Emergency Medicine Deserves to “Re-Brand” Itself as a Cost Saver

Emergency physicians have earned the right to “re-brand” ourselves as indispensable, money-saving change agents in the health care enterprise.

by GARY GADDIS, MD, PHD, FIFEM, FACEP

EM CASES
ED Management of Drowning
SEE PAGE 17

KIDS KORNER
Bacterial Meningitis and Acrocyanosis
SEE PAGE 19

FIND IT ONLINE
For more clinical stories and practice trends, plus commentary and opinion pieces, go to: www.acepnow.com
ACEP Leads Congressional Briefing on ED Boarding

On June 21, ACEP organized a congressional briefing with the Emergency Nurses Associa-
tion (ENA) and the National Alliance on Men-
tal Illness (NAMI) to express strong concerns to 
legislators about the impact of emergency 
department (ED) boarding on our health care 
safety net. ACEP is urging legislators to prior-
itize finding solutions to the boarding crisis. 
View ACEP’s proposed solutions at acep.org/
boarding-briefing.

State Advocacy Win: Closing the Road to Alternative 
Certification in Puerto Rico

The legislation was touted as a way to help alle-
viate the growing physician shortage in Puerto 
Rico. Instead, Senate Project 1114 would have 
created an alternative pathway to a certification 
in emergency medicine avoiding the training 
and certification standards supported by ACEP 
and the American Board of Emergency Medi-
cine. Puerto Rico ACEP (ACEP PRI) responded 
with a comprehensive advocacy campaign that 
included grassroots, coalition outreach, direct 
debate, and earned media to push against the 
legislation. Read full the story at acep.org/ 
puerto-rico-win.

ACEP Now Welcomes New Resident Fellow

Carmen Marie Lee, MD, MAS, is the newest 
member of ACEP Now’s editorial team. As the 
2023-24 Resident Fellow, Dr. Lee will oversee the Resident 
Voice column while contributing to the 
resident perspective to the editorial board. Dr. Lee is a resident at Highland Hospital within the 
Alameda Health System in Oakland, Califor-
nia, with a strong background in health commu-
nications, education, and research.

Enter the Medical Humanities Writing and Visual Arts 
Awards

ACEP Now’s section of Medical Humanities is host-
ing its 16th annual awards honoring excel-
ence in creative writing and visual arts. For the 
writing awards, eligible pieces are crea-
tive, not scientific, works related to emergency 
medicine published in print or online between 
September 2022 and August 2023. Word count 
limit is 2,500, and poetry and prose are judged in 
separate categories. The visual arts awards 
are an opportunity for artists to show off their 
paintings, photography, etc. Nominators can 
submit a digital image or file of the artwork 
(paintings, sculpture, textile, pottery, paint-
ing, etc). Learn more at acepnow.org/writing-
awards-2023.

Featured Lectures for ACEP23

The countdown is on until ACEP23 in Phila-
delphia, and we are pleased to spotlight the faculty who will deliver our named lectures.

Dr. Hedayati
Dr. Haddock
Dr. Nordlund
Dr. Adams
Dr. Sanson
Dr. Kang
Dr. Straus
Dr. Diercks
Dr. Elle

Did you know EM:RAP is coming to 
Pittsburgh? Join the EM:RAP faculty as they work 
through the story of a patient who presented 
with a common complaint, but ended up with 
a tragic outcome. For three hours, you will be 
engrossed in the narrative of a case that ex-
tends from urgent care to critical care, with 
world-class experts providing insights you 
can use on your next shift.

ACEP Now readers save $50 on ACEP23 
registration with promo code ACEPNOW50 at 
acpepc.org/acep23. Don’t forget that for the 
first time ever, all four-day registrations come with 
free access to Virtual ACEP23.
IN THE EVALUATION OF MILD TRAUMATIC BRAIN INJURY (mTBI)

NAVIGATE CHALLENGING CASES WITH AN OBJECTIVE BIOMARKER TEST

The i-STAT TBI Plasma test is a panel of in vitro diagnostic immunoassays for the quantitative measurements of glial fibrillary acidic protein (GFAP) and ubiquitin carboxyl-terminal hydrolase L1 (UCH-L1) in plasma and a semi-quantitative interpretation of test results derived from these measurements, using the i-STAT Alinity Instrument. The interpretation of test results is used, in conjunction with other clinical information, to aid in the evaluation of patients, 18 years of age or older, presenting with suspected mild traumatic brain injury (Glasgow Coma Scale score 13-15) within 12 hours of injury, to assist in determining the need for a CT (computed tomography) scan of the head. A ‘Not Elevated’ test interpretation is associated with the absence of acute traumatic intracranial lesions visualized on a head CT scan.

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

References:
What does your program offer that residents can’t get anywhere else?

A very high volume of critical care. Large volume of critical procedures—we have a ton of specialties represented at BUMC but keep the majority of the procedures in the ED. ECMO cannulation for ECPR in ED. Large volume penetrating and blunt trauma. Weekly conference with guest lectures given by top specialists in their fields. All centrally localized in beautiful downtown Dallas.

What is the work-life balance like?

We pride ourselves in promoting resident wellness by focusing on shift scheduling and allowing time for family and extracurricular activities. We hold group get-togethers with faculty and have wellness events for team building quarterly in lieu of regular conference didactics. We attempt to promote a feeling of family at BUMC. Residents enjoy many of the amenities that Dallas offers - restaurants, breweries, outdoor spaces, trails, and local lakes.

How should potential applicants learn more about your program?

Check out our social media accounts and our website (bumcem.com)

—Karina Reyner, MD, and Bobby Barnes, MD

**EMERGENCY IMAGE QUIZ with VISUAL DX**

**Question:** A 67-year-old man presents to the emergency department (ED) following syncope. He denies any antecedent symptoms. He has a witnessed episode of syncope in the ED, and the following ECG, is obtained. What is the likely diagnosis?

- a. Left bundle branch block
- b. Supraventricular tachycardia with aberrancy
- c. Wolff-Parkinson-White syndrome
- d. Ventricular tachycardia

**ANSWER** on page 23
ACEP4U: Hard Questions, Honest Conversations

YOU'RE CONCERNED ABOUT THE FUTURE OF YOUR SPECIALTY LET'S TALK ABOUT IT.

The Official Voice of Emergency Medicine

JULY 2023 ACEPNOW 5

In these challenging times, we know you have questions about what ACEP is doing to tackle the biggest issues: ED boarding, workforce concerns, consolidation, and scope of practice. That’s why ACEP hosted an Open Forum on June 15 to share what the College is doing to protect and support emergency physicians—and to listen to your concerns.

To make sure you’re up to speed on the latest developments, we are providing you all the facts. From our humble beginnings to today, ACEP’s mission has not veered. We use our base earned seat at the most influential tables to push for changes that protect you and your patients.

“ACEP is not a one topic, one issue organization,” said ACEP President-Elect, Anisa T. Terry, MD, MPH, FACEP. “We cover the breadth of all things related to emergency medicine—from issues that impact your ability to treat patients, to protecting your livelihood, to helping members achieve their career dreams. From day one to the end, we’re there for you.”

Federal Legislators and Regulators Invite ACEP to the Decision-Making Table

ACEP joined several emergency physician group representatives who participated in a listening session with the Federal Trade Commission (FTC) regarding consolidation of health care employers. However, ACEP was exclusively invited in important conversations leading up to the session and the dialogue between ACEP and the FTC is ongoing.

The FTC, and other regulatory agencies, look to ACEP as the national voice for emergency physicians.

ACEP proudly sits as EM’s sole representative on the AMA’s RVS Update Committee (RUC), the highly influential group that makes recommendations to the federal government on how physicians are paid. This year alone, ACEP prevented proposed reductions in the scope of non-physicians and has supported policies that prioritize emergency physician-led teams in the ED and establish common sense principles for model state legislation.

Learn more at acep.org/scopeofpractice

ACEP is Currently Involved in Nine Lawsuits to Protect Your Autonomy and Reimbursement

In 2022-2023, ACEP’s legal advocacy increased by 100 percent. We participated in 12 lawsuits and filed nine amicus briefs in courts from California and Idaho to Illinois, New Jersey and Texas.

Four amicus briefs were filed in cases vital to protecting physician autonomy, three related to post-Dobbs decision and one was filed as part of AAMEM’s suit against Envision. Two briefs lent support to protecting the scientific integrity of medical journals and medical societies publishing treatment guidelines, respectively. ACEP also filed suit against the Departments of Health and Human Services, Labor and Treasury to address concerns about the implementation of the new surprise billing law, a case years in the making, where ACEP offered EM-specific improvements to every phase of the independent dispute resolution (IDR) process. When the original suit was dismissed, we pivoted and filed four amicus briefs in the resulting cases heard in Texas.

Less than 1% of ACEP’s Total Revenue Comes from Private Equity Staffing Groups

In total, revenue from private equity-funded staffing groups for advertising, sponsorship and exhibits is less than 1 percent of our total organizational revenue, despite claims to the contrary.

In response to member requests, ACEP conducted a thorough legal review and analysis of the facts of the organization to prohibit all advertisements or exhibits from certain companies that refuse to disclose their business practices. Internal and external legal counsel confirmed an anti-trust risk to ACEP because the groups in question are made up of our members. This may not be the case for every EM association but based on ACEP’s size and membership, the legal risk was concerning.

Further, our membership includes emergency physicians from all walks of life who are employed in a variety of work environments ranging from academic settings to emergency physician groups small and large.

No staffing group is a member of ACEP—they have no role in the democratic election of our Board nor the development of advocacy efforts or policy positions. ACEP has checks and balances in place, including a strong conflict of interest policy, that ensures no one voice outweighs what is in the best interest of our members or the specialty.

None of ACEP’s Board of Directors are Employed by a Group that has Majority Private Equity Ownership

The current Board of Directors works in academia, the military, small independent and large groups, in rural and metropolitan settings, with expertise in EMS, informatics, advocacy, policy and more.

The Board is as diverse as our membership and they represent the many practice settings of our members.

