Following extubation, it is important to consider potential dispositions if time to death is prolonged. We should consider whether patient needs might best be met in inpatient hospice, home hospice, or the acute care hospital. Coordinating with the case manager, social worker, or chaplain may help elucidate which options are most appropriate. If available, we should collaborate with existing palliative care teams to utilize appropriate resources. These teams can provide guidance and support, especially for physicians new to the process.

Systems-Level Considerations

Organizing terminal extubation in the emergency department may seem overwhelming, especially if there are no existing systems in place to help guide busy physicians through these steps. To mitigate this barrier, emergency departments should pre-establish protocols and order sets to streamline this process for clinicians. These protocols can help identify patients who are good candidates for ED extubation and outline clear steps forward, including who to call and what resources are available.

As part of these protocols, it is prudent to

pre-identify private care rooms/flex rooms in our emergency departments that may be closer to the nursing station, quieter, and adaptable to larger families. Emergency departments should also create order sets with common medications and dosing recommendations for end-of-life issues. They should also address how to set up the room (eg, turning off the monitors and providing chairs). These order sets significantly reduce cognitive burden and improve consistency, which is especially important given wide variations in comfort levels of physicians carrying out this procedure.

If possible, offer training on terminal extubation to all ED staff and identify champions from nursing, care coordination, social work, and chaplaincy as well as physicians, nurse practitioners, and physician assistants who can help to integrate and improve this process. Finally, we should anticipate staff and resource constraints and proactively address common challenges (eg, chaplain availability during nights or weekends, feasibility concerns during peak hours, etc.). Our palliative care colleagues may be able to provide us support during these times. Ideally, multidisciplinary huddles should occur after each terminal extubation to improve the experience through quality improvement initiatives and build team resilience. A team-based approach can help make this complex process easier for patients, families, and hospital staff.

Conclusions

Although performing terminal extubation in the emergency department presents unique challenges, it is likely that all emergency physicians will encounter appropriate scenarios for terminal extubation. By utilizing multidisciplinary teams, providing clear communication to families, creating systemwide protocols and order sets, and continually assessing these protocols, we can streamline this process and provide better care for our patients. It is our hope that this guidance will help you to carry out this important procedure for appropriate patients in the emergency department while avoiding common pitfalls. +

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DR. HOSAIN is third-year emergency medicine resident at Yale New Haven Hospital in Connecticut.



DR. WALLINGFORD is a fellow physician in hospice and palliative medicine in the department of internal medicine at Dell Medical School at the University of Texas at Austin.



DR. JUBANYIK is associate professor of emergency medicine at Yale University School of Medicine.

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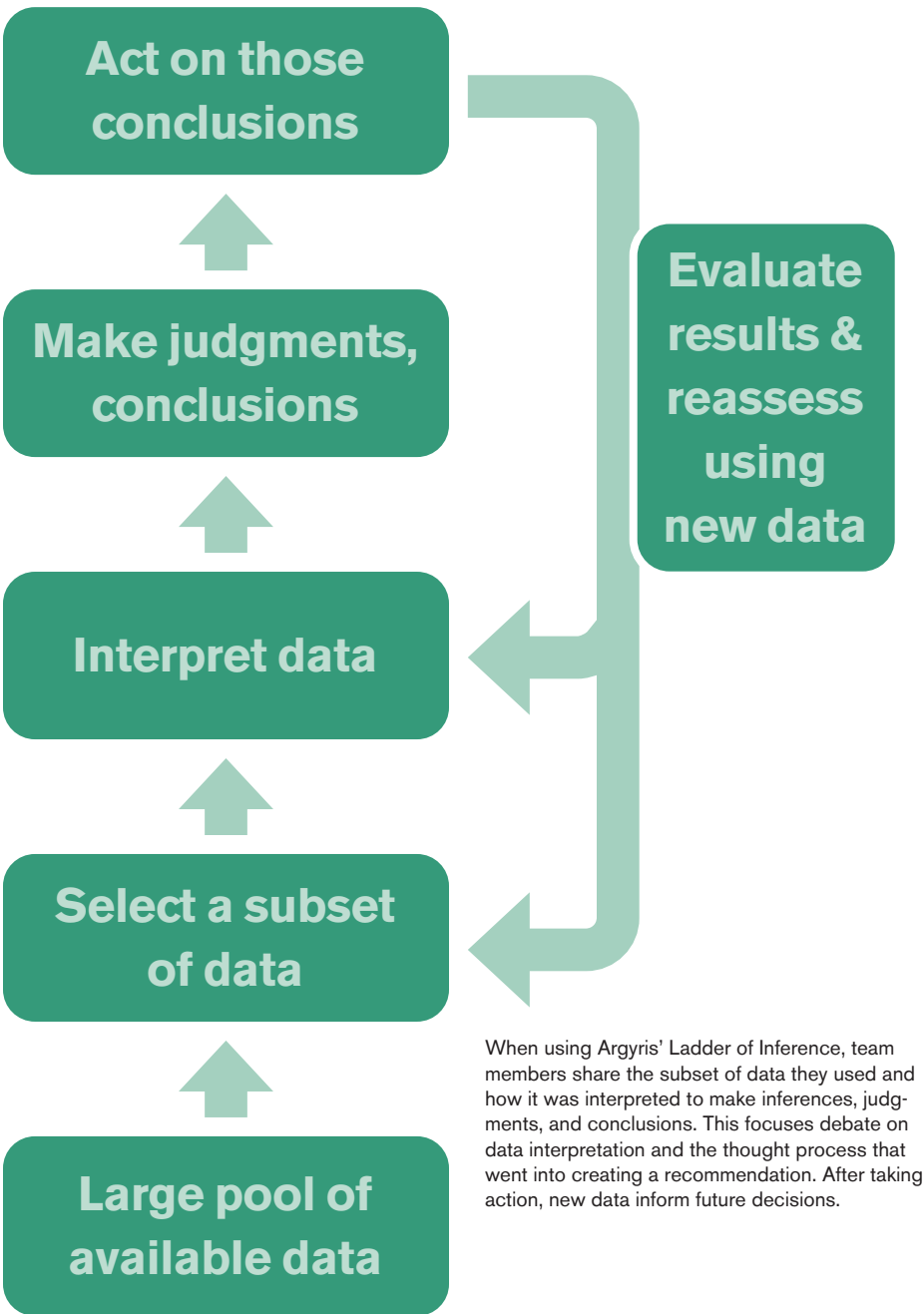
What's *Really* Best for the Patient?

