

EM Resident

Official Publication of the Emergency Medicine Residents' Association

April/May 2016

VOL 43 / ISSUE 2

Resident Duty Hours

pg 8

Fat Embolism Syndrome

pg 12

Emerging Drugs of Abuse

pg 16



Learn, teach, and grow **with EmCare!**

EmCare is committed to the success of our residents and their career as quality physicians.

Below are just a few of our academic affiliated hospitals.

Erlanger Baroness Hospital. Chattanooga, TN.

Level 1 Trauma Center and EM Residency Program, affiliated with the University of Tennessee. Contact David Guffey at 423-322-9574.

CHRISTUS Spohn Hospital - Memorial. Corpus Christi, TX.

EM Residency Program, affiliated with Texas A&M Health Science Center. Contact David Guffey at 423-322-9574.

Broward Health Medical Center. Ft. Lauderdale, FL.

Pediatric Residency Program at Broward Children's Hospital, affiliated with the University of Miami School of Medicine, Florida International University and Nova Southeastern University. Contact Sabrina Hadzimesic at 727-507-2509.

Aventura Hospital. Miami, FL.

Establishing a new EM Residency Training program affiliated with the Herbert Wertheim College of Medicine at Florida International University and Nova Southeastern University College of Osteopathic Medicine, estimated start date in July 2016. Contact Ody Pierre-Louis at 727-507-3621.

St. Lucie Medical Center. Port St. Lucie, FL.

Seeking core Faculty for PBCGME Osteopathic EM Residency Program. Contact Lisa M. Chamerski at 727-507-2508.

Contact the Alliance and South Divisions at:

727.437.3052 or 727.507.2526

SouthEastOpportunities@EmCare.com

EmCare[®]
Emergency Medicine

MAKING HEALTHCARE WORK BETTER™



Quality people. Quality care. Quality of **LIFE.**

A LETTER FROM THE EDITOR

I had no intention of watching the entire first season of *Fuller House* in one day. Instead, I had a mile-long to-do list that should have been completed before my next shift: a presentation to prepare, an article to write, a topic to review. Yet one episode begat another, and several hours later I was still watching DJ and Stephanie Tanner solve family crises, engage in awkward group hugs, and recite cheesy catch phrases. Pretty soon my planned “productive day off” turned into a nostalgic lazy day with the cultural icons of my childhood, and I was torn between feeling refreshed and incredibly guilt-ridden.

When I allowed myself to look beyond the imperfect acting, there was something rejuvenating about the predictable happy endings and the strong family values, both of which are too often lacking within the walls of our emergency departments. My decision to forgo my to-do list was therefore in the name of emotional well-being. Yes, that was it. But why did I feel the need for rationalization? Perhaps it was because of an inherent personality flaw, or perhaps it stemmed from a much broader sense of duty — to my future patients and to the specialty.

There is a sentiment among some resident educators and practicing attending physicians that current residents may be less competent and less invested in patient care than they have been in the past. These opinions have emerged from the controversial duty hour regulations put forth by the Accreditation Council for Graduate Medical Education (ACGME) in 2003 and again in 2011, which were largely born out of concern that resident fatigue had become a major patient safety issue. Since the new duty hours have been in effect, however, there has been greater concern that the increased number of medical handoffs has simultaneously increased the risk of medical errors and worsened an important aspect of resident education: continuity of care. To make matters worse, the current duty hour requirements have paradoxically failed to reduce resident fatigue and burnout despite the “extra” time to sleep, or in my case, watch a resurrected 1990s sitcom.

Has the current emphasis on duty hours really bred a “clock-punching” mentality meanwhile eroding our sense of service and professional citizenship? Or, does the fact that we have also been unsuccessful in reducing resident burnout highlight a much more complicated issue at hand? How are we to maximize our goals of patient safety, education, and resident wellness when the healthcare system within which we work often feels more like an overcrowded conveyor belt stacked with incredibly complicated patients who we must manage perfectly within a very limited amount of time?

In our featured article this issue, Dr. Alison Smith elegantly reviews the history of the ACGME’s accreditation requirements for resident duty hours, the controversial FIRST trial published in February of this year, and the most recent highlights from the ACGME Congress in March. Most importantly, Dr. Smith emphasizes an opportunity for resident input after the ACGME releases a draft of their recommendations this spring. **It will be a critical time for emergency medicine physicians to make specific recommendations to the ACGME based on our specialty’s unique practices and needs.**

As EMRA members, we must keep in mind that one of our organization’s most important priorities is to advocate for emergency medicine physicians in training (see Dr. Dhaliwal’s President’s Message for a more detailed description of EMRA’s strategic plan).

I encourage you to empower yourselves to play an active role in the decisions that will affect resident education for years to come. Within the convoluted and rapidly changing health care arena in which we practice, have we figured out the best way to truly care for patients, optimize resident educational opportunities, and find time for personal growth and development? Or do we still have a long way to go? (*Cue sentimental music, living room couch, and group hug here*): Decide for yourself and make your voice heard. ★



Abby Cosgrove, MD
Editor-in-Chief, EM Resident
Washington University
in St. Louis
St. Louis, MO

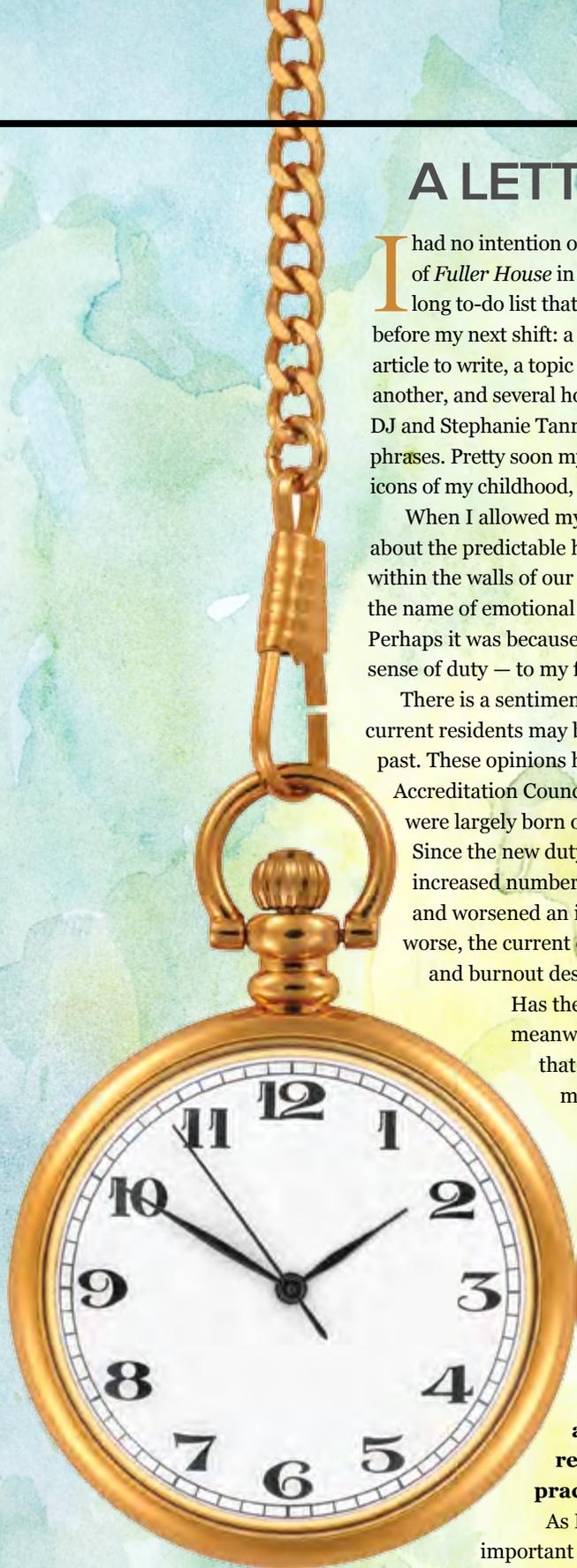


TABLE OF CONTENTS

EDITORIAL STAFF

EDITOR-IN-CHIEF

Abby Cosgrove, MD

Washington University in St. Louis

SECTION EDITORS

CRITICAL CARE

Maite Huis in 't Veld, MD

Michele Callahan, MD

University of Maryland

EMS

Jeremy Lacocque, DO

Midwestern University

HEALTH POLICY

Elizabeth Davlantes, MD

Emory University

PEDIATRICS

Garrett Pacheco, MD

Whitney Kiebel, MD

University of Arizona

ULTRASOUND

Andrew Oh, MD

New York University/Bellevue

MEDICAL STUDENT

Brian Fromm, MSIV

University of Miami

EDITORIAL COMMITTEE

Timothy Snow, MD

Vice Chair, Editorial Committee

Icahn SOM, Mt Sinai New York

Jennifer Beck-Esmay, MD

New York University/Bellevue

Karen Bowers, MD

Emory University

Marvinia Charles, MD

Rutgers NJMS

Lucia Derks, MD

University of Cincinnati

Elizabeth Gorbe, MD

University of Virginia

Zach Jarou, MD

Denver Health

Jeremy Lacocque, DO

Midwestern University

Ari Lapin, MD

St. Luke's-Roosevelt, New York

EM Resident (ISSN 2377-438X) is the bi-monthly magazine of the Emergency Medicine Residents' Association (EMRA). The opinions herein are those of the authors and not of EMRA or any institutions, organizations, or federal agencies. EMRA encourages readers to inform themselves fully about all issues presented. *EM Resident* reserves the right to edit all material and does not guarantee publication.

© Copyright 2016

Emergency Medicine Residents' Association

Categories

COVER STORY

8 CLINICAL PRACTICE

Resident Duty Hours

Residency work hour restrictions are again at the forefront of discussion among emergency medicine leaders.



4 PRESIDENT'S MESSAGE

EMRA's Strategic Plan



BUILDING THE NEW

5 RRC-EM UPDATE

Hot Topics

Resident Well-Being, the Future of GME, and a Shrinking Marketplace



6 HEALTH POLICY

EMTALA

Things You Never Knew (or Never Thought to Ask)

10 CARDIOLOGY



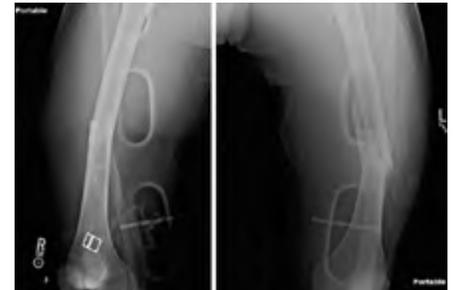
Breathing Near ImPossible

Clinical Utility of BNP in Acute Congestive Heart Failure

12 CRITICAL CARE

Fractures and Fat Globules

Fat Embolism Syndrome



14 TOXICOLOGY

Shaken, Not Stirred

Approach to Alcohol Withdrawal Syndrome



16 TOXICOLOGY

Salts and Spice and Nothing Nice



Emerging Drugs of Abuse

18 ACADEMIC AFFAIRS
Spotlight on Medical Education Fellowships
“So, like, you want to teach?”

20 ED MANAGEMENT
PAs in the ED
What Do Residents Need to Know?



22 ULTRASOUND
Turning Purple to Gold
Confirmation of Endotracheal Intubation with Bedside US

24 WILDERNESS MEDICINE
By Land or By Sea



5-Step Approach to Marine Envenomations

28 MEDICAL STUDENT COUNCIL
How Can You Ace Your Away Rotations?
Advice for Success

30 PEDIATRICS
Tips for Tots
Ocular Chemical Burns



31 EMPOWER
Rebecca B. Parker, MD, FACEP
Your Time, Your Legacy

32 STUDENT EDITORIAL
Leaving Our Agendas at the Door

35 SAEM16 PREVIEW
Learning, Leadership, & Lagniappe

EMRA has a full slate planned for the SAEM Annual Meeting in New Orleans



37 EM NEWS & NOTES
Current EM News of Note



New Publications, Great Opportunities and more

39 VISUAL DIAGNOSIS
Diagnose this Rash

A female presents to the ED with a rash on her hands and legs...



40 RESEARCH
Rapid Research Review
An Initiative of the EMRA Research Committee

41 BOARD REVIEW
Questions

BOARD OF DIRECTORS

Ramnik “Ricky” Dhaliwal, MD, JD
President

Hennepin County Medical Center
president@emra.org

Alicia Kurtz, MD
President-Elect

UCSF Fresno
presidentelect@emra.org

Matt Rudy, MD
Immediate Past President

University Hospital
immedpastpres@emra.org

Alison Smith, MD, MPH
ACEP Representative

University of Utah
aceprep@emra.org

Nick Governatori, MD
Academic Affairs Rep
Thomas Jefferson University
academicaffairsrep@emra.org

Abby Cosgrove, MD
Secretary/Editor-in-Chief

Washington University
emresidenteditor@emra.org

Nida Degeysys, MD
Speaker of the Council

University of California
speaker@emra.org

Tiffany Jackson, MD
Vice-Speaker of the Council
University of Alabama at Birmingham
vicespeaker@emra.org

Jasmeet Dhaliwal, MD, MPH
Legislative Advisor

Denver Health
legislativeadvisor@emra.org

Leonard Stallings, MD
RRC-EM Rep
East Carolina University Brody SOM
rccemrep@emra.org

Christian Dameff, MD, MS
Informatics Coordinator

Maricopa Medical Center
informaticscoord@emra.org

Zachary Jarou, MD
Membership Development Coordinator

Denver Health
membershipcoord@emra.org

Sean Ochsenbein, MSIV
Medical Student Council Chair
ETSU Quillen College of Medicine
msc@emra.org

Ashley Guthrie, DO
Member-at-Large
St. Joseph's Regional Medical Center
memberatlarge@emra.org



Ramnik "Ricky" Dhaliwal, MD, JD
EMRA President
Hennepin County Medical Center
Minneapolis, MN

EMRA's Strategic Plan for the Future

Every year, the EMRA Board of Directors meets to plan the direction of the organization. Every 3 years, this meeting entails creating a specific strategic plan to provide guidance for the following 3 years. At the end of January, your EMRA Board of Directors came together to do this exact thing. Prior to this meeting, we surveyed your program representatives and the committee and division chairs and vice-chairs to better understand the needs of our membership.

The results were not unexpected. We learned we must engage members more, communicate better, become more efficient with project development, and improve our use of technology.

With this feedback, along with our vision for the organization, we created 3 priority areas:

1. **Make Membership Matter**
2. **Ensure Organizational Sustainability**
3. **Advocate for Emergency Medicine Physicians in Training**

Over the next 2 months, we will be finalize objectives and tasks that correlate with these priority areas and help us bring this strategic plan to life. More specifically, I would like to address 3 particular areas of improvement that were discussed within the context of our strategic plan.

First, we are working to

strengthen our committee and division functionality by improving communication between the board and these groups. This includes an easier mechanism for brainstorming and project proposal submission. Furthermore, we will offer more leadership training for our committee and division leaders, which will provide them with the tools necessary to become even more successful at managing teams and cultivating innovation. Finally, we will make it much easier for members to join committees or divisions via the website.