Board members are democratically elected by the ACEP Council, which consists of members representing ACEP’s chapters (50 states, Puerto Rico, the District of Columbia and Government Services), our sections of membership, the Association of Academic Chairs in Emergency Medicine, the Council of Emergency Medicine Residency Directors, the Emergency Medicine Residents’ Association and the Society for Academic Emergency Medicine.

ACEP is the Only EM Organization with a Full-Time Dedicated Advocacy Staff in a DC Office

The ACEP DC office currently has nine full-time staff with roles that span public relations, congressional relations, political affairs and external affairs. We retain consultants periodically for support services while ACEP staff lobbies directly on behalf of its members. We also manage reimbursement efforts from our DC office, with additional staff leading point on key issues and training.

“We have an office in Washington DC with staff members working to make sure that ACEP has strong relationships with policymakers and influencers in Washington DC and on Capitol Hill,” Dr. Terry said.

“The work in our DC office results in our ability to get fair reimbursement for emergency physicians. Their full-time attention results in our ability to eat and nourish ourselves at our work stations on shift. Their commitment allows us to make sure that when it comes to taking care of Medicare patients and Medicaid patients, there is funding resources, so we can do our job.”

ACEP Provides Members with Over 240 Hours of Free CME

ACEP members have 246 credits of complimentary CME education available and members can access 145 free credits. Most courses expire within three years and are refreshed annually.

ACEP Partnered with All EM Organizations to Study the EM Workforce—And We’re Using Our Power and Influence to Change Our Specialty’s Trajectory

An important part of protecting our specialty is anticipating future threats. In 2021, EM workforce projections indicated a likely oversupply of EDs in 10 years. To protect and stabilize the workforce, ACEP:

• Launched a new Task Force to help develop innovative practice models for the future of EM, including freestanding facilities, telemedicine and home-based care.
• Built a comprehensive plan to expand your opportunities while addressing rural challenges, residency standards, and work environment.
• Continues to pivot efforts as the market fluctuates. As our realities change, ACEP is committed to monitoring current data and adjusting strategies.

ACEP is Fighting for Emergency Physicians

ACEP defends your right to practice with medical autonomy. In March 2023, ACEP responded to the FTC’s request regarding their proposed ban on non-compete clauses in employment contracts and we outlined how this unfair, predatory practice affects our members.

In April 2022, the ACEP Board approved the ACEP Statement on Private Equity and Corporate Investment in Emergency Medicine, reaffirming our core belief of the physician-patient relationship as the moral center of medicine.

We fight bad actors, combat misinformation that threatens you and your patients, and push for solutions to systemic challenges that complicate care delivery.

“We realize that some people may feel that ACEP isn’t doing enough or should be showing up in a different way. The fact is many people don’t know all that ACEP does,” Dr. Terry said.

“ACEP plays a lot of defensive work—defending of our specialty. We’re preventing catastrophes from happening and that work is unseen by most.

“But I promise you the work that ACEP does is tireless in support of our members,” she said.

Details of ACEP’s key initiatives can be found at acep.org/acep4u.
nurses and ancillary care professionals left, which led to the volume of patients, high acuity, and the lack of physicians felt physically and emotionally exhausted due to

During COVID, we were heroes. But after COVID, many physicians have left to pursue other interests. The decline in applicants for emergency medicine residencies, the number of physicians either retiring or deciding to leave our field to pursue other interests, and our aging workforce, it is imperative that we prioritize our specialty continues to suffer. We need to be more forceful and vocal in advocating for drastic reforms. Why do we

ACEP needs to continue to advocate for better working conditions. We have always been the saviors because of a fragmented and broken health care delivery system, but our specialty continues to suffer. We need to be more forceful and vocal in advocating for drastic reforms. Why do we

Evidence suggests that physicians would rather have better working conditions than additional income. Yes, fair reimbursement is important, but it may not be the primary driver for dissatisfaction. Unless we focus on the quality of work life for all of us, more individuals will no longer want to practice our specialty. Better work life equals better personal life where you can enjoy more personal freedom and rejuvenation.

ACEP BOARD OF DIRECTORS

What would you do to ensure that emergency medicine remains an attractive specialty?

William B. Felegi, DO, FACEP

Current Professional Positions: Medical director, Van Buren County Hospital emergency department and Van Buren County Hospital ambulance, Kossuth, Iowa; EMS medical director, Farmington Ambulance; medical director, Atlantic Health, Morristown Medical Center, Travel MD, Corporate Health
Internships and Residency: Emergency medicine residency, Morristown Memorial Hospital, Morristown, New Jersey
Medical Degree: DO, University of New England College of Osteopathic Medicine, Biddeford, Maine (1989)

Response
With the decline in applicants for emergency medicine residencies, the number of physicians either retiring or deciding to leave our field to pursue other interests, and our aging workforce, it is imperative that we prioritize making emergency medicine attractive for a rewarding career. We must focus on exploring why individuals have lost interest in our specialty and why practicing physicians have left to pursue other interests.

We can make some assumptions as to why our specialty has become less attractive and why physicians are leaving or retiring early. Our work can be very rewarding, whether we resuscitate a cardiac arrest patient who is discharged to survival. Evidence suggests that physicians would rather have better working conditions than additional income. Yes, fair reimbursement is important, but it may not be the primary driver for dissatisfaction. Unless we focus on the quality of work life for all of us, more individuals will no longer want to practice our specialty. Better work life equals better personal life where you can enjoy more personal freedom and rejuvenation.

ACEP needs to continue to advocate for better working conditions. We have always been the saviors because of a fragmented and broken health care delivery system, but our specialty continues to suffer. We need to be more forceful and vocal in advocating for drastic reforms. Why do we think that long waits resulting in deaths and delays in care, hallway medicine, overcrowding, longer turnaround times, left-without-being-seen rates, the lack of resources especially in rural hospitals, and the difficulty in finding a bed for a transfer patient is acceptable?

No elected official or VIP who comes to an ED would go to the front of the line. We need to stand firm and aggressively advocate for change. This is not an easy task, but I fear that unless we improve our work life, we will lose more physicians to attrition and less students will join our specialty. This will have an even greater impact on emergency medicine and lead to a further decrease in our membership, which will ultimately make it harder for our organization to survive.

Robert J. Hancock, DO, FACEP

Current Professional Positions: Clinical assistant professor, Oklahoma State University Center for Health Sciences, Comanche County Emergency Medicine Residency Program; attending emergency physician, Comanche County Memorial Hospital; attending emergency physician, Northwest Texas Medical Center
Internships and Residency: Emergency medicine residency, Parkland Hospital, Dallas, Texas (2007)
Medical Degree: DO, University of North Texas Health Science Center (2004)

Response
The decline in the popularity of emergency medicine and the subsequent significant decline in the Match statistics should be very concerning for all of us. The underlying causes of the decline are multifactorial, and many were significantly worsened during COVID. The issue with boarding evolved into a crisis during COVID. This required many of us to see a significant percentage of our patients in the waiting room or hallway chairs. While this was a necessity during COVID, it definitely had a negative impact on medical students during rotations. I actually had several medical students tell me that they did not want to train and practice under those conditions. This resulted in many students choosing specialties that were in a more controlled environment with fewer variables.

While many of us were initially treated as “health care he-
ELECTION PREVIEW/CONTINUED FROM PAGE 6

Many emergency physicians have become frustrated and feel isolated from the front of medical students. It is imperative that we not only work to fix these issues, but also encourage our members to support our specialty and attract quality candidates for emergency medicine. They are the future of emergency medicine!

Chadd K. Kraus, DO, DrPH, CPE, FACEP
(Pennsylvania)

Current Professional Positions: Attending emergency physician and system director for EM research, Geisinger Medical Center; director of research, American Board of Emergency Medicine (ABEM)


Medical Degree: DO, Philadelphia College of Osteopathic Medicine, Philadelphia

Response

Aside from our founding, this is the most exciting time in the history of emergency medicine—a time of volatility, uncertainty, complexity, and ambiguity— a time for us, as emergency physicians, to forge a bright future to become the most attractive specialty.

Together, we have navigated turbulent times—summer 2020 saw unprecedented numbers of patients; winter 2021 saw a surge in COVID-19 cases and hospitalizations. We have adjusted the sails of our specialty to meet the ever-changing needs of our patients and the public. Emergency medicine continues to be the cornerstone of care in low-resource settings. Rural EDs can be incubators of innovation that patients and the public need and that we, as emergency physicians, can deliver care, is critical to building a viable and sustainable workplace—a practice environment with adequate staffing, emergency physician teams, fair employment policies, provisions for our wellness, and functional clinical processes. All emergency physicians benefit from ACEP’s success. Our voices are amplified, and we achieve more when we support one another as members of the ACEP community. Together, we should shoulder our burdens and celebrate our victories as emergency physicians.

What we do matters, and the good that we do is why emergency medicine has been, and can be, the most attractive specialty. Now is the time to adjust the sails. In doing so, we will reach the greater heights for emergency medicine that patients and the public need and that we, as emergency physicians, deserve.

Abhi Mehrotra, MD, MBA, FACEP
(North Carolina)

Current Professional Positions: Vice chair, strategic operations, and clinical professor for strategic operations, and clinical professor for ACEP's success. Our voices are amplified, and we achieve more when we support one another as members of the ACEP community. Together, we should shoulder our burdens and celebrate our victories as emergency physicians.

What we do matters, and the good that we do is why emergency medicine has been, and can be, the most attractive specialty. Now is the time to adjust the sails. In doing so, we will reach the greater heights for emergency medicine that patients and the public need and that we, as emergency physicians, deserve.

CONTINUED on page 21

The Official Voice of Emergency Medicine

ACEP NOW 7 JULY 2023
Agitation Treatment in the Emergency Department

Clinical perspectives from the field of agitation science

by Gregg Miller, MD, FACEP, Enrique Enguidanos, MD, FACEP, and Michael Wilson, MD, FPHC, FACEP

This is the second in a multi-part ACEP Now series focused on mental health emergencies. Last month’s article focused on ACEP’s efforts and resources to support EDs and patients with psychiatric emergencies. Future articles will highlight solutions and success stories. This month, we are discussing the medical management of patients with mild to moderate agitation.