TIPS FOR PRODUCTIVE HOSPITAL POLICY DISCUSSIONS

TABLE 1: Key Features of Productive and Nonproductive Discussion

Productive Discussion	Nonproductive Discussion
Open-ended questions	Closed-ended questions
Exploratory responses » What does this accomplish? » How? » Why?	Confirmatory responses » Right? » OK?
Psychological safety	Consensus-seeking
A balance of inquiry and advocacy	Ego
	Strong advocacy without sufficient inquiry

FIGURE 1



by KEENAN M. MAHAN, MD, MBA; AND JOSHUA M. KOSOWSKY, MD, FACEP

At the hospital's monthly interdisciplinary meeting, a lively discussion takes place: Is there an optimal pathway for patients who present to the emergency department with chronic abdominal pain? One by one, representatives from emergency medicine, general surgery, gastroenterology, pain management, radiology, nursing, and hospital administration make recommendations. At one point, a debate arises as to whether patients might be more appropriate for disposition to an observation unit versus the inpatient ward, and it becomes clear no consensus can be reached. Someone makes the suggestion that all patients be monitored in the observation unit for the first 24 hours, asserting that this is "what's best for the patient." Without further objection, the team's focus shifts to the topic of multimodal pain management. The issue of final disposition remains unresolved.

This sort of group dynamic is familiar to many of us working in complex health care environments. Claims that a favored approach is what's best for the patient may be made in good faith but often have the effect of shutting down further discussion and silencing dissent. To understand why this phrase is so pernicious, it helps to understand the purpose of interdisciplinary dialogue in the first place. When physicians, nurses, and administrators with different perspectives and diverging interests come together, opinions as to what's best for the patient should vary. The goal, then, is not to perfectly align opinions

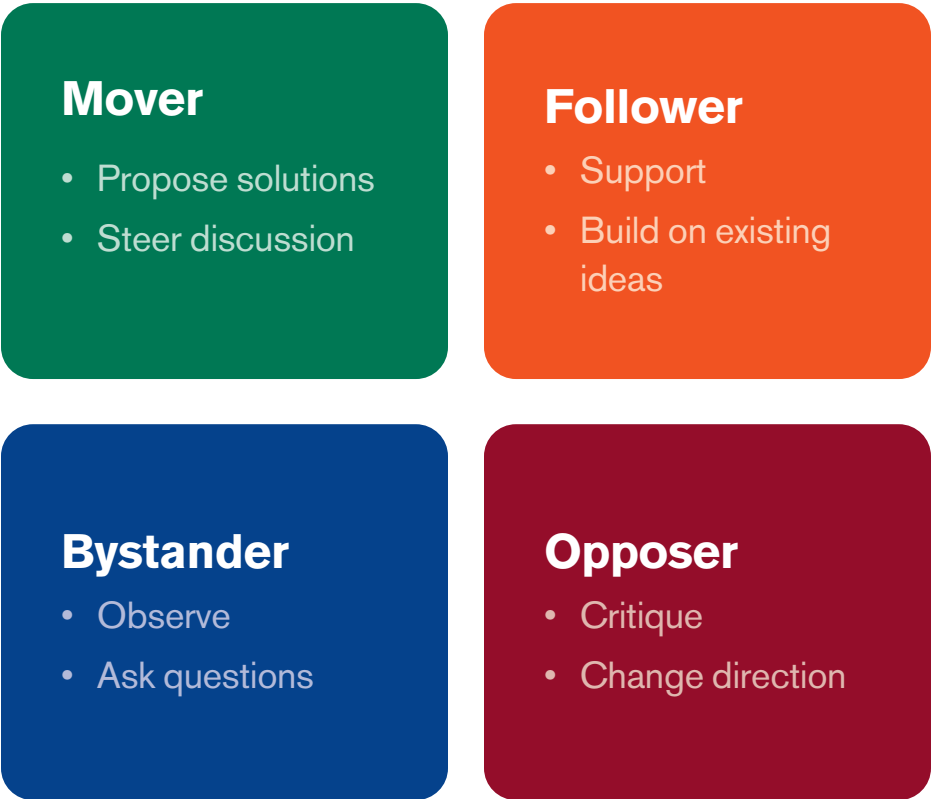
and agendas to reach consensus but to balance them and emerge with an informed, actionable outcome. That said, how does one go about making interdisciplinary discussions more productive? Is there a way to use "what's best for the patient" not as a bludgeon but as a rallying call?

Strategies for Productive Conversations

Much ink has been spilled on this topic, but for clinician leaders, we suggest leveraging many of the same skills that we employ in taking a patient's medical history.¹⁻³ Practice open-ended inquiry, focus on the "how" and "why," search out facts and missing information, promote inquiry, test assumptions, seek alternate explanations, and avoid judgmental or conclusory statements. Leaders should promote an environment of psychological safety by allowing all participants to speak up, encouraging and applauding dissent, and identifying when differences in status or seniority interfere with debate (see Table 1). A healthy debate should focus on the thought processes, assumptions, and underlying data—rather than opinions—that team members used to arrive at their conclusions.

Agreed-upon frameworks, such as Argyris' Ladder of Inference (see Figure 1), help teams appraise claims on the basis of objective data and the decision-making process.⁴ When evaluating a claim using Argyris' Ladder, team members identify the objective data and underlying assumptions used to draw conclusions. Team members then explain the decision-making process used to decide on a course of action based on those data and as-

FIGURE 2



Kantor's four-player model proposes that a more productive discussion comes from healthy debate. A team leader can facilitate debate by assigning roles to approach a proposal from different viewpoints. This ensures the proposal is thoroughly evaluated before approval.


sumptions. By seeing how team members arrive at their conclusions, the team as a whole can better evaluate claims and come to agreement as to a course of action. This framework has the benefit of being recursive, as outcomes from one round of inquiry lead to additional data and further conclusions.

Kantor's four-player model (see Figure 2) focuses on the "who" of a team, characterizing individuals based upon their roles in the decision-making process: movers (propose, steer), followers (support, build on), opposers (critique, change), and bystanders (observe, ask questions).⁵ While seemingly simplistic, this methodology highlights distinct functions within all decision-making teams. In the absence of these functions, decision making may suffer, so team leaders should consider assigning roles up front before starting the process.

Devil's advocacy and dialectical inquiry are two other time-honored forms of structured debate (see Figure 3).² Both methods empower team members to evaluate objective data, identify underlying assumptions, and assess potential outcomes. With devil's advocacy, specific team members are assigned to critique the current leading recommendation, eliminating the emotional charge required to be a lone dissenter when the team's efforts are focused on moving forward. Dialectical inquiry involves forming small groups to critically assess two or three different proposals in parallel, with each group evaluating another group's recommendation. Regardless of method, when debate closes, the team as a whole should emerge with a shared set of facts and assumptions from which a final recommendation can be made.

