MEDICOLEGAL MINDS

Navigating State Abortion Laws

SEE PAGE 18

PRACTICE CHANGERS

Inhaled Corticosteroids Underused for Asthma

SEE PAGE 19

SKEPTICS' GUIDE TO EM

Can AI Replace the Skeptic?

SEE PAGE 20

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JANUARY 2025 Volume 44 Number 1 FACEBOOK/ACEPFAN INSTAGRAM/ACEPNATION X/ACEPNOW ACEPNOW.COM

PLUS

PROFILE

Dr. Clarke Among the Group First Specializing in Emergency Medicine

SEE PAGE 8

EMPLOYMENT

Contracts: It's All in the Details

SEE PAGE 14

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www.acepnow.com

Docs in Every Department

Should states mandate physician coverage in every ED?

by LARRY BERESFORD

Indiana's SB 400, signed into law on May 4, 2023, requires hospitals with emergency departments (EDs) to have a physician on site, on duty, and responsible for the ED at all times.[1] In April 2024, Virginia enacted a similar law (HB 353/SB 392)—with implementation set for July 1, 2025—replacing an established requirement that allowed a physician to be available to the ED on call with a new mandate requiring the physician's presence in person.[2]

To many emergency physicians, mandating that all EDs be staffed around the clock by a doctor may seem like a minimum threshold for ensuring the quality and safety of emergency care nationwide, but some hospitals, particularly struggling rural facilities, argue that this standard will be difficult to meet.

CONTINUED *on page 11*

KEVIN SHUNK-STOCK.ADOBE.COM

Peripartum CVD Rare, But Serious

by JENNA M.B. WHITE, MD, FAEMS

A 27-year-old female patient presents to the emergency department (ED) with a chief complaint of fatigue and shortness of breath over the last two weeks.

She reports generally low energy levels over the past month. She developed mild dyspnea on exertion two weeks ago. She felt short of breath simply trying to get out of bed this morning, and this prompted her to seek evaluation.

The patient has otherwise been healthy and reports no significant past medical history. Her social history is unrevealing. She denies having a family history of heart disease. When asked about current or recent pregnancy, the patient states that she delivered a healthy, full-term baby four months ago, preceded by an uncomplicated pregnancy.

On exam, the patient generally appears well.

Vital signs:

- Temperature 37.1 °C
- Heart rate 101
- Respiratory rate 28
- Blood pressure 130/76
- Oxygen saturation 90 percent

CONTINUED *on page 12*

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OPINION

The Death of Critical Thinking in Emergency Medicine

PAGE 13

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The American College of Cardiology (ACC) thanks Emergency Medical Service (EMS) professionals for your indispensable role in providing essential care, including for patients experiencing heart attack symptoms or other heart-related emergencies. Your rapid response is vital to ensuring early treatment saves lives, and we're deeply thankful for the positive impact you make every day, every hour, every minute for patients, their families and the communities where we live.

We are especially proud of the EMS agencies that are partnering with the ACC through our Accredited and Certified Chest Pain Centers and Chest Pain–MI Registry participants across the U.S. to achieve our mission to transform cardiovascular care and improve heart health for all. Your dedication ensures that every patient has the best outcome possible regardless of where they might experience a medical emergency.

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Russellville Fire Department City of Russellville Office
Saint Mary's Regional Health System, AR

Pope County Emergency Medical Services
Saint Mary's Regional Health System, AR

Murrieta Fire and Rescue
Loma Linda University MC - Murrieta, CA

Cathedral City Fire Department
Desert Regional Medical Center, CA

Bi-County Ambulance
Adventist Health and Rideout, CA

Morgan County Ambulance Service
Centura St. Elizabeth Hospital (Colorado Plains MC), CO

Beacon Hose Company #1
Waterbury Hospital, CT

Lifeguard Ambulance Services - Global Medical Response AMR
HCA Florida West Hospital, FL

Leon County Emergency Medical Services
Tallahassee Memorial HealthCare, FL

Normal Fire Department
Carl BroMenn Medical Center, IL

Porter Health Services LLC dba Northwest Health EMS
Northwest Health Porter, IN

Norton Healthcare Transport
Norton Women's & Children's Hospital, KY

East Baton Rouge Parish
Our Lady of the Lake Regional MC, LA

West Feliciana Parish Hospital Emergency Medical Services
West Feliciana Hospital, LA

Mercy EMS
UP Health System Portage, MI

City of Henderson Fire Department
St. Rose Dominican Hospital Siena Campus, NV

Lima Fire Department
Lima Memorial Health System, OH

Bath Township Fire Department
Lima Memorial Health System, OH

Ponca City Fire Department
AllianceHealth Ponca City, OK

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Anderson County Emergency Medical Services - Anderson County EMS
AnMed, SC

Lee County EMS
Carolina Pines Regional Medical Center, SC

Germantown Fire Department
Methodist LeBonheur Germantown, TN

Lawrence County Ambulance Services dba Lawrence County EMS
Southern Tennessee Regional Health Systems-Lawrenceburg, TN

Denison Fire Rescue
Texoma Medical Center, TX

Whitesboro Fire Department
Texoma Medical Center, TX

Brownsville EMS
Valley Regional Medical Center, TX

Brownsville Fire Department
Valley Baptist Medical Center Brownsville, TX

Town of Richlands dba Richlands Fire Rescue
Clinch Valley Medical Center, VA

Oakwood Fire and Rescue
Clinch Valley Medical Center, VA

Cabell County EMS
St. Mary's Medical Center, WV

WVU Medicine dba Camden Clark
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NCDR eREPORTS EMS PARTICIPANTS & HOSPITALS SERVICED

Washington County Regional Ambulance Authority - Central EMS
Fayetteville, AR
Washington Regional Medical Center

Metro EMS
Little Rock, AR
University of Arkansas for Medical Sciences
Unity Health White County Medical Center
CHI St. Vincent Infirmary
Baptist Health Medical Center - North Little Rock
Baptist Medical Center - Little Rock

Palm Beach Gardens Fire and Rescue
Palm Beach, FL

Jessamine County EMS
Nicholasville, KY
Baptist Health Lexington
Saint Joseph East
St. Joseph Hospital

Professional Ambulance and Oxygen Services
Cambridge, MA

Powell Emergeny Medical Service
Deer Lodge, MT

Union EMS
Monroe, NC
Atrium Health Pineville
Atrium Health's Carolinas Medical Center
Novant Health Matthews Medical Center
Novant Heallth Presbyterian Medical Center

Iredell County EMS
Statesville, NC
Novant Health Huntersville Medical Center
Frye Regional Medical Center
Atrium Health Wake Forest Baptist Medical Center
Catawba Valley Medical Center
Atrium Health's Carolinas Medical Center
Novant Health Presbyerian Medical Center
Atrium Health Cabarrus

City of Cleveland Ambulance Service
Cleveland, OH
Fairview Hospital
The MetroHealth System

Western Berks Ambulance Association
West Lawn, PA
Penn State Health St. Joseph

City of Sugar Land Fire - EMS
Sugar Land, TX
Houston Methodist Sugar Land Hospital

City of Pharr EMS
Pharr, TX
Doctors Hospital at Renaissance
Rio Grande Regional Hospital
McAllen Heart Hospital

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EMERGENCY IMAGE QUIZ *with* VISUAL DX

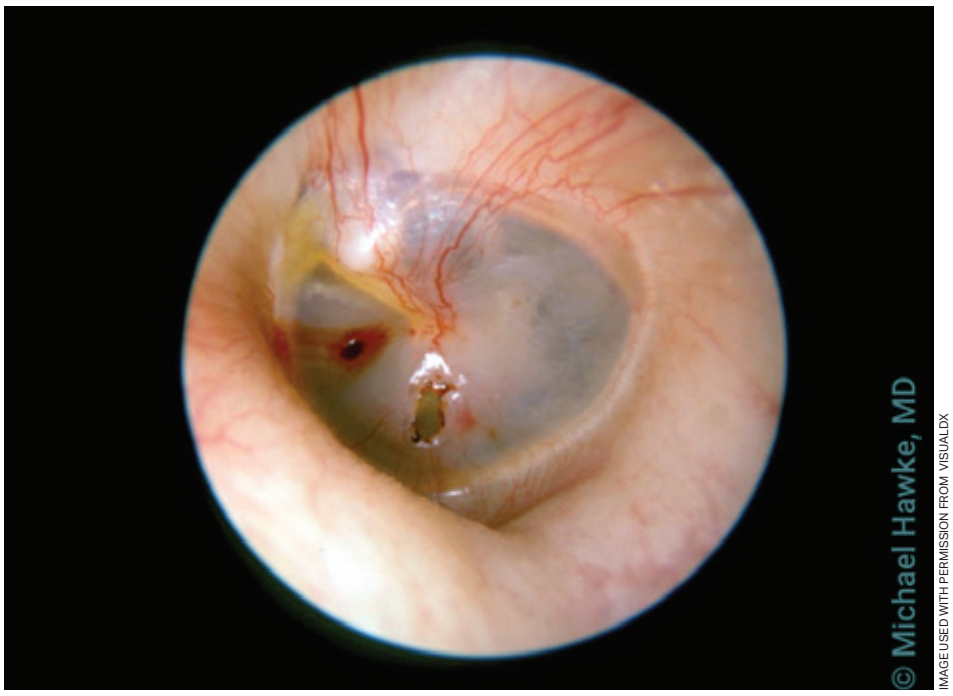

IMAGE USED WITH PERMISSION FROM VISUALDX

Question: A 36-year-old man presents with ear pain after a motor vehicle collision. What is the diagnosis?

a. Dislocation of malleus
b. Hemotympanum
c. Middle ear effusion
d. Perforation of tympanic membrane

ANSWER *on page 15*

Tuesdays *with* Greg Henry *A Final Farewell*

1946-2024

"Cowards die many times before their deaths;
The valiant never taste of death but once.
Of all the wonders that I yet have heard,
It seems to me most strange that men should fear;
Seeing that death, a necessary end,
Will come when it will come."

– William Shakespeare

ACEP

by GILLIAN SCHMITZ, MD, FACEP

The first time I met Dr. Greg Henry, he promptly informed me that he had shoes and belts older than me. Not knowing whether to laugh or be intimidated, I stared at him blankly and he chuckled. He quickly took me under his wing. Beyond his professional achievements, Greg was revered for his larger-than-life personality, sharp wit, and generous mentorship. He believed that medicine was as much about humanity as it was about science, emphasizing the importance of compassion, communication, and connection with patients.

For those of us who had the privilege of knowing him, he will be best remembered as a philosopher, curmudgeon, stand-up comedian, mentor, and self-proclaimed "junkyard dog" of emergency medicine. A dynamic and engaging speaker, he could blend humor with pragmatism—sometimes hurling insults and quoting Shakespeare in the same breath.

Many of you have your favorite "Henry-isms." I believe Greg would want to give us some last provoking thoughts and laughs, so I will share some of my favorites.

1. "The white blood cell count is the last refuge of the intellectually destitute."
2. "The biggest impediment to the correct diagnosis is the previous diagnosis."
3. "There are three great lies in life—the check is in the mail, size doesn't matter, and all systems reviewed and otherwise negative."
4. "Medicine is show business for ugly people."
5. "You can call me a bad husband. You can call be a bad father." *(Neither of which were true.)* "But don't you *ever* call me a bad doctor; now I'm offended."
6. "When a patient bounces back, they are giving you another chance to get the diagnosis right. If someone comes to the ED three times, then admit them. I don't care if it's the pizza guy. If he comes to the ED three times, I admit him."
7. "To diagnose a stroke: Watch them walk. Listen to them talk. Look at their eyes. Your neuro exam is never done until you've watched them walk."
8. "In medicine and life, don't ask questions you don't really want to know the answer to. I'm happily married ... so why would I ask my wife if she's cheating on me?" *(She wasn't, it was just part of his humor.)*
9. "The mortality rate in this country has not changed—it is still one death per person."
10. "Every time I put on the [white] coat, I stop for two minutes. I stop for two minutes and remember Galen and Hippocrates. I pick up the coat: 'To whatever house I shall enter, it shall be for the benefit of the sick.' At that moment I am Doctor of Medicine; I carry with me a 2,500-year tradition, and shame on me if I do not carry it out with dignity for the next eight hours. My problems are not the patient's problems. For that period of time, I am the agent and servant of the patient—I am proud to be the servant of the sick. I put on that coat and I'm a better person. All my petty prejudices should disappear when the coat goes on. That's what the coat is all about." —James Mills, MD, Memorial Lecture, ACEP 1998 Scientific Assembly

ZIMMERMAN

Gillian Schmitz, MD, FACEP, with ACEP Past-President Gregory L. Henry, MD, FACEP, who passed away Nov. 26 in his home state of Michigan. He was 77 years old.

When I posted about his passing on social media, there were hundreds of comments and stories within hours from physicians all over the world. Reading them made me cry and laugh in the same moment. Someone shared a story of Greg helping a stranger aboard an airplane, a patient hiding under a blanket on the flight with tremors. Greg diagnosed him with alcohol withdrawal and unabashedly ordered two gin and tonics from the flight attendant—one for the patient and one for himself. There were also so many heartwarming stories about his VIP patients—the homeless, the marginalized, and those forgotten about by society. He had love for them all.

Toward the end of his career, he refused to call himself retired. He hated that word. He stayed active in many legal and educational aspects of emergency medicine. He volunteered his time to testify and defend emergency physicians in lawsuits and spoke at residency programs around the globe. He always wanted to know what was going on with the College.

I recently reread *Tuesdays with Morrie* and it made me treasure his regular "check-ins" to discuss life. They weren't always long conversations and they weren't always on Tuesdays, but they are now memories that I cherish. He told me about his kids and his grandkids and always asked about my family. We only talked about death once. As only Greg could do, he chuckled and told me that after he passed, he "fully expected people to feed off of his carcass like vultures." What can I say, the man had a way with words. He was nothing if not consistent. He was saying it so that I would laugh, but I think he meant he had a lot to share. He hoped emergency physicians would carry on his legacy of teaching, storytelling, making people laugh, and giving back to patients and the specialty.

Dr. Greg Henry will be remembered not only as a pioneer in his field but also as a compassionate healer, a visionary teacher, and a cherished friend. Farewell Greg, your shift is over. Your legacy is one of excellence, empathy, and enduring impact.

DR. SCHMITZ is professor, Uniformed Services University; vice chair of education in the department of emergency medicine at the NMCSD, and a Past-President of ACEP.

"I really liked the course. It could have been the best course I have attended."

"Excellent. Glad I attended."

"Well worth my time and money. Very clinically relevant material."

"I have been to MANY of your courses and this was excellent as usual."

"Excellent. I really like the new format. 5 stars."

"Easily one of the highest value courses for me."

"A new experience in delivering CME which I found refreshing and engaging."

"Really like the new fomat."

"Loved the new format! Not only more interesting but more rapid fire and helped to sort out the best studies from the chaff."

"Excellent format, schedule, and material. Don't change a thing."

"Great course. Distilled so much information down to accessible amounts that can help in real practice."

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"Extremely useful and well-designed course."

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"Fantastic - the new format was much better."

"10 out of 10."

THE YEAR IN REVIEW

Emergency Medicine & Acute Care

2025 COURSE

7 Top-Rated Locations

Vail, CO
March 10–14, 2025
The Hythe, a Luxury Collection Resort, Vail

Maui, HI
March 10–14, 2025
Wailea Beach Resort - Marriott, Maui

New Orleans, LA
April 30–May 3, 2025
New Orleans Marriott
NOLA JAZZ FEST

Hilton Head, SC
April 30–May 3, 2025
Hilton Beachfront Resort & Spa
Hilton Head Island

San Diego, CA
June 4–7, 2025
Coronado Island Marriott Resort & Spa

New York, NY
June 18–21, 2025
New York Marriott Marquis

Key West, FL
December 1–5, 2025
Casa Marina Key West,
Curio Collection by Hilton

Join Us in 2025 for the New Format!