Second, **we will continue advocating for EMRA members** through volunteer member work. EMRA has liaisons to most every major group involved in medical education to ensure that emergency medicine resident, fellow, and medical student voices are heard. These groups include the ACGME Resident Review Committee for Emergency Medicine (RRC), the American Board of Emergency Medicine (ABEM), Emergency Medicine Foundation (EMF), Emergency Medicine Action Fund (EMAF), CORD, ACOEP,

SAEM, and ACEP. We will continue to foster these relationships while constantly seeking new collaboration. Our goal is to be certain you are heard on issues most important to you as emergency medicine physicians in training.

Finally, **we will continue to create an EMRA community** who exchange ideas, produce content that furthers resident and student education and development, and interact on a personal level. We want to increase our engagement in social media. We also plan to revamp emra.org so it becomes more user-friendly.

We are excited about the future of EMRA. We are also lucky to have an amazing staff who work tirelessly to help us continue to improve and grow. We promise to regularly re-evaluate our efforts with the flexibility to meet your changing needs. As Socrates once said, **"The secret of change is to focus all of your energy, not on fighting the old, but on building the new."** Over the next 3 years, it is our goal to take these words to heart. ★

BUILDING THE NEW

Hot Topics

Resident Well-Being, the Future of GME, and a Shrinking Marketplace



Leonard Stallings, MD
EMRA RRC-EM Representative
East Carolina University
Greenville, NC

So much is happening in the world of graduate medical education (GME) right now, particularly in emergency medicine. While the AOA and ACGME merger¹ is one of the most prominent events, it is not the only hot topic at hand. As direct stakeholders in the training process, it is incumbent upon all trainees to know the major issues affecting the growth of our specialty.

September 2015 CRCR Meeting Updates

The Council of Review Committee Residents (CRCR) met in September. A significant emphasis was placed on the impending residency shortage and the ACGME image among residents.

The residency pipeline shortage is also a concern, as the increasing number of medical students may lead to increased competition for the same number of residency positions – a number that has been stagnant since the Balanced Budget Act of 1997 essentially froze funding for resident positions at 1996 levels.² With few exceptions, the teaching institutions must fund any further programs beyond this cap. It's a tall order in this day of nationwide budgetary concerns. The shortage of positions is expected to be exacerbated over the next 5 years as the students from the Association of American Medical Colleges (AAMC) campaign to increase medical school graduates by 30% begin to match.³ The CRCR is investigating recommendations to put forward to the ACGME.

The ACGME wants residents to have a better understanding of what the organization does. They want to be seen as a collaborative and protective entity, not a burdensome, bureaucratic, duty hours watchdog. Take the time to learn about the ACGME and you'll see it advocates tirelessly for residents to ensure a superb

clinical education and resident personal development in training, while striving to emphasize patient safety and quality. They work on behalf of residents and the patients we will serve as the clinicians of tomorrow. Stay tuned for a developing outreach campaign.

November 2015 Well-Being Symposium

In light of recent resident suicides, the ACGME created a task force of senior educators intent on finding strategies to promote and enhance resident well-being.

The task force hosted a symposium in November for program directors, Designated Institutional Officials (DIOs – oversee all GME programs at their respective institutions), and other leaders. A report of their findings is forthcoming. Please read it and encourage your respective programs to adopt some of the recommendations as we work to develop training that supports the mental health of future physicians. The link will be published in EM Resident once it is available.

ABEM Board Eligibility Summit

The American Board of Medical Specialties (ABMS) has tasked all 24 member boards with developing a board-specific policy on how long after completion of residency a graduate can remain "Board Eligible" without successfully passing board examinations and becoming "Board Certified."⁴

EMRA, along with representatives from all major leadership organizations in emergency medicine, participated in a summit last November to discuss this issue. EMRA's invitation is a testament that residents are valued and have a seat at the table in the house of medicine.

As of Jan. 1, 2015, graduates have 5 years from the time of residency

graduation to pass both the written qualifying exam and the oral exam. A second 5-year period beyond the initial period is currently possible if certain requirements are met.⁵ Failure to do so will result in a residency graduate to no longer be considered "Board Eligible."⁵

At this time, a specific policy does not exist for emergency medicine regarding what would be required to have board eligibility reinstated, and the summit was the precursor to drafting this policy. Many issues were debated, however, no consensus ultimately materialized. This multifaceted issue is being actively evaluated and will continue to develop in the coming months.

January 2016 RRC

The Residency Review Committee for Emergency Medicine (RRC-EM) met Jan. 14-16 in Atlanta to discuss applications for new programs in emergency medicine and its subspecialties. During each meeting, new programs are considered by the RRC-EM, which now reviews both allopathic and osteopathic programs. The committee approved the following programs for initial accreditation:

- **Kendall Regional Medical Center**, Miami, FL: Emergency Medicine residency
 - **University of Louisville**, Louisville, KY: Emergency Medical Services (EMS) Fellowship
 - **Indiana University School of Medicine**, Indianapolis, IN: Pediatric Emergency Medicine Fellowship
- Congratulations to these programs. As they develop, please be on the lookout for updated information on EMRA Match.

Stay tuned for further details – 2016 will certainly be a productive year for GME. ★



EMTALA

Things You Never Knew (or Never Thought to Ask)

Attend the ACEP Leadership & Advocacy Conference in Washington, D.C., May 15-18. Learn how to campaign for the betterment of our patients and our specialty.



Elizabeth Davlantes, MD
Chair, EMRA Health Policy Committee
Emory University
Atlanta, GA



Ross Christensen, MSIII
Des Moines University
Des Moines, IA

Happy birthday, EMTALA! The law that revolutionized emergency medicine turns 30 this year. We all know the basic tenets of this legislation: provide medical screening exams, stabilize emergency medical conditions, transfer to a higher level of care as appropriate — and do all this without regard to ability to pay. But what about the finer points of this complex law? Read on to learn about a few of EMTALA's lesser-known features and what effect it has had on medicine as we know it.

Medical Screening Exam

To start, EMTALA technically applies only to hospitals that accept Medicare or Medicaid and have emergency departments. This ends up being most hospitals, but not all of them. VA and military hospitals are exempt, and EMTALA does not apply to urgent care centers unless they are affiliated with a hospital.

Emergency departments are required to offer a medical screening exam to anyone *on or within 250 yards of any hospital property* who either asks for medical help, or who doesn't ask but looks like they need it. That woman who lost

consciousness in the hospital parking garage? The guy who got mugged in an alley a block away? The schizophrenic running around naked in the hospital lobby? All require a medical screening exam under EMTALA, even though none of them technically came to the ED asking for help.

Who can actually perform the medical screening exam? The law leaves this decision up to hospitals, but it is usually attending physicians or NPs/PAs under attending supervision. Nurses never qualify, and residents hardly do either. If the medical screening exam reveals that no emergency medical

condition is present, technically the obligation to treat without regard to ability to pay has ended, and you can either discharge the patient or ask for prepayment before further care. However, since lawyers can retroactively decide whether an emergency medical condition was present or sufficiently stabilized, it is best to just keep treating the patient.

Transfers

It is appropriate to transfer a patient when s/he requires resources that you cannot provide (for example, a subarachnoid hemorrhage at a hospital with no neurosurgery). The receiving hospital must accept the patient if it

has space and qualified personnel available. "Space" in this context means the hospital is operating at a typical capacity; for example, if your ED usually sees patients in the hallway, you cannot refuse a transfer due to having too many hallway patients already. "Qualified personnel" means that if your hospital has *ever* treated a similar patient, you are considered to have the expertise available. Even if the trauma team has already taken 4 gunshot wound victims to the operating room tonight, you must accept the 5th gunshot wound victim as a transfer. The caveat is that patients must be stable enough to transfer, meaning no active arterial bleeding or impending airway compromise, no active labor, etc.

Transfers must take place using appropriate personnel and equipment (ie, an ambulance instead of a private vehicle), and all relevant medical records must be transferred as well. The last time a patient arrived from an outside hospital without the CD of the computerized tomography scan they did over there? **That is an EMTALA violation punishable by a \$50,000 fine.**

Consultants

Bottom line: If a medical specialty is available in the hospital at any point during the week, it must be available to the ED 24/7. Consultants must see the patient in a timely fashion, but EMTALA lets us decide what "timely" means. Consultants must also provide outpatient follow-up care without regard to ability to pay, since this is considered part of the stabilization process for an emergency medical condition. Unfortunately, telemedicine is not yet acceptable to meet EMTALA requirements.

Effect on Health Care

EMTALA transformed the ED from a place strictly for emergencies into America's safety net. The requirement to treat everyone before getting payment (and often never getting payment) has not only contributed to ED overcrowding, but also imposed a huge burden of uncompensated care upon hospitals – to the tune of billions of dollars each year. **There is no provision in EMTALA to address this unintended consequence, in effect making it the largest unfunded mandate ever imposed on the health care sector.**

However, EMTALA also established health care as a right for all people, not a privilege afforded only to the rich. **It has additionally saved countless lives** by preventing the transfer or rejection of medically unstable patients.

The Future of EMTALA

While there are several ongoing efforts for reform, a clear unified solution is far from actualization. If you are interested in getting involved and learning more about this and other health policy issues, please consider joining EMRA's Health Policy Committee. Email healthpolicycte@emra.org for more information. Or, visit the Health Policy Committee website on emra.org.

We also encourage you to attend the ACEP Leadership & Advocacy Conference in Washington, D.C., May 15-18. Learn how to campaign for the betterment of our patients and our specialty. Many states sponsor residents to attend, and we would love to see you there! Register at acep.org/lac. ★

May 15-18, 2016

**Grand Hyatt
Washington, DC**

REGISTER
ACEP.ORG/LAC
TODAY!

Leadership & Advocacy Conference

Advocate for your specialty
Get up to speed on the issues and refine your communication and media skills.

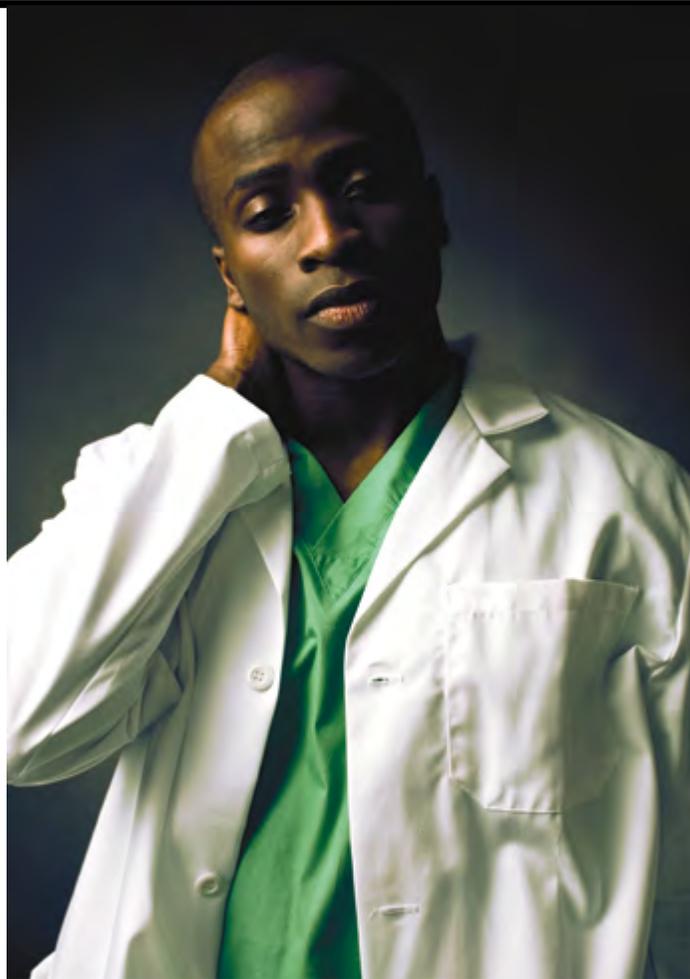
Engage during an election year
Join us for important visits with Members of Congress and their key staff on Capitol Hill

Connect with EM leaders
Enjoy small-group networking while gaining critical skills to advance your career and influence lawmakers

Register at acep.org/LAC

Advocate, Engage, and Be a Leader!

LAC_AD_EMR_0216_1215



Resident Duty Hours

On the Brink of Change Again?



Alison Smith, MD, MPH
EMRA ACEP Representative
University of Utah
Salt Lake City, UT



Hans House, MD, FACEP
Clinical Professor of Emergency Medicine
Vice Chair for Education
University of Iowa
Iowa City, IA

Stephen Wolf, MD, FACEP

Associate Professor and Vice Chair for
Academic Affairs
Department of Emergency Medicine
University of Virginia School of Medicine
Charlottesville, VA

Residency work hour restrictions are again at the forefront of discussion among emergency medicine leaders. It has been 5 years since the Accreditation Council for Graduate Medical Education (ACGME) has updated its accreditation requirements for resident duty hours (RDH). This year, the ACGME is undertaking a comprehensive review of their controversial 2011 duty hour requirement enactment. After gathering written testimony from upwards of 50 organizations and reviewing relevant literature, the group met in March for the ACGME Congress on the Resident Learning and Work Environment.

In-person testimony from a wide range of specialties showed common concerns, including the need for increased flexibility with the current duty hour standards and less stringent monitoring. The group looked to emergency medicine in particular for insight on how to manage 24/7 attending-level supervision while avoiding a clock-punching mentality.

After the March meeting, the ACGME task force aimed to develop recommendations for public comment. Based on that feedback, the new duty hours proposal then will be revised by the task force before being sent to the ACGME board for approval. Implementation of revised duty hour restrictions is expected during the coming year.

History of Duty Hours

In the past, restrictions on hours worked by residents virtually did not exist. Assuredly, every current resident regardless of specialty has heard stories from their attendings about the days when residents were not “coddled,” when residents would stay in the hospital for days at a time without seeing the light of day or their families or friends. The first regulations governing RDH were instituted in New York State in 1989 following the death of Libby Zion, who died at the age of 18 under the care of what her family and policymakers believed were overworked intern physicians. The

ACGME’s more restrictive 2011 RDH rules were developed in the shadow of the landmark Institute of Medicine (IOM) report entitled *Resident Duty Hours: Enhancing Sleep, Supervision, and Safety*, published in 2009.¹ The IOM report called for more stringent resident duty hours than had been in place since 2003. In 2011, the ACGME responded by imposing the current work hour restrictions, including a 16-hour duty limit for PGY-1 residents, a maximum 28-hour shift length for PGY-2 and PGY-3 residents, and an 80-hour average workweek. By focusing on fatigue as the cause of medical errors, these duty hour requirements led to programs scrambling for patient care coverage and instituting shift schedules, dramatically increasing the number of handoffs.² This also drastically increased administrative burden for programs and residents alike, and created scheduling gaps that prompted hospitals to hire additional advanced practice providers at significant cost. **Paradoxically, resident surveys show**

that duty hour restrictions have failed to reduce resident burnout and fatigue.³

Future of Duty Hours

This year, the RDH standard will be revised, for the first time, with patient outcome-driven evidence, including two very large randomized controlled trials. The FIRST trial (Flexibility in Duty Hour Requirement for Surgical Trainees) was published online by the *New England Journal of Medicine* on February 2, 2016.⁴ In this trial, every general surgery residency program in the United States (except those in New York state) was randomized to one of two groups: either following the 2011 RDH requirements or following a more flexible format in which the 80-hour average work week rule was enforced, but without restrictions on the length of any single shift. **After one academic year, there were no measurable differences in patient outcomes (30-day indicators of morbidity or mortality) between the two groups.** Residents in the flexible duty hours group felt less frustrated and had fewer concerns for patient safety, although they perceived that their RDH had a more negative impact on rest and time spent with family and friends. The other large trial is the iCOMPARE trial, focusing on internal medicine residencies. This trial is scheduled to conclude in June 2016.