Planning Up Front Leads to Productive Debate

Employing a structured framework for debate requires effort up front, but the payoff is higher-quality decision making and a healthier balance of cognitive conflict as opposed to emotional conflict.^{2,3} These methods may feel burdensome in the moment, but better decisions and more highly functioning teams save costs—time, money, and effort—down the line.¹

When thoughtful inquiry and open discussion are encouraged, the statement "what's best for the patient" changes from a conversation stopper to the common ground team members rally around. By focusing on the "why," interdisciplinary teams can engage in productive conversation and come up with thoughtful solutions that impact not just what's best for patient but for the entire health care system and for the community. 

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DR. KOSOWSKY is assistant professor at Harvard Medical School.

FIGURE 3

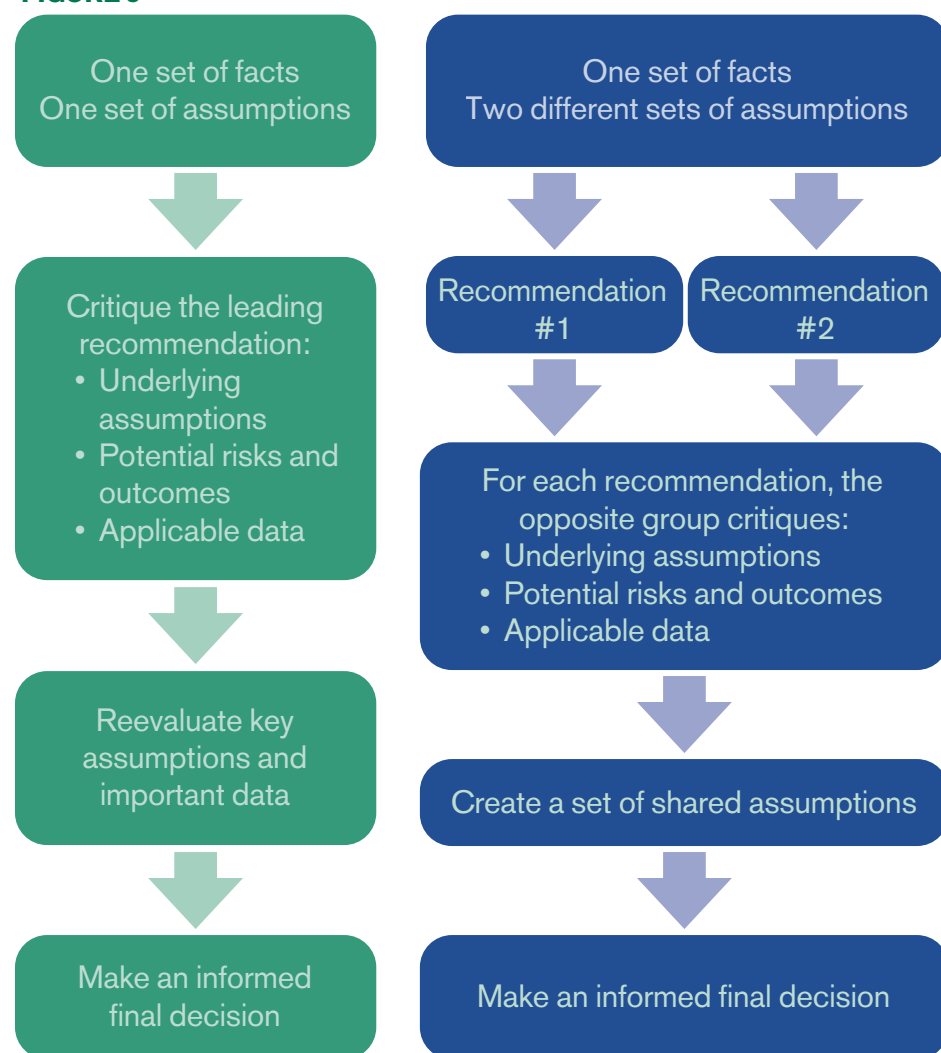


FIGURE (left). Devil's advocacy identifies and critiques the underlying facts and assumptions that must be true for a proposal to achieve its aims. At the end of debate, the team should reevaluate said assumptions and draft a final recommendation. **FIGURE (right).** Dialectical inquiry critiques the facts and assumptions of two or more proposals. The team then creates a set of shared facts and assumptions that should be used to reshape a current proposal or develop a new one.

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MEET THE ACEP COUNCIL OFFICER CANDIDATES



PLATFORM STATEMENTS

The Council officer candidates responded to this prompt:

How do you see yourself advocating for the College as a nonvoting participant at ACEP Board meetings?

COUNCIL SPEAKER CANDIDATE



COUNCIL SPEAKER

The following member is a candidate for ACEP Council Speaker.

Kelly Gray-Eurom, MD, MMM, FACEP

Current Professional Positions: chief quality officer and assistant dean for quality and safety; associate chair, director of clinical and business operations, and director of PA services department; and professor, department of emergency medicine, at the University of Florida/UF Health Science Center, Jacksonville

Internships and Residency: emergency medicine residency and internship, University of Florida Health Science Center

Medical Degree: MD, University of Vermont College of Medicine (1992)

Response

✓ I am a reserved person, but I am not a quiet person. For the past two years, I have used my voice as the Vice Speaker to advocate for Council and the College at the ACEP Board of Directors meetings. Although I couldn't raise my hand to be counted when the vote was called, my comments—and more importantly our Council's comments—were given the opportunity to impact each and every one of those votes.

Council officers are included in every Board meeting and session. The Speaker is part of the Executive Committee of the Board. The Vice Speaker is part of the Finance Committee. We contribute to ACEP strategic planning and high-level deliberations. We are guests of the Board, given the opportunity to actively participate in different facets of the College because we represent the voice and actions of Council. That is a privilege and responsibility I value very much.

The Speaker and Vice Speaker, with the assistance of the Council Steering Committee, work to enhance the impact of their two seats at the Board table through preparation, knowledge, and balance.

Council deliberations help form the framework of College evolution. As a Council officer, I have to be prepared to discuss, advocate, and at times defend Council's thoughts and

actions on resolutions. The Board determines the final action items around each resolution, but they are held accountable to the Council process through the Council Standing Rules (CSR) and the ACEP Bylaws. Knowledge of those documents (and an easily accessed copy of both) help ensure the correct steps are followed during complex decisions. Sometimes the thoughts at the core of those decisions get tricky. The fiduciary responsibility of the ACEP Board is to the College. The fiduciary responsibility of the Council officers is to the members of Council. That difference is subtle but very important because it promotes balance. The difference empowers your Council officers to encourage the balance of Board opinions with thoughts from Council during the Board meetings.

Voting privilege aside, the Board listens to the voices of the Speaker and Vice Speaker because our two voices bring the entirety of Council to the conversation. I hope to promote and increase those conversations over the next two years.