The emphasis – clinical studies published exclusively in 2024, carefully selected for their potential to impact your practice. These studies will be presented simultaneously by a pair of enthusiastic faculty.

Evidence-Based Content

This is not merely a review course, rather it is an in-depth exploration of the foremost studies published in 2024. Additionally, it features a series of concise traditional presentations and faculty panels – all designed to impact your practice.

Tag-Team Faculty Format

Two physician faculty will jointly present and critique the studies, adding their perspectives based on prior research and clinical experience. Our faculty are knowledgeable, well-versed in the medical literature, and enthusiastic about engaging with participants.

No PowerPoint Slides

We keep the lights on and leave the slides at home to foster an interactive learning environment. Each topic is presented by a pair of our award-winning faculty, allowing you to follow along in our detailed manual.

"I have been a supporter of these courses since the 1990s. That speaks for itself!"

"Awesome. Format of the literature review is a great way to challenge "the way we've always done it."

"I love that there were no slides."

"I always leave feeling that my time was well spent."

"It was fast moving which kept your interest."

"Clinically relatable and timely. Would come back again."

"Nice to have research dissected for me."

"Absolutely loved it."

"It was different from what I've experienced before but in a way was better than just sitting through PowerPoints."

"Fantastic - I would do it again."

"I liked the rapid-fire, highlights style that the course utilized."

"Excellent (once again)."

"I've been attending CME conferences for the past 36 years and this course is in my top 5."

"Excellent new format. Really current and useful. I think the standardization of presentation format really helps convey the info effectively."

"I love the new format!"

"The best course I've attended in years. The enthusiasm of the instructors was evident."

"I overall loved the new format of the course with multiple presenters taking turns presenting the topics."

"Best one yet. Like the new format. Will come again."

"Great. It was my first course done in this format without slides and focusing on studies. I liked it and learned a lot."

"I love the format, especially the quick end summary of each article at the end of each session."

"I have never attended this course before, and can say I will HIGHLY recommend this to colleagues."

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THE BREAK ROOM

SEND YOUR THOUGHTS AND COMMENTS TO ACEPNOW@ACEP.ORG

Re: 'A Racing Heart' (October 2024)

Thanks to Drs. Harrell and Bower for their excellent case discussion in the October issue of *ACEP Now*. They made a final diagnosis of hypertrophic obstructive cardiomyopathy and discussed how that diagnosis was made despite the initial anchoring on the wrong diagnosis. They continued to work the patient when they noted that the main presenting sign—tachycardia—persisted after the treatment for the initially anchored diagnosis, anxiety and panic disorder, and, possibly, hypovolemia.

I have called this "disconfirming" evidence, meaning that it does not confirm the initial, anchored diagnosis. Good emergency medicine practice would be to look for these "disconfirming" findings prior to making the final diagnosis.

— Dan Mayer, MD, FACEP, FAAEM

Scan to read the original case discussion.

UPDATES AND ALERTS FROM ACEP

NEWS FROM THE COLLEGE

ACEP Urges Congress to Reauthorize the Dr. Lorna Breen Act

Editor's Note: As of press time, the 118th Congress ended its session without passing this legislation. ACEP will continue to advocate for this and numerous other EM priorities in the current session.

In December, in a letter to Congress, ACEP and about 60 other health care professional organizations called for lawmakers to pass the Dr. Lorna Breen Health Care Provider Protection Reauthorization Act (H.R. 7153/S. 3679), which would reauthorize the Dr. Lorna Breen Health Care Provider Protection Act originally signed into law on March 18, 2022. This law was the first of its kind, named in honor of the life, memory, and legacy of emergency physician Lorna Breen, MD, and dedicated to improving the mental health and well-being of health care professionals.

The letter, addressed to Speaker of the House Mike Johnson (R-LA), House Minority Leader Hakeem Jeffries (D-NY), then-Senate Majority Leader Chuck Schumer (D-NY), and then-Senate Minority Leader Mitch McConnell (R-KY), noted that the legislation was passed by each committee of jurisdiction in both chambers with bipartisan support.

The letter asked that Congress ensure the law is reauthorized either as a standalone bill or be included as part of any year-end legislative package.

ACEP and this broad coalition of health care professional organizations continued working to secure enactment of this important bill before the end of the year to ensure that this vital federal effort to protect the lives and livelihoods of health care workers continues.

ACEP Boarding Tip Sheet Reaches News Organizations

Last month, after an interview with ACEP staff in Washington, D.C., the Association of Health Care Journalists (AHCJ) published an article with tips on how reporters can more accurately report on the boarding crisis. Writer Mary Chris Jaklevic included ACEP talking points in the piece, highlighting the following facts ACEP provided:

- Boarding is not caused by misuse of the emergency department.
- Boarding reflects health care system failures.
- Harms are apparent.
- Boarding can be fixed.
- Accountability is lacking.

The Boarding Tip Sheet is available in a database of tip sheets the AHCJ provides its members.

Connecticut Earns Advocacy Win on Boarding

A multiyear effort by Connecticut ACEP to work with the Leapfrog Group, a national nonprofit health care watchdog organization, could increase the amount of hospital data available on boarding. Work by the chapter has led to a proposed update to Leapfrog's annual hospital survey that could include "fact-finding questions to assess boarding times for patients seen in the emergency department."

With about 80 percent of the nation's hospitals participating in the annual Leapfrog Hospital Survey, the results are widely read by policymakers and health leaders.

"We know that boarding is a solvable problem if it is given sufficient attention as a patient safety issue," said Christopher L. Moore, MD, a Connecticut ACEP member leading the efforts with Leapfrog.

Dr. Moore said that nobody should settle for a status quo that compromises quality of care, and that state level initiatives can lead to measurable change.

"There are untapped opportunities at the state level for emergency physicians to get involved," Dr. Moore said. "These efforts have the potential to bring about public accountability and transparency and to look towards solutions."

Connecticut ACEP members are prominent among those leading the way on boarding solutions. Dr. Moore is co-chair of a state

government work group that encouraged new reporting requirements on boarding by Connecticut hospitals. The work group will submit a final report to the state on emergency department boarding and crowding, including proposed solutions, by January 2025. State-level initiatives can be complementary to national initiatives such as the Emergency Care Capacity and Quality measure, which is being considered by the Centers for Medicare and Medicaid Services.

ACEP Town Hall Offers Resources for Those Affected by NES Health Turmoil

ACEP continues to provide resources for emergency physicians affected by the financial turbulence at NES Health, a physician staffing firm with a presence in 35 emergency departments. In an email on November 22, NES informed its employees that it would stop doing business because it couldn't meet its payment obligations.

ACEP held a town hall shortly before that announcement, directly connecting emergency physicians with the ACEP Board of Directors, as legal and insurance experts shared strategies to navigate the disruption.

"We understand and share your frustration," said ACEP President Alison J. Haddock, MD, FACEP. "We are taking action every day to make the work environment better for emergency physicians, regardless of who their employer is. This is not an acceptable situation. We want to be your advocates; to be a convener and bring people together to defend you and the hard work you do taking care of patients."

The town hall featured a discussion of legal principles, contract considerations, and insurance policy details to help emergency physicians address concerns and identify potential actions to stay protected when an employer fails to uphold their obligations. The general information conveyed during the town hall is not intended to serve as legal advice for specific individual circumstances.

To start, it is crucial for every physician to understand the terms they are obligated to meet and what they should expect from their employer, ACEP experts said. On top of contract issues, physicians may have questions about what happens to their insurance.

ACEP's medical malpractice insurance partner shared that unfortunately, the legwork necessary to find out about important changes to insurance offerings often falls on the physicians and offered to speak to anyone with questions.

ACEP member resources can be vital during these uncertain times. Efforts include the crowdsourcing of transition information, discounts on contract review services, access to insurance, assistance with forming an independent group, and much more.

Affected physicians who are not currently ACEP members can take advantage of ACEP's hardship program; to join for free, email membership@acep.org.

ACEP's engagED forum was established for open discussion and peer-to-peer connection as everyone navigates through these challenges. Nobody should face uncharted water alone. There are ongoing discussions about additional actions to help everyone whose lives and careers are disrupted by these circumstances.

ACEP4U: EMDI

IMPROVING PATIENT CARE THROUGH DATA

by DARRIN SCHEID, CAE

To tell a story, all you need is information. To tell an accurate story, when it comes to patient care in the emergency department (ED), you need much more, according to ED data experts and emergency physicians James Augustine, MD, FACEP, and Stephen Epstein, MD, MPP, FACEP. An accurate story requires information from millions of ED visits, a way to analyze the data, and a way to use that analysis across different settings and patient populations for better outcomes. That's where ACEP's Emergency Medicine Data Institute (EMDI) comes into play.

Developed by ACEP, the EMDI is powered by member data from ACEP's own clinical registry, the Clinical Emergency Data Registry (CEDR), and in collaboration with E-QUAL, the College's virtual quality network.

Emergency physicians who participate in ACEP's clinical registries help all emergency physicians make swift, smart decisions.

"EMDI is the part of our practice that allows us to plan for the future of emergency medicine," said Dr. Augustine, EMDI's Board of Governors' Vice Chair and clinical professor in the department of emergency medicine at Wright State University in Dayton, Ohio. "[Our practice] has changed and evolved, and will continue to do so. The only way to tell that story is with data that show those changes. It all leads to improvements in the way we provide patient care, adapt to the changing practice of emergency care, and how we serve our communities and the house of medicine."

Data Repository

CEDR serves as the data repository that enables emergency physicians to effectively report quality metrics.

Established at a time when federal mandates tied physician reimbursement to quality measure reporting, CEDR met a critical need. Its aim was not just to fulfill regulatory requirements, but to ensure emergency physicians could define and control the measures that shaped their clinical practice. ACEP developed quality measures before CEDR was created nearly 10 years ago. But to avoid what Dr. Augustine called the federal government's tendency to inflict measures on emergency physicians—he uses the word "inflict" purposely—CEDR provided a focused platform to help emergency physicians take charge of data reporting. In doing so, they avoid the pitfalls of externally imposed metrics that fail to reflect the intricacies of the specialty.

"The government is going to withhold a percentage of your reimbursement if you don't report quality measures depending on your setting," said Dr. Epstein, the EMDI's Board of Governors' Chair, attending emergency physician at Beth Israel Deaconess Medical Center, Boston, and assistant professor at Harvard Medical School. "Conversely, you can get a small bonus if you do well in your reporting. CEDR was created in part because the College recognized that a lot of our members would not have the infrastructure to do that reporting. Now, we realize that there's an awful lot of data we haven't been using. EMDI is an attempt to start reorganizing that data and make it more useful clinically."

Emergency Medicine Data Institute Quick Facts

The Emergency Medicine Data Institute (EMDI) offers a platform where emergency physicians can participate in clinical registries, help develop quality measures, access point-of-care tools, and take advantage of analytics and research.

- **Registry services.** ACEP's Clinical Emergency Data Registry (CEDR) currently has 139 physician groups participating and taking advantage of CEDR dashboards.
- **Point-of-care tools like The Ritter Score.** This tool is designed to empower physicians to identify acute aortic syndrome, a rare but deadly condition affecting only seven in 100,000 patients.
- **Quality measures.** ACEP has developed 25 quality measures specific to emergency medicine and emergency physicians.
- **Analytics and research.** The CEDR database contains encounter-level electronic health records and billing data from emergency department (ED) arrival to ED discharge. Research may be done on all 250-plus elements in the database.

EMDI by the Numbers

ACEP's EMDI is powered by metrics from one in every seven ED visits in the United States.

- 20 million ED visits per year
- 1,000-plus individual ED locations
- 250-plus emergency medicine practice groups

E-QUAL

Enrolled emergency physicians gain access to webinars, podcasts, and toolkits, plus publications and posters with a focus on stroke, opioid and alcohol use disorder, and venous thromboembolism. By enrolling, emergency physicians:

- Earn improvement activity credit for the Centers for Medicare and Medicaid Services Merit-based Incentive Payment System program;
- Receive benchmarking data in real time;
- Access quality improvement efforts to hospital leaders and payers;
- Gain access to toolkits including best practices, sample guidelines, and key talking points;
- Access high-quality eCME;
- Earn ABEM Maintenance of Certification Program Credit (LLSA & Part IV Activities); and,
- Get visibility through the E-QUAL Honor Roll.

E-QUAL Network

E-QUAL builds upon CEDR by promoting learning and improvement initiatives.

Physicians enrolling in E-QUAL engage in collaborative projects that tackle critical issues like stroke care, sepsis management, and the opioid crisis. This participation ensures that EDs nationwide not only meet benchmarks, but actively refine their practices.

"Some very technically savvy members of ACEP, who work in the quality arena, helped build the E-QUAL program," said Dr. Augustine. "It goes beyond developing measures to teach physicians about the measures and how to implement them uniformly."

E-QUAL's framework includes a robust feedback mechanism, where participants can assess how changes in practice affect outcomes. This feedback is essential in making data actionable, enabling physicians to understand how even minor adjustments can lead to significant improvements. Participants earn improvement activity credit for the Centers for Medicare and Medicaid Services Merit-based Incentive Payment System (MIPS) and a certificate of completion, along with real-time benchmarking data.

Physicians who enroll also receive an introduction into quality improvement and best practice implementation.

The E-QUAL Network enrollment period is now open for this year's initiatives—sepsis, opioid and alcohol use disorder, and venous thromboembolism.

Revolutionizing Data Analysis

Dr. Epstein and Dr. Augustine pointed out that ACEP wasn't the first to build a registry for its specialty. Oncology, trauma surgery, and anesthesiology established registries years before, paving the way for improvements in patient care and safety. Unlike trauma centers or oncology departments, which often relied on dedicated personnel to manually extract and submit data, emergency medicine implemented a fully digital approach. This placed emergency medicine at the forefront of modern data management.

By focusing on automation and scalability, the EMDI ensures seamless integration with existing hospital systems.

The digital nature of the EMDI also enables it to evolve rapidly, incorporating new technologies like artificial intelligence and machine learning. Experts say these tools have the potential to revolutionize data analysis, offering insights that were previously unimaginable.

"When we're able to discern that certain EDs are doing a better job, we can identify what high-performing institutions do differently and spread those practices nationwide," Dr. Epstein said. "Patients get better care, and emergency physicians make decisions supported by robust data."

The EMDI's success depends on active participation. Whether contributing data, engaging in collaborative networks like E-QUAL, or advocating for specialty-specific measures, every physician has a role to play. As federal mandates continue to evolve, the ability to report and utilize data will directly affect reimbursement, quality metrics, and public health outcomes. Dr. Epstein and Dr. Augustine said in order for emergency medicine to thrive, it must remain at the forefront of data innovation.

As the EMDI continues to innovate—new registries such as the Hospital and Observation Medicine Registry are in development—its influence extends beyond emergency medicine and individual EDs to shape national and global standards for acute care.

Dr. Augustine emphasized that "data must come back to the bedside and assist in individual patient encounters. That's how we grow, improve our tools, and ultimately serve our patients better."

MR. SCHEID is ACEP's Communications Director.