Emergency departments (EDs) focus on rapid initiation of medical treatment. Patients with sepsis get antibiotics. Patients with opiate overdose get naloxone. Patients in DKA get insulin. And yet, when many patients arrive with a mental health crisis, they get nothing—until they escalate, at which point they often get too much and remain over-sedated for hours. Just as for patients experiencing other emergencies, ED physicians should rapidly initiate appropriate medical treatment for patients experiencing mental health crises, before they decompensate.

**Calming Measures**

Sometimes ED physicians are reluctant to instigate calming treatment in lower acuity patients, preferring to wait until more aggressive sedation is absolutely necessary. They might have been instructed that early calming measures lead to an inaccurate evaluation of the patient by a mental health professional or worry about over sedating the patient. However, rapid initiation of treatment is actually patient-centered care that can both lead to better outcomes and limit ED boarding. Mental health evaluation teams can rely on documentation and interviews to understand a patient’s initial agitation level. It is also equally important for mental health evaluators to understand how patients responded to calming medication, as that can help guide impatient versus outpatient treatment decisions.

This article focuses on calming medication in patients with mild to moderate agitation. The article also will not address severe agitation or anxiety, even if patients are experiencing agitation or anxiety, even if the symptoms are not severe. The first step is to establish a therapeutic alliance and engage in verbal de-escalation. ED physicians should be calm, non-confrontational, tone respect the patient’s personal space, set per- the role but firm boundaries for behavior, and offer choices where appropriate. Sometimes invest- ing an extra two or five minutes—certainly a significant time commitment on a busy shift—to establish trust can limit the need to spend more time later in the shift managing escalating behavior (or permit a much earlier disposition). Once trust is established and patients are willing to accept calming medication, emer- gency physicians should consider these guiding principles.

First, oral administration is preferred, as this route can often be as effective as intra- muscular administration. Oral medications are typically cheaper, easier for the patient, reduce the risk of needlesticks, and limit plas- tic waste.

Second, to avoid increased side effects, the dosing should usually start lower, especially for elderly patients. Treatment should typically begin with just one agent, rather than multiple different medications.

Third, patients may express a preference for a specific medication or dose based on per- sonal experience. As long as this request is not for a narcotic or other medication with poten- tial secondary gain, it should be respected if feasible.

Fourth, ED treatment should be ap- proached as the first step in a long-term treat- ment plan, and not as an isolated decision confined to the ED stay. This means that for patients who have outpatient prescrip- tions, preference should be given to reinsti- tuting those medications in the ED if feasible, instead of starting a different regimen.

Finally, other interventions focused on comfort should also be considered. These might include medications such as ibuprofen, acetaminophen, or nicotine patches. Meals should be offered, especially if the patient will have a prolonged stay. Environmental stimuli, such as noise and light, should be minimized as possible.

**Exceptions**

Certainly, each of these guiding principles has clear exceptions, and treatment decisions are at the discretion of the ED physician. For patients with mild to moderate agitation, treat- ment often begins with second generation antipsychotics (SGAs).

**Table 1: Agitation Chart**

<table>
<thead>
<tr>
<th>Medication</th>
<th>ED Oral Dosing Range</th>
<th>Maximum Dose</th>
<th>Timing</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIRST-GENERATION ANTIPSYCHOTICS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haloperidol (Haldol)</td>
<td>2.5-5 mg PO</td>
<td>30 mg/day</td>
<td>30-minute onset</td>
<td>Preferred agent for agitation from alcohol intoxication (not withdrawal). Co-administration with diphenhydramine or benztrpine may reduce EPS, though increase sedation. Higher risk than SGAs for EPS, prolonged QTc, and NMS.</td>
</tr>
</tbody>
</table>

**SECOND-GENERATION ANTIPSYCHOTICS**

<table>
<thead>
<tr>
<th>Medication</th>
<th>ED Oral Dosing Range</th>
<th>Maximum Dose</th>
<th>Timing</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ziprasidone (Geodon)</td>
<td>5-10 mg PO</td>
<td>40 mg/day</td>
<td>60 minutes</td>
<td>Least amount of evidence in ED setting. Highest risk of QTc prolongation in SGAs (although still less than haloperidol).</td>
</tr>
</tbody>
</table>

**BENZODIAZEPINES**

<table>
<thead>
<tr>
<th>Medication</th>
<th>ED Oral Dosing Range</th>
<th>Maximum Dose</th>
<th>Timing</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alprazolam (Xanax)</td>
<td>0.25-0.5 mg PO</td>
<td>6 mg/day</td>
<td>6 minutes</td>
<td>Half-life is 11 hours.</td>
</tr>
</tbody>
</table>

**References**


Finally, once patients with mild to moderate agitation are stabilized and ready for discharge, the ED physician should consider the need for outpatient medication. While the initiation of a new outpatient antipsychotic regimen is beyond the scope for most ED phy- sicians, it is certainly reasonable for ED physi- cians to edit or restart an existing medication regimen.

**HAVE AN IDEA?**
Submit your article or story pitch to ACP Now

**If** you have a story idea or drafted article, contact Editor Danielle Galian, MPS, or Medical Editor in Chief Cedric Dark, MD, MPH, FACEP. Our editorial team will review your submission and update you on next steps. Include 250 words with bullet points if you’re submitting a story pitch with the following:

- Why your readers would value the story;
- Potential experts or sources for the story;
- How the story would influence the provision of emergency medicine;
- What you hope the reader would learn from your article.

**The usual length of standard articles** (departments, columns, one- to two-page articles) is about 600 to 800 words. The usual length of feature articles (two or more pages) is about 800 to 1,200 words. A reference list is also required for researched material.

**Submit a Case Report**
To be considered for publication, send an outline of your case presentation to Medical Editor in Chief Cedric Dark, MD, MPH, FACEP with the following:
- 250-word description that explains the presentation and final diagnosis;
- Three bullets teaching points;
- 100 word maximum;
- 10 reference maximum.

Cases with clinical images preferred.

**Submit a Letter to the Editor**
To ACEP Now welcomes letters to the editor. Letters should be 250 words or less, may be edited for length and style, and are published online and/or in print at the editorial team’s discretion. Submit your letter including your name, title, organization, and contact information to Editor Danielle Galian, MPS.

**Interested in Writing for ACEP Now?**
ACEP Now welcomes guest columns by physician writers.

**Dr. Miller** is Chief Medical Officer of Vituity. Dr. Miller leads an EMPC sub-committee focused on mental health issues in the ED.

**Dr. Enguidanos** is Chair of ACEP’s Emergency Medicine Practice Committee (EMPC). He is Founder/CEO of Community Based Coordination Solutions.

**Dr. Wilson** is board-certified in emergency medicine and is an associate professor (tenured) in the Departments of Emergency Medicine and Psychiatry at the University of Arkansas for Medical Sciences.

**Can You Be More Specific?**
Emergency medicine means a lot of things to a lot of people, but your passion within the specialty is undeniable.

Pediatrics, Ultrasound, Health Policy, DEI – whatever gets you up in the morning… there’s an ACEP Section for that.

**You Have Energy and Passion. We Have 40 Sections to Choose From. Let’s Get Together.**

**Join a Section Today**
acep.org/sections

**Acep Online Learning Center**
Meet Your State CME Requirements With NEW, On-Demand Course Bundles

Learn the latest about some of the most common, yet most difficult presentations you will experience.

**Trusted EM experts** teach more than 20 courses in each comprehensive bundle on:

Cardio  
Neuro  
Trauma

**Purchase Today!**
acep.org/OLC-bundles

**American College of Emergency Physicians’**
ACEPNOW.COM

**The Official Voice of Emergency Medicine**

**July 2023**
 Twice a year, ACEP Now speaks to the President of ACEP. This conversation with Christopher S. Kang, MD, FACEP, assesses how his term leading the College has gone so far, and how the profession is weathering the storms of boarding, burnout, and a challenging Match season.

This boarding crisis seems to have exploded this year. Yesterday on shift, I had a patient that’s been in our ER for at least 120 hours. What’s changed over the past six months that you’ve heard about in terms of the boarding crisis?

Dr. Kang: I think there are three aspects to talk about. One is actually what you and I and others of our colleagues see every day, and that is the boarding crisis has not improved, and in some ways, it’s gotten worse. It depends on regionally and individually of each institution, but I think overall most people would say that boarding has not improved. Second of all is, what is the College trying to do about this? In November, we submitted a letter to the White House asking for a summit to bring all stakeholders together to talk about this issue because it’s going to require every part of the healthcare system to address and it’s not going to be an easy fix.

Over the past few months, we’ve been waiting as the new congressional session has begun to see what actions are taken. We provided them with some data and some anecdotes about how things were actually getting worse, specifically for mental health... they were intrigued, but unfortunately offered no further actions other than to ask for some additional data. In the meantime, thanks to ACEP staff and leaders, a task force was formed and concluded its work to identify that if we needed to hold our own summit, which would we invite? What would be our overarching objectives and how would we proceed about doing so? And thankfully that task force has completed its report and has outlined what our objectives are financially, operationally, personnel-wise, patient-wise.

If we don’t hear back from the White House in the next few weeks, there was a letter that was recently circulated in conjunction with our LAC meeting to see how much congressional support we could have to encourage the White House to hold this. And if not, then we will likely move forward to hold our own summit sometime this summer.

Third is the receptiveness of the rest of the healthcare community. And as we’ve seen, our nursing colleagues, whether it’s violence, burnout, or overall staffing models has also been impacted, as well as some of our other health care professionals.

Let’s get into some of the solutions that I’ve seen proposed around the country. There was this shooting in a school in Tennessee recently, in recent months, and some of the lawmakers there are talking about investing in a system to help EDs recognize where there might be open psychiatric beds earlier on. Do you think that something as simple as that, just making sure that EDs have the ability to identify open psychiatric beds in nearby communities is a solution that would work all at this crisis?