COUNCIL VICE SPEAKER

The following members are candidates for ACEP Council Vice Speaker.

Melissa W. Costello, MD, MS, FACEP, FAEMS

Current Professional Positions: staff emergency physician, Baldwin Emergency Group, PC, Mobile Infirmity Medical Center, Mobile, Alabama; staff emergency physician, Emergency Room Group, LLC, Singing River Hospital System, Pascagoula, Mississippi; staff emergency physician, Envision Healthcare, Ascension Sacred Heart Hospital, Nine Mile Free Standing ED, Pensacola, Florida; clinical appeals consultant/utilization review, AirMethods Corporation, Denver, Colorado; EMS medical director for Mobile Fire & Rescue and Urban Search and Rescue, Federal Bureau of Investigation Mobile Division SWAT Medical, Baptist LifeFlight/Alabama Lifesaver/AirMethods, and Mobile Police Department and Police Surgeon; medical officer, Trauma

Critical Care Team—South, U.S. Department of Health and Human Services

Internships and Residency: emergency medicine residency, Johns Hopkins University School of Medicine, Baltimore

Medical Degree: MD, University of Alabama School of Medicine (2000)

Response

✓ The Council has been well served over many years by its consistency and predictability. Very little has changed in the basic structure and agenda in my 20 years of participation. I have spent my time in the Council either as the lone councillor from a section or as one of two or three councillors from a small state. Over the last few years, there has been robust discussion and task force work regarding the size of the Council as we approach the limits of hotel capacity to accommodate an organization of our size. As we continue to grow, the representation ratios, councillor allocations, and in-person attendance requirements will need to be revisited so that everyone from the largest states to the solo councillor believes they have equal standing in our deliberative process.

Last year, COVID forced us to more fully utilize asynchronous testimony and remote participation in the annual meeting. These are innovations that allowed for more efficient use of the reference committees members' time, single councillors to contribute to all three reference committees, and a consent agenda from minute one of the "floor" debate. I am convinced these innovations engender greater focus on pivotal issues that benefit from live debate. While there are some kinks to be worked out, I was inspired by the degree of engagement and participation in asynchronous testimony. Although we are returning to the "pre-COVID" way of conducting the Council this year, it is my hope that some hybrid of these new tools will remain in place in order to engage a wider swath of members in the Council process.

Kurtis A. Mayz, JD, MD, MBA, FAAP, FAAEM, FACEP, FACLM

Current Professional Positions: traveling emergency medicine physician, United States

COUNCIL VICE SPEAKER CANDIDATES



Acute Care Solutions

Internships and Residency: emergency medicine residency, Stony Brook University Medical Center, Stony Brook, New York
Medical Degree: MD, University of Illinois, Champaign-Urbana (2011)

Response

✓ I want every councillor's voice heard. One lesson learned from our 2020 meeting was a more longitudinal Council timeline is beneficial to that process. The use of asynchronous testimony was instrumental in the success of the meeting, and we should continue to develop that process further. The development of Council work groups on "hot button" issues could help facilitate the creation of resolutions as well as limiting the sometimes duplicative nature of resolutions. In doing so, we create a more contemplative environment during which ideas can be more thoroughly vetted and refined prior to the Council meeting, with the goal of making the meeting more streamlined and efficient. This process also assists smaller chapters and sections with limited representation in ensuring that their voices can be heard in a way that is sometimes more challenging in the traditional reference committee process.

Council and Council meeting procedure education would help enhance the efficiency of meetings. Approximately one-third of our councillors are new each year. We currently rely on new councillor orientation to introduce the Council and its procedures. As the Council work becomes longer in scope and timeline, it would help to have accessible basic online modules or optional live on-

line opportunities to learn about the Council process and parliamentary procedure. We should also have a resolution development committee that could formally serve to review and provide feedback on resolution ideas and resolutions in development.

At the Council meeting, efficiency is paramount, and we need alternate ways of disseminating information so we are ready to work when the gavel hits. As chair of the Council meeting subcommittee, I advocated limiting the number of in-person speeches in favor of increasing the use of on-demand formats. While I believe that it is important for the candidates and ACEP leadership to have live interaction with the Council, I also believe that we can be more selective in our other presentations. Although it may seem counter-intuitive, by limiting some presentations to prerecorded online formats, I'm convinced we can get more voices and messages heard. Some issues are urgent and need live debate. Others may not be.

Finally, it is important that we continue to leverage technology to ensure a smooth meeting process. We need to ensure that the meeting space is equipped with adequate wi-fi capability that can support our growing numbers. We need to ensure that the technology that we use for amendment submission and the voting process is user friendly and free of error. Our collective portfolio of online and technological services needs to ensure that we can effectively keep councillors up to date and actively engaged in the process before, during, and after the meeting. Once again, the key is that every voice is heard. ➕

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THE BREAK ROOM**Criticism of Expedited Partner Therapy for Sexually Transmitted Infections (STIs)**

Treatment of partners in the setting of STIs is medically appropriate. This article ["Re-think STI Care," May 2021] did not address the pitfalls of prescribing medication for an unknown and unseen patient whose medical history cannot be confirmed. Anaphylaxis to cephalosporins is well-known, and there are numerous medications with potential adverse interactions with azithromycin.

As a physician, I am unwilling to subject an unknown patient to potential harm and am equally unwilling to incur the legal liability attached to an adverse outcome in this situation, no matter how noble the cause (health care equity).

The (potential) patient has the responsibility in this case. ED physicians are neither qualified nor justified to act "in loco parentis" for the community.

Gary Roberts, MD, JD
Davis, California

FROM THE COLLEGE | CONTINUED FROM PAGE 3**ACEP Board Approves Policy Statements**

During its June 2021 meeting, the ACEP Board of Directors approved the following new policy statements:

- Definition of an Emergency Medicine Residency
- Emergency Medicine Workforce

The following revised statements were approved:

- ED Observation Services
- Financing of Graduate Medical Education in Emergency Medicine
- Guidelines for Undergraduate Education

in Emergency Medicine

- Motor Vehicle Safety
- Standardized Protocols for Optimizing ED Care

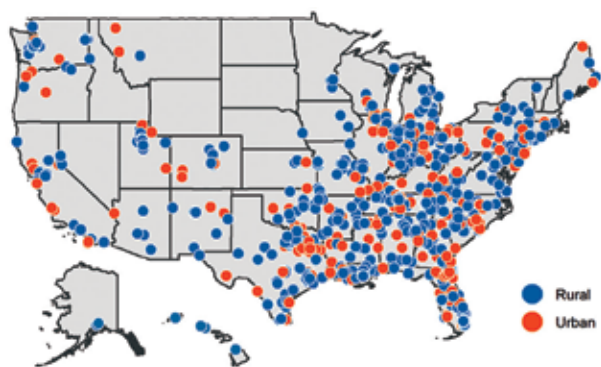
During the same meeting, these statements were also reaffirmed:

- Anonymous Complaints to State Licensing Boards by Third Parties
- Anonymous Expert Physician Testimony for a State Medical Licensing Board
- Expert Witness Guidelines for the Specialty of Emergency Medicine

Visit www.acep.org/policystatements to read the full documents. ➕

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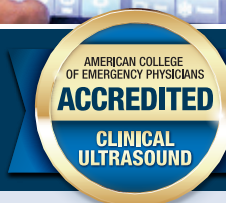
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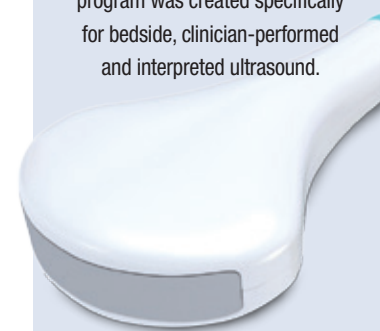
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5 Questions on Employment Contracts

EMERGENCY MEDICINE EXPERTS OFFER TIPS ON EVALUATING JOB AGREEMENTS

ACEP Now recently talked with Rade Vukmir, MD, JD, FACEP, Chair of the ACEP Medical-Legal Committee, and Scott Altman, MD, MPH, MBA, FACEP, a longtime emergency physician who has assisted hundreds of EM residents through the employment process, about some common questions related to EM employment contracts.

What's the most significant change you've seen in EM employment contracts since the start of the pandemic?

DR. VUKMIR: The single most significant change in emergency physician personal service contracts in the post-COVID-19 era is the accentuation of the potential importance of the force majeure contract provision. In its literal legal translation, “the act of God” provision allows contracted parties to vary other significant contractual terms based on an unanticipated catastrophic event. ... In addition, more practical aspects of standard emergency physician contractual language that assume greater importance in uncertain times include family leave provision, job, revenue, “unwind” provisos, and compensation guarantees. It is often more than just the pay rate.

DR. ALTMAN: The addition of force majeure clauses allows the employer, with little or no warning and no consequence, to reduce the physician's pay or hours or even terminate the contract and let the physician go without prior notice. The physician could suddenly end up without a job, benefits (like health insurance), and even their malpractice tail. To counter this risk, physicians should request that notice be required, and that notice should preferably be at least equal to the early termination notice provision usually in physician employment agreements.

What advice do you have for handling restrictive covenants?

DR. ALTMAN: Restrictive covenants (exclusivity and noncompete) make sense for physicians whose patients might follow them if the physicians were to change hospitals. Patients do not call the emergency department to see who is working that shift, so emergency physicians are not in a position to “steal” patients. But lawyers like to standardize contracts, so they don't separate “referral physicians” from what I call “institutional physicians”—like emergency medicine, anesthesia, pathology, and hospitalists.

My recommendation is to try to reason with the recruiter. Point out the misapplication of the principle that lies behind the restrictions. Plain and simple, emergency physicians don't “steal” patients. Regarding exclusivity, remind them that, assuming you do your job well when you are on their clock, what you do on your own time should be none of their business. Or if they want to demand exclusivity, they should pay you an exclusivity fee to compensate you for the risk you are taking by not having a second job.

DR. VUKMIR: First, the emergency physician should review the covenant or noncompete (CNC) provision in their personal service contract while also inquiring about the presence of a provision in the facility contract. Here, specific financial terms of this provision are often discussed. Second, define the buyout number and try to eliminate it entirely if you were not truly “recruited” to the site. Third, if there were true recruitment expenditures, try to negotiate a more mutually agreeable cost that can be paid by a new employer. Lastly, consider negotiating a pre-separation buyout that you can fund independently to try to maintain your independent status.

Are noncompete clauses in employment contracts binding and enforceable?

DR. VUKMIR: In a general sense, they are typically enforceable as long as they are limited in scope, duration, and effect. The standard CNC language includes exclusion of specific “own occupation” economic activity for two years or less and per-



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formed within a 25-mile radius of the work site.

Subsequent legal interpretation and potential negotiation focus on the specificity of the occupation emergency medicine versus subspecialty practice. The duration of effect may be successfully negotiated to one year in some circumstances. The radius of operation has clear variation based on location of practice (urban, suburban, or rural) and the inherent density of health care facilities.

Another important consideration is the venue. There is a potential interface between labor law concepts that include the right-to-work states and noncompete contract agreements. The former is applicable to a company-union relationship, where exclusionary work restrictions cannot be imposed on the employee. The latter applies to the employer-employee relationship; work restrictions can be imposed. One legal theory is that these concepts may blend so that in a right-to-work state, if a contract is required to be signed by the employee, then potentially a CNC may indeed conflict with the right to work in an unencumbered fashion.

Equitable arguments related to health care availability tend to not be effective on an individual physician basis. However, group analysis or one with significant equity-of-care issues may prove a more persuasive argument against enforcement.

When a contract is presented as a “take it or leave it” offer, is that really true? Or is there still room to push back if you're uncomfortable with certain aspects of the contract?

DR. ALTMAN: It really depends on how much they want you or how hard it is to find someone else. Either way, the answer will tell you a lot about the prospective employer and the way you can expect to be treated after you start work. If they treat you as an easily replaceable commodity before you sign, it will only be worse once they have you. Organizations often play the “it's written by the lawyers, and they tell me it's their standard contract” card.

If they verbally agree but refuse to make changes to the contract, be sure to write down what you have heard and get written confirmation that they have received it. Email is fine, but acknowledgement or agreement is even better. If they refuse to make changes, you have a business decision to make. Is the issue being discussed a deal breaker for you, or is the prospective employer, the job, or the location so compelling that it over-

rides your concern?

DR. VUKMIR: Every contract may be technically negotiable, but a logical strategy is required for a successful negotiation. Basic supply-and-demand principles apply. It's harder to negotiate when applying for a highly sought-after position. Recognize that the employment contract is typically written for the business entity, by the business entity, and for the express benefit of the business entity. The potential employee often has less bargaining room, so set reasonable personal expectations. Before you start a discussion, make sure you are addressing this with a person who is actually authorized to make contract changes. Focus on a single point, or a small number of significant issues, that you would like potentially resolved in your favor. The quickest way to an unsuccessful contract negotiation is to present a significantly redlined version with an extensive contract term rewrite.

If you could get emergency physicians to do one thing when reviewing contracts (besides hiring a lawyer), what would it be?

DR. ALTMAN: Get the verbal agreements in writing. The questions I ask are, you will work where, when, how hard, for how much, with what resources, and who is watching your back? They may promise equal nights and weekends. They may commit to paying your malpractice tail. They may say they offer health insurance and a pension program. If it isn't in writing, it wasn't said.