Dr. Elsburgh Clarke Among the First Group of Physicians to Specialize in Emergency Medicine

After more than 40 years, the beating heart of emergency medicine is still the same

by LEAH LAWRENCE

Emergency medicine was approved as the 23rd medical specialty in 1979, shortly after a young Elsburgh Clarke, MD, discovered the burgeoning specialty.[1] Just one year prior, Dr. Clarke had begun an emergency medicine residency at what was then known as LA County–USC Hospital, Los Angeles.

"I was about two months into a family practice internship when I went to visit my uncle whose neighbor happened to be an ED resident," Dr. Clarke said. "I spoke with him and said to myself, 'This may be something that I want to do.'"

The specialty, he said, spoke to his interest in surgery and EMS in a way that family medicine did not. A phone call to LA County–USC revealed that the emergency medicine program had one spot left for the following year.

So, about one year after graduating medical school, Dr. Clarke was set to begin a decades-long career in emergency medicine ... and he brought along his camera.

Firsthand Account

The photos that Dr. Clarke took from 1978–1980 provide a glimpse into working in an emergency department in the years the specialty was being established. At first glance, one might notice the clothes—nurses in white dresses and doctors in wide ties or bellbottom jeans—or the hair—afros, sideburns, and mustaches aplenty. A closer look, though, also shows the technology of the day—a bulky, two-way radio for communicating with EMS, metal gurneys, glass saline bottles, and portable ECG monitors the size of a small shopping cart.

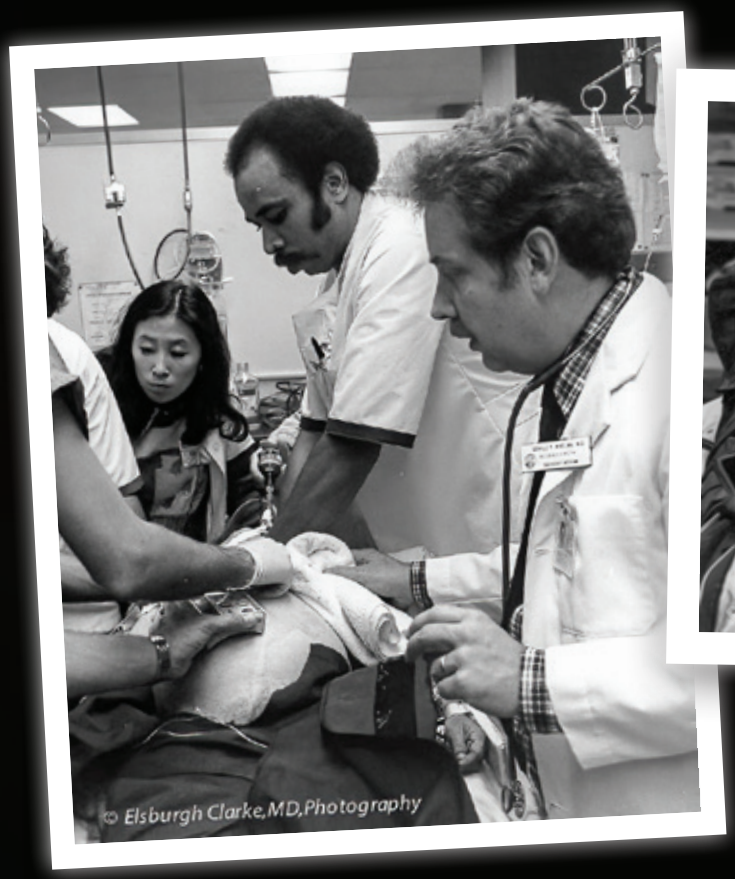
Less obvious to the eye is the experience of the people working in the photos.

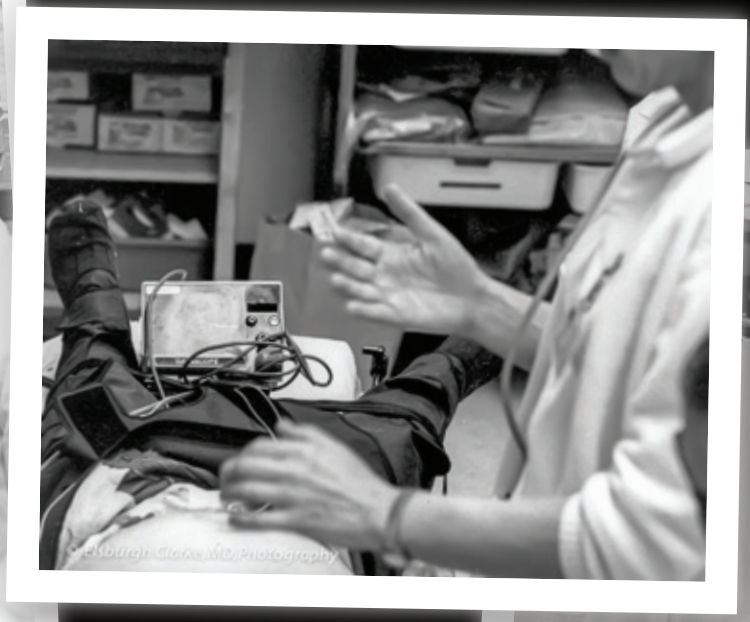
"Emergency medicine was fairly new then, and most attendings were not emergency physicians," Dr. Clarke said. "In fact, the director of emergency medicine at the time was head of OB–GYN, and the assistant director was a psychiatrist."

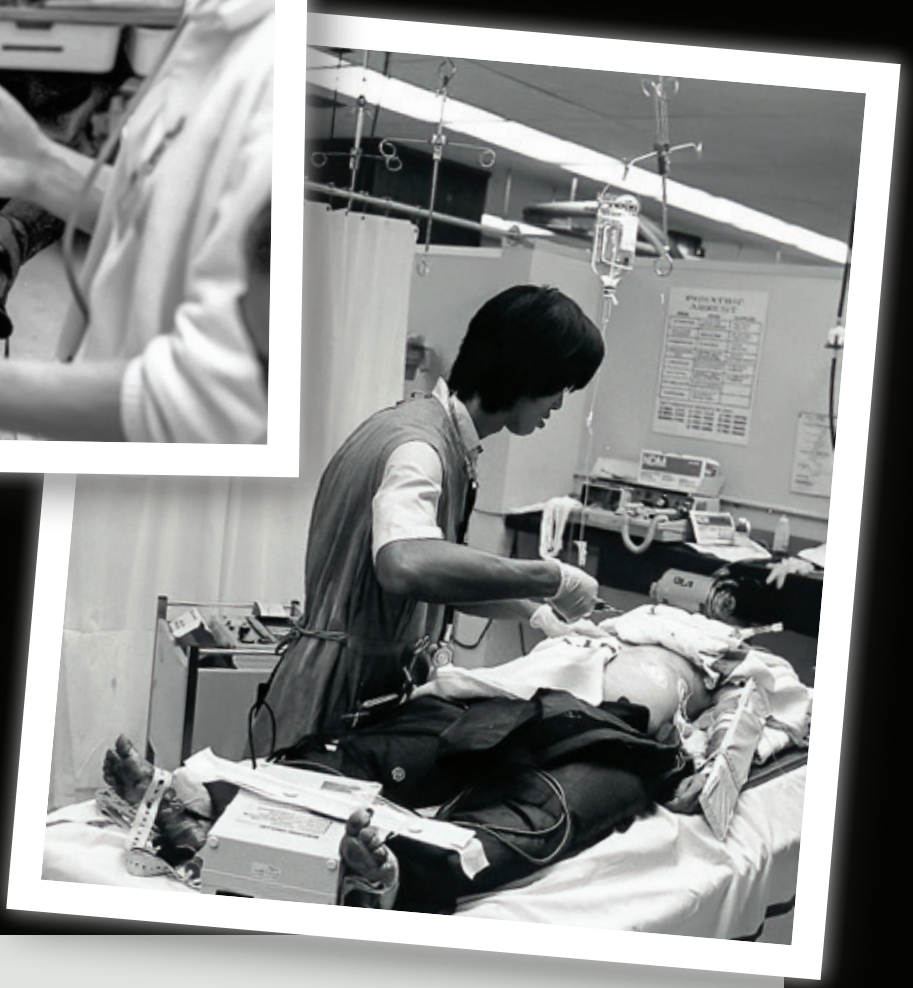
Dr. Clarke is a part of a generation of physicians who shaped

An ambulance bay at the LA County-USC Hospital in 1978

PHOTOS: DR. ELSBURGH CLARKE







LEFT: ED attendings Dr. Gerald Whelan and Dr. Shumary Chow supervising a full arrest in "C" booth—the main trauma room—with an ED tech administering CPR.

CENTER: Medical anti-shock trousers (MAST) being applied for a trauma patient and a Datascope cardiac monitor in use during traumatic full arrest. From 1978 to 1980 MAST suits were used in most trauma patients.

RIGHT: ED resident Dr. Steve Hui doing a pericardiocentesis on a trauma patient. Notice the use of the medical anti-shock trousers and the ECG machine.

PHOTOS: DR. ELSBURGH CLARKE

the specialty. They learned by doing, he said, by falling down and getting back up.

"We learned a lot by ourselves," Dr. Clarke said. "Some of the residents who graduated in those first classes came back to be our mentors, but as far as attendings go ... there weren't any at that time."

Varied Career

From LA County, Dr. Clarke's career has carried him through a variety of positions all throughout the country. After residency, he stayed in Orange County, Calif., for a few years working as an emergency physician. Dr. Clarke was then hired as assistant director in the emergency department (ED) at Pomona Valley Hospital, Pomona, Calif. A cross-country move brought him to Delaware, where he served as the director of a hospital ED in Milford, Del. After several more years, he was again recruited away to be director of an ED in Peoria, Ill.

"I thought I was going to retire, but it didn't suit me, so I joined an ED group as a 'traveling physician,' where I was also their photographer," Dr. Clarke said. "After about eight or nine years of traveling to various EDs for the group, I decided to come home from being a 'traveling physician' and I took a position at Hopedale Medical Complex, where I have been for the last six years."

Throughout his experience and across these many locations, Dr. Clarke said that much about emergency medicine has changed, but a lot has stayed the same. A typical shift when he was starting out would include patients falling into what was coded as "1350" major medical/trauma, "1060" minor medical/trauma, or "1050" medical walk-in.

"At that time, the senior residents were always in 1350, versus the second-year residents who would be in 1060 or 1050," Dr. Clarke said. "Many of the cases we saw then—car accidents, gunshot wounds, stabbing, D and Cs—are the same as we see today, but the way the cases are handled is different."

Today, a patient comes in and the emergency physician may do the airway, but a trauma surgeon does the surgery. In comparison, early in his training, Dr. Clarke said each physician did it all.

Evolution

Many technological and economic changes have also come to the ED.

"When I started, if a patient came in with right lower quadrant pain, we would talk to them and think 'appendicitis,' without having any way to confirm it except by history, labs, and physical exam," Dr. Clarke said. "Now, we have ultrasound or CT scans to confirm."

The advancement of radiology was the first thing that came to mind for Dr. Clarke when discussing how technology has advanced emergency medicine. Today, physicians can utilize MRIs, CT, and ultrasound, with the latter often available at the point of care. Expedited lab work has also improved care, Dr. Clarke said.

"We can order a CBC or a [comprehensive metabolic panel] and make a faster diagnosis," Dr. Clarke said.

From an economic viewpoint, emergency physicians today are faced with an increasing number of patients who use the ED as a source of primary care, Dr. Clarke said, although perceived issues around the "misuse" of the ED date back to the 1970s.[2]

"Even in my smaller hospital, we see a lot of patients who come in if they'd had a cold for several days, and when we ask them why they haven't gone to a doctor or urgent care, they tell us that they don't want to have to pay up front," Dr. Clarke said. He is also familiar with the delayed care and crowding, including boarding issues, that occur.

The economics of emergency medicine has also evolved. Dr. Clarke recalled issues with payment and salary in his earlier years, especially those related to contract management groups like the ones detailed in the 1992 book *The Rape of Emergency Medicine*.

"The groups would hire physicians and pay them a certain salary and then have a contract with a hospital where the group would be making a lot more money," Dr. Clarke said. "It was almost like a pyramid scheme. That has changed, even within the group I work for, because ER physicians are learning more about businesses and contracts."

Same Beating Heart

Throughout all these changes over the decades, Dr. Clarke is still in love with the specialty.

"I am not one to sit down and look at an ECG or sodium potassium in the ICU," Dr. Clarke said. "I like the excitement."

Emergency medicine allows physicians to be wanderers, Dr. Clarke said. They can be ship doctors, go on mountain treks, work in forensics, or be a part of a S.W.A.T. team.

"You can do so many things, and I think a lot of the physicians in emergency medicine still do it because they like the excitement," Dr. Clarke said.

It is because of this excitement—and the fact that his salary helps support the expense of his love for photography—that Dr. Clarke continues to practice, but really, when it comes down to it, it is because "I love emergency medicine."

MS. LAWRENCE is a freelance health writer and editor based in Delaware.

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Parked Los Angeles Fire Department rescue ambulance in 1978.

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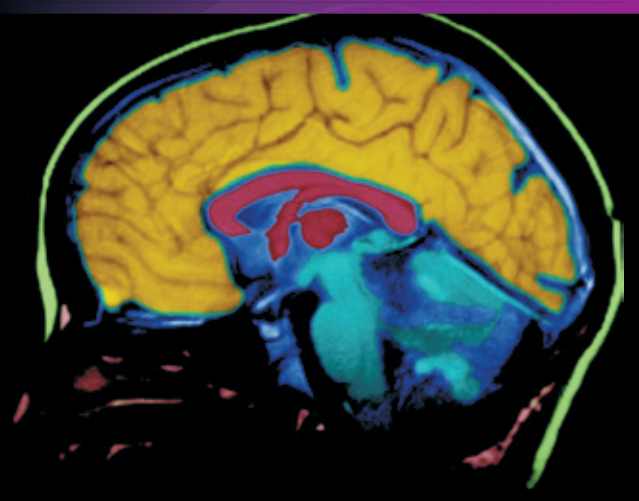

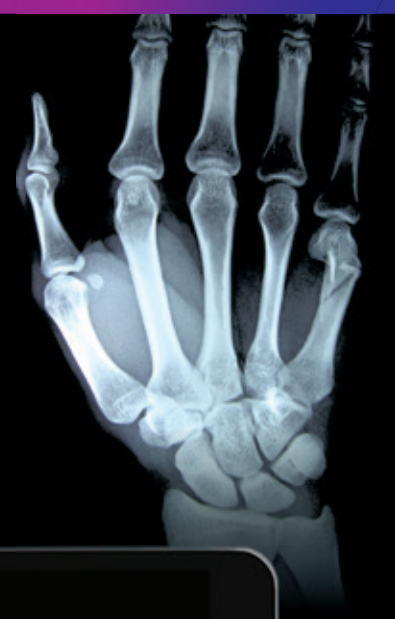

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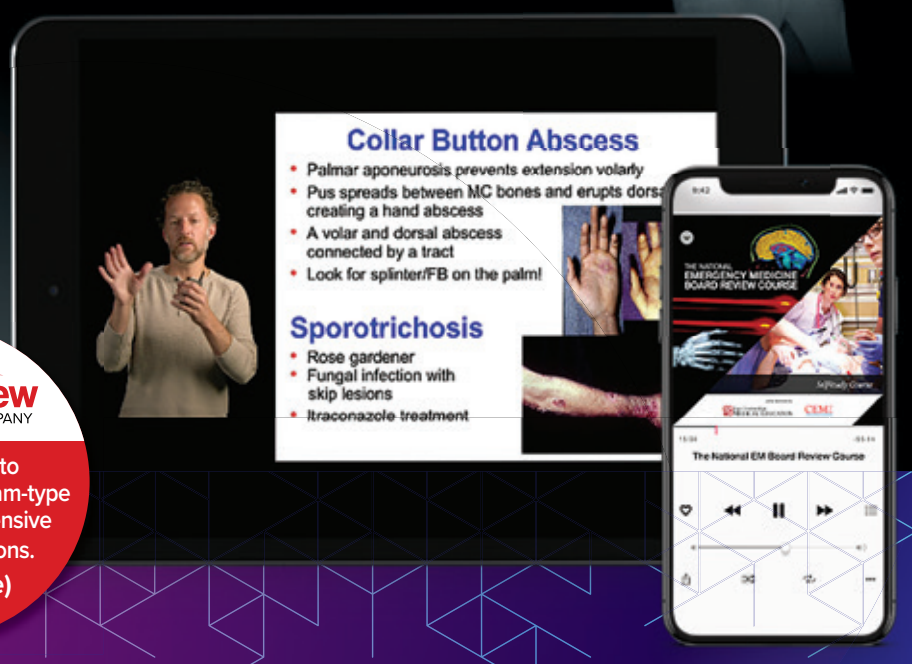