The ACGME invited many medical specialty societies, including ACEP, to comment on the current RDH standards and to provide constructive input on the development of the newest version. In response, ACEP convened a working group of 12 experts in medical education, each with extensive experience in graduate medical education in emergency medicine. ACEP also collaborated with the Council of Emergency Medicine Residency Directors (CORD-EM) to conduct a robust survey of EM educators to gain a deeper understanding of the broader specialty perceptions of the impact of current ACGME duty hours on patient care, resident wellness, educational experience, and residency and hospital costs.

More than 150 CORD-affiliated EM program directors and educational

leaders responded to the survey. The general sentiment from those surveyed is that the current duty hour restrictions are good for resident work-life balance, but may be negatively impacting resident education. Respondents perceived that the current restrictions lead to residents being more concerned about completing their shifts on time than following through on patient care and being invested in patients. RDH standards lead to more patient hand-offs (particularly the 16-hour rule for interns), thus raising concerns for more medical errors and less continuity of patient care. More handoffs among EM residents and admitting residents may lead to longer time to staffing and decision-making, prolonged time to admission/discharge, and extended ED boarding. Respondents also identified a concern about consultant competency, as these residents now have less overall patient exposure by the time they graduate. All of this has the perceived potential to cause worse patient outcomes. On a departmental and programmatic level, the current RDH standards also have a significant impact. As mentioned above, they are perceived to increase faculty workload and create a significant administrative burden for residency programs, and result in an increased need for advanced practice providers to fill schedule gaps.

Taking these comments into consideration, the ACEP medical education expert working group was able to create a statement expressing the College's position on the current state of RDH and its recommendations. **In brief, ACEP believes that the RDH should**

How do you combat shift fatigue? EMRA Education Committee Chair Pat Olivieri, MD, tackles the topic in an exclusive online commentary at emresident.org.

promote a supportive educational environment, maintain resident well-being, and protect patients. The RDH should strike a careful balance between the wellness of resident physicians and an adequate duration of time spent with patients to generate sufficient experience for mastery of clinical expertise. ACEP was very concerned about the increased frequency of patient handoffs generated by the 2011 RDH requirements. Furthermore, ACEP proposes the need for individual specialties to develop their own specific requirements that fit their practice best. Emergency medicine has always upheld a more stringent duration of RDH in a week (60 hrs vs. 80 hrs) than other specialties. ACEP's formal recommendations to the ACGME are as follows:

- ACEP supports efforts to study the effects of relaxing duty hours monitoring and reporting.
 - ACEP recommends that all trainees not on Emergency Medicine rotations should be limited to 24-hour continuous scheduled duty hours, regardless of their level of training.
 - ACEP supports a minimum 10-hour rest interval between duty hour periods for shifts twelve hours or less, and a 14-hour rest period after shifts exceeding 24 hours.
 - Rotating residents should be subject to the duty hour standards of the host residency program (i.e. EM residents on a surgery rotation would follow the standards of the Surgery Residency Review Committee and vice-versa).
- (Note: Visit emresident.org for more details about ACEP's position paper and testimony on RDH restrictions.)

Stay tuned to emra.org to get a link to the new accreditation program requirements, which are expected to be posted for a 45-day public comment period in the spring. This will provide an important opportunity for residents to offer direct feedback on their experience with the RDH.

The future of medical training will depend on adequate input from educators, faculty, residents, and, most importantly, patients. With sufficient foresight, the 2016 version of the ACGME RDH requirements will be the most scientifically-validated version to date. ★



Joseph Bove, DO
Resident, Emergency Medicine
St. Joseph's Regional Medical Center
Paterson, NJ



Nilesh Patel, DO
Residency Program Director
St. Joseph's Regional Medical Center
Paterson, NJ

Breathing Near ImPossible

Clinical Utility of BNP in Acute Congestive Heart Failure

You are working in the acute side of your emergency department when EMS brings in a patient in respiratory distress on CPAP. EMS reports a 58-year-old female with a history of chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), hypertension, and diabetes who is complaining of acute onset shortness of breath that began the night prior to presentation. Vitals are: temp 98.9, HR 100, BP 150/90, RR 35, and O₂ saturation 92% on CPAP. Exam shows an obese female who is drowsy and tachypneic. Pulmonary exam reveals diffuse expiratory wheezes as well as bibasilar rales. She has mild lower extremity edema. You wonder if you should begin treatment for CHF, COPD, or both, and you consider sending a B-type natriuretic peptide (BNP) to help aid in your decision-making.

Introduction

Because BNP is released from the ventricular myocardium in response to stress on the myocardial wall, it is commonly elevated in conditions such as CHF, pulmonary hypertension, pulmonary embolism, cor pulmonale, acute coronary syndromes, left ventricular hypertrophy, renal failure, and sepsis.¹ A variety of clinical immunoassays are available for the detection of BNP, including a rapid point-of-care assay. Most often, a value less than 100 ng/L

PROPOSED BNP ALGORITHM*

ACUTELY SHORT OF BREATH PATIENT

CHF very unlikely
Do not order BNP

CHF possible (Consider alternative diagnostic testing such as lung ultrasound)
BNP < 80 (<50-80 Negative likelihood ratio of 0.05) – CHF very unlikely
BNP > 400 (>400-1000 Positive likelihood ratio of 5) – CHF likely
BNP > 1000 (>1000 Positive likelihood ratio 16) – CHF very likely**

CHF very likely
Do not order BNP

*Based on data from: Schwam E. B-type natriuretic peptide for diagnosis of heart failure in emergency department patients: a critical appraisal. *Acad Emerg Med* 2004;11:(6)686-91.
**Beware of false positives above this threshold, such as pulmonary embolism and sepsis.

is used as a cutoff in ruling out heart failure. In a recent meta-analysis exploring the diagnostic accuracy of BNP in patients presenting in acute heart failure, BNP values ≤ 100 ng/L had a pooled sensitivity and specificity of 95% and 63%, respectively.² As the threshold increased, sensitivity decreased and specificity remained quite variable. **Thus, while BNP has an excellent ability to exclude CHF, its diagnostic accuracy is limited.**

Clinician Gestalt vs. BNP Assay

Because there is no gold standard to which BNP can be compared (including echocardiography), diagnostic accuracy is difficult to assess. Many studies have used retrospective chart review by cardiologists, among whom there have

been demonstrated disagreements.²⁻⁴ Furthermore, most of the literature focuses on the predictive value of BNP when there is already a suspicion for CHF. **However, emergency physicians already outperform the BNP assay when using clinical gestalt alone.** In one study, when emergency physicians were 95-100% certain of a diagnosis of CHF, they would accurately diagnose the patient 95% of the time. When the probability of CHF was thought to be less than 5%, emergency physician accuracy in diagnosing CHF was 92%. This was in comparison to BNP at a cutoff of 100 ng/L, which had a diagnostic accuracy of only 84%.⁵

When the clinician places the patient in an intermediate group of diagnostic uncertainty, a very low or very high BNP

References available online.

can be clinically useful. A BNP under the lower limit (usually 100 ng/L, but sometimes 50-80 ng/L) can virtually exclude the diagnosis of CHF, while a value greater than the upper cutoff (usually \geq 400 or 500 ng/L) can assist in ruling in a CHF diagnosis. However, just under half (40%) of BNP values will fall in a non-diagnostic range between this upper and lower limits, which provides the physician with little direction.⁵

False Positives and Negatives

Typically BNP values greater than 400-1000 ng/L have been regarded as confirmatory. However, clinicians should be aware that greatly elevated BNP levels (such as those >1000 ng/L) can also be seen in sepsis and pulmonary embolism, thus creating false positives.^{6,7} Female sex and greater age have also been associated with higher BNP values.⁸ Conversely, a 2005 study examining the relationship between BMI and BNP showed that 20% of acute CHF patients in both overweight (BMI: 25 to 29.9 kg/m²) and obese (BMI: ≥ 30 kg/m) groups had BNP values < 100

pg/ml. BNP proved to be inversely related to BMI with a 3% decrease for every 1 unit increase in BMI.⁹

Does BNP Change Patient Outcomes?

A meta-analysis published in 2011 pooled 4 randomized controlled trials comprising 2,041 patients to study the usefulness of BNP in managing the acutely short of breath patient. **There was no significant difference in mortality, re-hospitalization rates, length of stay, and admission rates in those who had a BNP sent compared to those who did not.**¹⁰

Alternatives to BNP

Lung ultrasound is a notable adjunct to history and physical examination when assessing the acutely short of breath patient. Ultrasound is a noninvasive test that can generally be performed at the bedside in less than 5 minutes and provide important information early in the emergency department course.¹¹ With a proven sensitivity around 94% and specificity around 90%, this rapid bedside

test can be a helpful adjunct in diagnosing congestive heart failure.¹²

Case Resolution

The patient was put on bilevel noninvasive ventilation and a lung ultrasound was performed. There were no "B" lines in the anterior and lateral chest walls bilaterally. Given the history and physical and no evidence of pulmonary edema on ultrasound, a diagnosis of COPD exacerbation was made. She was treated with bronchodilators, steroids, and magnesium and continued to improve. While BNP on admission was 1679, an echocardiogram showed a normal ejection fraction with mild diastolic dysfunction.

Bottom Line

BNP values offer little to emergency physicians. There is virtually no benefit in patients in whom a diagnosis of CHF is certain or in whom CHF is improbable. In patients with an intermediate probability of having an acute CHF exacerbation, BNP can aid in diagnosis; however, with the availability of adjuncts such as ultrasound, the utility of BNP is questionable.¹² ★




**GREAT PRICING FOR ALL
ED RESIDENCIES!**

MINIMIZE RISK AND MAXIMIZE OUTCOMES

"IT IS CRITICAL TO WOUND MANAGEMENT" that "THE WOUND IS CAREFULLY EXPLORED IN A BLOODLESS FIELD OBTAINED THROUGH CAREFUL TOURNIQUET APPLICATION".
(ACEP's Emergency and Primary Care of the Hand)




ONE SIZE FITS ALL!




- 19-24% ED LITIGATION IS WOUND RELATED (ACEP's *FORSIGHT*)
- DIGIT INJURIES HAVE THE HIGHEST RATE OF COMPLICATIONS
- MOST COMPLICATIONS ARE DUE TO MISSED INJURIES & FOREIGN BODIES
- 38% FOREIGN BODIES ARE MISSED ON FIRST VISIT (EM Clinics NA, 2007)
- EXPERTS NOTE: TOURNIQUET USE IS "CRITICAL" TO MINIMIZE THESE RISKS; BUT... "PENROSE DRAINS, SURGICAL GLOVES AND COMMERCIAL BANDS HAVE SIGNIFICANT RISKS AND SHOULD NOT BE USED"
- T-RING: EXCELLENT WOUND VISUALIZATION, ONE-SIZE-FITS-ALL; FASTER, EASIER AND SAFER THAN ALL OTHER METHODS

"THE EASIEST AND MOST COST EFFECTIVE WAY TO REDUCE RISK IN THE ED"



CONTACT: PRECISION MEDICAL DEVICES (302) 778-2335
FOR MORE PRODUCT INFORMATION
WWW.THETRING.COM



Molly Tolins, MD
Resident, Emergency Medicine
University of Washington
Seattle, WA



Nick Johnson, MD
Fellow, Division of Pulmonary
and Critical Care Medicine
University of Washington
Seattle, WA

Fractures and Fat Globules

Fat Embolism Syndrome

EMS brings in a 20-year-old male who jumped from an overpass in a suicide attempt. He arrives with normal hemodynamics and is found to have bilateral mid-shaft femur and left tibial shaft fractures (*Figure 1*). Further workup reveals no other injuries. He is placed in traction, splinted, and admitted to orthopedics. While awaiting an inpatient bed in the emergency department, he has sudden onset tachycardia to the 140s, hypoxemia to 80s on room air, and a decreased level of consciousness. Intubation improves his hypoxia, but he remains obtunded with extensor posturing and a fixed rightward gaze. Chest computerized tomography (CT) shows bilateral diffuse interlobular septal thickening and ground-glass opacities. Head CT reveals no pathology. Magnetic resonance imaging (MRI) of his brain reveals a “star-field” pattern of innumerable, diffuse, punctate lesions

concerning for cerebral fat emboli syndrome (*Figure 2*).

Background

Fat embolism refers to the presence of fat globules in the pulmonary microcirculation, and it usually occurs after a long bone fracture or other major trauma. Although fat emboli can be detected in the lungs of as many as 90% of individuals with long-bone fractures, they are rarely clinically significant. Fat embolism syndrome (FES), on the other hand, is a systemic inflammatory cascade and serious consequence of fat emboli described as a certain pattern of clinical signs and symptoms. FES can occur from 30 minutes to 48 hours after injury, and is seen in up to 3% of patients with a single long bone fracture with reports as high as 33% in patients with bilateral femur fractures.² The risk is thought to be reduced by early immobilization and early operative correction.