Dr. Kang: I think that is a key starting point. During the COVID-19 pandemic, as many readers may be aware, regional care coordination, including Washington State, the Los Angeles area, San Antonio, and Michigan, started utilizing these systems to identify available beds including critical care beds as well as ventilators to be able to distribute patients accordingly. That model has continued to be embraced by some parts of the country.

We still have many physicians who are generally satisfied with the career and the chance and opportunity to serve their patients, as well as communities. And if you still want to be that quintessential doctor who is there for your patients, regardless of their background, regardless of their needs, 24/7, that’s emergency medicine. Second, what does emergency medicine offer? If you’re still motivated to see patients and then utilize the skills to be able to see any acute undifferentiated patient, to be able to identify, prioritize concerns, and then stabilize and/or disposition patients, that skillset can take you many different places.

Whether it may be telehealth, whether it is pre-hospital, whether it’s innovation simulations, whether it’s concierge medicine, wilderness medicine, space medicine, or emergency medicine provides you with a skillset that can help you provide the best patient care and be prepared in almost any scenario. That has not gone away.

The working conditions, the respect from others has declined. And so we know that some medical school deans, as well as advisors, are directing people not to go into emergency medicine. But as rural hospitals close, as health care systems and practices are changing rapidly, sometimes month to month, we’re still there. We’re still the ones that will care for patients, and we still have that overall critical mission.

One of the things I also want to address is the increase in the number of residency programs, and there is no doubt when you look at the numbers, the rapid explosion of the number of programs being started. We need to have a conversation about some programs, existing programs, still expanding.

If I’m a person who’s trained and in emergency medicine, do you want to work for somebody or do you want to be leading the team? And I would argue that again, emergency physicians are the best educated, best trained, and best qualified to lead the teams in almost any variety of acute care settings.

Let’s talk a little bit about diversity within the workforce. What is ACEP doing to maintain the attractiveness of the profession amid things like salary declines and all these other factors that are being demonstrated by fewer medical students wanting to go into the profession?

Dr. Kang: I want to start with the last part of your statement and that is why we would not want people not to go into emergency medicine versus why did people want to go into emergency medicine? And I would say that the College right now is identifying and celebrating what makes our specialty so unique and so good for so many.

We still have many physicians who are generally satisfied with the career and the chance and opportunity to serve their patients, as well as communities. And if you still want to be that quintessential doctor who is there for your patients, regardless of their background, regardless of their needs, 24/7.
It’s been a tough season, but you’re ready. It’s time to be revolutionary.

October 9-12, 2023 | Philadelphia, PA

Connect with old friends and new.

Explore the city. The possibilities.

Learn how to do things differently.

Register today! Save $50 with promo code BELL

--

Dr. Kang: I would encourage every emergency physician to get more involved. I hope ACEP is the one that earns the trust and provides and shows its value. When we talk about why you should join ACEP, I think some of it is for what people acknowledge, but may not necessarily give due credit to, the clinical policies that help you fight to better take care of your patients. The clinical policies that aren’t adopted because of advocacy — such as the one-hour sepsis bundle. When we talk about how you can improve your workplace, not only the ability to have food and drink at work, but also security, or making sure that you are respected and can find additional resources, whether it’s EMRs, scribes, practices that will help improve how you can deliver quality care to your patients.

Legislatively, who else can advocate on your behalf to make sure that you are respected and that you are the leader of the emergency care team? Every single emergency physician sees that whether it’s because of our efforts with the RUC and the AMA, whether it’s making sure that the battles of the scope of practice are being fought to better safeguard your role as the leaders of the health care team and the successes we’ve seen in multiple states thanks to our members at the chapter level, whether it’s in your institution, whether it’s in training in the workforce … ACEP does many, many things. I hope people will take a step back and say, if ACEP wasn’t doing what it was doing, where would you be and where would your practice be now? And I hope that somewhere along the way, they will see that what they get back is multiples of those dues.

Reference

More Than Just More Shocks

Recent literature updates in the management of refractory VT or VF arrest

by DAVID TOOMEY, MD

ut-of-hospital cardiac arrest is a commonly encountered entity in U.S. emergency departments (EDs), with statistics reporting more than 356,000 out-of-hospital cardiac arrests per year.1 Ventricular tachycardia (VT) and ventricular fibrillation (VF) represent the most common initial rhythms for patients presenting to the ED in out-of-hospital cardiac arrest, as well as for patients who develop cardiac arrest while in the ED.2 In general, patients who develop cardiac arrest with an initial rhythm of VT or VF tend to have favorable outcomes compared to patients who develop cardiac arrest from either asystole or pulseless electrical activity.3 Standard management for VT and VF involves the use of electrical defibrillation, high-quality chest compressions, and epinephrine. However, between four and five percent of cases of VT or VF will be refractory to standard management, with nonsustained arrhythmia persisting despite repeated shocks.4 Given this, more recent attention has been paid to management of refractory VT and VF, with several recent updates suggesting new strategies that can be employed by emergency physicians for such cases.

What is “Refractory” VT/VF?

There are some differing guidelines as to what constitutes “refractory” VT or VF. Initial guidelines defined “refractory” as VT or VF occurring despite three shocks from a cardiac defibrillator.5 More recent literature defines “refractory” as VT or VF that is persistent or recurrent despite three shocks from a defibrillator, three rounds of epinephrine, and use of an antiarrhythmic (i.e., amiodarone or lidocaine).6

What Can I Do Outside of Repeated Shocks and Standard ACLS?

1. Change defibrillation strategy

Standard defibrillation targets pads in the anteroposterior position. Modified strategies for refractory cases of VT or VF involve either moving the pads to the anteroposterior position or using two sets of pads for dual sequential external defibrillation. Prior retrospective reviews of dual sequential defibrillation showed promising results with regard to termination of refractory VF, return of spontaneous circulation, and survival to hospital discharge.7 More recently, the DOSE VF pilot study and subsequent cluster randomized control trial, Defibrillation Strategies for Refractory Ventricular Fibrillation, have demonstrated significant benefit of both anteroposterior pad placement and dual sequential defibrillation in cases of refractory VF compared to continued anteroposterior shocks.8

To perform dual sequence defibrillation, place pads in the anteroposterior and anterolateral position. One operator should perform defibrillation in the anteroposterior position, followed by another operator providing a second shock in the anterolateral position after a delay of less than one second. Tips for use of dual sequence defibrillation:

- Use the same model of defibrillator.
- Pads need to be as close together as possible but not touching to avoid capacitor overload.
- Do not use synchronization.

2. Medications: think about using esmolol

Amiodarone has been traditionally used in the management of VT or VF as an adjunct to defibrillation. More recent literature and guidelines support the use of lidocaine as an alternative agent, and currently both are included in standard advanced cardiovascular life support.9,10

Prior systematic reviews have looked at the use of beta blockade in the management of refractory VT or VF.11 A more recent review article looked at two retrospective studies with a combined total of 66 patients who were given esmolol in the treatment of refractory VT or VF.12,13 These studies were small but did suggest significantly higher rates of return of spontaneous circulation in the esmolol group compared to standard care. There was insufficient data to suggest improvement in survival to discharge or degree of neurologic recovery. Proposed dosing for esmolol in the management of refractory VT or VF is 100 mcg/kg bolus, followed by a continuous infusion of up to 100 mcg/kg/min.

3. Extracorporeal membrane oxygenation

Of patients with out-of-hospital cardiac arrest presenting to the ED in refractory VF, a majority have significant coronary artery disease, much of which is amenable to percutaneous coronary intervention.14 Given this, the advent of extracorporeal membrane oxygenation (ECMO) presents an opportunity to bridge care between traditional resuscitation of refractory VF patients in the ED and more definitive management in the catheterization lab. Post resuscitation ECMO demonstrates ST-segment elevation are significant in delineating which patients might benefit most from advanced reperfusion techniques.15 While previous evidence for the use of ECMO in refractory VF arrest has come from observational studies, the ARREST trial in 2020 represented the first open-label randomized trial evaluating the use of ECMO in the management of patients presenting to the ED in refractory VF arrest.16 This trial showed significant improvement in performance in patients treated with ECMO compared to standard care with regard to survival to hospital discharge, survival at six months, and overall functional outcome.17 Some aspects of the study, including rapid EMS response times and training as well as rapid time to cannulation, limit the generalizability of the data, but overall this study suggests significant promise in the use of ECMO for the management of this patient cohort.

References


DR. TOOMEY (@DAVIDTOOMEYMD) is a senior instructor of Emergency Medicine at the University of Rochester Medical Center in Rochester, NY. The Official Voice of Emergency Medicine
Join us in Las Vegas for an immersive educational experience created to substantially increase your confidence in your ability to optimally manage pediatric emergencies.

An intensive, comprehensive review covering newborn to adolescence
Taught by 9 energetic and knowledgeable Peds/EM educators
A focus on data-driven, literature-based content
Incorporates the leading authoritative guidelines
A 3-day deep dive experience that will create a renewed confidence in your ability to diagnose and treat pediatric emergencies

September 12-14, 2023
Las Vegas, Nevada

EM board-certified or not, managing the acutely ill or injured child can be among the most challenging scenarios in emergency medicine – that’s why the Mastering Pediatric Emergencies course was created.

www.pedsEMcourse.com
or Call 1-800-458-4779 (9:00am-5:00pm EDT, M-F)
Xylazine: “Zombie Drug” is an Emerging Threat

Combined with fentanyl, this drug is increasingly found in patients with opioid overdose

by ISHA JOSHI, MBA, CATHERINE A. MARCO, MD, FACEP, AND JEFFREY LUBIN, MD, MPH, FACEP

Case

A 30-year-old woman presents to the emergency department with left arm pain from a chronic wound. She notes that the wound has been present for greater than a year and it becomes malodorous and painful and oozes intermittently. She reports fevers up to 103 degrees Fahrenheit. She endorses a one-year history of near-syncopal episodes associated with shortness of breath, headache, and neck pain. She reports polysubstance use including fentanyl, xylazine, and cocaine, and has a history of injection drug use and Hepatitis C. Her last hospitalization was one month ago for a similar wound, at which time she received intravenous antibiotics and was subsequently discharged. Two years prior, she reports having a similar wound on her right arm, which required debridement and skin grafting. Due to her drug use, she states that she has visited several medical centers who have denied her surgical intervention for her wounds.