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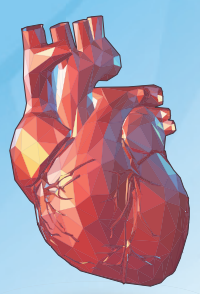

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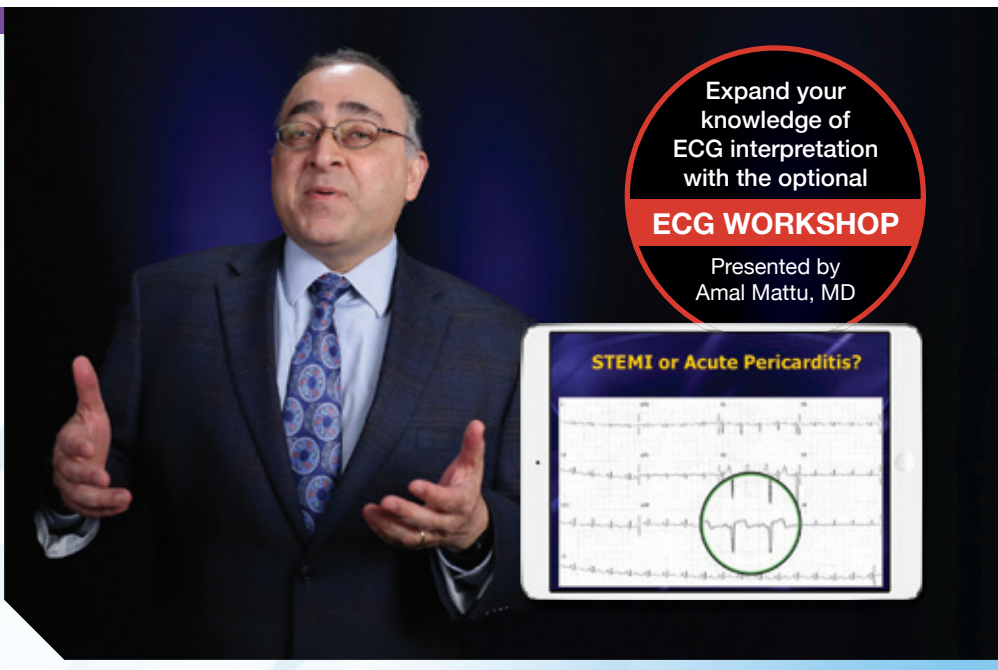

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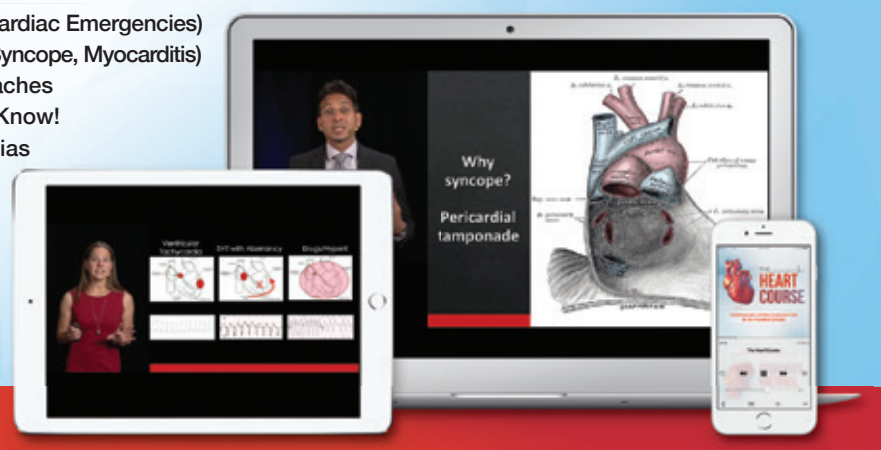
- ✓ Cardiac Arrest Care
- ✓ Posterior Stroke
- ✓ Potpourri



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RURAL EM DOCS | CONTINUED FROM PAGE 1

Today, some EDs are staffed for part or all of the day by physician assistants (PAs) and nurse practitioners (NPs), and rural EDs are more likely to employ these clinicians practicing independently, without onsite physician supervision or involvement.[3] Because ACEP believes that it is crucial for a physician with training and/or experience in emergency medicine to provide or oversee the care in EDs, it supported the Indiana and Virginia chapters' legislative efforts as a model for other states and a priority for legislative outreach.[4] ACEP also offers a toolkit for how to pass physician mandates in individual states at www.acep.org/scope.

ACEP's Council voted in September 2024 to collaborate with the American Medical Association (AMA) in advocating for this issue. According to an AMA Newswire release on Nov. 12, AMA concurred that "having a physician on site is the best way to deliver care," although an AMA Board of Trustees report concluded that some rural and remote facilities may not be able to meet this aspiration.[5]

Other state chapters are interested in pursuing similar mandate laws, according to Todd Parker, MD, FACEP, an emergency physician in Virginia Beach, Va., and immediate past president of the Virginia Chapter of ACEP.


Dr. Parker

"In Virginia, we were ready to go public with a campaign making this a patient safety issue, but in the end that wasn't necessary," Dr. Parker said. Currently, there is no hospital in Virginia that doesn't have a doctor onsite 24/7, he added.

EDs need emergency physicians, first and foremost, because of their training, Dr. Parker said. Emergency physicians get many more hours of supervised clinical training than PAs or NPs, he said. According to a 2020 review of interprofessional variation in education, a board-certified emergency physician has completed at least 5,000 average program clinical contact hours, among other training requirements, compared with 2,000 hours for a PA and 500 for an NP.[6]

Dr. Parker, who also serves as the medical director of the Patient Transfer Center at Riverside Health System, noted that capacity issues have made patient transfers from rural to more comprehensive facilities more difficult, often with extended delays, underscoring the need for a physician to identify critical emergencies and manage them on site for hours, even days, while awaiting transfer.

Dr. Parker asserted that in some cases it is better for the patient to be transferred by EMS directly to a facility that can manage their critical needs, even if that takes an extra hour, than it is to take them to a closer rural ED where they will only be seen by a PA or NP. According to the Emergency Medical Treatment and Labor Act (EMTALA), once they arrive at that rural ED, they can't leave it until there is an accepting physician at a hospital that has a bed available for that patient.[7] That could take hours or days, Dr. Parker said.

Viktoria Koskenoja, MD, who practices in the ED at Baraga County Memorial Hospital, L'Anse, Mich., population 1,873, was trained in emergency medicine in urban settings before relocating to Michigan's Upper Peninsula.


Dr. Koskenoja

"I started seeing egregious mistakes that were made in a department where there was no physician present," Dr. Koskenoja said. Those mistakes included patients who were transferred unnecessarily to her hospital. If there had been a physician at the department they were transferred from, they wouldn't have needed to come all this way, she explained.

According to Dr. Koskenoja, who is past chair of ACEP's Rural Emergency Medicine Section, a line should be drawn requiring a minimal level of training in an ED, no matter the hospital's size or location.

"In my opinion, that line is medical school and residency training," Dr. Koskenoja said. "There were two occasions I personally know of where a chest tube was needed for an emergency patient because of a collapsed lung—and it needed to be addressed immediately [but wasn't]. One time the PA working in that hospital said they just didn't know how to do that." She also cited a missed ectopic pregnancy and two cases where time-sensitive ST elevation myocardial infarctions were not diagnosed as examples of insufficient diagnostic skills in rural EDs without physician presence.

What's Really Going On?

In *ACEP Now* and elsewhere, there has been an ongoing dialogue about whether there are too many or not enough emergency medicine-trained and board-certified physicians to fill every hospital's staffing needs, current and future.[8] In 2019, 20 percent of emergency medicine residents reported some difficulty finding a job in a preferred geographic area or at a salary they anticipated or wanted.[9]

But for rural EDs, it may not be that physicians don't want to relocate to rural settings, but rather that hospitals are unable to pay the salary needed to attract an EM-certified physician to their rural community.

"A lot of hospitals say they can't afford a physician, but we know that it is cheaper for their payroll costs to employ an NP or PA," Dr. Koskenoja said. "It's hard to know exactly what they can afford versus what they say they can afford. I currently work in an ED that has less than 5,000 visits per year, and it's exclusively staffed by MDs and DOs. So my hospital is affording it."

Dr. Koskenoja said that there is a role for PAs and NPs to work in EDs as physician extenders; they are an integral part of the clinical team. But there is a wide difference in training, and that is just a fact, she said.

Stephen Jameson, MD, FACEP, a physician in the ED at Sanford Medical Center, Fargo, N.D., and another past chair of ACEP's Rural Emergency Medicine Section, said it will be hard to reconcile the gap between a standard for mandated physician presence and what rural hospitals are able to deliver. He studied these while serving on ACEP's Rural Task Force, starting in 2019.


Dr. Jameson

"In our minds, we felt we should get emergency physicians into every ED," Dr. Jameson explained. A 27 percent increase in emergency residency program slots in the previous decade seemed like a move in the right direction, he said.

But then a workforce study by Bennett and colleagues showed that although the number of emergency medicine residency programs had increased, most were added to states that already had a lot of them.[10] In contrast, there was an emergency physician "desert" in other, rural parts of the United States.

If you want to fill the gaps, Dr. Jameson said, "first you have to recognize that the trend toward PAs and NPs staffing the smallest EDs, typically working independently, is a reality. The question is what to do with these small volume, critical access and frontier rural hospitals?" Dr. Jameson said. "How far down in volume of patient visits per year can you go and still justify hiring a physician for the ED? And will we ever be able to staff the lowest volume EDs?"

Emergency medicine training has incorporated more rural rotations to give EM residents some exposure to rural medicine and rural life, Dr. Jameson noted. But he wondered if there could be some kind of carve-out in these mandates for very low-volume facilities, an exception to ACEP's aspirational standard.

Could the affected professional societies come together to define and advocate for training programs to better prepare PAs and NPs for the rural ED, given the reality that many rural hospitals now employ them without direct physician involvement? "We should at least advise that they need more training and help define that training," Dr. Jameson said. And could telemedicine from urban centers provide more short-term support for the unsupervised clinicians that are already out there?

Family Physicians Want More Respect

The laws in Indiana and Virginia state that EDs should be staffed with a licensed physician, without requiring that physician to be board certified in emergency medicine. Rural hospital advocates point out that many of the physicians now working in rural EDs are family medicine doctors—and they bring invaluable skills to those settings.

"Non-emergency-medicine physicians who work in EDs, typically family practice physicians, are actually really good at it," Dr. Parker said. "I've worked with them."

Dan Doolittle, MD, was trained in family medicine, served in the Air Force, and then, 30 years ago, started practicing emergency medicine exclusively. He deliberately sought out a career in a rural setting.


Dr. Doolittle

"I came to Southern Illinois, where I could buy land and raise my kids on that property," Dr. Doolittle said. He grew comfortable practicing rural emergency medicine and opted not to be "grandfathered" into board certification when that was offered by the American Board of Emergency Medicine (ABEM) based on hours of clinical practice.

Recruitment of residency-trained emergency physicians to critical access hospitals can be incredibly difficult, Dr. Doolittle said. Many emergency physicians did their residencies in urban programs and are reluctant to move to rural areas to work in rural hospitals. Sometimes these physicians are uncomfortable being the only doctor in the hospital, perhaps in the whole county, during their shift.

"I get that. They're really smart and trained in trauma medicine. They enjoy the fast pace, and they typically work eight-, 10-, 12-hour shifts in busy EDs," he said. They have built relationships with their colleagues and hospitals. A rural EM service, by contrast, might ask them to work 24- or 36-hour shifts, which includes time for sleeping, Dr. Doolittle said. "In rural emergency medicine, we sell a whole different product—with a different pace."

Dr. Doolittle believes that family physicians and other primary care specialties practicing in rural EDs deserve more respect and collegiality from the field. He would like to see ACEP take a position on the legitimacy of primary care doctors running rural EDs. "At least let's try to work together more collaboratively," he said.

His company, Integritas Providers of Carbondale, Ill., staffs 12 EDs in rural hospitals in the Midwest. Most of its physicians are experienced non-ABEM physicians from various training backgrounds.

"My wish is that emergency medicine residency programs would focus on offering more rural experiences, training the doctors of the future for a potential rural career, and recruiting medical students from rural communities," Dr. Doolittle said. But, in the meantime, "we need more doctors tonight."

LARRY BERESFORD, an Oakland, Calif.-based freelance medical journalist, also writes for *The Hospitalist* and for *EMS World*.

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Her physical examination is notable for stage 2+ pitting edema of the bilateral lower extremities, and the presence of bibasilar crackles on auscultation of the lungs. No abnormal cardiac sounds are appreciated. Her abdomen is soft, nontender, and nondistended. Prominent jugular veins are appreciated.

Differential Diagnosis

The differential diagnosis on this patient includes myocardial infarction, congestive heart failure, myocarditis, pericarditis, pulmonary embolism, pneumonia, pleural effusion, pulmonary edema, anemia, hypothyroidism, cardiac arrhythmia, aortic dissection, and peripartum cardiomyopathy.

Workup

The evaluation of this patient's chief complaint includes a 12-lead ECG and a chest radiograph. Laboratory tests including troponin, brain natriuretic peptide (BNP), complete blood count, electrolyte panel, and a pregnancy test should be obtained.

Point-of-care bedside echo may be helpful to evaluate the global systolic function of the left ventricle, to assess for significant right ventricular enlargement, and to evaluate for the presence of a pericardial effusion. Point-of-care ultrasound of the lungs may reveal the presence of B-lines, which would be concerning for pulmonary edema in this patient. Pleural effusions are also typically apparent on lung ultrasonography.

Ambulatory pulse oximetry test may unmask worsening hypoxia in the setting of physical activity.