Unfortunately, there is no gold standard test for the diagnosis of FES. However, several clinical criteria have been proposed. The most commonly used are Gurd’s Criteria (*Table 1*).³ These clinical criteria are based on the presence of respiratory symptoms, neurologic abnormalities, and a petechial rash. Radiologic findings are helpful but not diagnostic for FES. Chest imaging may show nonspecific bilateral patchy opacities. Head CT may be normal, and MRI brain may show a “star-field” pattern of diffuse, punctate, hyperintense lesions on diffusion-weighted imaging. Fundoscopy may demonstrate cotton wool spots, hemorrhages, and retinal edema.³

Pathophysiology

The pathophysiology of FES is poorly understood. Intravascular embolization of fat globules into damaged venous sinuses likely triggers the syndrome. These emboli then gain access to the arterial system, as their small size allows a percentage to pass through the pulmonary capillaries. The fat emboli then cause both pulmonary and cerebral vasculature occlusion and local inflammation. Another theory suggests that fat emboli precipitate intravascular lipolysis, releasing toxic free fatty acids systemically. This generates a local and systemic inflammatory reaction leading to cerebral vascular injury, with neurologic effects related to infiltration of inflammatory cells instead of mechanical occlusion.^{3,4}

Management

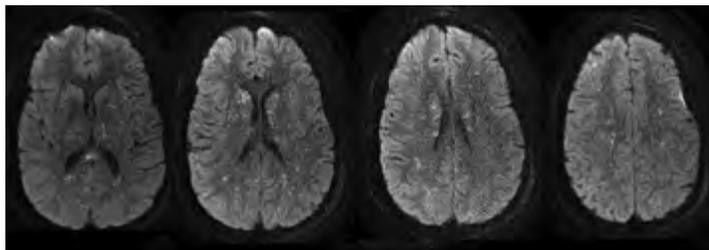
The management of FES is supportive. Other treatable causes of neurological decline such as intracranial hemorrhage, diffuse edema, contusions, or herniation should be ruled out. Once diagnosed, the cornerstone of treatment is treating



FIGURE 1.
Bilateral midshaft displaced femur fractures (left) and left comminuted tibial fracture (right).

FIGURE 2.

Brain MRI with Axial DWI cuts demonstrating scattered diffusion-restricted lesions predominantly involving the supratentorial cerebrum.



hypovolemia and hypoxia, and operative stabilization of fractures. **Patients usually require ICU management for close neurologic monitoring and supplemental oxygen or ventilatory support.** Cerebral edema often ensues, and case reports have described midline shift requiring neurosurgical decompression; thus, any change in mental status, hemodynamic instability, or sign of impending herniation should prompt a stat head CT and neurosurgical consultation with early consideration for intracranial pressure monitoring.⁴ Some small randomized controlled trials have suggested the use of steroids to both prevent and treat FES, but there have been no large conclusive studies.⁴

Prognosis

An overall mortality of 5-15% has been described.⁵ In a review of literature from 1980 to 2012, fifty four cases of FES with cerebral involvement were identified.⁶ Of these patients, good neurologic outcome (intact or mildly disabled) was seen in 58% of patients with coma and/or abnormal posturing

TABLE 1. Gurd's Diagnostic Criteria for Fat Embolism Syndrome*

MAJOR CRITERIA	MINOR CRITERIA
<ul style="list-style-type: none"> ● Petechial Rash ● Respiratory symptoms with radiographic changes** ● CNS signs unrelated to trauma or other condition 	<ul style="list-style-type: none"> ● Tachycardia ● Pyrexia ● Retinal Changes (fat, petechiae) ● Renal Abnormalities (oliguria, anuria, lipiduria) ● Acute thrombocytopenia ● Acute anemia ● High Erythrocyte Sedimentation Rate ● Fat globules in sputum

*Diagnosis requires one major and 4 minor criteria.

**Radiographic changes classically include focal areas of ground glass opacification with interlobular septal thickening, but can occasionally include nodules and vascular filling defects.

on presentation, and in 91% of patients with mild mental status changes, focal deficits, or seizure on presentation. While neurologic recovery can be delayed by weeks to months, because the pathophysiology is thought to include inflammation rather than neuronal death, a higher chance of recovery has been seen than in comparable ischemic lesions.

Case Conclusion

The patient was admitted to the ICU. Echocardiogram demonstrated a patent foramen ovale, likely contributing to

his significant burden of disease. Over time his neurologic exam improved, with resolution of posturing and increasing spontaneous movement. He was eventually extubated. Approximately one month after the onset of his FES, he was discharged to a rehabilitation facility with residual mild strength deficits in his left upper and lower extremities. He was alert and oriented with daily improvement of his cognitive communication impairments. ★

References available online.

The image is a promotional graphic for EMS Week 2016. At the top, the words "EMS STRONG" are written in large, bold, white letters. In the center, there is a white shield with a blue Star of Life (a six-pointed star with a caduceus in the center). Below the shield, the text "EMS WEEK 2016 • MAY 15-21" is written in blue. At the bottom, the phrase "CALLED TO CARE" is written in large, bold, white letters. On the left side, there is a photograph of two EMTs in high-visibility yellow and orange gear standing next to an ambulance. On the right side, there are logos for the American College of Emergency Physicians (ACEP) and the National Association of EMS Educators (NAEMT). At the bottom right, there is a logo for "CELEBRATING 50 YEARS OF MODERN EMS" with the website "ems.gov".



Allison Sauler, MD
Resident
Emergency Medicine
St. Luke's-Roosevelt
New York, NY



Jason Chu, MD
Attending Physician
Emergency Medicine
Clinical Toxicologist
St. Luke's-Roosevelt
New York, NY

Emily Eaglstein, MD
Resident, Emergency Medicine
St. Luke's-Roosevelt
New York, NY

SHAKEN NOT STIRRED

Approach to Alcohol Withdrawal Syndrome

A 43-year-old homeless Hispanic male presents to the emergency department (ED) complaining of generalized pain and weakness. On exam he is anxious, diaphoretic, and tremulous. He is mildly tachycardic, but vital signs are otherwise within normal limits. Although he denies alcohol abuse you are suspicious enough to order an alcohol level with his initial labs. His serum alcohol level turns out to be 104. Ultimately, he is diagnosed with mild alcohol withdrawal, given 50 mg chlordiazepoxide, and discharged home with a list of detoxification clinics.

About 18 hours after discharge, he returns to the ED complaining of tremors. He is tachycardic, hypertensive, diaphoretic, and mildly hyperthermic. He is given a trial of 10 mg intravenous (IV) diazepam with only mild improvement of his symptoms. His alcohol level is now zero.

Background

Ethanol produces its effect by binding to gamma-aminobutyric acid (GABA_A) receptors, thus enhancing the effect of GABA, the major inhibitory neurotransmitter in the brain. In addition, ethanol reduces glutamate's excitatory effect on the N-methyl-D-aspartate (NMDA) receptor, resulting in a simultaneous enhancement of inhibitory neurotransmitters and a suppression of excitatory neurotransmitters.¹ Long-term use of ethanol subsequently results in downregulation of GABA_A receptors and upregulation of NMDA receptors. Cessation of alcohol or a reduction from chronically elevated levels therefore results in a decrease in inhibitory tone and unregulated

excess excitation, manifesting initially as irritability, anxiety, tremors, headache, diaphoresis, and insomnia.

Diagnosis

Alcohol withdrawal syndrome (AWS) is a clinical diagnosis, and symptoms can range from mild tremulousness and anxiety to withdrawal seizures and delirium tremens (DTs). Mild symptoms can develop within 6-12 hours after the last drink.¹ Alcoholic hallucinations may occur within 12-48 hours and include visual or tactile hallucinations with normal mentation. It is critical to differentiate between alcoholic hallucinations and DTs because the latter carries such a high mortality risk. Alcohol withdrawal seizures typically occur within 12-48 hours of last alcohol intake. Patients usually have one brief generalized tonic-clonic seizure or a brief series of seizures with a postictal period, followed by a return to their baseline mental status. Status epilepticus or prolonged mental status alteration is not typical of withdrawal seizures and should prompt further investigation. DTs occur 48-96 hours after last alcohol intake and consist of global clouding of the sensorium, autonomic instability, and psychomotor agitation. These patients require close monitoring and a rapid escalation of workup and treatment.

Important historical data includes duration of alcohol use, usual quantity of intake, time since last drink, previous alcohol withdrawal, presence of concurrent medical or psychiatric conditions, and ingestion of other agents. **The clinician should always consider why the patient has stopped drinking in the first**

References available online.

place. Was there a traumatic event? Do they have an infection? Or was it purely financial? This may help focus the workup.

Treatment

The patient is placed on the Clinical Institute of Withdrawal Assessment for Alcohol (CIWA) protocol and over the next few hours becomes increasingly agitated, confused, and tremulous. He requires physical restraints due to his visual hallucinations and psychomotor agitation. After an initial bolus of 10 mg diazepam IV, his dose is then doubled every 5 minutes for a total of 220 mg in less than 1 hour. He is started on a lorazepam infusion while awaiting additional diazepam and phenobarbital from the pharmacy.

Benzodiazepines are the initial treatment of choice for AWS. Any benzodiazepine may be used, but one should be familiar with the various pharmacokinetics. Diazepam has a faster onset than lorazepam (1-3 minutes vs. 5-10 minutes) and has active metabolites that will remain effective for up to 24 hours.² In severe withdrawal, intravenous therapy is most appropriate because of guaranteed absorption and rapidity of onset. **Benzodiazepine resistance is possible in severe withdrawal, and is defined as the need for greater than 40 mg IV diazepam in 1 hour.** These patients have higher rates of intubation, ICU admission, and overall morbidity and mortality.³

It is of paramount importance to develop an algorithm, whether personal or departmental, for dose escalation of benzodiazepines. **Dose escalation should be continued until cessation of withdrawal symptoms.** For cases that do not respond to initial management,

the algorithm should include the use of adjuvant medications, such as a second GABAergic drug like phenobarbital or propofol.⁴ Phenobarbital has a longer time of onset and may lead to stacking or iatrogenic overdose, whereas propofol has a near-immediate onset but can be difficult to titrate. When considering these adjuncts, intubation must be kept in mind. Ketamine, an NMDA receptor antagonist, is another reasonable option and has been shown to decrease benzodiazepine requirements.⁵ Carbamazepine has been used in Europe for mild withdrawal where an IV formulation is available. However, there is little data on the use of anticonvulsants in severe AWS.⁶ Finally, dexmedetomidine is a central alpha-adrenergic agonist that is used as a sedating agent without effect on respiratory drive. It has been shown to decrease heart rate and blood pressure in AWS but it is expensive and does not decrease overall treatment duration.⁷

Conclusion

The patient is admitted to the ICU for delirium tremens, where he is transitioned from a continuous lorazepam infusion to intermittent IV boluses as needed, in combination with oral chlordiazepoxide. He is safely discharged to an inpatient detoxification unit 14 days later.

The emergency department physician must be equipped to rapidly recognize and properly escalate treatment in moderate to severe AWS. Every physician should have his/her own escalation protocol or, ideally, synthesize a department-wide or hospital-wide algorithm for this potentially fatal syndrome. ★

After an initial bolus of 10 mg diazepam IV, his dose is then doubled every 5 minutes for a total of 220 mg in less than 1 hour.

FIGURE. Benzodiazepine Equivalency Table

	Approximately Equivalent Oral Doses, mg	Time to Peak Level, hours	Half-life, hours
Alprazolam (Xanax)	0.5	1-2	12
Bromazepam (Lexotan)	3	1-4	20
Chlordiazepoxide (Librium)	25	1-4	100
Clonazepam (Klonopin)	0.25	1-4	34
Clorazepate (Tranxene)	10	0.5-2	100
Diazepam (Valium)	5	1-2	100
Flurazepam (Dalmane)	15	0.5-1	100
Lorazepam (Ativan)	1	1-4	15
Nitrazepam (Mogadon)	2.5	0.5-2	30
Oxazepam (Serax)	15	1-4	8
Quazepam (Doral)	10	1.5	25-41
Temazepam (Restoril)	10	2-3	11
Triazolam (Halcion)	0.25	1-2	2

Source: Medscape



Natalia Rumas, MD
Vice-Chair
EMRA Toxicology Division
Boston Medical Center
Boston, MA

Emerging Drugs of Abuse

Salts and Spice

AND NOTHING NICE

A number of new synthetic drugs have penetrated the United States markets and our emergency departments over the past several years. Poison control centers have experienced an increased number of calls for synthetic and designer drugs. It is crucial that we understand the composition, mechanism, and side effects of these emerging street drugs that are alarming public health experts and emergency physicians alike.

Synthetic Cathinones

Cathinones have been naturally derived from the khat plant for recreational use for centuries in East Africa and the Arabian Peninsula. Cathinones have since been manipulated on the drug market with various biochemical substitutions, creating a new class of drugs called beta ketophenethylamines, or synthetic cathinones.¹ These synthetic drugs are similar to amphetamines and inhibit the reuptake of dopamine, serotonin, and norepinephrine, leading to euphoria and a sympathomimetic toxidrome (hypertension, tachycardia, hyperthermia, dehydration, and psychomotor agitation).²



Mephedrone is one of the most common forms of synthetic cathinones — and we know it better as bath salts. Although the DEA classified mephedrone as a Schedule I drug in September 2011, the product continues to be sold online, in smoke shops, and in gas stations. **Manufacturers evade drug abuse legislation by labeling the small packets as “not for human consumption” or as “plant food.”**³ These drugs are often nasally insufflated or ingested, although cases of intravenous or intramuscular injection are not uncommon.² Patients with exposure do not generally screen positive for amphetamines on routine urine drug tests despite the structural similarity.⁴ Also, very few, if any, laboratories run confirmatory tests that broadly cover the new and ever-changing synthetic amphetamines. Treatment of synthetic cathinone exposure is primarily supportive care and benzodiazepines use for seizures and agitation.

Synthetic Cannabinoids

Yet another designer drug that has gained popularity and managed to circumvent the legal system is synthetic cannabinoids. Known as “K2” and “Spice,” these drugs are often sold at gas stations, convenience shops, and online as herbal incense. **The products are marked as “not for human consumption,” thereby evading drug laws.**¹ Synthetic cannabinoids are sold as an herbal mixture soaked in synthetic chemicals, varying in composition and potency. Consequently, synthetic cannabinoids can have more powerful and dangerous side effects than marijuana, including vomiting, hypertension, seizures, hallucinations, paranoia, agitation, and violent behavior.³ The majority of intoxications will be mild and only require symptomatic treatment or occasionally benzodiazepines for agitation. However, there have been case reports of ACS and stroke in patients acutely intoxicated with synthetic cannabinoids. Therefore, neurological deficits and chest pain should not be dismissed without further investigation.



Krokodil

Krokodil is a combination of a desomorphine derivative (an opiate analogue) mixed with variations of gasoline, ethanol, hydrochloric acid, and even paint thinner.⁵ It was initially popularized in Russia in 2010 after a government crackdown on heroin trafficking. The desomorphine used in krokodil was thought to be cheaply synthesized from codeine and iodine products in over-the-counter medications, as well as from red phosphorous in match strikers.⁷

Usually injected intravenously or via skin popping, krokodil leads to tissue or vascular necrosis with superimposed superficial and deep space infections including osteomyelitis, phlebitis, and necrotizing fasciitis. Patients may develop green or gray skin discolorations with abscesses, resembling the skin of a crocodile.⁶ Often these superinfections will lead to skin ischemia and the need for amputation. As an opiate, desomorphine has sedative and analgesic properties about 8-15 times the potency of morphine; however, surprisingly, respiratory depression is unlikely.⁷

It is unclear if krokodil has ever made its way to the United States. Arizona Poison Control Center reported its first possible cases in September 2014, while New Hampshire reported a first potential case in 2015. **These cases have yet to be substantiated.**⁸ ★



American College of
Emergency Physicians
ADVANCING EMERGENCY CARE

Brandon Libby, MD | Boston, MA
Transitioned in 2014

Congratulations on Completing Residency

Now, it's time to renew your ACEP membership.
Staying with ACEP allows you to:

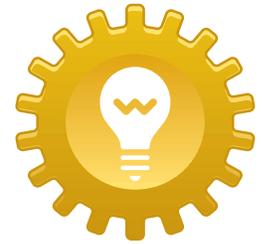
- Remain Current in Your Practice
- Increase Your Earnings Potential
- Connect with Colleagues
- Improve Your Clinical Skills
- Support Advocacy Efforts

Renew Today at acep.org/whyjoin

 American College of
Emergency Physicians®
ADVANCING EMERGENCY CARE 



“So, like, you want to teach?”