If the relationship works out, the contact is beside the point. It will be long forgotten. If the relationship doesn't work, what protections do you have? Read the contract assuming the worst, not the best. If the current leadership leaves, dies, or becomes disabled, their heirs may not be the nice people you are about to shake hands with.

DR. VUKMIR: Hiring an attorney for contract review is a good first step, but presenting a massively redlined version is unlikely to be successful. Ask for the attorney review to advise on all issues but to focus on significant adverse contract provisions.

Do your research, and utilize ACEP's contract management resources. Talk to colleagues and listen to your counsel. Ideally, you can ask to speak with a current physician in the practice for their perspective. Make contingency plans for both favorable and unfavorable outcomes. ➕

GET MORE CONTRACT RESOURCES

ACEP's new Career Center (www.acep.org/careers) has a section devoted to employment contracts, including the following new resources:

- A detailed checklist to help you analyze your employment contract
- A video with Dr. Vukmir explaining what to look for in a personal service contract
- A recent webinar, hosted by the Young Professionals Section and featuring Dr. Altman and lawyer Melinda Malecki, that takes a deeper dive into employment contract red flags



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.

Where Will ED Volumes Go Post-Pandemic?

The importance of the ED as the front door of the hospital will likely remain after COVID-19 wanes

by JAMES AUGUSTINE, MD, FACEP

As we emerge from 18 months of pandemic operations, many emergency physicians are being asked how to prepare their emergency department for future patient needs. ED patient volumes have been at a steady increase since World War II. The American health care system will be on a different trajectory following this coronavirus pandemic and will see the growth of many virtual medical services for patient care.

When it comes to the data we can use to analyze ED trends and support planning for the future, the Centers for Disease Control and Prevention (CDC), American Hospital Association (AHA), and National Emergency Department Inventory (NEDI)-USA use different survey techniques and definitions of “emergency department.” I reviewed the four organizations that provide insight into the volume and nature of U.S. ED visits in our May 2020 issue.¹ Here’s a refresher.

The CDC just published the statistical survey of 2018 ED visits as part of the National Hospital Ambulatory Medical Care Survey (NHAMCS).² The NHAMCS provides the greatest insight into ED visit characteristics, with consistent data since 1992. Publication of the 2018 data provides insight into the patients most often served in American emergency departments, what medical conditions generated an ED visit, how patients were evaluated, and what disposition was made from the emergency department.

The AHA provides a data summary of community hospitals, which it defines as nonfederal, short-term general and other specialty hospitals. The AHA data simply count the number of ED visits reported, with a very consistent picture of volume increases in the first 18 years of this century.

The NEDI-USA database is maintained by the Emergency Medicine Network (EMNet) and contains data on all U.S. emergency departments and freestanding emergency departments. The inclusion of freestanding emergency departments makes the EMNet data the most comprehensive picture of patients seen in all sites in the United States referred to as emergency departments.

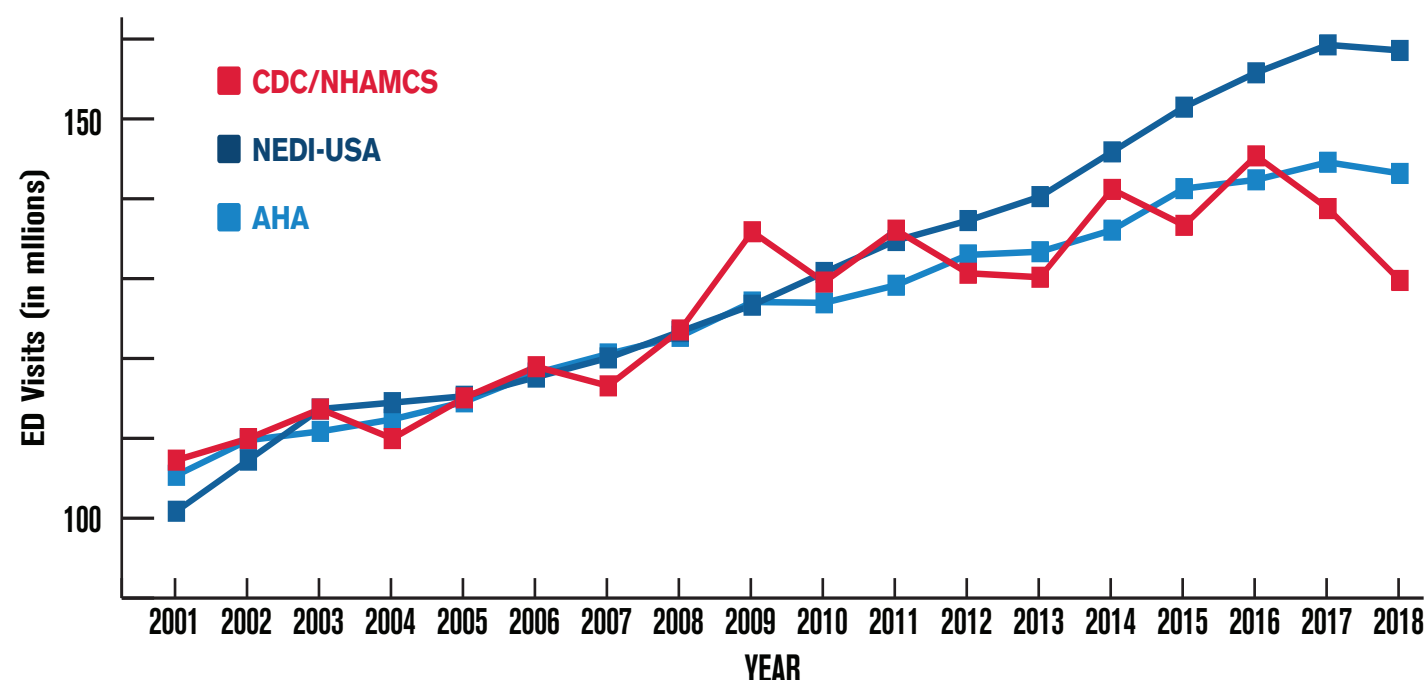
The 2001–2018 ED visit estimates from the CDC, AHA, and NEDI-USA are summarized in Figure 1.

The fourth organization producing data on ED performance measures is the ED Benchmarking Alliance (EDBA). The EDBA has just published the first report on 2020 data, which provides further insight into patient trends for future planning.

What Are the Trends in these Datasets?

- Since World War II, American emergency

FIGURE 1: ED Visits 2001–2018 from Three Organizations



departments have served increasing numbers of visits each year, with 2020 seeing the first significant drop in ED volumes.