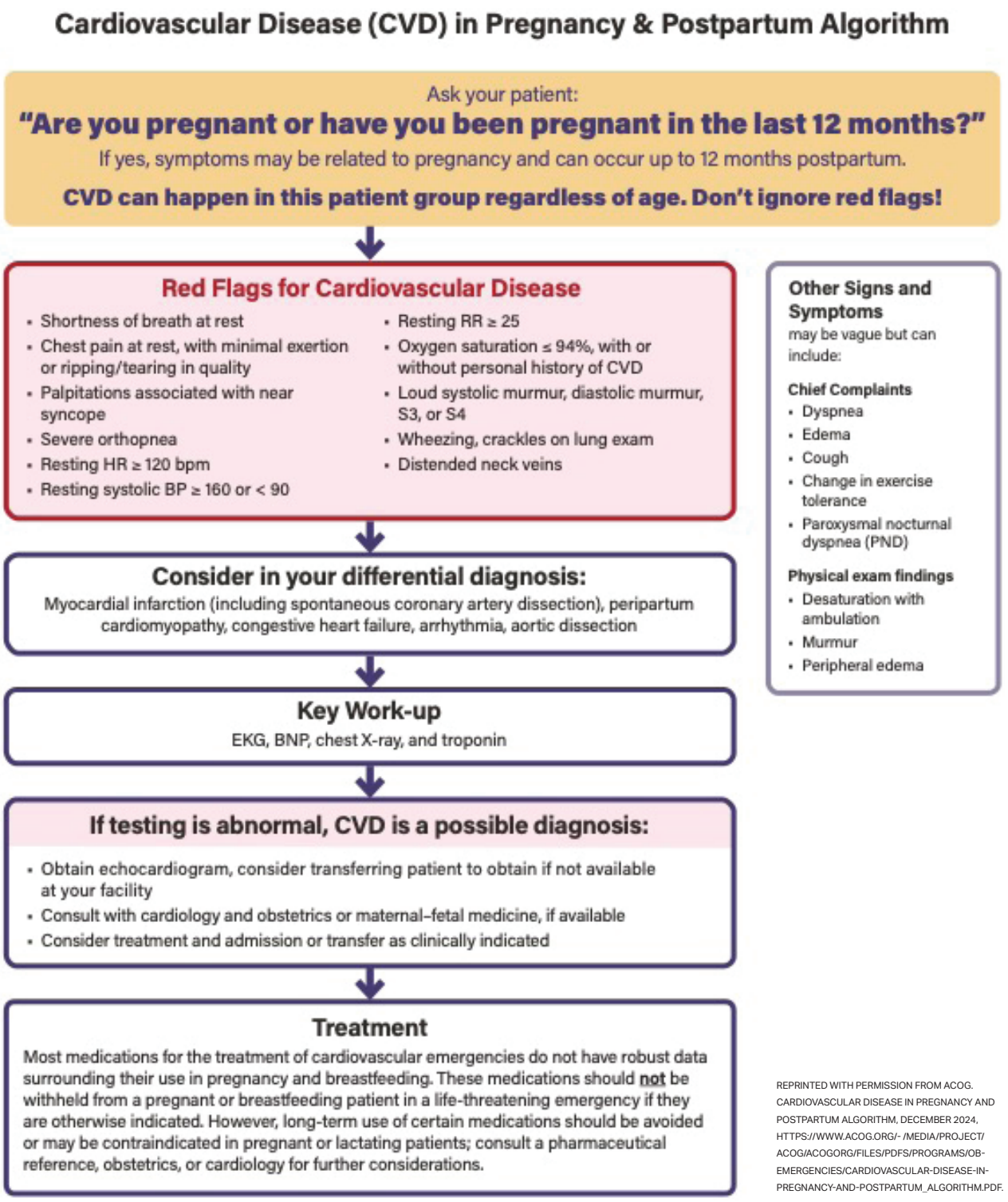
Management

Pregnancy-related cardiovascular disease is a rare but serious complication of pregnancy and accounts for a significant proportion of maternal morbidity and mortality. Cardiovascular disease is the second most common cause of pregnancy-related death in the United States, and is the leading cause of pregnancy-related death among non-Hispanic Black patients.[1] Cardiovascular disease during or after pregnancy—collectively representing an array of conditions involving disease and dysfunction of the heart and vascular system—encompasses the diagnoses of myocardial infarction (including spontaneous coronary artery dissection), cardiac arrhythmia, congestive heart failure, aortic dissection, and peripartum cardiomyopathy.

The mortality rate varies by condition, time to presentation, the patient's access to specialty care, and patient comorbidities. A global registry of peripartum cardiomyopathy (PPCM) reports that fewer than half of patients who experience PPCM will completely recover their left ventricular function.[2] The key to making these diagnoses is identifying which patients are at risk. Because the risk for pregnancy-related cardiovascular disease extends many months past the point at which the pregnancy ends, it is recommended that all pregnancy-capable patients be screened for current or recent pregnancy. The most straightforward means to ascertain current or recent pregnancy is for the ED clinician to ask the patient, "Are you pregnant, or have you been pregnant in the last 12 months?"

The acute management of cardiovascular disease during pregnancy or in the postpartum period centers on recognizing the condition, supporting oxygenation and ventilation through the provision of supplemental oxygen when necessary, optimizing the patient's volume status and myocardial function, connecting the patient to timely subspecialty care, and—if necessary—intervening. Many of the medications used in the acute management of cardiovascular emergencies—diuretics, beta blockers, ACE inhibitors, and angiotensin receptor blockers—do not have robust data on their usage during pregnancy or lactation but should not be withheld in life-threatening circumstances. Consultation with cardiology and maternal–fetal medicine specialists is strongly recommended when available.

ACEP and the American College of Obstetricians and Gynecologists (ACOG) together developed an algorithm to assist emergency physicians in the diagnosis and management of patients with pregnancy-related cardiovascular disease.[3] The algorithm is shown in Figure 1.



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Case Outcome

The patient's bedside ultrasound was concerning for the presence of three or more B-lines in numerous lung windows, and the patient's left ventricular ejection fracture appeared globally reduced. The BNP was markedly elevated. ECG revealed normal sinus rhythm with no acute ischemic changes. First high-sensitivity troponin was slightly above reference range. The patient was admitted to an inpatient telemetry bed for continued workup and consultations with cardiology and maternal–fetal medicine due to concern for peripartum cardiomyopathy.

DR. WHITE is chair of ACOG's Obstetric Emergencies in Non-Obstetric Settings Project and an emergency physician at University of New Mexico, Albuquerque, N.M.

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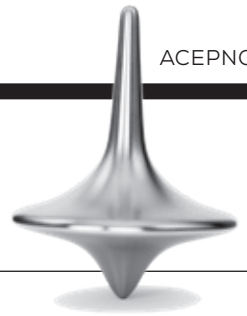
KEY POINTS

- Cardiovascular disease can occur during pregnancy and up to 12 months postpartum and is associated with significant morbidity and mortality.
- The key to the diagnosis of pregnancy-related cardiovascular disease is recognition. Emergency physicians should attempt to ascertain from patients their status regarding current or recent pregnancy.
- Most medications for the treatment of cardiovascular emergencies do not have robust data on use in pregnancy and lactation. These medications should not be withheld from a pregnant or lactating patient in a life-threatening emergency if they would otherwise be indicated.



The Death of Critical Thinking in Emergency Medicine

The unintended consequences of protocolization and a call to regain physician autonomy

by RUSSELL BAKER, DO, FACEP, FAEMS, FAWM

In recent years, emergency medicine, once the bastion of quick decision making, clinical acumen, and patient-centered care, has been quietly succumbing to a different force—the slow but steady erosion of critical thinking. The culprit is the increasing reliance on protocolization and the diminishing autonomy of emergency physicians. This shift, intended to standardize care and mitigate error, is paradoxically undermining the very heart of medicine—the doctor's ability to think critically, adapt to each patient's unique needs, and make nuanced decisions.

At the core of the issue is the rise of clinical protocols, the rigid, step-by-step algorithms designed to guide physicians through nearly every conceivable situation. What began as a tool to aid clinicians and reduce variability has ballooned into a crutch, now threatening to replace the practice of medicine itself. Protocols have become the rule, not the guide, and their overuse fosters a dangerous mindset where blind adherence is favored over thoughtful consideration.

Emergency Medicine Is Not Routine

Although standardization has its place—particularly in ensuring consistency in routine or straightforward cases—emergency medicine is anything but routine. The essence of the field lies in its unpredictability. Every patient who walks (or is wheeled) through the door is a puzzle of human complexity. A one-size-fits-all approach cannot possibly account for the nuanced presentations of disease, the varied human responses to illness, or the subtle interplay of comorbidities, age, and lifestyle. Yet, the current culture of emergency medicine increasingly values the clinician who adheres to protocol over the one who exercises gestalt and clinical judgment. The result is a generation of physicians who are losing the ability, or worse, the desire, to think critically.

The argument in favor of protocolization is not without merit. Proponents argue that it reduces medical errors, decreases variability in patient care, and creates a safety net for less experienced clinicians. However, the cost of this safety net is mounting; it strips away physician autonomy and dilutes their role to that of a technician following orders rather than a trained professional making lifesaving decisions. The art of medicine—the intuitive, informed choices that differentiate a good doctor from a great one—is being lost.

Erosion of Autonomy

The erosion of autonomy is evident in how physicians are now viewed, both by administrators and even by themselves. The shift toward corporate-driven health care models has emphasized efficiency, cost effectiveness, and throughput, reducing physicians to cogs in a larger machine. In this system, there is little room for innovation or deviation from the established protocol. Physicians are encouraged, explicitly or implicitly, to comply with rigid guidelines, fearing retribution for stepping outside these parameters—even when clinical judgment tells them otherwise. The result is not better care but rather care that is often impersonal, mechanical, and, at times, dangerously inadequate for complex cases.

Worse still, young physicians train in this environment. They are taught to trust the algorithm more than their instincts and to defer to the checklist rather than engage in clinical reasoning. Residency programs and medical schools increasingly prioritize protocol adherence over critical thinking, preparing doctors to function within a system that values uniformity over insight. The future of emergency medicine risks being populated by physicians and other health care providers who may excel at following orders but lack the skill to adapt to novel situations and make decisions under uncertainty.

Patients Have Unique Needs

The rise of protocolization is not merely a shift in medical practice; it is a dehumanization of the profession of medicine. The physician–patient relationship is inherently personal, grounded in the physician's ability to assess, adapt, and apply expertise to the individual under their care. Protocols treat patients as datapoints in a flowchart, not as human beings with unique needs. Although these guidelines can be helpful in clear-cut cases, they fall apart in the face of the complex, the unusual, or the unexpected—precisely the cases that make emergency medicine a vital and challenging specialty.

Emergency medicine's roots are in the messy, the unpredictable, and the life-threatening. It is in these moments that a physician's critical thinking and autonomy are paramount; it is where the loss of these skills is most felt. Protocols will never replace the clinician who recognizes that a patient with vague chest tightness and no other clear symptoms is actually having a silent myocardial infarction or a trauma patient who does not need a reflexive CT pan scan. An algorithm will not pick up on the subtle signs of sepsis in a patient who presents atypically. These moments, the ones that define medicine, risk disappearing in a sea of checkboxes and flowcharts.

Commit to Critical Thinking

It's time to stop this slide toward medical mediocrity. Emergency physicians must reclaim their autonomy, resist the push for over-reliance on protocols, and reignite their commitment to critical thinking. Protocols are tools, not masters, and physicians must be trusted to exercise their expertise rather than merely follow a script. Health care administrators and policymakers must also recognize the danger in reducing medicine to a set of standardized procedures, understanding that true quality care comes not from mindless adherence to guidelines, but from empowering clinicians to think, adapt, and act.

If this trend is not reversed, the consequences will be dire. Emergency departments will become conveyor belts of impersonal care, churning out treatments that may be "correct," according to the protocol, but wholly inadequate for the individual. Patients will suffer, and the field of emergency medicine will lose its soul.

DR. BAKER is an associate professor at Texas Tech University Health Sciences Center in El Paso, Texas.

EMPLOYMENT CONTRACTS: IT'S ALL IN THE DETAILS

Successful contract negotiation includes setting priorities and being strategic about goals

by RADE B. VUKMIR, MD, JD, FACEP

Effectively negotiating your employment contract may be as important as the actual choice of position itself. Although most emergency doctors focus primarily on money paid and hours worked, career quality and longevity are optimized by good contract negotiation.

I am often asked: What are the most important contract provisions to consider?

First, one must carefully study the more general, descriptive contract provisions beyond just compensation. Most importantly, try to understand how the standard contract language, general provisions, and definitions interface with your personal situation.

Important Contract Considerations

- Are the work performance requirements—hours, shift times, staffing coverage models—modifiable, and under what circumstances?
- Is there compensation for additional work?
- How closely does the benefit package align with your needs?
- Is there a call coverage requirement?
- Is the institutional culture and goal setting comfortable with your personal practice style?
- Are the merit-based incentive programs defined, objective, and achievable?

Specific Contract Provisions: Renewal Term

Most contracts are not designed to bind parties together forever and will have a renewal provision. A practice that may be encountered is the use of an "evergreen clause" allowing a clear delineation of time and terms of renewal that allows planning for both parties. However, it is often used to allow for contract expiration, without the employer requirement to invoke a non-renewal or termination clause.

Ensure that there is an adequate transition notice requirement—typically 90 days in most full-time agreements—in the eventuality the contract is not renewed. This requirement provides an opportunity to review responsibility for medical malpractice tail transition and residual bonus or incentive payment.

Covenant to Not Compete

Another area of concern is the "restrictive covenant," or covenant to not compete (CNC), attempting to exclude the physician from continuing to work at a facility in the event of a service contract change. This is contract placeholder language that attempts to prohibit an independent physician practice from competing against the facility. Hospital-based physicians may be excluded from rehire in the attempt to avoid loss of the provision of service contract by the vendor.

Although unlikely, the goal for the contractee is to eliminate the provision entirely; limiting its application and scope—by decreasing the geographic radius, length of exclusion, and type of practice—may be more likely. Additionally, you may minimize the financial effects by negotiating a liquidated damages provision attaching a value to foregoing this provision for the vendor. This construction should reflect lower unwinding costs for the parties to separate, rather than the higher costs associated with potential litigation to resolve the contract separation process.

The enforcement of these provisions typically relies less on equitable principles of physician coverage, and more on the prevailing jurisdictional law. In states that support a right-to-work statute—typically focused on the right to not require participation in a union to maintain employment—extending this rationale to non-exempt employees, this noncompete work exclusion may violate the right to work.

Due Process

Define what, if any, due process rights are available to the employee in a unilateral separation scenario. First, there may functionally be no contractual rights to contest a separation, as a termination without cause, or "no cause" provision invocation may avoid any discussion of rationale. Second, termination with cause often has declarative issues related to failure in licensure, certification, insurance qualification, civil transgressions, or criminal law violations. Typically, due process is not applicable in these definitive qualification issues.

Third, a mutual arbitration clause may compel this first procedural step in a contract dispute. Likewise, a litigation venue clause may be present, with notice paid in both cases to the location of resolution. Ideally, it should be the primary clinical location, rather than the location of a distant corporate headquarters, that decides venue.

Fourth, recognize that for hospital-based specialties, the co-termination of privileges mandates loss of business-specific hospital privileging as well. The physician may reapply; however, in an exclusive contract scenario, it will unlikely be successful.

Force Majeure

Force majeure or "greater force" provision was a seldom, if at all, invoked provision related to an unforeseeable circumstance beyond control of the parties. Typically, these events are specified in contract language that might include pandemic, natural disaster, war, or act of terrorism, and became more prominent after COVID-19. This change may include unilateral contract termination or change in material contract elements, such as time of engagement, terms of separation, liability insurance coverage, or compensation change.

However, this type of contract language clause is not meant to be invoked to alleviate financial responsibility for adverse market conditions, financial distress, or to avoid monetary losses for the business entity. The contractee should ensure that the "act of god" provision excludes the application of any market downturn conditions to this provision.

Summary

The keys to a successful contract negotiation include your ability to set priorities and be strategic about your goals. Attorney review, by someone practicing in health care law with contract experience, is helpful. Decide what is most important, target your high priority negotiation goals, and, after careful review, present all concerns initially.