Spotlight on Medical Education Fellowships

When asked what I’m doing with the next year of my life, I often get a puzzled look. “Wait, what is medical education? Like, you want to teach?” they ask. My friends and family just cannot seem to understand why I would want to spend another year of my life learning how to become a better educator.

As we all know, simply having MD after your name does not automatically make you an effective teacher. It may, however, get you your own television show, a cosmetics line, or a 4-minute cameo on the daily news. But being an effective physician takes so much more than that: You need experience, passion, and knowledge in just the right parts.

The further we get in our careers, the

less our learning is pedagogical (traditional teacher/learner model) and the more it becomes andragogical (self-directed or “adult” learning). The word andragogy was first used by Alexander Kapp to describe the educational theory of Plato.⁴ American educator Malcolm Knowles then applied the term to adult education, stating that **the learning process should incorporate the entire emotional, psychological, and intellectual being.**²

In this model, the teacher is more a facilitator, encouraging students to become self-directed learners instead of passing the information directly along. These concepts are the basis of the work of Canadian physician Sir William Osler, one of the four founding professors of Johns



Nicholas Governatori, MD
EMRA Academic Affairs Rep
Fellow, Medical Education
Thomas Jefferson University
Philadelphia, PA

Hopkins Hospital.¹ Little did he know his work would pave the way for an entirely new generation of medical education.

The field of medical education is still relatively new within emergency medicine. Over the past few years, the quality of research has been criticized for imprecise methods and lack of standardization. There are currently a wide variety of departmental and national faculty development programs that teach emergency physicians how to be better educators,³ and thus it seems only natural that medical education fellowship programs have evolved. Let’s take a look.

The Future

A 2012 study in *Academic Emergency Medicine* outlined the career paths of 14 medical education fellows over a 5-year period. These fellows took positions in residency leadership, as medical student clerkship directors, medical school administrators, and simulation directors.⁵ The fellows surveyed had a clear advantage during the job search, and most transitioned into roles developed during their fellowship program.

Without a doubt, a medical education fellowship offers the tools you need for a prosperous academic career. It is a rapidly growing field, with new fellowships opening monthly. But don’t forget, medical education is merely one fish in a large sea of opportunities for educational leaders within our specialty. So, like, you want to teach? The world is your oyster classroom. ★



Med-Ed Fellow: A Day in the Life

7:00 am – Wake up, shower, EMRA mug full of coffee, last-minute review of slides
7:30 am – Head over to conference to set up
8:00 am – Inservice review lecture
9:00 am – Meet with guest speaker, tweet about guest speaker
10:30 am – Interview medical students for potential residency slots

12:00-1:00 pm – Lunch on the fly!
1:00 pm – Run simulations with the residents
4:00 pm – Answer emails
6:00 pm – Work on manuscript
8:00 pm – Dinner with friends
9:30 pm – Catch up with grandma
10:00 pm – Sleep for attending shift in the ED



MEDICAL EDUCATION FELLOWSHIPS The Breakdown

Length: 1-2 years

4 main components: Didactic (master's degree or certificate program), clinical (instructor in ED), administrative (mentor, group leader) and research (presentation at meetings, publications)

Master's Level Training: Optional, offered by most programs. Examples include curriculum design, adult learning theory, education, and research methods.

Where are they?

There are currently 36 programs, and that number is constantly growing.⁶

Baylor College of Medicine: Houston, TX

Beth Israel Deaconess Medical Center:
Boston, MA

Brown University Alpert Medical School:
Providence, RI

Carolinas Medical Center: Charlotte, NC

Christiana Care Health Services:
Newark, DE

Denver Health: Denver, CO

Emory University: Atlanta, GA

George Washington University:
Washington, D.C.

Harbor-UCLA Medical Center:
Torrance, CA

Hennepin County Medical Center:
Minneapolis, MN

Johns Hopkins School of Medicine:
Baltimore, MD

LAC+USC Medical Center: Los Angeles, CA

LSU Health Sciences Center:
New Orleans, LA

Maimonides Medical Center: Brooklyn, NY

Mayo Clinic: Rochester, MN

Northwestern University: Chicago, IL

Ohio State University College of Medicine:
Columbus, OH

Oregon Health & Science University:
Portland, OR

St. Louis University: St. Louis, MO

St. Vincent Mercy: Toledo, OH

Stanford University School of Medicine:
Stanford, CA

Summa Akron: Akron, OH

Thomas Jefferson University:
Philadelphia, PA

UC Davis School of Medicine:
Sacramento, CA

UC Irvine School of Medicine: Irvine, CA

UCSF School of Medicine:
San Francisco, CA

UCSF – Fresno: Fresno, CA

University of Chicago Pritzker School of
Medicine: Chicago, IL

University of Iowa Carver College of
Medicine: Iowa City, IA

University of Maryland: Baltimore, MD

University of New Mexico:
Albuquerque, NM

UNC School of Medicine: Chapel Hill, NC

University of Virginia: Charlottesville, VA

University of Washington: Seattle, WA

Washington University: St. Louis, MO

Wright State University: Dayton, OH

5 Questions

to Ask Yourself Before Pursuing a Medical Education Fellowship

1 Do you want to do academics?

A medical education fellowship is a fast track to becoming a future leader in academic emergency medicine, but you have to be excited about that. If a community hospital is where you see yourself, you might want to reconsider.

2 Do you get excited by learning how we learn?

A large portion of most education fellowships involves learning theory. Take conference for example. What is the best way to teach a difficult concept, like performing a cricothyrotomy? How do we measure the effectiveness of a lecture?

3 Are you interested in an advanced degree?

The majority of programs offer some sort of advanced degree—usually a Master's in Education. Others offer a certificate program. Courses vary, but potential topics include: educational theory, adult learning, curriculum development, instructional strategies, grant writing, and applied statistics.

4 Do you want to expand upon your training?

Residency is challenging. Although you will be working part time as an attending in the emergency department, you must take into account that you would be delaying your income earning potential by 1-2 years.

5 Do you love red pens?

But seriously. You will be teaching almost every day. On shift with medical students and residents. During conference. Online. On the back of an EKG, at the bedside of a critically ill patient.

PAs in the ED

What Do Residents Need to Know?



Terry E. Carlisle, PA-C
Michelle Seithel, PA-C
Chadd Kraus, DO, DrPH, MPH
 Former EMRA Academic Affairs Rep
 Department of Emergency Medicine
 University of Missouri-Columbia
 Columbia, MO



portion of those hours must be earned through a combination of self-assessment CME and performance improvement CME. In addition, PAs are required to complete a re-certification exam every 10 years.

EM Specialty

The Society of Emergency Medicine Physician Assistants (SEMPA), the professional organization of PAs in EM, was founded in 1990. SEMPA is a specialty organization within the American Academy of Physician Assistants (AAPA) and is represented by a liaison to the American College of Emergency Physicians (ACEP). Post-graduate PA residency programs in emergency medicine are found in as many as 14 states. Specialty certification in emergency medicine is available through the National Commission on Certification of Physician Assistants (NCCPA). **If a PA chooses to obtain this specialty certification, they must demonstrate advanced experience and knowledge in EM, above and beyond that of a PA in general practice.** Applicants for this certification must pass an EM-specific national exam as well as have a minimum of 3,000 hours of emergency medicine clinical experience. Evidence of competency in a number of specific EM-related skills such as invasive airway management, anesthesia, radiographic interpretation, diagnostic/therapeutic procedures, hemodynamic techniques, and advanced wound management, is also required. Recertification for this added certification must be completed every 10 years and is in addition to the general recertification process.

Scope of Practice

Within emergency medicine, PAs may work in the general, fast-track, trauma/critical care, pediatric, observation, or

Emergency departments (EDs) nationwide depend on physician assistants (PAs) to assist in seeing high volumes of patients with varying complaints and complexity. In fact, approximately 10% of all PAs practice in emergency medicine (EM).¹ However, many residents and new attendings know little about PA education and training, scope of practice, and approach to care, making it difficult to understand their role within a team of health care providers. Residents who go on to supervise PAs must have a solid understanding of their training, scope of practice, and value.

Do you know these 5 key things about working with PAs in the ED?

PA Education and Training

PA education and training mirrors the medical model of education. There are approximately 140 accredited PA programs in the United States. Programs typically require similar prerequisites to those of medical schools, while also requiring approximately 3 years of direct health care experience. PA programs are typically 3 academic years in length. Didactic coursework includes anatomy, physiology, microbiology, pharmacology, and behavioral science. Clinical rotations consist of more than 2,000 hours in the areas of family medicine, internal medicine,

pediatrics, emergency medicine, obstetrics and gynecology, surgery, and psychiatry. Following graduation from a PA program, some PAs extend their education through a post-graduate residency or fellowship program, such as in EM. PAs are required to pass the PA National Certifying Exam and to be licensed in the state where they practice. **Intense requirements to maintain certification ensure that PAs continue to practice with the most up-to-date, evidence-based medical knowledge.** Maintaining certification requires completion of 100 hours of continuing medical education every 2 years. A large

References available online.

other specific emergency department areas. EM PAs diagnose, treat, and manage patients with a broad variety of complaints from minor conditions and injuries to complex medical and trauma related conditions. EM PAs also perform a variety of specialty appropriate procedures and interventions. The complexity of care will vary depending on the experience and training of the individual PA, as well as the relationship with the supervising EM physician. State law and hospital credentialing privileges also guide EMPA practice. In addition to clinical responsibilities, PAs may also be involved in teaching and performing administrative duties in the department.

Fiscal Benefits

PAs are cost effective staff members for EDs. **Medicare, Medicaid, TriCare, and third party payers reimburse PA care at rates typically ranging from 85%-100%.**² PAs can act as additional providers caring for a small number of complex patients or increase the efficiency of care through seeing less complex patients in a quick and timely manner, while at a departmental cost less than that of an additional physician. Using PAs in triage or fast track areas can reduce overall

ED lengths of stay by expediting evaluation and treatment. It has been estimated that EM PAs can see approximately 30 percent of ED patients independently, making it possible for the ED to handle a higher volume of patients.³

Teamwork Approach

The PA profession was historically founded on the concept of team practice. PAs do not seek independent practice, but rather seek to maintain a collaborative working relationship with physicians.

Deeply rooted in a team approach to patient care, PAs work to have open communication with physicians and to foster a sense of camaraderie within that relationship. PAs are not competing with physicians, but rather strive to provide excellent patient care alongside physicians to ensure efficient ED throughput. As an example of that team approach, if a patient requires sedation for a procedure, the physician may initiate and monitor the sedation while the PA does the procedure. In another example, the PA may see multiple ED patients, while the physician cares for a single complicated patient with a higher level of acuity.

Conclusion

PAs are a valuable resource for an emergency department and work with their supervising physicians to care for all types of patients presenting for treatment. PAs have both a rigorous education shaped in the medical model and a recertification process that ensures they continue to practice with the most recent evidence-based medical knowledge. Some PAs undergo additional training through residency or fellowship programs, and some have worked for a certificate of additional qualification within this specialty. PAs can care for complex patients and perform complex procedures within emergency medicine, as well as treat less acute patients and relieve physician workload. PAs are often reimbursed at rates of 85-100 percent of physician billing, while costing the department less than additional physician staffing.² The team approach allows for multiple patients to be cared for at once as well as multiple aspects of a single patient's needs to be met in a timely manner. PAs are not competing with physicians, but rather are striving to have an open relationship with their supervising physicians to ensure that patients presenting to the ED receive the best care possible. ★

Since 1980, NEMPAC has been the voice of emergency medicine in the political process and the legislative arena. NEMPAC's efforts directly impact residents both during their training and after graduation. Last year, NEMPAC played a critical role in: **1 Repealing the flawed SGR formula, 2 Re-introducing medical liability reform legislation** for EMTALA-related services, **3 Advocating for mental health reform** to reduce psychiatric patient boarding in EDs, and **4 Calling for funding** for emergency medicine research and trauma care.

With the 2016 elections fast approaching, now is the perfect time for residents to get involved. Residents qualify as a "Give-a-Shift" donors with a gift of only \$120 (normally \$1200). **Just \$10/per month supports our specialty and gets you VIP benefits like:**



Insider information on ACEP's political and legislative priorities



Networking opportunities and VIP access to NEMPAC events at LAC and ACEP16



Recognition in ACEP publications and website

Help NEMPAC continue to lead the way for your future in the specialty of emergency medicine.

Contribute today at www.acep.org/NEMPAC.



YOUR VOICE ON CAPITOL HILL



NEMPAC is bi-partisan—we support pro-emergency medicine candidates, not political parties.

NEMPAC is the financial vehicle through which ACEP members support the election or re-election of congressional candidates who share their commitment to emergency medicine.



FIGURE 1. The high-frequency linear probe is placed in transverse orientation on the patient's neck. CO₂ capnography turns from purple to gold with endotracheal tube confirmation.

A 45-year-old female is brought into your emergency department after cardiac arrest. A quick history from her husband reveals they recently returned from vacation in Australia. Her only medication is an oral contraceptive. Your team goes to work, taking over chest compressions and exposing the patient while you focus on management of the airway. You look down at the patient and notice a profoundly edematous right lower extremity. You are immediately concerned that the cause of her cardiac arrest may be a massive pulmonary embolism. You prepare to intubate the patient by gathering your supplies, which includes capnography. Then you remember that capnography is less reliable in the setting of poor pulmonary blood flow, as in cases of massive pulmonary embolism or cardiac arrest.¹ **How are you going to quickly ensure proper endotracheal tube placement? Have you considered ultrasonography?**

Endotracheal intubation is necessary for definitive airway control during resuscitation of the critically ill patient. Unrecognized misplacement of the endotracheal tube can lead to devastating, avoidable morbidity and mortality. Real-time tracheal ultrasound allows for the

dynamic observation of tube passage through the trachea or the esophagus, providing immediate confirmation of placement prior to any ventilation attempts. This can be particularly helpful in situations in which capnography may not be reliable, or in training settings, allowing the supervising physician to watch as the tube passes into place.