- Patients frequently served include demographic categories of infants, nursing home residents, the homeless, and Black persons.
- Because of the rapid increase in the number of senior citizens and their high utilization, that group fuels much of the year-over-year growth in ED visits. Persons over age 75 accounted for about 10 percent of ED visits, with about 600 visits per 1,000 population, in 2018.
- The ED population distribution features less *injury* and more *illness*, with only 27 percent of ED patients presenting with an injury.
- Patients are presenting to the emergency department with higher-acuity medical needs. A mere 3.1 percent of ED visits are classified as nonurgent, with the highest rates of these visits for patients under age 15. Babies under a year of age are among the highest utilization age groups at 1,006 ED visits per 1,000 population.
- Viewed through the lens of “presenting complaint,” stomach and abdominal pain were the most common, each resulting in around 9 percent of visits. At 5 percent, chest pain was next most common complaint.
- The largest group of patients being seen in the emergency department have Medicaid or CHIP insurance, at 41.3 percent of ED visits. Private insurance covers about 30.8 percent of ED visits, Medicare covers 19.3 percent, and people with no insurance account for 8.5 percent.
- There are growing numbers of patient visits related to primary mental health is-

sues. For 2.7 million visits, a mental health professional saw the patient in the emergency department, and in about 1.6 million ED visits, the result was admission of the patient to the mental health unit of a hospital.

- The emergency department is a site of aggressive diagnostic testing and treatment. More patients are presenting with symptoms that raise issues about a cardiac etiology. About 22 percent of patient visits resulted in an ECG provided, and about 5.1 percent resulted in cardiac biomarkers being analyzed.
- Imaging was provided to about 51 percent of ED visits. The use of CT scanning was documented in 19.6 percent of visits, with about 42 percent of those CTs imaging the head.
- The 2018 CDC data estimate that about 23 million ED visits resulted in hospital admission or placement in an observation unit, for a 16 percent admission rate. The NHAMCS indicates that the average patient admitted through the emergency department stayed in the hospital 5.8 days. The ED admission rate has rapidly increased, and in 2020, the EDBA data found that about 21 percent of ED visits resulted in placement in an inpatient unit. That data survey found that roughly 69 percent of hospital inpatients were processed through the emergency department. The emergency department remained the front door to the hospital, even during the pandemic.
- A growing number of ED visits result in the patient being seen by physician assistants and nurse practitioners. In total, 35.3 million visits included services by physician assistants and/or nurse practitioners (27

percent of all ED patient visits); 16.4 million of those patients were not seen by a physician.

- Many patients have ongoing care provided in the emergency department. The CDC estimates that 6.4 percent of ED patient visits were for a follow-up visit and about 3.9 percent of patients had been seen an emergency department in the last 72 hours.

Planning for the Future of Emergency Care

The number of ED visits decreased in 2020 but is returning to pre-pandemic numbers this summer. Some low-acuity patient demand will decrease, and those patient needs will be served by other suppliers of acute, unscheduled care. The trends portrayed by NHAMCS through 2018 no doubt continued into 2021, with ED patients who are older and sicker and with needs for expedient diagnostic services and hospital admission.

The coronavirus pandemic put the emergency department clearly in the spotlight as the entity responsible for acute, unscheduled medical care. As such, the immediate future provides an opportunity for emergency physicians to trumpet the value of the emergency department to hospital and community leaders. But emergency departments must evolve to meet the needs of senior citizens, rapid diagnostics, mental health concerns, and, of course, hospital admissions. ➔

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Thrombolysis in Stroke Mimics Is Not Harmless



Biased analysis is downplaying the danger of the rush to tPA

by RYAN PATRICK RADECKI, MD, MS

If you have trained in emergency medicine in the past 10 years, thrombolysis for acute stroke is more a way of life than an ongoing dispute. We practice in an environment where institutional focus for early treatment of acute stroke reflects various reportable quality measures favoring thrombolysis and rapid treatment even more so. On the other hand, the academic debate rages on, even in the pages of *ACEP Now*.¹

Independent of this long-simmering tension over the efficacy of thrombolysis for stroke, a handful of other more troublesome ideas have taken root over the past decade. The most important of these is the mantra that thrombolytic therapy is somehow harmless in stroke mimics. This concept is best encapsulated by the title of a 2014 article in *Stroke*: “t-PA for Stroke Mimics: Continuing to Be Swift Rather Than Delaying Treatment to Be Sure.”²

The underlying physiological principle promulgated is an assertion no harm from thrombolytic therapy can come to those without underlying cerebral infarction. These claims are supported by citations from observational case series of stroke mimics, in which the authors report the absence of symptomatic intracranial hemorrhage (ICH) following inadvertent thrombolysis. The largest sample, from the Get With The Guidelines Stroke Registry, pools 2,517 stroke mimics and reports a 0.4 percent incidence of symptomatic ICH.³ Thus, erroneously administering thrombolytic therapy to stroke mimics is to be considered *undeniably* safe.

This is *undeniably* a willful misapplication of these data to practice. Because the rosiest presentation of these data fits with the prevailing narrative, any limitations are conveniently swept away. The fundamental flaw is ascertainment bias (see “Bias 101,” above right), a type of sampling bias in which an analyzed cohort is more likely to include certain patients than others. While evaluating the true frequency and risks to stroke mimics, ascertainment bias is introduced by the criteria used to ultimately differentiate mimics from cerebral ischemia.

Bias in Action

The best evidence demonstrating the effect of ascertainment bias on the diagnosis of stroke mimics comes from the dramatic variation in reported incidence across studies. The neurology literature is replete with estimates of stroke mimic treatment rates as low as 1 to 2 percent and exceeding 20 percent.⁴ The wide range in estimates relates primarily to the lack of standardized assessment of patients following thrombolysis. In some studies, patients were classified as stroke mimics only if a treating clinician established a conclusive nonstroke diagnosis. Conversely, in other studies, patients systematically underwent MRI to radiographically document the sequelae of an ischemic lesion to confirm stroke. With this rigorous latter approach, rates of thrombolysis in stroke mimics reach 20 percent.

Confirmation bias further influences the low observed rate of ICH in treated mimics. If the prevailing messaging declares ICH after thrombolysis in a stroke mimic to be rare, it becomes tautological that any ICH would be attributed to a true stroke, not a stroke mimic. Thus, few cases of ICH would ever be at-

BIAS 101

- Ascertainment bias: type of sampling bias in which the way data are collected is more likely to include some members of a population than others
- Confirmation bias: tendency to search for, interpret, and recall information in a way that supports one's beliefs or values

tributed to thrombolysis of a stroke mimic, particularly the most severe ICH. Furthermore, there would only be biases away from documenting serious complications occurring in a stroke mimic on an individual professional level, from an administrative quality assurance standpoint and a medicolegal view. It is also possible to imagine a financial bias away from seeking out stroke mimics, as the stroke thrombolysis average diagnosis related group reimbursement is nearly triple that of a stroke mimic treated with thrombolysis.⁵

The Harm of Missing Mimics

The further harm of thrombolysis in stroke mimics involves diagnostic inertia and anchoring bias, in which the true diagnosis is delayed or missed. In a report from Finland describing outcomes of patients assessed during a neurologic emergency department's drive for door-to-needle times of 20 minutes, 15 percent of their admissions were initially misdiagnosed.⁶ Of 150 patients with initial misdiagnoses, 70 suffered delays in appropriate treatment, several of whom were specifically harmed by the delay.