Typically, most parties in a professional service contract negotiation can agree on a few provisions. However, a significant number or gravity of requested changes in a corporate standardized contract are unlikely to be successful. A successful strategy often presents a positive approach, emphasizes your contributions, and illustrates how you will assist in the collaborative process.

DR. VUKMIR is professor of clinical emergency medicine at Drexel University, Philadelphia, has a legal degree with a health law specialty, and is published in the areas of contracts, EMTALA, medical malpractice, and high-risk medicolegal liability.

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THE NEXT GENERATION OF EM

RESIDENT VOICE

DR. CHUNG is a PGY-4 resident in emergency medicine at George Washington University in Washington, DC. She is interested in a wide variety of topics related to health equity and population health.

GW Residency Union: A Resident's Perspective

Unionized residents, fellows employed by George Washington University narrowly avoided a strike

by KAREN HOU CHUNG, MD

Medical training is a difficult task. As residents and fellows, we move wherever the Match sends us, endure grueling hours, and sacrifice time with loved ones—all in pursuit of becoming the best doctors we can be and delivering excellent patient care. But we should not have to sacrifice our own well-being in the process.

In Washington, D.C., more than 450 residents and fellows employed by George Washington University (GW) spent the past 15 months fighting for our first contract. In spring 2023, nearly 95 percent of house staff voted to unionize with the Committee of Interns and Residents (CIR), a branch of the Service Employees International Union (SEIU) and the largest and oldest house staff union in the country. Contract negotiations began in fall 2023, but progress was slow.

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Simple, Reasonable Demands

Our demands were simple and reasonable. First, we sought a livable wage in one of the most expensive cities in the United States. Under our original contract, with the long hours we work, many of us earned, on average, less than the D.C. minimum wage of $17.50 per hour. Compared with other residency programs in the same city, our salaries were among the lowest.

Second, we pushed for better access to therapy and mental health benefits. We deal with difficult and traumatizing situations daily, and nowhere is this more apparent than in the emergency department, where sickness, violence, and death are routine. Last year, our friend and colleague, ophthalmology resident Dr. William West, Jr., died by suicide. In a public letter, he highlighted the pressures of residency and stigma surrounding mental health, warning that "there are other residents fighting a true life-and-death battle—one that is waged both inside and out at the clinic/hospital."[1] His tragic loss underscores the urgent need for mental health support for residents and fellows.

Other demands included increased time for parental leave and childcare, clean resident call rooms, reimbursement for board exam fees, and improved medical benefits coverage. These issues were not merely matters of personal convenience—they are fundamental for enabling us to provide the best possible patient care in one of the region's biggest hospitals. Addressing these concerns helps combat physician burnout, which has been widely identified as a threat to patient care and the broader health care system.[2] *ACEP Now* has previously written about the reasons for physician unions, particularly among emergency physicians.[3,4] Our motivation was similar: The only way we can take good care of our patients is if we take good care of ourselves.

A Fair Contract is Essential

Despite more than a year of negotiations, by December, we had yet to reach an acceptable agreement. On December 3, the union announced plans to strike, with 98.7 percent of union members voting in support. This decision was not made lightly. Historically, labor unionization among health care workers is uncommon, including among resident physicians, and the prospect of striking even more so.[5,6]

One of the first documented strikes among house staff officers took place in 1974 at Howard University here in Washington, D.C., and resulted in increased salaries, improved facilities, and better benefits.[7] After decades without a resident physician strike, one took place last year at Elmhurst Hospital in Queens, N.Y., where residents went on a multi-day strike and secured higher salaries, meal stipends, and transportation benefits.[8] Striking is a last resort, but we were ready to follow in these footsteps, knowing that securing a fair contract is essential for our health and well-being, and the quality of care we provide to our patients.

Strike Avoided

Fortunately, less than 12 hours before the strike was scheduled to begin, our union came to an agreement with GW. Thanks to the tireless advocacy of our residents, fellows, and CIR/SEIU representatives, we reached consensus on many critical issues. Our new contract includes significant salary increases, annual stipends for mental health, a ratification bonus, and other measures that address core concerns.

This victory is about more than just numbers. A fair contract is not just about wages or benefits—it is about creating a foundation where physicians can thrive, patients can receive the best care, and the future of medical training is sustainable. By standing together, we demonstrated that meaningful change is possible, and we hope our efforts set a precedent for residents and fellows across the country who face similar challenges. Our advocacy seeks to build a system that ensures doctors are supported and equipped to deliver the care our patients deserve.

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EMERGENCY IMAGE QUIZ

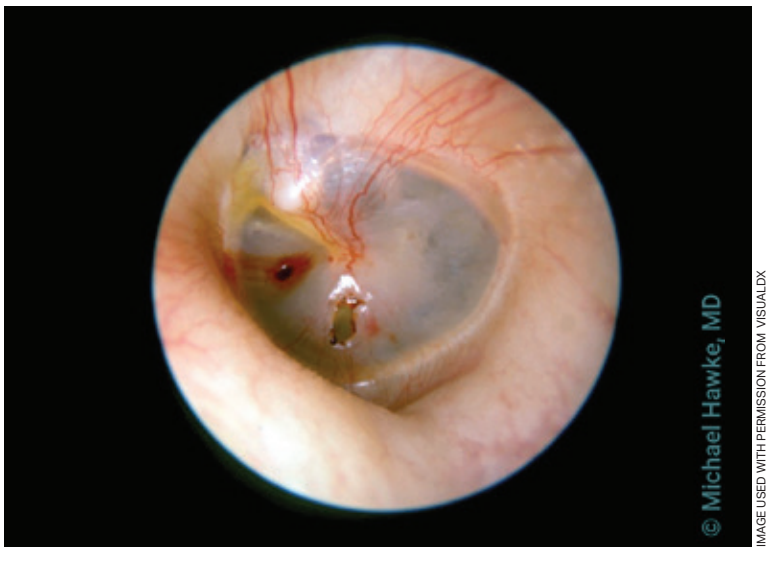
CONTINUED FROM PAGE 3

Answer

The correct answer is D.

Tympanic membrane perforations generally occur secondary to middle ear infections or result from barotrauma, blunt or penetrating trauma, and, rarely, lightning strikes or electrical injury.

The most common complaints include hearing loss and acute pain. The perforation can appear slit-shaped or with irregular borders. Most perforations will heal spontaneously. These patients should be referred to an otolaryngologist for follow-up within a few weeks. Those that do not heal on their own will be considered for surgery.



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Reference

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PEARLS FROM THE MEDICAL LITERATURE

DR. RADECKI (@EMLITOFNOTE) is an emergency physician and informatician with Christchurch Hospital in Christchurch, New Zealand. He is the *Annals of Emergency Medicine* podcast co-host and Journal Club editor.

The 2024 Year in Review

Highlights of the newest research on forced air, sepsis diagnosis, vascular access, and more

by RYAN RADECKI, MD, MS, FACEP

Every year, the hopeless task of keeping up with the medical literature grows even more unattainable. Will our Sisyphean burden be replaced with AI? (*Read this month's Skeptics' Guide to Emergency Medicine for that answer).* Will we be microchipped with peripheral PubMed brains? Will we finally wake up from the Matrix and be freed? Not yet!

So, in the meantime, here's a host of articles of more than just passing interest from the past year, not already covered in *ACEP Now*.

New Developments in Forced Air

A few years ago, the vogue debate was rocuronium versus succinylcholine. Then, it was video laryngoscopy versus direct ... bougie or stylet. Now, the next debate to be settled is the ideal method for pre-oxygenation before intubation. The PREOXI trial compared oxygen mask pre-oxygenation versus noninvasive positive-pressure ventilation (NIPPV) in patients requiring intubation in emergency departments (EDs) and intensive care units.[1] The primary outcome was the frequency of observed hypoxemia, defined as any pulse oximetry reading below 85 percent. The obvious winner was NIPPV, whose 9.1 percent incidence of hypoxemia was half that of the oxygen mask cohort. Serious patient-oriented outcomes such as cardiac arrest were rare, but almost all occurred in the oxygen mask cohort. As such, it's fair to say, whenever conditions allow, pre-oxygenation with positive-pressure ventilation (PPV) is likely superior.

The HAPPEN trial is another one with results that may be worth watching.[2] This was not an ED trial but was performed in stable patients on the inpatient wards. This trial tested "high-intensity" PPV in patients with type II respiratory failure due to exacerbations of chronic obstructive pulmonary disease. With study results and outcomes best described as "complicated," the high-intensity PPV improved physiologic normalization of respiratory parameters and decreased need for endotracheal intubation, as compared with typical NIPPV. It remains to be seen whether higher inspiratory pressures find their way into future trials of ED bilevel positive airway pressure ventilation.

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Sepsis Robots or Sepsis Humans

The proliferation of "sepsis" alerts in the ED has reached levels best described as "obscene." The common refrain from trained clinicians: We are smarter than any computer or simple scoring system, and we can rapidly and accurately identify sepsis by ourselves, thank you very much. The claim has obvious face validity, but supporting evidence is always welcome. In a prospective study comparing clinician gestalt against systemic inflammatory response syndrome, Sequential Organ Failure Assessment (SOFA), quick SOFA, Modified Early Warning Score (MEWS), and a logistic regression machine learning model using Least Absolute Shrinkage and Selection Operator (LASSO), the obvious winner was the clinician.[3] The machine learning model trailed just behind. My fellow humans, enjoy what may be our short-lived superiority over the robots.

On the flip side, the evidence is better, if still mixed, regarding the utility of early warning scores for deterioration on the inpatient side. Although such scores have been associated with improved inpatient mortality at Kaiser, mixed results have been published in this past year.[4] On one hand, a retrospective evaluation of the commonly-deployed Epic Deterioration Index (EDI) showed a decrease in unplanned escalations in care without evidence of deleterious effects on mortality.[5] Conversely, an evaluation comparing several early warning tools found little difference between the EDI and common bedside tools such as the MEWS and National Early Warning Score (NEWS/NEWS2).[6] The true answer as to what value any electronic deterioration tool may or may not add to your institution will depend greatly on existing culture, workflow, and tools already in use.

Best Protection for Brains

Among many types of critical illness, evidence supports the noninferiority of "restrictive" transfusion strategies. The transfusion cut-offs vary, but it frequently appears reasonable to permit hemoglobin levels to drop, rather than proactively transfuse to prevent severe anemia. The brain is an entirely different organ system, however. The TRAIN trial evaluated whether a liberal or restrictive strategy was preferred in patients suffering traumatic brain injury, subarachnoid hemorrhage, or intracerebral hemorrhage.[7] Considering the general sensitivity of the brain to hypoxemic and ischemic insults, it is not terribly surprising to find that liberal transfusion strategy was superior.

One of the paradoxical oddities of treatment for acute stroke is the reversal of anticoagulation to enable treatment with thrombolysis. In common practice, this usually involves using idarucizumab to bind dabigatran prior to further acute treatment. In a retrospective, registry-based study and systematic review, the authors reported generally favorable outcomes with few complications to this exceptional practice.[8] However, the nature of these retrospective studies only serves to amplify the selection biases at work in current practice, demonstrating the baseline superior prognosis of those selected for treatment, rather than any value or safety of the treatment itself. Randomized, controlled trials remain necessary to ultimately determine the efficacy and safety of this practice.

Finally, in what serves as a bit of idle academic curiosity, a re-examination of the rate of intracranial hemorrhage after thrombolysis found starkly different statistics than those typically used in discussions with patients.[9] In a re-analysis of the ENCHANTED study, the authors reported the incidence and outcomes of patients suffering asymptomatic intracranial hemorrhage (aICH), rather than just the typical symptomatic intracranial hemorrhage (sICH). The rates of sICH were consistent with the typical one percent to two percent generally quoted during informed consent, whereas rates of aICH were ten times this number. As expected, odds ratios for poor outcomes and death for those with sICH were in the 20-60 range, but aICH was certainly not benign, with odds ratios around two. Although there may be net chance of benefit to thrombolysis, the proportion harmed by treatment may approach 20 percent, vastly higher than appreciated.

Use of Bones

Although the topic hardly rises to the level of serious controversy, the best protocol for vascular access in the context of out-of-hospital cardiac arrest is an ongoing unanswered question. Proponents of the intraosseous route highlight the ease of rapid access. In contrast, concerns remain over the relative efficacy of drugs infused through intraosseous sites, contraindications, and the cost of devices.

Two trials were published together on this topic, PARAMEDIC-3 and IVIO.[10,11] The primary outcomes of these trials differed: survival at 30 days in PARAMEDIC-3 and sustained return of spontaneous circulation in IVIO; however, despite differences in both primary outcomes and study procedures, neither access strategy separated itself from its peer. There will always be individual circumstances and clinical indications in which one access strategy may be preferable, but the net result was a wash.

Potpourri!

An amusingly named SENIOR-RITA trial tested whether elderly patients suffering non-ST segment myocardial infarction ought to undergo an invasive strategy versus a conservative, medical management strategy.[12] Although this question may seem a bit odd to some in the U.S., baseline frailty and life expectancy are common considerations during acute care in many health systems. In the frail elderly enrolled in this trial, invasive strategies reduced downstream nonfatal myocardial infarction, but had no effect on cardiovascular death or the overall composite outcome.

The glib dogma "GCS 8, intubate" may seem the perfect combination of clinical indication and clever rhyme, but the Glasgow Coma Scale (GCS) was never designed to predict airway complications in the heterogenous population of patients with diminished levels of consciousness. As it turns out, common sense likely rules the day when presented with patients whose low GCS is the result of a self-limited overdose toxidrome. In a randomized trial of initial preferred management of, primarily, alcohol- and benzodiazepine-intoxicated patients, fewer required mechanical ventilation or intensive care unit admission when an observation-first strategy was employed.[13] Although intubation certainly has its place, it should not be considered a benign intervention and must be weighed against the risks of the specific presenting syndrome, rather than a blanket rule based on GCS.

In a setting where the ED is frequently described as the "front door" to the hospital, a very reasonable question to ask is: Why? If an inpatient ward is the ultimate intended endpoint, an ED encounter may not add any value, while contributing to long wait times and increased patient costs. The alternative would be direct admission, bypassing the ED, and it sounds so sensible that it rather boggles the mind that it isn't more robustly utilized. Authors of one study clearly felt the same way and implemented a direct admission program across three pediatric health systems.[14] Uptake was uncommon, but in those who were directly admitted to the ward, no adverse consequences occurred, and appropriate treatment was initiated more quickly. From a patient-oriented standpoint, the advantages of direct admission should encourage health systems to expand such appropriate offerings when the resources of an ED are not acutely required.

References available online.