Technique

Because endotracheal intubation is a two-handed procedure, using ultrasonography requires a second provider to act as sonographer. The sonographer is placed at the patient's right side, selects the high-frequency (6.0-12.0 MHz) linear probe and sets the ultrasound machine to a superficial setting. The probe is placed midline on the patient's neck in the transverse orientation, anywhere between the cricoid membrane and suprasternal notch (*Figure 1*). Most often, the procedure is performed with the probe just above the suprasternal notch. If the probe is in a more superior position, pressure applied by the sonographer may displace the trachea posteriorly and could potentially make intubation more difficult. Alternately, the sonographer could intentionally use the probe to provide BURP (Backwards-Upwards-Rightwards

Pressure) to assist in obtaining a superior view at the discretion of the intubator.

Prior to the intubation attempt, it is helpful to familiarize yourself with the important landmarks of the patient's neck, including subcutaneous tissue, thyroid tissue, and the rings of tracheal cartilage. The tracheal rings are hypoechoic, or dark. Just deep to the cartilage ring, the air-mucosal interface can be seen as a thin, hyperechoic line. Posterior to this line, the trachea is air-filled and does not transmit ultrasound waves; therefore, it appears as a dark area and the posterior structures of the airway are not visible (*Figure 2*). The esophagus is usually situated just posterior and to the left of the trachea. As it is usually collapsed, it is often not identified unless esophageal intubation takes place.

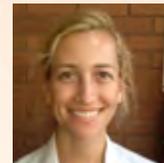
During intubation, the sonographer can watch as the tube passes into the trachea. Motion, similar to lung sliding, will be visible just posterior to the tracheal cartilage during intubation. This is seen as an area of increased echogenicity (*Figure 3*). Additionally, the sonographer should watch for the appearance of a second air-mucosal interface adjacent to the trachea, which would indicate passage of the endotracheal tube into the esophagus (*Figure 4*). If no second air-mucosal

Turning Purple to Gold

Confirmation of Endotracheal Intubation with Bedside US



Jennifer Beck-Esmay, MD
Resident, Emergency Medicine
NYU/Bellevue
New York, NY



Marsia Vermeulen, DO, RDMS, RDCS
Assistant Professor
Director, Resident Ultrasound Education
NYU/Bellevue
New York, NY

interface is appreciated, the tube has been correctly placed in the trachea. By performing this exam as intubation proceeds, esophageal intubation can be immediately identified prior to insufflation of the stomach.^{2,3}

The Evidence

In recent years, two systematic reviews/meta-analyses have been performed to evaluate the use of ultrasonography for confirmation of endotracheal tube placement. The first, by Chou et al. in *Resuscitation*, evaluated 12 studies, including those that used lung ultrasound in addition to the tracheal ultrasound technique described here. When analyzing tracheal ultrasonography alone, the study found a sensitivity of 0.92 (95% CI: 0.84-0.97) and specificity of 0.97 (95% CI: 0.95-0.98).⁴

The second study, by Das et al. in the *Canadian Journal of Anesthesia*, examined 11 studies and found transtracheal ultrasound to have a sensitivity of 0.98 (95% CI: 0.97-0.99) and specificity of 0.98 (95% CI: 0.95-0.99).⁵

One potential limitation of ultrasound is that it does not distinguish tracheal intubation from right mainstem intubation. Adding an examination for bilateral lung sliding could be useful for determining the location of the endotracheal tube within the airway. Additionally, obtaining images of the diaphragm in the right and left upper quadrants allows visualization of diaphragmatic movement and can further confirm correct tube placement.

A common concern with the use of bedside ultrasound is that it is operator dependent, in contrast to methods such as capnography that have no dependence on operator skill. One study found that after a brief online tutorial and only 2 practice sessions, emergency physicians were able to quickly identify both endotracheal and esophageal intubations with a sensitivity of 98.3% (95% CI: 96.3-99.4%) and specificity of 100% (95% CI: 98.9-100%). Furthermore, images were interpreted within an average of 4 seconds of intubation – faster than a capnography device can be attached to a tube and ventilations delivered.⁶

Bottom Line

Ultrasound is a rapid, non-invasive means of confirming proper placement of an endotracheal tube. When used in conjunction with traditional methods such as auscultation and capnography, it can improve patient care and avoid the disastrous consequences of unidentified missed endotracheal intubation. Consider adding this technique to your arsenal the next time you intubate. ★

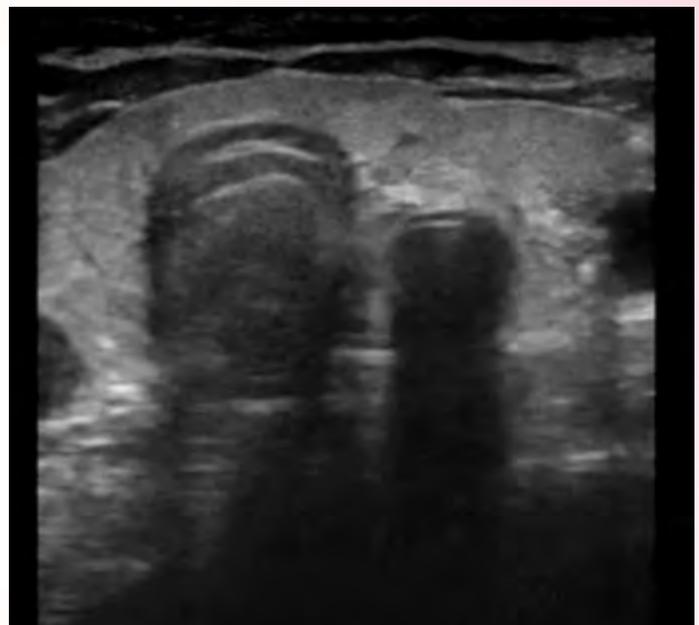
FIGURE 2. Image of normal airway anatomy, showing normal trachea with the hypoechoic tracheal ring and hyperechoic air-mucosal interface.



FIGURE 3. Image of endotracheal tube within the trachea. Note the absence of a second air-mucosal interface (hyperechoic line) adjacent to the trachea.



FIGURE 4. Image of esophageal intubation. Note the presence of two hyperechoic air-mucosal interfaces indicating the presence of the endotracheal tube within the esophagus.



References available online.



Carrie Jurkiewicz, MD
Vice-Chair, EMRA Wilderness Division
University of Chicago
Chicago, IL



Navneet Cheema, MD
Assistant Professor,
Assistant Program Director
University of Chicago
Chicago, IL

By Land or By Sea

5-Step Approach to Marine Envenomations

Far away from the natural habitat of lionfish, an emergency physician was expected to provide advice on how to care for an acute marine envenomation.

When medical toxicologist *Matthew Sztajnkrycer, MD, FACEP*, was a second-year resident, he answered a truly strange telemetry call. EMS had arrived on scene of a minor motor vehicle accident to find a young woman screaming in pain in the front seat. She had been transporting a lionfish to a new aquarium for its grand opening and had placed the container between her thighs to protect the precious cargo. The container had shattered, resulting in multiple stings on her thighs. EMS had called to ask if they should urinate on the patient's legs to neutralize the venom.

Far away from the natural habitat of lionfish, Dr. Sztajnkrycer was expected to provide advice on how to care for an acute marine envenomation. (Spoiler alert: He did not recommend that the EMS providers relieve themselves on the patient.) This article focuses on the treatment of the most common perpetrators of marine envenomations. **While there are hundreds of unique venomous fish species, 5 simple steps will help you treat most patients presenting with acute marine envenomation.**

1 Quickly immerse the wound or sting in hot water.

This seemingly simple first step is one of the most important. Hot water immersion (HWI) has been shown to significantly decrease the pain associated with envenomation.^{1,2} Additionally, it has been

shown to deactivate heat labile proteins and enzymes, thereby minimizing any systemic effects.³ The victim's affected extremity should be immersed in hot water (42°-45°C) as tolerated for 30 to 90 minutes or until there is significant pain relief. Immersion can then be repeated as needed for pain control.⁴ If using a basin, it is important to maintain water temperature via continuous monitoring and add additional hot water as needed. Of course, the temperature should not exceed 45°C due to the risk of thermal burns. If available, showering is preferable due to improved ability to wash off any remaining stinging cells, adjust the temperature quickly, and maintain a constant temperature.

While HWI is the most important first step in any painful marine envenomation, jellyfish deserve special consideration. Before HWI, tentacles should be washed off with seawater, as fresh water may induce nematocyst discharge from the tentacles and worsen the patient's envenomation. Secondly, if the patient is stung in areas known to have *Carukia barnesi* (causes Irukandji syndrome, Northern Australia), *Carybdea alata* (box jellyfish species specific to Hawaii), or *Pelagia noctiluca* (Mediterranean), consider immersing the stung area in vinegar for at least 30 seconds to inactivate any remaining undischarged nematocysts on the patient's skin.⁵ While vinegar is effective in these species, it can actually cause nematocyst discharge in others.⁶ If in doubt, lidocaine solution may be a good alternative, as it not

only provides local anesthesia but also hinders nematocyst discharge via interactions with calcium ion channels.⁵

2 Provide additional pain control as needed.

If repeated HWI provides inadequate pain control, a regional nerve block or local anesthetic with bupivacaine or lidocaine may be necessary.⁷ Remember that the maximal allowable single dose of bupivacaine 0.25% is 3mg/kg, or 70 mL per average adult. Lidocaine's maximal allowable single dose is 4.5 mg/kg of 1% without epinephrine, or 30 mL per average adult. Some patients may require additional parenteral narcotics. Many historic remedies have not been shown to work, including meat tenderizer, magnesium sulfate, local injection of potassium permanganate, congo red, alcohol, and – of course – urine.⁸ These treatments are anecdotal and may even contribute to further tissue damage.

3 Thoroughly irrigate and explore wounds, remove spines and debride necrotic tissue.

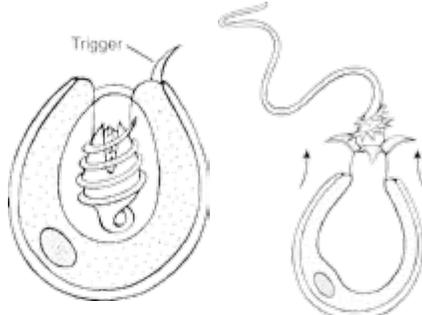
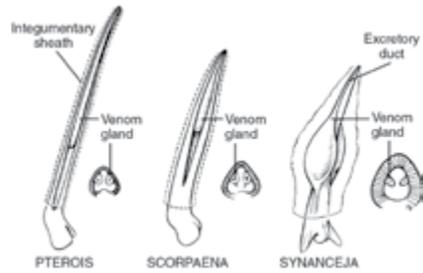
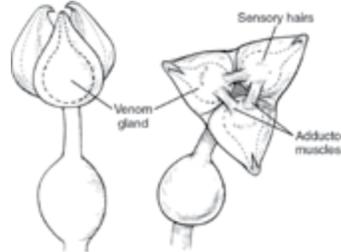
Removal of spines limits envenomation, thus limiting systemic effects and reducing pain. Control of systemic effects becomes especially important in cases of multiple barbs or spines, such as in sea urchin envenomations. Retained spines increase risk of polymicrobial infections, leading to prolonged and complicated wound healing.⁹ Finally, retained spines may

cause significant long-term morbidity, especially if located near a joint. Sea urchin spines induce severe synovitis, which can progress to arthritis over time.¹

When removing easily accessible spines, grasp gently to avoid crushing the spines. Sea urchins in particular have fragile spines that are easily fractured. Spines located near joints should be surgically removed, even if they are easily grasped. In the case of interphalangeal joint involvement, the

affected finger should be splinted until the spine is surgically removed to limit fragmentation and further penetration into the joint space. To remove stinging units that are invisible on the skin, such as jellyfish nematocysts or sea urchin pedicellariae, apply shaving cream and remove with a sharp edge, like a razor or a credit card. If shaving cream is not available, use a paste of baking soda or flour, or a slurry of sand and seawater.¹⁰

If you suspect that your patient has a retained spine, start with a radiograph. Plain film imaging may show radiopaque fragments of spines or barbs. Unfortunately, radiographs will not reveal hypodense fragments of integumentary and glandular tissues, in which venom may be concentrated. MRIs may help, but they are not cost effective for routine evaluation of all wounds. One retrospective study found that out of 100 victims of

MARINE ANIMAL	VENOM APPARATUS
 <p>Jellyfish</p>	 <p>Nematocyst before discharge (left). Nematocyst after discharge (right).</p>
 <p>Juvenile lionfish from Sulawesi, Indonesia. <i>(Courtesy Paul S. Auerbach, MD)</i></p>	 <p>Lionfish (<i>Pterois</i>), scorpionfish (<i>Scorpaena</i>), and stonefish (<i>Synanceja</i>) spines with associated venom glands.</p>
 <p>Scorpionfish assuming the coloration of its surroundings. <i>(Courtesy Paul S. Auerbach, MD)</i></p>	
 <p>3 examples of sharp-spined (venomous) sea urchins. <i>(Courtesy Paul S. Auerbach, MD)</i></p>	 <p>Globiferous pedicellaria of a sea urchin, used to hold and envenom prey.</p>
 <p>Stingray</p>	 <p>The stingray lashes its tail upward into the leg and generates a deep puncture wound.</p>

Source: Auerbach: Wilderness Medicine, 6th ed. Copyright © 2012 Mosby, An Imprint of Elsevier.

Are You Taking Advantage?

Free and low-cost EM tools for ACEP-EMRA Members

#FOAM Free Podcasts for Your Listening Pleasure:



ACEP SA REPLAY

Selected lectures from the ACEP Scientific Assembly, new episodes every month. Includes selections from "First Friday" email series.

EM Podcast  Search for ACEP SA Replay



ACEP | Frontline

with Ryan Stanton, MD, FACEP

Hot topics in emergency medicine, a new episode on the first Tuesday of every month. Hosted by Ryan Stanton, MD, FACEP.

EM Podcast  Search for ACEP Frontline



Free Clinical Education Sent To Your Inbox Monthly:



ACEP eCME "First Friday"



Two talks from a national ACEP meeting, one on a clinical topic and one on a "career" topic. It's the latter you're less likely to get in your official training, ACEP's happy to fill that gap.



Critical decisions in emergency medicine

ACEP's clinical publication offers "real-world" cases, challenges and solutions - the kind of presentations you see (or will see) every day in the ED.

PEER-VIII

Physician's Evaluation and Educational Review in Emergency Medicine

Study the emergency medicine "core content" all year long at the absolute best price (\$49.) Emergency medicine's Q&A resource is perfect for preparing for your emergency medicine exam and available for multiple devices.