Physical examination was notable for tachycardia. The left upper extremity had a malodorous wound on the left dorsal antecubitus, extending down to the wrist (Figure 1). Complete blood count and comprehensive metabolic panel revealed microcytic anemia, elevated transaminases, and elevated alkaline phosphatase. X-ray of the wrist, forearm, and elbow were normal. CT of the upper extremity revealed chronic radial and ulnar osteomyelitis. Ceftepime and vancomycin were administered. She was admitted and treated with intravenous antibiotics and skin graft, and was discharged to a rehabilitation facility.

Xylazine is a veterinary sedative that has been increasingly implicated in overdose deaths throughout the United States.1 It was first reported as a heroin adulterant in Puerto Rico in 2015. It has been reported in overdose deaths in 2020.1 Known by street names such as “tranq,” “zombie powder,” “inner demon,” “zombie drug,” xylazine is increasingly found in patients with opioid overdose.

Brief history of xylazine

The drug was first developed in Germany in 1962 by Bayer as a non-narcotic analgesic and muscle relaxant for animals.2 It is an alpha-2 agonist, similar to clonidine, which inhibits the release of dopamine and norepinephrine in the central nervous system, causing decreased sympathetic activity which results in sedation. In humans, acute intoxication presents with findings typical of an opioid toxidrome, such as miosis, central nervous system depression, respiratory depression, hypotension, lethargy, and coma. Xylazine withdrawal may be severe, with agitation, anxiety, or hypertension, and may require inpatient or intensive care treatment.3 Chronic side effects of xylazine may include skin ulcers associated with foul-smelling purulent discharge and associated complications such as soft tissue necrosis (often extensive), bacteremia, and osteomyelitis.4-6 The pathophysiology of skin ulcers is thought to be due to the vasoconstricting effect of xylazine, which causes a chronic state of decreased skin perfusion, impaired wound healing, and subsequent tissue necrosis.

Treatment in patients

Xylazine should be considered in all patients who present with history of injection drug use and chronic wounds. Initial stabilization includes airway management and circulatory support. Currently, there is no FDA-approved pharmacotherapy for either the reversal of xylazine in humans or the management of xylazine withdrawal. Typically, xylazine is mixed with fentanyl. While naloxone can treat fentanyl overdose, overdose symptoms may persist when xylazine is involved. Workup may include metabolic panel, complete blood count, and imaging in cases where trauma or infection occur. Xylazine is not detected by routine toxicologic studies. Xylazine-induced skin ulcers typically begin as a blackened eschar that progresses to a cribiform appearance.7 The wounds are purulent and often polymicrobial. Many of these infections require hospitalization with intravenous antibiotics and surgical debridement. However, xylazine withdrawal is often so miserable that patients are at risk of leaving the hospital against medical advice before treatment is completed.

References


TAKE-HOME POINTS

• Xylazine does not respond to naloxone.
• Supportive care should include airway and circulatory support.
• Xylazine may present with withdrawal symptoms of polysubstance use.
• Consider xylazine use in patients with chronic soft tissue or bone infection.

ACEP NOW JULY 2023

The Official Voice of Emergency Medicine

JEFFREY LUBIN, MD, MPH, FACEP

ISHA JOSHI (@ISHAJOSHI)) is a third-year medical student at Penn State College of Medicine in Hershey, PA. Prior to medical school, she received her MBA in Healthcare Management and currently works on health policy and outcomes-based research.

DR. MARCO is professor of emergency medicine at Penn State with the MD/MPH dual degree program at the Penn State College of Medicine in Hershey, PA, where he is also the vice chair of research for the department of emergency medicine at the Penn State Health Milton S. Hershey Medical Center.
safely, via processes that did not exist at the time the American Board of Emergency Medicine became recognized by the American Board of Medical Specialties in 1975, or even at the time I entered emergency medicine residency training in 1986.

After convincing ourselves that we save our system money every day, compared to medical care for all who present at our doors, all play as the nation’s 24/7/365 resource for charges accrued for ED care, with only pass- ing acknowledgement of the critical role we all play as the nation’s 24/7/365 resource for medical care for all who present at our doors, without regard for their ability to pay.

Here are some illustrative examples demonstrating how emergency physicians save our system money every day, compared to status quo of the late 1970s and early 1980s:

Formerly, nearly all acute pelvic inflammatory disease patients were admitted for several days of intravenous antibiotic therapy. Now, many acute pelvic inflammatory disease patients receive an IV antibiotic, analgesics, and antiemetics, and discharged. Acute pelvic inflammatory disease has become a disease for which outpatient management is often feasible and appropriate.1

Formerly, most patients with Pelvic Inflammatory Disease (PID) were admitted for several days of IV antibiotics, under the now-disproven dogma that IV antibiotics decreased the incidence possible infection by Neisseria gonorrhoea and Chlamydia trachomatis, often with added treatment for anaerobic microbes. Female upper genital tract disease has been transformed to a disease for which outpatient management is often feasible and appropriate.1

Formerly, all patients diagnosed with the venous thromboembolic (VTE) diseases of deep venous thrombosis (DVT) or acute pulmonary embolism (PE) were admitted for several days of inpatient care to enable therapy with intravenous heparin as a bridge to oral warfarin. Warfarin pills are inexpensive, but the associated hospital care is not. Warfarin is a drug highly prone to drug-drug and drug-food interactions. Further, warfarin dosing requires regular monitoring of the international normalized ratio (INR), which is both a cost and an inconvenience to patients. We can now safely treat most DVT patients as outpatients by administering direct oral anticoagulants (DOACs) such as Factor Xa Inhibitors. Subsequently, we also learned that PE patients without hypoxia or evidence of right heart failure can safely be discharged with DOAC prescriptions. DVT and PE have been transformed to diseases for which outpatient management is feasible and appropriate.1

Formerly, chest pain patients without an S-T Elevation Acute Myocardial Infarction (STEMI), whose pain was suspected to be cardiac in nature, became inpatients for sequential monitoring of their lactate dehydrogenase and creatine kinase isozyme profiles. This process required at least a full day. Now, for selected patients, emergency physicians can leverage low and non-rising high sensitivity troponin values and a low HEART score (composed of history, ECG, age, risk factors, and troponin levels) to implement outpatient follow-up plans safely, within a few hours.5

Patients with acute ischemic strokes, STEMI, and trauma, as well as many other diagnoses, have their workup largely completed, and even sometimes definitive therapy executed, before they leave the emergency department, rather than requiring inpatient units. We could do even better if only our patients would permit it. We already know how to apply validated and highly reliable clinical decision rules (CDR) such as the Ottawa Ankle Rules, the Ottawa Knee Rules, the NEXUS and Canadian C Spine rules and the PECARN (for children) and Canadian Head CT (for adults) rules.6–11 All perform with high accuracy and validity. However, we know that patients often expect radiographs that these CDRs would establish as contraindicated.

Our collective experience is that a significantly long time is required to explain these CDRs to patients, so it becomes more cost- and time-effective simply to obtain the non-indicated imaging. Emergency medicine should advocate directly to patients to allow doctors to implement these CDRs more efficiently by applying effective bedside “plug and play” teaching tools and explaining CDRs. Such resources could dissuade patients from false beliefs and persuade them that omission of the contraindicated radiographs or tests represents appropriate care. This would both save money and shorten the patient’s ED stay. Added benefit would accrue when a pediatric patient avoids CT images, thereby decreasing the potential risk for a subsequent cancer.8

To enable this vision and further enhance our role toward cost savings will require emergency medicine researchers to complement validated CDRs with the creation, testing, and validation of accurate and persuasive patient-education tools, sufficient to dissuade most patients from dogmatic and erroneous beliefs regarding imaging. Emergency physicians have exploited incorrect dogmas before. For instance, consider the previous dogmatic belief that no abdominal-pain patient can be administered an opiate until they have been examined by a surgeon.9 Hopefully, patients’ beliefs regarding radiographs can also become consigned to the dustbin of history.

In rebranding ourselves, we should also work to explode other myths that plague us, by refuting certain misleading beliefs that cause the public to conclude wrongly that ED care is a larger source of health care expenditures than is the case. Brian Zink captured a wonderful initial vision statement for our specialty with the title of his book, “Anyone, Anything, Anytime,” which documented the history of our specialty. In 2003 we must move beyond that title. Emergency physicians help not only save lives, but also save significant sums of money, 22,776. Might suggest: Emergency Medicine: Saving lives, but also dollars, with our quick, efficient, and effective care.

 References


DR. GADDIS is a “PDY-37” who has stepped away from full-time employment after a 32-year full-time career in academic emergency medicine, and now works a limited number of shifts in a rural Critical Access hospital in Missouri. He also currently serves as a professor of Biomedical and Health Informatics at the University of Missouri-Kansas City School of Medicine, and enjoys exploring contrarian views of issues that impact the specialty of emergency medicine.
Riding the BUS to Make Surgical Decisions in Suspected Biliary Colic

by KEN MILNE, MD

A 50-year-old woman presents to the emergency department (ED) complaining of epigastric pain and nausea for 36 hours. The physical examination is consistent with biliary colic and the blood work shows a mild elevation in C-reactive protein while her white blood cell count and liver function tests are normal. You perform a biliary ultrasound (US) in the ED (BUSED) which shows a gallbladder (GB) full of stones, some GB wall thickening and a positive Murphy’s sign. Will this be enough for the general surgeon, or will they want an US performed by the radiology department to make their surgical decision?

Clinical Question

What is the value of radiology-performed US (RUS) compared to BUSED in terms of the surgical decision-making in acute biliary disease?