BRINGING YOU CANADA'S BRIGHTEST MINDS IN EM

EM CASES

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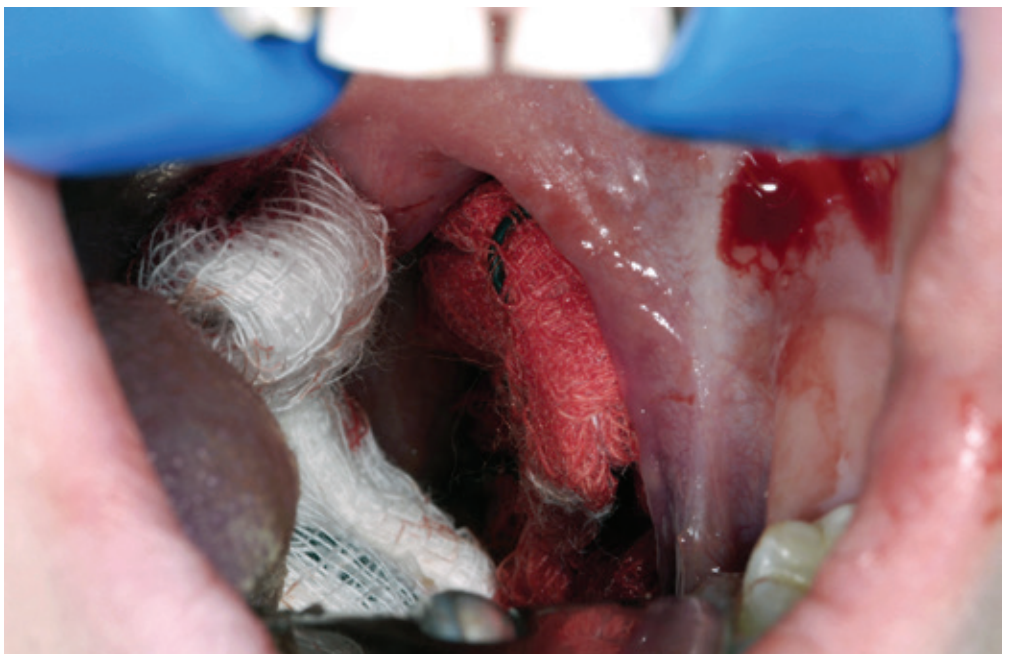
Post-Tonsillectomy Hemorrhage: A Three-Pronged Approach

Being prepared can save patients from a potentially life-threatening hemorrhage

by ANTON HELMAN, MD, CCFP(EM), FCFP

It's 4 a.m., and you're three hours from the nearest tertiary care center. A young woman, 13 days post-tonsillectomy, comes into your rural emergency department (ED) coughing up blood. On exam, you see bright red blood trickling down her left tonsillar fossa. Her vital signs are normal, except for a heart rate of 115 bpm. It's going to take time to get her to a tertiary center.

Managing post-tonsillectomy hemorrhage in the ED can be challenging, especially in rural or resource-limited settings. The key is a stepwise, three-pronged approach—resuscitation, early ENT consultation with transport arrangements, and temporizing measures applied to control bleeding—to keep the patient safe until she's transferred to definitive care. Additionally, one must be prepared for definitive airway management and know when laboratory investigations will prove valuable to guide further management. By learning a simple approach, you will be better prepared for the next post-tonsillectomy bleed that rolls through your ED doors.



DR P. MARAZZI - SCIENCE SOURCE

A patient's mouth packed with gauze after tonsillectomy surgery.

Know What You're Dealing With

Understanding the distinction between primary and secondary post-tonsillectomy hemorrhage is fundamental to management and prognostication. Primary hemorrhage occurs within 24 hours after surgery, typically from surgical technique issues or an undiagnosed bleeding disorder, such as von Willebrand disease.

Secondary hemorrhage occurs between days five and 14 postoperatively, peaking around days five to seven.[1] Secondary bleeds occur because the fibrin clot sloughs off, exposing underlying tissue. Secondary bleeds, often characterized by low-volume bleeding initially—like in this case—can be deceptive but can suddenly increase, causing airway compromise. With any secondary bleed, always keep in mind the "herald bleed" concept. A small trickle from a secondary bleed can be a warning sign for a significant bleed to come, akin to a sentinel bleed from a cerebral aneurysm prior to a large subarachnoid hemorrhage.

Early intervention for all post-tonsillectomy bleeds, whether primary or secondary, is recommended to prevent progression.[2] Recognizing secondary hemorrhage and initiating early ENT consultation for potential surgical source control is essential, even if bleeding initially appears mild.[3]

A three-pronged management approach provides a framework for addressing post-tonsillectomy bleeds: resuscitation, early ENT consultation with transport arrangements, and temporizing measures applied to control bleeding.

Resuscitation

Begin by positioning the patient upright in their position of comfort to reduce the risk for aspiration and improve visualization of the bleeding site. Obtain IV access as soon as possible and consider intravenous (IV) tranexamic acid (TXA), which may help stabilize the clot and buy you time. Although evidence for TXA in post-tonsillectomy bleeds remains limited, studies in postsurgical hemorrhage in general have suggested it is a reasonable intervention with a low risk of adverse effects.[4]

Don't Wait to Make the Call

Early ENT consultation is crucial, particularly in rural settings with limited access to specialized care. Secondary post-tonsillectomy hemorrhages often require surgical intervention. The literature suggests that approximately 85 percent of these cases require procedural source control in the operating room, highlighting the importance of expediting transport arrangements.[5]

Temporizing Measures

Temporizing measures are vital while awaiting transport, as they help to stabilize the patient and prevent further deterioration. First, lidocaine spray can be used for local analgesia, increasing patient tolerance.[6] Apply direct pressure to the bleeding site with gauze soaked in TXA and epinephrine as a first-line intervention.[7] Epinephrine acts as a local vasoconstrictor, aiding hemostasis, and TXA helps to stabilize clot formation on the exposed tissue and delay hemorrhage progression. For topical application of medications, a hack that I've found useful is utilizing a see-through plastic vaginal speculum with a built-in light; it gives great exposure, great lighting, and great access to the point of maximal bleeding.

TXA can be administered in three ways: nebulized, topical, or intravenous. Each method has a role in managing secondary post-tonsillectomy bleeds, although evidence is limited to case studies and small observational trials with variable results.[7,8] Nebulized TXA can be thought of as a "set it and forget it" intervention. Put it on early while you're managing other tasks; it requires minimal involvement and frees you up for other essential steps. Gauze soaked in TXA applied to the tonsillar fossa provides localized bleeding control. IV TXA one to two grams in adults, or 15 mg/kg in children over 10 minutes, offers another layer of control, particularly when topical TXA alone does not suffice. The evidence may be sparse, but TXA in any form is generally safe in patients without obvious thrombotic contraindications.

Lastly, an antiemetic such as IV ondansetron is recommended to prevent vomiting, which can exacerbate bleeding or dislodge forming clots. Controlling nausea may also reduce the risk for gag reflex activation during oropharyngeal manipulation, further minimizing trauma.

Airway Management

If bleeding worsens and the patient shows signs of aspiration or respiratory distress, such as desaturation or altered mental status, securing the airway may become necessary. Be prepared for all but the most trivial bleeds with a double suction setup and video rapid sequence intubation (RSI) as you might in the setting of massive hemoptysis.[9] Have two suction devices ready—ideally meconium aspirators or DuCanto catheters, which allow for superior fluid clearance from the oropharynx compared with Yankauer catheters.[10] Careful, smooth RSI with video laryngoscopy is the preferred airway strategy, as it is likely to give you the best view while minimizing the need for multiple attempts, which may increase bleeding from localized trauma.

Laboratory tests, although not essential for initial management, are recommended to assess the patient's baseline status and prepare the receiving facility. Hemoglobin, type and screen, and crossmatch should be prioritized for significant blood loss and potential transfusion requirements. Fibrinogen levels should also be obtained, where available, if severe hemorrhage suggests the potential need for administration of fibrinogen concentrate.

For patients with ongoing brisk bleeding despite the above measures, a coagulopathy should be suspected, and desmopressin (DDAVP) at a dose of 0.3 mcg/kg IV may be considered, especially if von Willebrand disease is suspected. DDAVP is shown to enhance platelet adhesion, potentially stabilizing bleeding until surgical intervention is available.[11]

Summary

The next time you're faced with a post-tonsillectomy bleed, remember that primary hemorrhage occurs within 24 hours postoperatively and may indicate surgical causal factors or undiagnosed coagulopathies. Secondary hemorrhage, typically occurring between days five and seven, but as many as 14, can start as a trickle and escalate quickly. Even if you are successful in stopping the bleed in the ED, these patients need rapid ENT consultation for urgent definitive management in the operating room.

Using the three-pronged approach outlined here—resuscitation, early ENT consultation with expedited transport, and temporizing measures—while preparing for airway management and ordering appropriate laboratory investigations, will save your post-tonsillectomy patients from a potentially life-threatening hemorrhage.

Special thanks to Dr. Kevin Wasko, guest expert on the EM Cases podcast on this topic, who inspired this column.

References available online.

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Navigating Strict State Abortion Laws

A brief guide and principles for documentation

by JOHN BEDOLLA, MD, FACEP

On June 24, 2022, *Roe v. Wade* was overturned by the U.S. Supreme Court, leaving regulation of abortion to the discretion of the states. Since then, many states have enacted laws to strictly regulate abortion, resulting in complex legal considerations for medical professionals.[1,2] This article reviews key statutes in the states with the strongest prohibitions against abortion and offers documentation principles for treating patients with ectopic pregnancies, spontaneous miscarriages, and other pregnancy-related emergencies.

Summary

New state laws aim to reduce elective abortions and exempt treatment of ectopic pregnancies, spontaneous miscarriages, fetal demise, and fetal nonviability from prosecution. They do not, or should not, affect care in the emergency department. Current literature suggests criminal and civil actions against emergency clinicians under these strict laws remains low.[3,4] However, there have been multiple lawsuits claiming that emergency care was not given because of these new laws or misunderstandings of the laws by clinicians.[3,4] Thus, legal problems are more likely to arise from not providing routine emergency care than from altering the standard of care out of fear of prosecution.[5]

Note

Contraception, implantation prevention ("morning after"), RU-486, and other medications intended to end an otherwise viable pregnancy (which poses no threat to the pregnant woman's health) are beyond the scope of this article. Treatment of ectopic pregnancy with medications or surgery is within the scope of this article, as are standard medical and surgical treatments for spontaneous abortion, septic abortion, and any related conditions that threaten the mother's life and health.

General Principles

In the care of any acute pregnancy-related emergency, provide usual, appropriate care.

Document specific legal exemptions in cases of ectopic pregnancy, spontaneous miscarriage (full or incomplete), nonviable fetus, or fetal demise.

In cases where treatment may likely or possibly result in the loss of a potentially viable fetus, document an understanding of the risk and that the risk to the mother's life, health, or bodily function outweighed the risk to the fetus.

RELEVANT STATE STATUTES, EXEMPTIONS, AND DOCUMENTATION SUGGESTIONS

Alabama

Statute: Alabama Code § 26-23H-1, et seq.

Exemptions: Ectopic pregnancy, lethal anomaly, the child would not survive birth, would die shortly after, be stillborn, or a medical emergency where the condition presents serious health risk to the pregnant woman, such as severe bleeding or sepsis.

Suggestions: This suggests that ectopic pregnancies and life-threatening miscarriages are exempt. A second physician's sign-off is required within 180 days for treatment of incomplete miscarriages threatening the mother's life or body organ dysfunction.

Arkansas

Statute: A.C.A. § 5-61-301, et seq.

Exemptions: Only instances to save the life of the pregnant woman. Excludes procedures aimed at removing a deceased fetus from spontaneous abortion or treating ectopic pregnancies.

Suggestions: Document ectopic pregnancy, spontaneous miscarriage with a significant threat to the mother's life. Conditions endangering the mother's life or causing severe health risks may also qualify for exceptions.

Idaho

Statute: I.C. § 18-501 et seq.

Exemptions: Substantial risk for death or serious risk for an irreversible impairment of a bodily function to the pregnant woman (not including psychological or emotional conditions).

Suggestions: Document the threat to the mother's life or bodily function.

Indiana

Statute: Ind. Code § 16-34-2-1

Exemptions: Treatment necessary to prevent death or serious health risk to the pregnant woman. Broad license to treat medical emergencies that threaten the mother's life or bodily function.

Suggestions: Document and certify regarding the serious health risk to the mother's life or bodily function posed by the disease. For ectopic pregnancy, mention the threat to life/health and evidence supporting that medical treatment may prevent surgery and enhance future fertility.

Kentucky

Statute: KRS § 311.772

Exemptions: Treatment necessary to prevent death, substantial risk for death, or serious impairment of a life-sustaining organ of the pregnant woman.

Suggestions: Document the threat to the mother's life or bodily function. For ectopic pregnancy, mention the life/health threat and evidence supporting that medical treatment may prevent surgery and enhance future fertility.

Louisiana

Statute: La. R.S. § 40:1061, et seq.

Exemptions: Treatment necessary to prevent death, substantial risk for death, or serious impairment of a life-sustaining organ of the pregnant woman.

Suggestions: Document the threat to the mother's life or bodily function. For ectopic pregnancy, note the life/health threat and evidence supporting that medical treatment may prevent surgery and enhance future fertility.

Mississippi

Statute: Miss. Code Ann.§ 41-41-31, et seq.

Exemptions: Treatment to remove a deceased fetus. Treatment necessary to preserve the pregnant person's life or prevent serious impairment of a life-sustaining organ, where waiting 24 hours would create grave peril of immediate and irreversible loss of major bodily function.

Suggestions: Document fetal death or the life/health threat. For ectopic pregnancy, mention the life/health threat and evidence supporting that medical treatment may prevent surgery and enhance future fertility.

Oklahoma

Statute: 63 Okla. St. § 1-745.5

Exemptions: Conditions where it is necessary to avoid serious risk for death or a serious risk of a life-threatening physical impairment of a major body function (not including psychological or emotional conditions). Excludes procedures aimed at live birth, treating ectopic pregnancies, or removing a deceased fetus.

Suggestions: Document treatment for ectopic pregnancy as exempt. For spontaneous abortion cases like sepsis or severe bleeding, document health or reproductive risks.

South Dakota

Statute: S.D. Codified Laws § 22-17-5.1, et seq.

Exemptions: Treatment necessary to preserve the pregnant person's life.

Suggestions: Document the life threat. For ectopic pregnancy, mention the life threat and evidence supporting that medical treatment may prevent surgery and enhance future fertility.

Tennessee

Statute: Tenn. Code Ann. § 39-15-213, et seq.

Exemptions: Ectopic pregnancy, molar pregnancy, deceased fetus, and substantial risk for death or serious risk of an irreversible impairment of a bodily function to the pregnant person.

Suggestions: Document that ectopic pregnancy treatment is exempt. For spontaneous miscarriage posing health risks, document the life/health threat and when continuation is more likely to harm the pregnant person.

Texas

Statute: Tex. Health and Safety Code § 170A.001, et seq.; § 245.002

Exemptions: Excludes procedures for removing a deceased fetus caused by spontaneous abortion, ectopic pregnancies, and life-threatening physical condition or serious risk for an irreversible impairment of a bodily function to the pregnant person.

Suggestions: Document ectopic pregnancies and nonviable miscarriages as exempt, explicitly noting any life/reproductive health threats.

West Virginia

Statute: W. VA Code § 16-2R-1, et seq.

Exemptions: Nonviable embryo/fetus, ectopic pregnancy, or medical emergencies where it is necessary to avoid serious risk for death or a serious risk for a life-threatening physical impairment of a major body function (not including psychological or emotional conditions).

Suggestions: Document fetal nonviability, ectopic pregnancy, or the need for emergency treatment potentially ending the pregnancy.

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EDITOR'S NOTE:

Readers may refer to our December issue for a point–counterpoint on the issue of state abortion restrictions and reproductive health care in the emergency department. This MedicoLegal Mind Article is intended to provide objective guidance to practicing physicians. Please refer to your own risk management or legal counsel when encountering specific issues in your practice.

PUTTING RESEARCH TO WORK FOR YOU

PRACTICE CHANGERS

Dr. Westafer (@Lwestafer) is assistant professor in the department of emergency medicine at the UMass Chan Medical School–Baystate and co-host of FOAMcast.