See more EM tools at:
bookstore.acep.org



stingray envenomations presenting to the emergency room, radiographs were ordered on 59 patients. All radiographs were negative for foreign bodies, and the patients did not develop complications suggestive of missed retained barbs.¹¹ While this may suggest that radiographs are unhelpful, there have been case reports highlighting a significant potential for reduction of morbidity by identifying the rare barb or spine on a radiograph. For example, take the 44-year-old male who sustained a stingray whip injury to his dominant wrist but did not receive radiographs on initial presentation. One month later he re-presented with swelling of his hand and inability to extend his third and fourth digits. A plain x-ray of his wrist at this time revealed two foreign bodies resembling spines, and surgical exploration revealed copious purulent material and extensive tendon injury. The patient underwent prolonged physical and occupational therapy, regaining only adequate – but not full – function of his hand.¹²

The very rare exception to the rule of removing spines is when victims present with stingray impalement injuries to the chest, abdomen, or neck. Treat these injuries exactly as you would any other impalement injury:

Secure the spine to limit movement until the patient can be brought to the operating room for exploration and removal.

4 Prescribe antibiotics when appropriate.

Prophylactic antibiotics are recommended for injuries with significant infectious potential, such as large lacerations, significantly contaminated wounds, suspected retained organic foreign material, deep puncture wounds (especially of the hands or feet), and in immunosuppressed patients. The chosen antibiotic should cover *Staphylococcus* and *Streptococcus*, as well as *Vibrio* species. Ciprofloxacin, doxycycline, or trimethoprim-sulfamethoxazole are appropriate options.¹³

Patients who present with rapidly progressive cellulitis or myositis must be covered for *Vibrio vulnificus* or *Vibrio parahaemolyticus*. Options include parenteral meropenem, an aminoglycoside, ciprofloxacin, or ceftazidime in combination with tetracycline.¹⁴

5 Observe for onset of systemic symptoms for at least 3-4 hours.

If the disposition plan is to treat and

discharge home, patients should be observed for at least 3-4 hours for systemic symptoms. If symptoms such as severe muscle cramping, respiratory distress, hypotension, or arrhythmias develop, the patient warrants admission for supportive care. Marine antivenoms currently only exist for 4 species: *Chironex fleckeri* (Australian box jellyfish), *Synanceja trachynis* (stonefish), *Enhydrina schistosa* (beaked sea snake), and *Notechis scutatus* (tiger snake).*

Conclusion

These 5 steps will help emergency physicians initiate treatment for marine envenomations, even when the offending species is unknown. Of course, assessing airway, breathing, and circulation is always the primary consideration, and cases of potential systemic envenomation are no exception. Remember to reach out to your local poison control center for additional guidance. ★

**Sea snake bites are treated differently than other marine envenomations and thus are outside the scope of this article. In general, sea snake envenomations are treated similarly to their terrestrial counterparts.*

EMERGENCY MEDICINE RESIDENTS' ASSOCIATION

Plan Your Transition Now!



EMRA DISABILITY INSURANCE PROGRAM

An Approved Member Benefit Program

Just for Emergency Medicine Residents

Important highlights of this program are:

- Up to \$7,500 monthly tax-free benefit with no financial disclosure
- Specialty Specific definition of disability – 6 options in most states
- Personalized comparison of plans, taking advantage of regional, GME or association discounts as available to you
- Easy online application process

An individual, long-term disability insurance program designed for EMRA students, residents and alumni.

You take care of them.

We'll take care of you.

Unique Programs for Graduating HouseStaff
Protect 100% of your future income



A sound disability insurance program is best developed while still in residency.

Obtain your disability protection NOW!

Visit the dedicated EMRA webpage: www.iwcglobal.net/our partners/EMRA



Sean Ochsenbein, MSIII
Chair, EMRA Medical Student Council
ETSU Quillen College of Medicine
Johnson City, TN

How Can You Ace Your Away Rotations?

Why settle for being average, when you can be the best version of yourself? Take advice from those who know how to shine on EM away rotations – because when 4 weeks of your time might dictate the next 3 to 4 years of your life, you want to make sure to cover all bases.

The following tips can help you make your best impression during your away rotations.

Be sure to see expanded material online at emresident.org!



Adam Kellogg, MD, FACEP
Associate Residency Director
Baystate Medical Center & Tufts University
Chair, CORD Student Advising Task Force

1 Bring your A game.
Away's can count more in your application than your home rotation (because these are not your established advisers, their opinions can be perceived as less biased).

2 Know what to work on.
If you have done a previous rotation (and usually you have), make sure you learned from them where you need to improve so you can tackle those things early.

3 Polish your presentations.
So much of the evaluation of your skills is going to come from how you present, that it is worth giving this a lot of attention.

4 Find out about letters early.
Each program handles letter writing differently. Figure out early on how they do this: group letters? Individual SLOEs? Traditional letters?

5 Build your knowledge base.
Reading a thousand-page tome of EM knowledge is not realistic during the summer of your fourth year; HOWEVER, reviewing one of the concise rotation review books is doable, and these usually cover the knowledge your evaluators expect you to have.

6 Ask for help.
You won't know their system or the ED layout. You are better off asking for help early than wasting time trying to figure out where the suture kits are kept or how to consult surgery.

7 Be proactive.
Go in with the team for sick patients and codes, ask what you can do to help, and volunteer for procedures.

8 Be honest.
If you have never intubated, tell them. They may still let you try.

9 Bring your own stuff.
Don't assume they will have scrubs or trauma shears for you to use. Bring your own.

10 Own your patients.
Expectations will vary from one program to another, but if you want to earn the ultimate compliment ("It was like having another intern on the team"), then you need to manage your patients – including following up on test results and response to treatment, doing discharge and admit paperwork, and making consultant calls. Ask for these opportunities to prove yourself.

Advice from Your Peers



Michael Spigner, EMT-CC



Dru Morgan

Michael Spigner, EMT-CC, a fourth-year medical student at Hofstra North Shore-LIJ School of Medicine, and **Dru Morgan**, a fourth-year at Lincoln Memorial University-DeBusk College of Osteopathic Medicine, both finished away rotations within the past year.

Their advice — found in full on emresident.org — comes from the school of reality: Don't showboat, be respectful, go the extra mile, make yourself useful, make the residents look good. In hindsight, it may seem like common sense. But in the thick of a rotation, it can be easy to get lost in the moment.

“One of my strongest evaluations cited the ability to be helpful without ‘getting in the way’ during an extremely busy shift,” Spigner said. “When your attending is busy, find something helpful to do rather than following them around like a lost puppy.”

One other tip while you're at it.

“**Stay humble,**” Morgan said.

“On auditions you should work very hard. In the process you should not work hard to be someone else,” he advised. “Trying too hard to change personality or change the way you approach patient care will ultimately show, and in the process it will exhaust you. Just be yourself, work hard, and act as an advocate for both your patient and your resident. Stay one step ahead, be humble, be kind to everyone, and success will surely follow.” ★

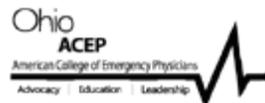
OHIO ACEP - YOUR ESSENTIAL RESOURCE FOR EMERGENCY MEDICINE REVIEW!

OHIO ACEP EMERGENCY MEDICINE BOARD REVIEW COURSES

ESSENTIAL CLINICAL CONTENT. TRUSTED EXPERT FACULTY. EMERGENCY MEDICINE REVIEW.
FOR 32 YEARS, OUR RENOWNED COURSE HAS HELPED THOUSANDS OF PHYSICIANS PASS THEIR BOARDS!

HIGHLIGHTS

- Printed & Electronic Daily Course Syllabus
- Pre, Post & Daily Tests - Over 400 Questions
- Rapid Review Prep Sessions
- Access to E-Learning Web site with 1,400+ case questions with images

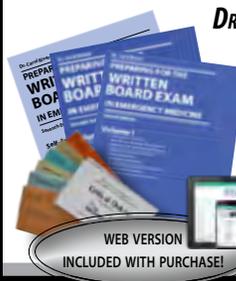


THREE DATE OPTIONS!

5-DAY COURSE
August 19 - 23, 2016
September 25 - 29, 2016

3-DAY COURSE
August 24 - 26, 2016

DISCOUNTED RESIDENT RATES!



DR. CAROL RIVERS' PREPARING FOR THE WRITTEN BOARD EXAM IN EMERGENCY MEDICINE

SEVENTH EDITION, VOLUMES I & II

FEATURES

- Bold Text Highlights Critical Facts
- Hundreds of Images
- End of Chapter Clinical Scenarios
- Web-Based Version - Search, Highlight & Bookmark
- Over 500 Pre-Chapter Questions

WEB VERSION INCLUDED WITH PURCHASE!

www.ohacep.org (614) 792-6506



Questions should be directed to
Martha Morrison
Editorial Assistant
Annals of Emergency Medicine
at 800-803-1403 x 3223
or by email at
mmorrison@acep.org

Annals of Emergency Medicine

Resident Editorial Board Fellowship Appointment

The Resident Fellow appointment to the Editorial Board of *Annals of Emergency Medicine* is designed to introduce the Fellow to the peer review, editing, and publishing of medical research manuscripts. Its purpose is not only to give the Fellow an experience that will enhance his/her career in academic emergency medicine and scientific publication, but also to develop skills that could lead to later participation as a peer reviewer or editor at a scientific journal. It also provides a strong resident voice at *Annals* to reflect the concerns of the next generation of emergency physicians.

Please visit *Annals'* Web site at www.annemergmed.com for a copy of the complete application.

Due date is Monday, July 11, 2016

Ocular Chemical Burns

TIPS FOR TOTS



Charles Justin Hall, DO
Resident, Emergency Medicine
University of Nebraska Medical Center
Omaha, NE

A 3-year-old boy presents with his frantic parents after spilling bleach in his right eye 20 minutes prior to arrival while playing in the laundry room. Parents did not attempt irrigation at home but instead brought him immediately to the emergency department for further evaluation. The child is hysterical and appears to be in excruciating pain. You know that **chemical burns, particularly alkaline burns, represent a true ophthalmologic emergency.** You also recognize that immediate copious irrigation remains the single most important therapy for chemical ocular injuries. However, you are concerned that you will not be able to effectively examine and treat this distraught pediatric patient.



What's the best way to approach pediatric ocular burn patients?

Control the pain

Intranasal versed or fentanyl are quick, non-invasive, and effective options for anxiolysis and analgesia. Intranasal versed is dosed at 0.3 to 0.5 mg/kg. Intranasal fentanyl, which can be as effective as IV morphine, is dosed at 1.5 mcg/kg, with repeat dosing of 0.5-1.5 mcg/kg every 15 minutes, and is best used in patients over 3 years of age. Proparacaine 0.5% may also be necessary to assist with analgesia. Two drops on the medial canthus should prompt enough blinking to properly coat the eye.

Create a superhero

Make a cape with a pillow case, shears, and a sharpie. Using trauma shears, cut a hole slightly larger than the size of the patient's head. Place the "cape" over the child's head and ensure their arms are at their side. Cut a half-circle out of the short side of a traditional basin and line the cut edge with a towel, creating a cushion for the neck. The child may then place their head in the

basin to catch the runoff from the irrigation.

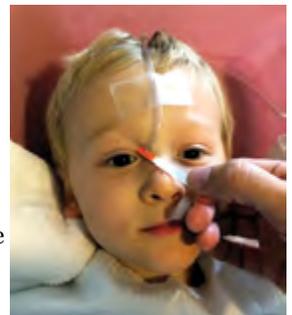
Start the Flood

Good luck getting a Morgan lens on this patient. Instead, obtain a 1 liter bag of normal saline and pop in some IV tubing. Place the saline in a pressurized bag, and cut the distal portion of the tubing so that it will be running completely unimpeded. Tape the tubing just above the medial canthus of the affected eye and allow the fluid to run over the eye and into a basin. Use as much saline as necessary to achieve optimal pH. Enroll the parents to ensure the child's eyes are not shut tightly during this process.



Assess the pH

Checking pH is easy using this set up. Since the normal saline solution is already running across the eye medial to lateral, simply place the pH paper adjacent to the lateral canthus in order to catch a few drops. Continue irrigation until the pH drops to a normal range (6.5-7.5). Remember to also check the pH of the unaffected eye for comparison.



Host a Rave

After irrigation, proceed with the rest of your ophthalmologic examination. When assessing for corneal abrasions and burns, simply place the fluorescein paper directly into the stream of irrigation medially. From there, use a handheld blacklight so the patient does not require any positional changes. Don't forget your glow sticks.



At a minimum, patients with mild chemical injuries should have follow-up care arranged with an ophthalmologist and medical therapy geared toward promoting healing, preventing infection, and controlling pain. Of course, any patient with a more serious injury should be immediately evaluated by a specialist in the emergent setting. ★



empower

Sharing Our Stories

Your Time, Your Legacy

Rebecca B. Parker, MD, FACEP

@BeckyBP

Engage in a 5-minute conversation with ACEP President-Elect Becky Parker, and her densely packed CV will begin to make sense: Energy, connections, and clarity are hallmark traits of each discussion. A member of the ACEP Board of Directors since 2009, Dr. Parker has built a legacy of leadership in emergency medicine.

Q. You served on the EMRA Board of Directors during residency. How has that experience helped you?

The year before I was elected to the EMRA Board, I was appointed to the AAMC resident group as 1 of 2 EM residents for EMRA. I then served as EMRA Secretary/Editor and Alternate Councilor. It was a great experience! The group was highly energetic, smart, and enthusiastic physicians with great ideas. Our budget may have been limited, but we learned how to brainstorm effectively together, and how to realize those ideas. EMRA is an independent residency organization. That's rare. EMRA has the power to lead and think with an independent voice within emergency medicine. It was important to stand up and speak freely, even though we were residents. I am still a proud EMRA member, and that's been a great way for me to give back to an organization that's given me so much – plus I get all the great books and products. It's well worth the \$50 to stay an alumni member. The Board is accomplishing amazing things, and I couldn't be more proud.

Q. Favorite EMRA memory?

As an Alternate Councilor, I was there when Nancy Auer handed the reins of the ACEP presidency over to John Moorhead. Normally the



standing president hands the president-elect a gavel; however, Nancy was ACEP's first woman president, so she handed John a tiara, and everyone got a big kick out of that. It certainly left an impression on me.

Q. Top 2 priorities as ACEP president-elect?

No. 1 is preparing the College for PPACA and MACRA, or "health care reform." We will codify our role in the new paradigm. We must adjust our practices, so we receive appropriate payment for services provided, creating a healthy practice environment for both the patient and physician. No. 2 is diversity. ACEP has a diversity summit in April, and we're going to divide into 5 groups to start talking about diversity within EM as a whole, by addressing gender, race, religion, LGBT community, and generational issues. For the health of the specialty, it's best that we reflect the patients we serve. Companies and groups that are diverse statistically achieve more, because they have a depth of experience and knowledge that other groups do not. I believe that, and I'm committed to that ideal.

Q. Best time management tip?

I'm a list person. I keep a running list, redone weekly, of calls and emails to make, ongoing projects and topics to discuss with key collaborators. I have my list for my job on a yellow legal pad and my list for ACEP on a white legal pad. Then I take notes on calls and such on a different color legal pad. So, you've surmised I'm really into legal pads. It sounds silly discussing it this way, but the system works—I assure you. I get a lot done in a much shorter time span. The other tip is a shout-out to my former residency chair, Matt Walsh—a wise man.