Background

Ultrasound is typically the first-line imaging modality for the diagnosis of acute biliary disease. ED physician-performed point of care ultrasound (POCUS) has increased in popularity over the last decade. Several small trials have compared the accuracy of POCUS versus the “gold standard” of radiology-performed ultrasound. Little is known regarding whether the department in which the US is performed (ED or radiology) impacts the surgeon’s clinical decision making.


Key Result

1. The surgical plan was not changed often after a formal radiology-US was performed.
2. Primary outcome: The initial plan based upon the ED POCUS was changed 10 percent of the time after RUS was performed. See the alluvial diagram.
3. Unmasked surgeons: The surgeon in this study knew that the patient was going to have both a BUSED and RUS examination. This could have introduced some confounders depending on the surgeon’s opinion of BUSED. This issue could have been addressed by masking the surgeon to which report was from the ED and which was a formal US from the radiology department.
4. External validity: This is a small study of 11 emergency physicians and 20 surgeons performed at a single, tertiary, university-affiliated hospital in Canada. Hospitals have their own culture of practice patterns. This group of physicians may not reflect practice in other tertiary centers, smaller community hospitals, or different countries.
5. Location versus experience: Ultimately, this is not a comparison between BUSED and RUS, but between US and US. The skill to obtain and interpret an US image is operator-dependent. It can be tricky to detect gallstones in the neck of the GB or common bile duct; it is a learned skill. Sensitivity for these subtle findings goes up with experience. The difference observed in this study could be due to less-experienced versus more-experienced sonographers.

Bottom Line

An emergency physician trained in BUSED can correctly inform surgical decision-making in most cases of non-jaundiced adult patients with suspected acute biliary disease.

Case Resolution

You present the surgeon with the clinical case, including the BUSED results. The surgeon agrees the patient has acute cholecystitis and admits the patient to the surgical team for further management.

Remember to be skeptical of anything you learn, even if you heard it on the Skeptics’ Guide to Emergency Medicine. Thank you to Dr. Casey Parker, an emergency physician working in Broome, Australia, for his help with this review.
ED Management of Drowning

Next time you are faced with a drowning victim, consider and co-manage secondary causes.

by ANTON HELMAN, MD, CCDE(M), FCP

Drowning is any degree of respiratory impairment because of immersion or submersion in a liquid.1 It is the third leading cause of unintentional injury death worldwide, and there are an estimated 5,000 fatal unintentional drownings and 8,000 non-fatal drownings annually in the U.S. alone.2 Drowning tends to occur in those aged 1 to 25, with trauma or a toxicologic event often accompanying many of those aged 17 to 25.3 Drowning also occurs at a greater frequency in those aged 55 or more.4 In this latter group a primary cardiac event should be considered as an inciting event.

Cardiac Arrest in Drowning

The progression to cardiac arrest in drowning starts with water entering the upper airway. This may cause laryngospasm and lead to airway obstruction, hypoxia, and hypoxia.5 After approximately 1 minute of submersion, patients typically lose consciousness and become apneic. It is imperative to understand that hypoxemia is the key pathophysiologic mechanism that leads to cardiac arrest, typically pulseless-electrical-activity (PEA) arrest, which occurs typically after 10 minutes of submersion. Thus, management should be directed toward correcting hypoxemia.

The mainstays of correcting hypoxemia in the unstable drowning patient include high fraction of inspired oxygen, positive end-expiratory pressure, mechanical ventilation, and extracorporeal membrane oxygenation.6 Patients with severe respiratory distress are at risk of respiratory failure within hours of drowning as surfactant regeneration takes about two days to occur.7 Some indications for a definitive airway include impending respiratory failure or apnea, failed non-invasive ventilation, inability to protect the airway, and presence of upper airway foam.8 After the airway has been secured, if hypoxemia persists, the patient should be considered for extracorporeal membrane oxygenation, especially if concomitant severe hypothermia is at play.9

Drowning may be secondary to trauma or a toxicologic or cardiac event, and parallel management should also be directed at these whenever present. Hypothermia is not uncommon in drowning victims. It is imperative to identify hypothermia using a rectal temperature and manage it appropriately in tandem with drowning management.

Cervical spine (C-spine) immobilization in trauma patients has been associated with increasing time to definitive care, difficult airways, and increased mortality in patients with penetrating injuries, and also with pressure ulcers.10,11 Thus, C-spine immobilization of the drowning patient should be limited to those cases with a mechanism of injury concerning for significant C-spine injury. An analysis of 2,000 drowning victims found that only one in 200 suffered C-spine injuries, and all of these patients had both neurologic signs on physical exam and a concerning mechanism of injury.12 A key clinical pitfall in the management of the drowning patient is to suction the foam that comes up from the lungs into the oral cavity during resuscitation. This is often intuitive for the emergency physician as we typically suction blood, mucus, or anything else that could potentially hinder oxygen exchange. Foam in drowning is a result of lung surfactant mixed with water that bubbles up like soup and water. It is non-toxic and contains lung surfactant that patients’ lungs need. As such it should not be suctioned, as such attempts will delay definitive airway management. Rather, positive pressure ventilation should be used to push the foam back down into the lungs.

Foam in the upper airway is an indication for endotracheal intubation. The SALAD Technique

As soiling the airway with emesis is common in drowning, the resuscitation team should be prepared to perform suction assisted laryngoscopy airway decontamination (SALAD).13 This technique is used to prevent airway soil ing during laryngoscopy as a result of aspirated emesis. SALAD involves using a rigid suction catheter as a sort of tongue depressor to allow the laryngoscope blade to be placed in the ideal position (see more about this technique on page 18). The suction catheter is then used to decontaminate the proximal esophagus and stays pinned in the left corner of the patient’s oral cavity. Antiemetics, which may prevent soiling of the airway from emesis, are prevent soiling of the airway from emesis, are considered to administer during the resuscitation of the drowning patient.

Dysrhythmias typically progress from sinus tachycardia to bradycardia to PEA arrest. Thus, if bradycardia is present, the resuscitation team should anticipate and be prepared for cardiac arrest. In the event of cardiac arrest, consider tailoring the usual adult algo-

rithms, as the arrest is most likely a respiratory one, as opposed to a primary cardiac event.14 It is therefore reasonable to administer five rescue breaths before chest compressions are started.15

Therapies that have traditionally been used but have subsequently shown to carry no benefit include steroids and empiric antibiotics.16 Studies of empiric antibiotic use in drowning victims demonstrated increased antibiotic resistance and no improvement in rates of pneumonia.17

Next time you are faced with a drowning victim, consider and co-manage secondary causes, understand that it is primarily a hypoxic event with treatments directed at ventilation and oxygenation, anticipate PEA arrest with consideration of breaths before chest compressions in the event of an arrest, and manage oral foam with positive pressure ventilation instead of suctioning.

A special thanks to Dr. Dave Jerome for the EM Cases podcast from which this article was inspired.

References

Unstable Epistaxis

by JONATHAN GLAUSER, MD, FACEP, MBA, AND MATTHEW CARVEY, MD

S

Standard reviews of epistaxis in the emergen- cy medicine literature center on the epidemiology, etiology, whether the bleeding is anterior or posterior, and methods by which bleeding can be controlled. As with other entities, management of the airway must take precedence. While unusual, nosebleeds may present with life-threatening airway compromise. This is a discussion of a potentially disastrous airway outcome.

Case

A 93-year-old Russian-speaking female on dual-antplatelet therapy presented to the ED via ambulance with a left-sided nosebleed. She was reported to have had a mechanical fall, landing face forward without loss of con- sciousness, and has had a continuous nosebleed since then, per EMS and the home care provider.

On EMS arrival, it was noted that the pa- tient had what seemed to be a controllable nosebleed with difficulty locating the source due to constant oozing. She was alert and awake with an intact airway. Due to her sole language being Russian, the initial history was vital. Signs on scene included heart rate 90, blood pressure 139/97, and 92 percent oxygen saturation. EMS placed her on non-rebreather at 15 L per minute due to the significant amount of bleeding through the nose, and brought her to the ED. On arrival she remained alert and oriented, sitting upright and face forward with an intact airway. The source of bleeding was identified as venous oozing out of the left naris, and she was spitting blood into an emesis basin. Her Glasgow Coma Scale was 15, and her vitals revealed she was afebrile, had mild tachycardia at 103 beats per minute, bradypnea, BP 189/95 and 92 percent oxygen saturation. The patient was transitioned to a reverse Trendelenburg position to keep the head upright, and direct laryngoscopy was performed. There was a significant amount of blood collecting in the laryngopharynx with rundown from the nasopharynx obscuring the vocal cords. These contents were suctioned vigorously. A DuCan-to suction device was placed along the base of the tongue towards the upper esophageal sphincter and left in place to continuously suction the airway, preventing further aspiration of gastric and nasopharyngeal contents utilizing the suction assisted laryngoscopy and airway decontamination (SALAD) technique. The laryngoscope blade was introduced shortly afterwards. Three attempts at passing the endotracheal tube were made, due to significant hemorrhaging from the nasopharyngeal area, anterior location of the vocal cords, and an atomically small laryngeal opening.

It Was a Difficult Airway

After the third attempt at intubation, the vocal cords were visualized and a size 4.5 endotra- cheal tube was passed, with minimal airway stabilization. Blood continued to accumulate in the laryngopharynx, but was eventually stepped with the combination of bilateral naso- packing and constant suctioning. A total of 400 mL of blood was suctioned throughout the procedure.

The SALAD Approach to Airway Management

The presence of contaminants in the airway has been shown to decrease first-pass success at intubation, regardless of whether direct or video laryngoscopy is employed.1 Patients with significant blood, emesis and secretions seen during laryngoscopy can be alleviated by continually suctioning the hypopharynx, reducing the chance of failure to intubate.2 The SALAD maneuver was developed to over- come the challenges faced during intubation of a massively contaminated airway.3 This technique is not only valuable for preventing aspiration of contents from the gastrointestinal system during intubation, but also those from nasopharyngeal sources such as epistaxis. Therefore, the SALAD approach should be considered in any instance where an aspiration risk exists, whether it be epophagous, na- sopharyngeal, or oropharyngeal.