Financial harms also result from the treatment of stroke mimics. On a population level, the cost-effectiveness case for thrombolysis in acute stroke is based on the original stroke trials, using outcomes observed in participants with disabling strokes. However, as increasing percentages of patients treated with thrombolysis are stroke mimics, the cost-effectiveness disappears. It is estimated that, at current alteplase vial reimbursement of \$8,700, a mimic-treatment rate of roughly 10 percent makes thrombolysis no longer cost-effective on a population level.⁷ On top of excess treatment of stroke mimics, up to half of patients being treated at some stroke centers have “minor stroke” (National Institutes of Health Stroke Scale <6) or lack disabling neurological deficits.⁸ Between treating stroke mimics, minor stroke, and non-disabling stroke, the current approach to thrombolysis has completely eroded population-level cost-effectiveness.

Finally, on the individual level, hospitalization following thrombolysis with an acute stroke diagnosis usually generates higher charges than stroke mimic diagnoses.⁹ These acute stroke charges expose individual patients to potentially greater financial harm, compounded by costs from any long-term medical therapies initiated after stroke. There are further potential harms in the U.S. health care marketplace, as individual insurance coverage becomes potentially more expensive or unobtainable with a serious

preexisting medical condition such as ischemic stroke.

There may yet be a debate whether there even remains a debate over the use of thrombolysis for acute stroke. There ought to be no debate, however—our patients deserve better than us burying our heads in the sand regarding the collateral harm of its overuse.

The opinions expressed herein are solely those of Dr. Radecki and do not necessarily reflect those of his employer or academic affiliates. ☛

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Holiday's Over

Time to get serious about student loans again



by JAMES M. DAHLE, MD, FACEP

Q. I hear the “student loan holiday” is almost over. What should I do about it?

A. Since March 2020, federal student loan borrowers have enjoyed three benefits. First, their student loan interest rate was temporarily set to 0 percent. Second, required payments were reduced to zero. Third, these nonpayments actually count as payments for those pursuing student loan forgiveness through a federal income-driven repayment (IDR) plan and the Public Service Loan Forgiveness (PSLF) Program. Taken together, these three benefits really can be considered a student loan holiday.

At the start of the pandemic, when emergency department volumes dropped by 40 percent, physicians saw their hours and incomes reduced, and as the economy drove off a cliff, a student loan holiday seemed a reasonable policy. However, doctors are now generally back to work, physician incomes have mostly recovered, and the economy has mostly recovered for average Americans in the third quarter of 2020.

Congress and the Department of Education just announced a final extension of the student loan holiday. When announcing the extension, Education Secretary Miguel Cardona said, “As our nation’s economy continues to recover from a deep hole, this final extension will give students and borrowers the time they need to plan for restart and ensure a smooth pathway back to repayment.”

Barring some new announcement out of Washington, you can assume that your federal student loans will start accruing interest again on Jan. 31, 2022. Your next payment will be due on the day of the month your payments used to be due, not necessarily Jan. 31, so expect to have to make a payment some time during February. If your loans were set to autopayment, it is likely that they will still be automatically withdrawn from the same bank account. Make sure to update the bank account on file if it has changed over the last 18 months.

Watch Interest Rates and Investigate Loan Forgiveness

Inflation has begun to rear its ugly head in the last few months. While nobody is 100 percent sure if this is a temporary blip or the start of a long-term trend, remember that the main method the Federal Reserve uses to combat

inflation is to raise interest rates. Thus, an interest rate increase has been forecasted to occur by 2023, if not during 2022 or even earlier. If you have not yet refinanced loans that need to be refinanced, you should do so.

Private student loans can always be safely refinanced any time you can get a lower interest rate. At The White Coat Investor website, you can find a list of lenders that will refinance your student loans and even give you cash back to do so. If you are still in your residency or fellowship, four lenders will still refinance your loans and offer you \$100 per month payments until you finish training, which may be even lower than your payments would be on federal loans in an IDR program.

Exercise caution prior to refinancing federal loans. Once refinanced, those loans become private loans and are no longer eligible for the protections available in IDR programs, federal loan forgiveness programs such as PSLF, and any future potential tax holidays. It would be tragic for someone to refinance loans that could otherwise be forgiven after just a few more years making payments as a full-time employee of a nonprofit employer. However, refinancing often can lower your interest rate by 2 to 7 percent. Those savings can then be directed toward loan principal and get you out of debt even faster. Some companies are even offering up to six months of 0 percent interest and \$0 payments.

To determine what to do with your federal loans, start by considering your employment situation and calculating your student loan debt-to-income ratio. If you owe \$200,000 and earn \$200,000 per year, your ratio is 1.

If you are not employed full-time by a nonprofit and have a debt-to-income ratio of less than 1.5, you can generally safely refinance your loans. I recommend “living like a resident” for two to five years and paying off the loans rapidly to free yourself from that burden. Then use the income that had been dedicated to those payments to improve your lifestyle or speed your way to financial independence through smart investments.

If you are not employed full-time by a nonprofit and have a debt-to-income ratio of greater than 2.5, you should give serious consideration to pursuing loan forgiveness via the IDR programs such as Pay As You Earn (PAYE). While student loan forgiveness via PAYE is fully taxable and requires 20 years of payments (unlike PSLF, which is tax-free and only requires 10 years of payments), it can still be a great deal for those with very

large student loan burdens.

If you are not employed full-time by a nonprofit and have a debt-to-income ratio between 1.5 and 2.5, you would do well to hire an adviser who specializes in student loan advice to help you run the numbers and decide whether to refinance and pay off your loans or pursue IDR forgiveness. Again, further resources are available at The White Coat Investor website.

If you are employed full-time by a nonprofit after residency, PSLF is essentially al-

ways the best way to take care of your federal student loans, especially if you have been making IDR payments during residency and fellowship. Student loans are a massive part of the financial life of most residents, fellows, and young attendings. Do not feel guilty about paying for your education using borrowed money, but you do need to have a plan to take care of those loans after graduation. Even though the student loan holiday has been extended a few months, it is time to get that plan in place. ➕

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