Inhaled Corticosteroids An Underused Option for Asthma

Physicians should move away from use of short-acting beta agonists alone

by LAUREN M. WESTAFER, DO, MPH, MS, FACEP

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Each year, more than 1.3 million individuals visit U.S. emergency departments (EDs) with asthma-related conditions.[1] Patients often present after being unable to manage their condition at home. Historically, short-acting beta agonists (SABAs), such as albuterol, have been used as a pillar of acute asthma management. These bronchodilators provide quick relief. For patients well enough to be discharged from the ED, emergency physicians generally ensure patients have access to an albuterol rescue inhaler and often prescribe a short course of steroids; however, this is not the best practice.

Shift in Guidance

Guidelines have been shifting during the past several years with regard to two specific medications—inhaled corticosteroids (ICS) and long-acting beta agonists (LABAs)—and now recommend ICS, which treat airway inflammation, as a part of rescue therapy. In fact, professional society recommendations cite overuse of SABAs and underuse of ICS inhalers as significant contributing factors to asthma morbidity.

For years, ICS inhalers containing fluticasone or budesonide have been a part of long-term treatment of persistent asthma due to their effect on inflammation and a substantially reduced risk for potential side effects compared with oral corticosteroids. In 2007, guidelines from the National Asthma Education and Prevention Program suggested that there may be a role for ICS, even if used intermittently. Moreover, the guidelines called out emergency clinicians specifically, recommending we should "consider initiating an ICS at discharge, in addition to oral systemic corticosteroids (Evidence B)."[2] In a 2020 update of the 2007 guidelines, ICS were recommended as a part of every treatment pathway with the exception of mild intermittent asthma, a category that some guidelines have eliminated altogether.[3,4]

A recently published systematic review and network meta-analysis of 50,496 adult and pediatric patients from 27 randomized trials provided the overwhelming case for clinicians to ensure that patients with asthma are prescribed ICS.[5] Network meta-analyses allow for comparison of outcomes among treatment groups where direct comparisons are limited or do not exist. This study found that inhalers containing ICS were associated with fewer severe exacerbations (i.e., had fewer systemic corticosteroids, ED visits, and/or hospitalizations) compared with SABAs alone. The risk ratio for ICS-formoterol was 0.63 (95 percent CI, 0.60-0.72) and was 0.84 (95 percent CI, 0.73-0.95) for ICS–SABA. ICS–formoterol therapy was associated with fewer asthma-related hospitalizations compared with SABAs, even when combined with ICS. No signal of increased harm resulted from either type of ICS therapy.[5] The evidence is clear: We need to move away from SABA therapy alone.

Evidence Is Clear

Despite these recommendations, significant gaps exist in our treatment of patients with asthma—notably ICS prescribing rates. Filling quality gaps in medicine is tricky.

Inhaled corticosteroids are infrequently prescribed from the ED. This may be because ICS fall into the "it's not my job" part of emergency medicine. We presume that a primary care physician will prescribe an ICS if clinically indicated; however, this isn't always the case.

One study found that in patients treated in an ED for an asthma exacerbation, only a minority who were not prescribed an ICS at ED or hospital discharge and had a six-month follow-up visit received a prescription for an ICS at that follow-up visit.[7] Inhaled corticosteroids and ICS–LABA therapy can also be expensive, and it can be technically difficult to navigate depending on a patient's insurance coverage.

The data are clear, however: Regardless of the barriers, most of our ED patients with asthma would benefit and have fewer exacerbations if they were on an ICS. If we have difficulty initiating therapy, we should, at a minimum, urge patients to discuss starting an ICS (with or without a LABA) with their primary care physician.

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DOGMA FEELS RIGHT UNTIL YOU STEP IN IT

SKEPTICS' GUIDE TO EMERGENCY MEDICINE

DR. MILNE is chief of emergency medicine and chief of staff at South Huron Hospital, Ontario, Canada. He is on the Best Evidence in Emergency Medicine faculty and is creator of the knowledge translation project the Skeptics' Guide to Emergency Medicine (www.TheSGEM.com).

Can AI Replace the Skeptic?

A look at whether large language models can critically appraise medical research

Table. Comparison of Human Versus Large Language Model Critical Appraisal Accuracy

TOOL	HUMAN RATER ACCURACY	BEST-PERFORMING LLM	OTHER LLM'S ACCURACY	COMBINED LLM'S ACCURACY	COMBINED HUMAN-AI ACCURACY
PRISMA	89%	Claude 3 Opus (70%)	Claude 2 (70%) GPT 4 (69%) GPT 3.5 (63%) Mixtral 8x22B (64%)	75% to 88%	89% to 96%
AMSTAR	89%	Claude 3 Opus (74%)	Claude 2 (63%) GPT 4 (70%) GPT 3.5 (53%) Mixtral 8x22B (59%)	74% to 89%	91% to 95%
PRECIS-2	75%	GPT 3.5 (55%)	Claude 3 Opus (45%) Claude 2 (44%) GPT 4 (38%) Mixtral 8x22B (48%)	64% to 79%	80% to 86%

by KEN MILNE, MD

I am preparing to review another systematic review and meta-analysis (SRMA). Although it is enjoyable to critically appraise these publications, I need to verify whether the authors followed the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines. There has been a lot of enthusiasm for open-source large language models (LLMs), like ChatGPT 3.5 from Open AI, and I wonder if artificial intelligence (AI) could do this task quickly and accurately.

Background

LLMs such as ChatGPT and Claude have shown remarkable potential in automating and improving various aspects of medical research. One interesting area is their ability to assist in critical appraisal, one of the core aspects of evidence-based medicine. Critical appraisal involves evaluating the qual-

ity, validity, and applicability of studies using structured tools like PRISMA, AMSTAR (A MeaSurement Tool to Assess systematic Reviews), and PRECIS (PRagmatic Explanatory Continuum Indicator Summary)-2.

Confirming adherence to quality checklist guidelines often requires significant expertise and time. However, LLMs have evolved to interpret and analyze complex textual data and therefore represent a unique opportunity to enhance the efficiency of these appraisals. Research into the accuracy of LLMs for these tasks is still in its early stages.

Clinical Question

Can LLMs accurately assess critical appraisal tools when evaluating systematic reviews and randomized controlled trials (RCTs)?

Reference

Woelfle T, Hirt J, Janiaud P, et al. Benchmarking human–AI collaboration for common evidence appraisal tools. *J Clin Epidemiol*. 2024;175:111533.

Population: Systematic reviews and RCTs that were evaluated by critical appraisal tools (PRISMA, AMSTAR, and PRECIS-2).

Intervention: Five different LLMs—Claude 3 Opus, Claude 2, ChatGPT 4, ChatGPT 3.5, Mixtral-8x22B—assessing these studies.

Comparison: Comparisons were made against individual human raters' human consensus ratings and human–AI collaboration.

Outcome: Accuracy and identification of potential areas for improving efficiency via human–AI collaboration.

Authors' Conclusions

"Current LLMs alone appraised evidence worse than humans. Human–AI collaboration may reduce workload for the second human rater for the assessment of reporting (PRISMA) and methodological rigor (AMSTAR), but not for complex tasks such as PRECIS-2."

Results

The authors assessed 113 SRMAs and 56 RCTs. Humans had the highest accuracy for all three assessment tools. Of the LLMs, Claude 3 Opus consistently performed the best across PRISMA and AMSTAR, indicating that it may be the most reliable LLM for these tasks.

The older, smaller model, ChatGPT 3.5, performed better than newer LLMs like ChatGPT 4 and Claude 3 Opus on the more complex PRECIS-2 tasks.

The collaborative human–AI approach yielded superior performance compared to individual LLMs, with accuracies reaching 96 percent for PRISMA and 95 percent for AMSTAR when humans and LLMs worked together.

Key Results

LLMs alone performed worse than humans; however, a collaborative approach between humans and LLMs showed potential for reducing the workload for human raters by identifying high-certainty ratings, especially for PRISMA and AMSTAR (see table).

Talk Nerdy to Me

1. Bias in training data and prompts: LLMs rely on the data they were trained on, which may introduce unseen biases. In addition, the behavior of the model is impacted by the information it was fed—i.e. prompts. For example, when the LLMs were required to pull relevant quotes, they did not follow the instructions, often pulling too many or pulling quotes from analyses they had already performed, rather than the source material.
2. Limited contextual understanding: LLMs lack the nuanced judgment required to assess the methodological quality of complex trials. This was illustrated by LLMs reporting low accuracy, while adding a human rater reported high accuracy. LLMs still don't process in the same way as humans, but when we are the gold standard, is that something we want to match, or is there a benefit to re-evaluating our responses after the LLM goes through to see if we are making errors?
3. Lack of transparency in LLM decision processes: Transparency in decision-making LLMs presents significant challenges. A key issue is the "black box" nature of these systems. This often makes it difficult to explain how they reach their decisions, even to experts. LLMs can generate sophisticated outputs from simple prompts, but the underlying reasons are opaque. AI often misunderstands or simplifies tasks, creating outputs that can be unpredictable and difficult to interpret and further complicating transparency. This raises concerns about trust in the LLMs' results.

SGEM Bottom Line

LLMs alone are not yet accurate enough to replace human raters for complex critical appraisals. However, a human–AI collaboration strategy shows promise for reducing the workload for human raters without sacrificing accuracy.

Case Resolution

You start playing around with LLMs to evaluate the SRMA adherence to the PRISMA guidelines while verifying the accuracy of the AI-generated answers.

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

Thank you to Dr. Laura Walker who is an associate professor of emergency medicine and the vice chair for digital emergency medicine at the Mayo Clinic, for her help with this review.

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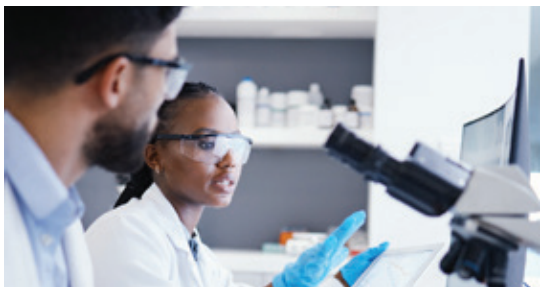

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- Experience: Research Fellowship not required
- Licensure: Must be currently boarded in Emergency Medicine and eligible for licensure in state of Texas.

Qualified applicants are expected to have a research record with significant extramural funding and leadership skills to develop a strong multidisciplinary collaborative Emergency Medicine research program and continue to grow current departmental research efforts. In addition to the above responsibilities, other duties may be assigned by the Chair.

Please include a cover letter and current curriculum vitae with your application. This position is open until filled.

For more information about the position, please contact Dick Kuo, M.D. via email at dckuo@bcm.edu.

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The Henry JN Taub Department of Emergency Medicine at Baylor College of Medicine (BCM) is looking for Faculty of all levels who are interested in a career in Academic Emergency Medicine. We are also hiring faculty of all ranks and seeking applicants who have demonstrated a strong interest and background in a variety of areas such as ultrasound, research or operations. Clinical opportunities including nocturnist positions are available at our affiliated hospitals. Our Ultrasound team is currently seeking an Assistant Director of US to support current educational, clinical and research elements of the program while also creating growth opportunities in our department.

We are looking for an outstanding candidate with the following attributes:

- Education: M.D. or D.O. degree
- Experience: Previous experience in an academic area of expertise preferred but not required
- Licensure: Must be currently boarded or board eligible in Emergency Medicine and eligible for licensure in Texas.

Those interested in a position or further information may contact Dr. Dick Kuo via email at dckuo@bcm.edu. Please send a CV and cover letter with your past experience and interests.

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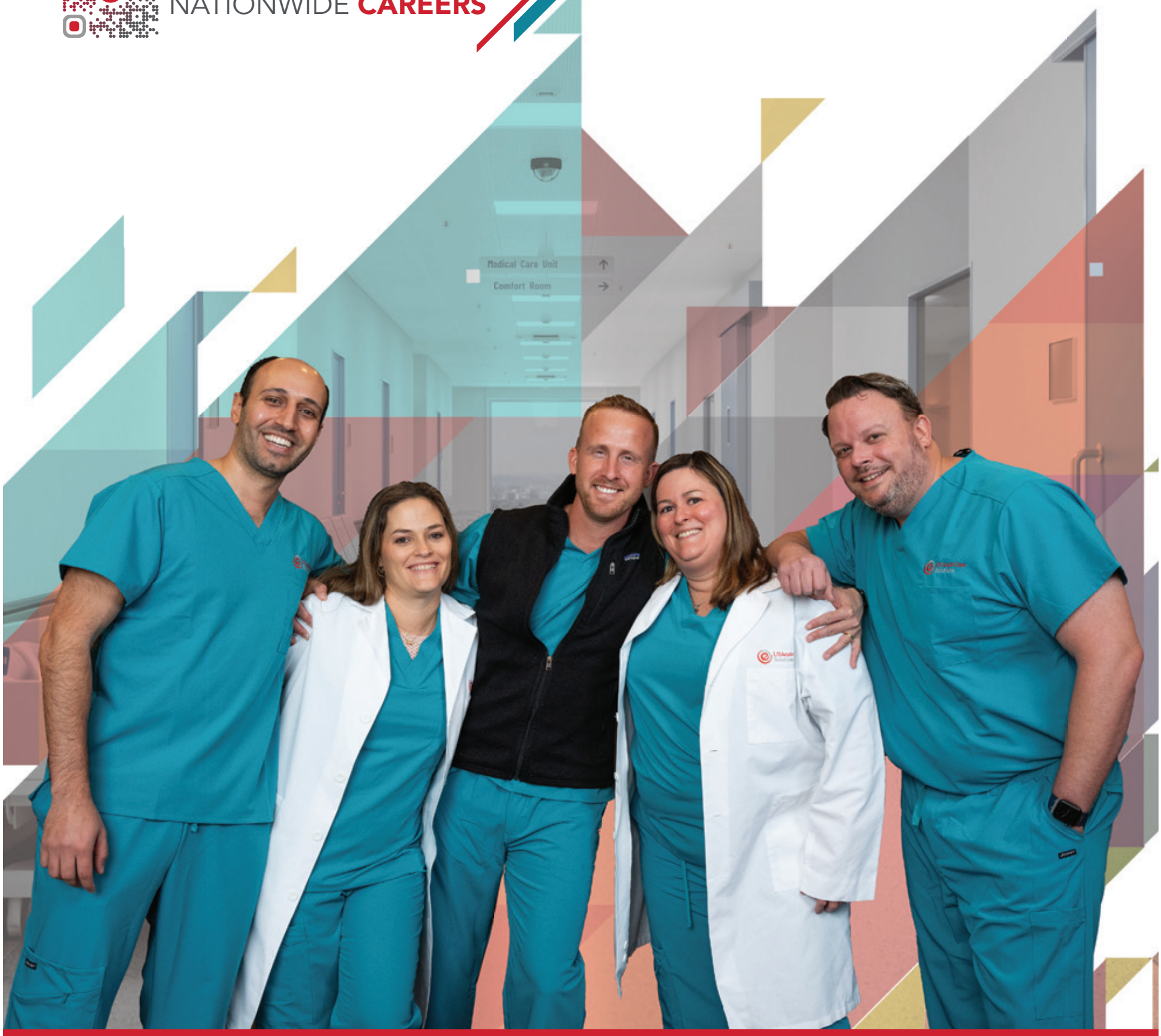

Bobby Missaghi, MD
EM Residency: The University of California, Los Angeles – Harbor Medical Center, 2017
Emergency Physician

Misty Nguyen, DO
EM Residency: Southwest Medical Center, 2021
Emergency Physician

Calen Hart, MD
EM Residency: Vanderbilt University School of Medicine, 2022
Emergency Physician

Erin Fenoff, DO
EM Residency: Ohio University Heritage College of Osteopathic Medicine, 2018
Emergency Physician

Dan Kelly, MD
EM Residency: The University of Texas Medical School, 2011
Emergency Physician