The SALAD technique is performed once the patient has been adequately sedated and paralyzed if necessary. Pre-oxygenation and standard intubation preparation are performed. Passive suctioning of the airway is at the heart of this maneuver, utilizing a rigid suction catheter to decontaminate the airway of blood, fluid, or emesis prior to full inser- tion of the laryngoscope blade into the larynx. The suction catheter is left at the esophageal inlet, preventing aspiration of gastric contents, or in this patient’s case, nasopharyngeal blood. The laryngoscope is slowly inverted, preventing fogging or collec- tion of fluid on the camera if utilizing a video approach to intubation. At this point, if there are continued fluid collections in the laryn- gopharynx, a second suction catheter can be utilized prior to attempting passage of the endo- tracheal tube. Once adequate secretions have been alleviated from the area, passage of the endotracheal tube can be done. Once the endotracheal tube has been secured, con- sistent suctioning must be ensured until the fluid collections have been controlled.

There are certain considerations that must be taken into account when utilizing the SAL- AD technique. Firstly, the physician should be proficient in this maneuver to avoid impeding the view of the vocal cords with the rigid suction device. Second, especially with significant hemorrhaging into the air- way, monitoring of the volume of suctioned contents should be done. As in this case, 400 mL of blood had been suctioned in less than two minutes. Adequate replacement of blood products should be considered when massive hemorrhoging such as this occurs. Lastly, ac- tive suctioning for the entirety of an intubation attempt may lead to increased risk of hypox- emia.4 Direct laryngoscopy is the preferred method of intubation when there is a large amount of fluid collected in the airway. Video laryngoscopy can be performed; however, there is a significant risk that the camera may become obstructed with the laryngopharyn- geal contents. Therefore, preparing the team to handle the failure of the vocal cords. An additional operator should be present at the airway for any intuba- tion deemed to be difficult, notably when using the SALAD technique.

The SALAD maneuver is an efficient ap- proach to the airway where contamination with blood, secretions or emesis is suspected. With increasing occurrence of the use of this technique in the aforementioned circumstances, consideration of SALAD to secure the airway in high-aspiration-risk scenarios should be applied.5

References


The health care benefits of a nice SALAD

The Official Voice of Emergency Medicine
Question 1: Do steroids have benefit in treating children with bacterial meningitis?

The incidence of bacterial meningitis has significantly decreased since the pre-vaccine era and dexamethasone has been studied as an adjunctive treatment to antibiotics for bacterial meningitis. Is it helpful, though? Beyond the ability to predict severe illness in the pediatric ED setting; altered mental status, abnormal capillary refill, abnormal peripheral pulses, and cold or mottled extremities. In regard to abnormally prolonged capillary refill, the positive likelihood ratio for identifying organ dysfunction within 24 hours was average, at 0.5. The authors mention that “CSES were not associated with intravenous antibiotics administration, SBI (serious bacterial illness), or admission.” This study did not suggest that abnormal capillary refill (a scenario similar to acrocyanosis) predicts SBI. A separate 2017 prospective observational study by de Vos-Kerkhof, et al., evaluated both peripheral (pCRT) and central (cCRT) capillary refill time and its utility in identifying children with serious bacterial infection. The study included 1,193 consecutive children aged 1 month to 16 years, and SBI was defined as pneumonia, meningitis, and UTI. Children had their capillary refill checked at arrival to the pediatric ED and it was classified as normal (less than or equal to 2 sec), prolonged (greater than 2 sec—less than or equal to 4 sec), or severely prolonged (greater than 4 sec). The authors state that “both pCRT and cCRT had no diagnostic value for the detection of SBI.” For the pCRT, the OR for an SBI was 1.10 (95 percent CI, 0.65–1.84), suggesting that the development of delayed capillary refill is not associated with an SBI.

Summary

While the data is overall rather limited on this topic, the development of delayed capillary refill does not appear to predict the likelihood of an SBI.

References

Diversity, Equity, and Inclusion in Resident Education

Addressing inequities in the physician workforce

by SOPHIA GÖRGENS, MD, and DAVID FERNANDEZ, MD

The United States is a country of rich ethnic and cultural diversity, which, although a strength in many regards, makes health disparities readily apparent. According to the 2020 Census data, the population of the United States is 75.8 percent white, 18.9 percent Hispanic, and 13.6 percent Black/African American.1 However, when comparing the current physician workforce, the 2022 Physician Specialty Data Report recorded nearly 64 percent of physicians as white, 20.6 percent Asian, only 6.9 percent Hispanic/Latino and only 5.7 percent Black/African American.2 This is a growing belief, backed by evidence, that patients have better health outcomes when the physician workforce reflects the complexity and diversity of the patient population.3

One recent study to assess the association between mortality rates in the US and Black representation among primary care physicians found that greater Black workforce representation was associated with higher life expectancy and was inversely associated with all-cause Black mortality.4 Therefore, to better serve our diverse patient population, the field of medicine has been taking innovative steps to address implicit bias, acknowledging and discussing microaggressions encountered at work.5-6 Studies have showed that up to 62 percent of minority medical students note microaggressions such as being mistaken by a patient or as overt racism to more subtle microaggressions as subjects, creating an unintentional bias.8 Overt racism and implicit biases and research biases affect patient care, as in particular—have begun to remove or attempt to cut off all employers from incorporating DEI into residency training—and faculty training.9

Emergency medicine, long a strength in many regards, which prevents employers—including universities—from promoting DEI in any form.10 While opponents cite these measures as blatantly racist and sexist, lawmakers in support of these restrictive bills claim that they actually uphold equality because diversity, equity, and inclusion endorses a culture of exclusion for those not considered diverse.

Preventing inequality

Laws and proposals like the ones in Florida and Texas may damage the public education system and threaten to impact DEI in residency training and medical education as well. If DEI is banned from primary school to graduate-level education, our society will create a physician workforce that is less diverse and well versed in the socioeconomic intricacies affecting our patients. Broader laws attempting to cut off all employers from incorporating DEI would directly impact resident education and negatively affect both patient care and physician well-being.

Currently, there is no Accreditation Council for Graduate Medical Education requirement to include DEI training in resident education, nor is there a recommended standardized curriculum. But, if we hope to preserve and build on a culture of tolerance and diversity, medicine must encode DEI into residency training. Emergency medicine, long a pioneer and advocate for social justice, is primed to take the lead.

Addressing such a vast issue is multifaceted

One proposed solution is incorporating diversity, equity, and inclusion (DEI) education into residency training—and faculty training. DEI encompasses everything from fostering and recruiting medical students from diverse backgrounds, to learning about how implicit biases and research biases affect patient care, to teaching physicians how to recognize and address macro- and microaggressions in the workplace. For example, why are myocardial infarctions in women often underdiagnosed? The answer includes the fact that many studies regarding cardiovascular disease and myocardial infarctions primarily recruited men as subjects, creating an unintentional bias.4 Biases like this have been enshrined in medical textbooks for decades—fighting to change such truisms can be challenging.

Moreover, certain states—Florida and Texas in particular—have begun to remove or outright ban DEI from public education. The Texas passed HB7, which curbs the ability of public universities to incorporate DEI initiatives into training, hiring, admission, or education.11 In earlier versions of the bill, this would have been enforced to the extreme that if faculty discuss DEI, they will have to take a year without pay for the first offense and will be fired for the second.12 Similarly, Florida passed a law called the Individual Freedom Act, commonly known as the Stop Woke Act, which prevents employers—including universities—from promoting DEI in any form.13 While opponents cite these measures as blatantly racist and sexist, lawmakers in support of these restrictive bills claim that they actually uphold equality because diversity, equity, and inclusion endorses a culture of exclusion for those not considered diverse.

References


8. manufacturers take the lead.


15. manufacturers take the lead.


22. manufacturers take the lead.


Numbers

QUALITY INDEX FOR EM BLOGS AND PODCASTS

A recent Annals of Emergency Medicine article ranked 88 EM and critical care blogs and podcasts by Digital Impact Factor.

TOP BLOGS

Authored by ACEP
Now columnists

#6

EM CASES

By Anton Helman, MD, CCFP(EM), FCFP (see p. 17)

#10

SKEPTICS’ GUIDE TO EMERGENCY MEDICINE

By Ken Milne, MD (see p. 16)

TOP PODCASTS

Co-hosted by Lauren Westafer, DO, MPH, MS, author of ACEP Now’s Practice ChangErs column, and former ACEP Now Medical Editor in Chief Jeremy Faust, MD, MS, MA, FACEP

#1

FOAMCAST

By Ken Milne, MD

SKEPTICS’ GUIDE TO EMERGENCY MEDICINE

By Anton Helman, MD, CCFP(EM), FCFP

The ACEP/CORD Teaching Fellowship is a multi-part event that includes two intense weeks of learning and a mentored project in between the Summer and Spring phases.

- **August 17-22, 2023 | New Orleans, LA**
- **Begin your journey with Phase I**
- **August 17-22, 2023 | New Orleans, LA**

**PHASE I**

**FOCUS ON:**
- Digital literacy
- Learning theories
- Curricular design
- Medical student education leadership
- Multi-media educational technology

**PHASE II**

**FOCUS ON:**
- Becoming an EM leader
- Developing your platform
- Communication
- Simulation
- EM career success

**LEARN FROM THE BEST TO BE THE BEST AT THE ACEP/CORD TEACHING FELLOWSHIP**

Take your skills to the next level at the premier course for EM faculty and fellows who want to become a more effective and productive medical educator.

- **Experience intensive, small group exposure to the fundamentals of medical education**
- **Learn from passionate educators with more than 20 years of experience**
- **Hands-on lab vs. active learning while working with other emerging EM education leaders**

ACEP/CORD Teaching Fellowship

Register Today: acep.org/tf

Approved by ABEM; ACEP; JCAHE

July 2023 ACEP Now 21

ELECTION PREVIEW CONTINUED FROM PAGE 7

The Department of Emergency Medicine, University of North Carolina; adjunct professor, Kenan-Flagler Business School, University of North Carolina

Internships and Residency: Emergency medicine residency, University of North Carolina Hospitals, Chapel Hill, NC (2003)

Medical Degree: MD, The Ohio State University College of Medicine and Public Health, Columbus, Ohio

Response:

To ensure that emergency medicine remains an attractive specialty, several strategies can be implemented. First, it is important that we acknowledge and address the current challenges faced by our specialty. These include factors like the No Surprises Act, workforce shortages, hospital capacity concerns, and scope of practice. By recognizing these issues, we can work toward finding solutions that improve our practice environment and make emergency medicine more appealing.

One way to refocus on the joy of medicine is by emphasizing the sanctity of the physician-patient relationship. This core aspect of EM can bring fulfillment to emergency physicians and remind us of the meaningful impact we have on patients’ lives. By nurturing this relationship, we can reignite the passion and sense of purpose of why we chose this specialty.

Advocacy efforts should continue to address issues like the No Surprises Act (NSA) and other regulatory barriers that affect emergency medicine, ensuring that we continue to highlight workplace violence, boarding, and behavioral health resource constraints. By actively engaging in advocacy, we can influence policy decisions that positively impact our specialty and create a more favorable working environment.

While projecting the future workforce is important, it is crucial that we acknowledge the uncertainties associated with such predictions. It is essential to adapt recommendations to the current situation, considering factors such as changing demographics, COVID effects, technological advancements, and evolving health care delivery models. By remaining flexible and open to change, we can better address the needs of our colleagues and patients and ensure the specialty remains attractive.

ACEP should rededicate itself to the wellbeing and development of emergency physicians. This can be achieved through expanding the ongoing efforts, such as consultation services and providing support at each career stage—residency, early practice, mid-career, and exploring retirement. By offering guidance and resources, ACEP can help emergency physicians navigate our professional journeys, enhancing job satisfaction and retention.

As health care delivery evolves, it is important to emphasize the core of emergency medicine, which is acute and unscheduled care. No one else does this better than we do! Collaborating with thought leaders in areas such as telehealth, clinical decision support, and emergency preparedness can provide new opportunities for emergency physicians. By actively participating in these emerging fields, emergency medicine can continue to grow and remain relevant in the changing health care landscape.

Ultimately, our focus should be on what is best for both emergency physicians and the specialty itself. ACEP should prioritize initiatives that support the wellbeing and satisfaction of emergency physicians and physician-led teams. Students and residents need to see the enthusiasm and enjoyment within the specialty, which can help attract the next generation of emergency physicians. By showcasing the rewards and fulfillment of emergency medicine, we can ensure its attractiveness as a specialty for years to come.

Henry Z. Pitzele, MD, FACEP

Iowa City, which is acute and unscheduled care. The specialty remains attractive.

with the outlook on the future of EM has changed, and ACEP can and must focus our most fundamental organs—those of advocacy and communication—towards even stronger defenses of workforce, autonomy, compensation, and community.

Our efforts on workforce are ongoing, but we can do even more—we have engaged the greater EM community and the ACGME, exploring other partnerships (such as ABEM) can help us further demonstrate the value of EEs. More resources for public relations and increased support for definitive, original research could further bolster the greater public acceptance of the obvious good of physician-led teams. But where we excel, and where we can really create change, is in DC; it is time to commit to legislation regarding GME funding, which will help us not only with supply-side workforce increases, but also with distributive imbalances (urban vs. rural). Workforce cannot be an afterthought for the College.

While on the topic of legislative advocacy, it is time to legitimately explore legislation to end the Medicare funding cycle. ACEP is the only EM organization who has (and who can) step up and fight for our compensation from CMS, but every year at LAC, I sit in congressional offices describing our ever-decreasing compensation, and hear the same refrain from lawmakers: “This isn’t a good year to talk about this.” Well, given the state

ACEPNOW.COM
of EM recruiting, this must be the year we talk about permanent legislation for Medicare in- come.”

We must also continue (and amplify) our fight against consolidation. Our March letter to the FTC decrying non-competes and our April letter to CMS about ownership disclosures were just an opening salvo—our attractiveness as a specialty will continue to plummet if the frontline EP’s sense of autonomy continues to erode, and EM consolidation is a direct cause of this erosion. We need to not only work against consolidation through our governmental interfaces, but in our own business practices as well.

Finally, the College needs to put more resources into our core function of providing community. Not only must we do a better job of communicating the immense value we provide to the frontline doc, but in showing all the work we do, and the fights we fight on their behalf, we will help to show students choosing a specialty that we do, still, work in the best corner of the house of medicine. And when we leverage our deep resources to foster that sense of community, we improve not only our own sense of wellbeing, but foster a pipeline of new leaders who will be the ones setting the landscape for the next chapter of EM.

James L. Shoemaker, Jr, MD, FACEP (incumbent, Indiana)

Current Professional Positions: Partner and attending emergency physician, Elite Emergency Physicians, Inc.; volunteer clerkship faculty, Indiana University School of Medicine, South Bend, IN.

Internships and Residency: Emergency medicine residency, Michigan State University/Kalamazoo Center for Medical Studies, Kalamazoo, MI.

Medical Degree: MD, Indiana University School of Medicine, Indianapolis (2004)

Response

Emergency medicine is truly the greatest specialty in medicine. Each day we treat all comers presenting to our emergency department regardless of their ability to pay, circumstance or background. We are the true medical experts our patients seek for symptoms and concerns that scare them. Much like Hogwarts sorts students into their appropriate houses in the Harry Potter series, we sort and triage to separate the “sick” from the “not sick” and begin immediate resuscitative efforts when time is of the essence. We are hands-on. The first 15 minutes of the undifferentiated patient is where we thrive and apply our expertise and unique skill set. Emergent procedures such as airways, central lines, sedations, reductions and defibrillations are commonplace to us. We invite and embrace the full breadth and complexity constituting all of medicine. Many facets of emergency medicine make it highly attractive to the very best of medical students—the unpredictable variety of cases, high stakes decision-making, teamwork, the immediate impact of our interventions, and flexibility in scheduling and work-life balance.

To remain an attractive specialty, it is essential that we protect the integrity of our beloved specialty from the encroachment of non-physician clinicians and scope creep. With over 150 million annual ED visits, our patients expect—and deserve—to be seen by a BC/BE EM physician leading a high-quality treatment team. There is no substitute for medical school and EM residency training. None. Further, we must ensure that business interests and entities never interfere with our medical judgment. Profits over patients is an unthinkable and untenable potential outcome of private equity involvement in the absence of well-established and enforceable guardrails. In addition, we must continue efforts to ensure adequate and fair compensation for the care we provide. We should be unapologetic about the income we make—from the professional fee side we are the best value in medicine. It is essential that we tackle ED Boarding and ED violence head-on, making patient and colleague safety an unwavering priority.

Emergency medicine is truly the “safety net” of our health care system, and the work we do truly makes a difference. We are the frontline of health care. ACEP needs to continue its multipronged approach to tackle the “four corners” of EM that I define as membership, reimbursement, workforce and ED violence.

Penn State Health Emergency Medicine

About Us:
Penn State Health is a multi-hospital health system serving patients and communities across central Pennsylvania. We are the only medical facility in Pennsylvania to be accredited as a Level I pediatric trauma center and Level I adult trauma center. The system includes Penn State Health Milton S. Hershey Medical Center, Penn State Children’s Hospital, and Penn State Cancer Institute based in Hershey, Pa.; Penn State Health Hampden Medical Center in Enola, Pa.; Penn State Health Holy Spirit Medical Center in Camp Hill, Pa.; Penn State Health St. Joseph Medical Center in Reading, Pa.; Penn State Health Lancaster Pediatric Center in Lancaster, Pa.; Penn State Health Lancaster Medical Center (opening fall 2022); and more than 3,000 physicians and direct care providers at more than 126 outpatient practices in 94 locations. Additionally, the system jointly operates various health care providers, including Penn State Health Rehabilitation Hospital, Hershey Outpatient Surgery Center, Hershey Endoscopy Center, Horizon Home Healthcare and the Pennsylvania Psychiatric Institute.

We foster a collaborative environment rich with diversity, share a passion for patient care, and have a space for those who share our spark of innovative research interests. Our health system is expanding and we have opportunities in both academic hospital as well community hospital settings.

Benefit highlights include:

• Competitive salary with sign-on bonus
• Comprehensive benefits and retirement package
• Relocation assistance & CME allowance
• Attractive neighborhoods in scenic central Pa.
The correct answer is ventricular tachycardia (d).

Ventricular tachycardia (VT) is more common in men and in individuals older than 65 years. The most common risk factors include structural heart disease (i.e., cardiomyopathies), and ion-channel mutations (i.e., catecholaminergic polymorphic VT). Idiopathic VT occurs in a structurally normal heart and is very rare.

Presentation varies from asymptomatic to pulseless cardiac arrest. Common presenting symptoms are weakness, dizziness, palpitations, chest pain, shortness of breath, syncope, sudden collapse, and cardiac arrest.

Treatment varies depending on the presenting symptoms and the patient’s hemodynamic stability. For pulseless VT, cardiopulmonary resuscitation needs to be started immediately. Other treatments include electrical cardioversion and the use of antiarrhythmic drugs (e.g., amiodarone or lidocaine). Patients with a history of life-threatening or recurrent VT will often undergo radiofrequency catheter ablation and/or placement of a cardioverter defibrillator (implantable or external).

MEMBER BENEFIT: All ACEP members receive a 20 percent discount on VisualDX (acep.org/visualdx).

Reference
At USACS, our malpractice claims are less than half the national average.

More about USACS Risk Management:
• Dr. Bedolla supports his USACS colleagues with innovative, evidence-based clinical management tools.
• If you want a second opinion, a seasoned colleague is just a phone call away with our Failsafe Program.
• USACS even owns its own medical malpractice insurance, so WE DECIDE TOGETHER how to handle a case.

Learn more at: usacs.com