He told me that if you can take care of something quickly, do it right then and get it off your desk. Don't let things pile up. That is also really helpful.

Q. Last non-textbook you read?

Wishful Drinking, by Carrie Fisher.

Q. Most-used app on your phone?

After that awful Apple email app, which my husband keeps trying to get me to ditch, it's Facebook and Facebook messenger. It's surprising how Facebook messenger feels like the de facto texting app, more than Apple Messages or Google hangouts.



Q. Family?

This past May my husband Matty and I celebrated our 20th anniversary. And, he has been above-and-beyond-the-call-of-duty supportive of my ACEP work. We met teaching The Troopers Drum & Bugle Corps from Casper, Wyoming. We still love music. Our sons are Joshua (8) and Jacob (5). I should mention that Jacob was the first-ever ACEP Board baby. He was born July 1, so I Skyped in for the June board meeting. We are very lucky that both my Mom, who is a retired history professor, and my sister Beth, who is an attorney, live in Park Ridge with us. They often help Matty with the boys when I'm away on work or College business, and I know that I am truly blessed with a supportive, loving environment. I couldn't do what I do without my family. I think they put up with all the work, because they understand the importance of helping others, whether that is helping patients or physicians. And, I can't think of anything I'd rather do than help people. ★



LEAVING OUR *Agendas* AT THE DOOR

Over the past year, many of us have seen images of refugees and migrants attempting to flee countries of political unrest and move toward Western Europe. Many times, migrants start their journey in the Middle East and travel through Hungary on their way to Germany or Austria. Some of the most powerful images of their journeys and struggles have been captured in Hungary (remember the photos of hundreds of migrants camping in the train station in Budapest, or the one showing a husband, wife, and infant lying on the train tracks of Bicske, refusing to go to the refugee reception center?).

For me, these images have been particularly provoking. They are in stark contrast to the fond memories of my own time at the refugee reception center in Bicske, Hungary, more than 7 years ago. As a graduate student in occupational therapy, I secured the University of Pittsburgh's Hungarian Room Committee scholarship to spend several weeks working with female Somali refugees. I was interning at the Cordelia Foundation for the Rehabilitation of Torture Victims, an accredited member of the Copenhagen-based International Rehabilitation and Research Council for Torture Victims (IRTC). The Cordelia Foundation is based in Budapest and treats almost 1,000 victims annually. They provide torture survivors, traumatized asylum-seekers, refugees, and their family members with psychiatric, psychotherapeutic, and psychological treatment, as well as psychosocial counseling.

As an eager graduate student, I had spent months carefully planning

my psychosocial interventions for the Somali women. I spent a great deal of time researching the customs and traditions in Hungary with the idea that, coming from different environments, we could learn together. I wanted to make sure the women felt comfortable and trusted me. I wanted them to find value in their time with me. Therefore, I carefully planned my interventions down to the minute and meticulously thought about both what I would say and how I would say it.

As often happens in medicine and life, things did not go as planned. I wasn't able to secure a translator at the camp, and the women seemed uninterested in speaking through a translator anyway. So, as a plan B, or perhaps due to a lack of other options, I decided to simply spend time with the women and let them take the lead.

Even though these women were fleeing their home country of Somalia to escape sexual slavery, they were proud of their heritage. They wanted to teach me about their home. We walked into town, bought groceries, and spent several hours cooking a traditional Somali meal – the first home-cooked meal they'd had in months. During the mealtime, they took turns feeding me, a sign of friendship in their culture. They applied beautiful henna tattoos on my arms and hands. They braided my hair into dozens of small braids. We held hands and watched Indian music videos in their rooms. We walked to the nearby lake and went fishing. Although we weren't able to use language to converse, we didn't need to.

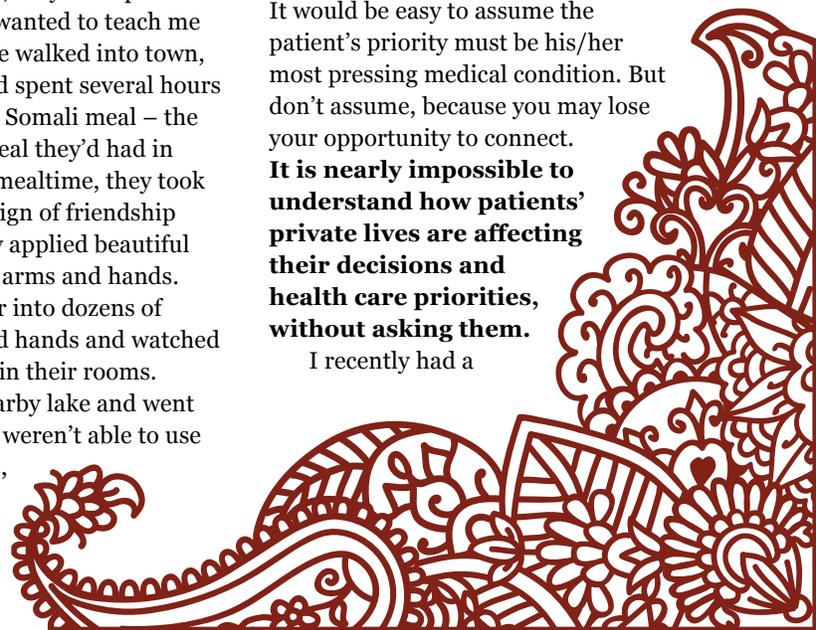


Michelle S. Mitchell, MSIII
The Commonwealth
Medical College
Scranton, PA

I thought I was there to help them, and they thought they should help me.

Now in my third year of medical school, I often think about the caring nature of the Somali women who so willingly welcomed me into their lives. Looking back, I realize that, had I pushed my own agenda, I could have missed many wonderful experiences. It's a lesson I hope to be mindful of throughout my career. After years of education, it becomes easy for a health care provider to assume s/he knows what is most important to the patient, or at least what *should* be most important. It would be easy to assume the patient's priority must be his/her most pressing medical condition. But don't assume, because you may lose your opportunity to connect. **It is nearly impossible to understand how patients' private lives are affecting their decisions and health care priorities, without asking them.**

I recently had a



patient with myriad chronic diseases who came in to address age spots on his face that made him feel self-conscious. After discussing his concerns for several minutes, I proceeded to the review of systems and asked him about his foot care. He mentioned his feet might have sustained frostbite damage while he was working outside in his barn. Sure enough, an exam revealed several black toes on each foot. For many of us, frostbitten toes would warrant an immediate trip to the doctor. However, the patient felt his feet took a back seat to age spots. If I had immediately dismissed his dermatological concern as frivolous, he may have reciprocated the sentiment and dismissed my concern and follow-up care for his feet. The physician-patient relationship is a two-way street, and to accomplish anything, you need both parties on board.

Many of us are familiar with the statistic that physicians interrupt patients an average of 18 seconds into the conversation. It is easy to enter a patient's room with a preset agenda, assume we know what is most important, and steer the conversation in accordance with those assumptions. I assumed the carefully planned psychosocial interventions I developed under the guidance of my professors would improve the mental health of the Somali women. I thought watching music videos and going fishing was just a way to fill the time, and it seemed almost silly initially. However, in the following weeks, the psychiatrists and psychologists from the Cordelia

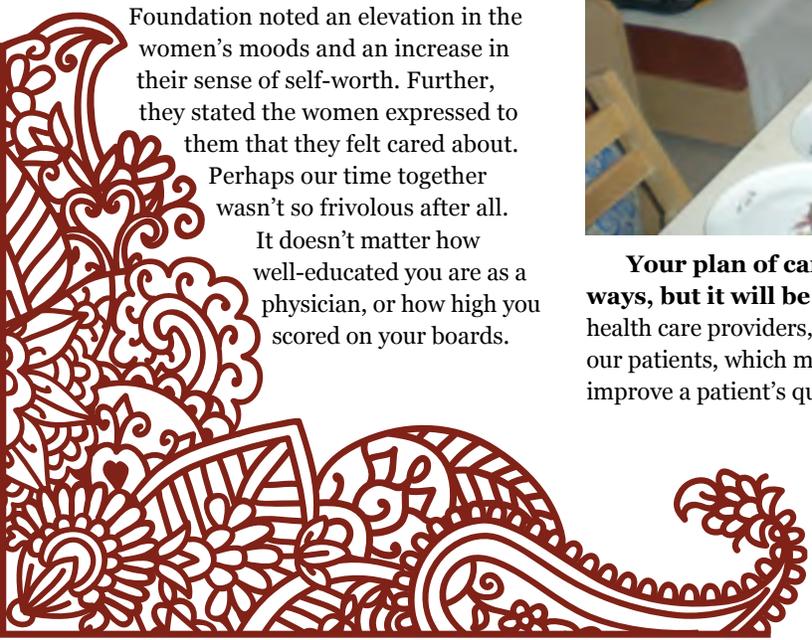
Foundation noted an elevation in the women's moods and an increase in their sense of self-worth. Further, they stated the women expressed to them that they felt cared about.

Perhaps our time together wasn't so frivolous after all.

It doesn't matter how well-educated you are as a physician, or how high you scored on your boards.



Your plan of care could be evidence-based and sound in all measurable ways, but it will be meaningless unless the patient has the same priorities. As health care providers, we have the responsibility to create and nurture a relationship with our patients, which may include getting out of the driver's seat. Sometimes, all we need to improve a patient's quality of life is a fishing trip and a home-cooked meal. ★





SAEM Annual Meeting

New Orleans

Wednesday, May 11

5–7 pm

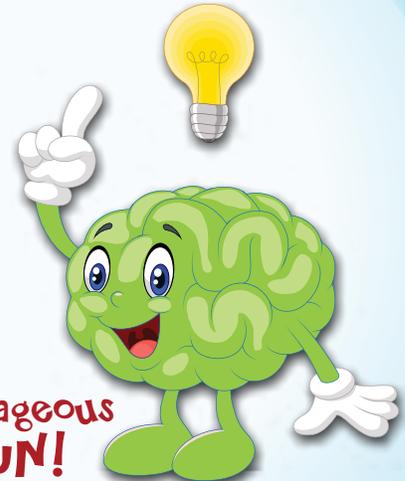
Last year, two fabulous teams tied for bragging rights. The crowd was raucous, the teams even more so, and everyone came to play and party hard!

Can they take the title again?

University California San Diego
Texas A&M Christus Spohn

The challengers are ready to compete;
the questions are quirky as ever;
the EMRA emcees are warming up in the bullpen!

Now all we need is you!



**Outrageous
FUN!**

EMRA RESIDENT SIMWARS

Northwestern University
SIMWarriors
Defend their Championship

THE CHALLENGERS
University of Kentucky
UCSF Fresno
University of North Carolina
Drexel University
University of Connecticut
University of Texas Southwestern

SAEM
Annual Meeting
Friday, May 13
12:30 – 4:30 pm

Head-to-head match ups in a single elimination bracket with some of the smartest residents we know.

It's a high-fidelity competition in front of a live audience!

WHAT A WAY TO END YOUR CONFERENCE EXPERIENCE!

Learning, Leadership, & Lagniappe

EMRA has a full slate planned for the SAEM Annual Meeting, May 10-13, at the Sheraton New Orleans. [Be part of this energetic week!](#)

The EMRA Board of Directors and all 17 committees and divisions will meet during the conference, charting the course for the association's future, welcoming new chairs and vice-chairs, and honoring outgoing leaders.

Plus, we're hosting all the fun events that make EMRA special!

Leadership & Learning

In addition to each Committee & Division meeting (*detailed schedule found online at emra.org/Events/SAEM-Annual-Meeting*), notable business events taking place at the Sheraton include:

- **EMRA Board Meetings**
Tuesday, May 10, 8:30 a.m.-5 p.m., Salon 816-Bacchus/Salon 820-Iris
Wednesday, May 11, 9-10:30 a.m., Salon 816-Bacchus/Salon 820-Iris
Friday, May 13, 9:30 a.m.-12 p.m., Salon 824
- **EMRA Reference Committee Public Hearing**
Wednesday, May 11, 1:30-2:30 p.m., Orpheus Cornet 8th Floor
What's on your mind? Come share your questions, concerns, ideas, and observations about EMRA, the specialty, and the life of emergency medicine. We want to hear from everyone!
- **EMRA Rep Council Meeting & Town Hall**
Thursday, May 12, 8:30 a.m.-12 p.m. Rhythms Ballroom
If you'd like to help guide EMRA's future, this is the meeting you need to attend. Proposed resolutions will be introduced and debated, and at the end of the audience discussion, program reps will vote. Make sure your program rep knows what you think.

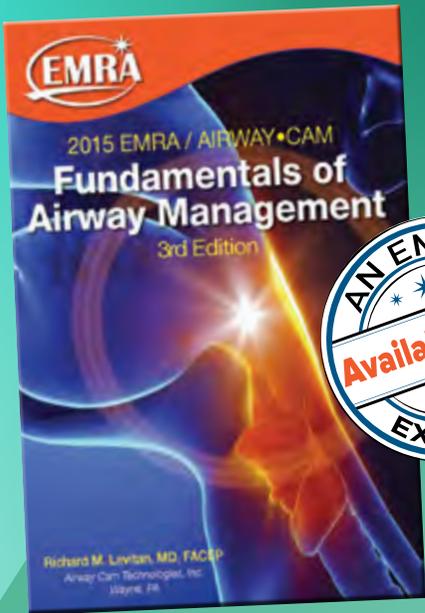
Monitor the EMRA Events @ SAEM schedule at emra.org/Events/SAEM-Annual-Meeting for the latest updates.

Lagniappe

"Nawlins" as a host city revolves around the concept of lagniappe: a little something special, something extra — like a 13th doughnut hiding in your dozen glazed. EMRA's bringing the lagniappe, in the form of several popular events:

- **EMRA Quiz Show**
Wednesday, May 11, 5-7 p.m., Rhythms Ballroom
A perennial favorite, the EMRA Quiz Show is not your everyday trivia contest. Tricky medical questions demand that everyone be on top of their game — with a healthy dose of entertainment and audience participation added to the mix.
- **EMRA Spring Awards Reception**
Thursday, May 12, 6-7 p.m., Rhythms Ballroom
Take an hour to applaud your fellow EMRA members whose accomplishments have earned them recognition. It's our privilege to honor the students, residents, and faculty included in the Spring Awards roster.
- **EMRA Party at SAEM**
Thursday, May 12, 10 p.m.-2 a.m., 711 Bourbon St.
EMRA's party power hits Bourbon Street this year, with the EMRA Party at [Bourbon Heat](#), a haunted hot spot. Jazz, architectural heritage, local flavor, and modern flair combine to make this French Quarter hangout a favorite.
- **EMRA Resident SIMWars**
Friday, May 13, 12:30-4:30 p.m., Rhythms Ballroom
Tough medical cases are the backbone of this riveting competition, where teams from seven programs go head-to-head to see who offers the best care. Can defending champs Northwestern University hold on to the title?



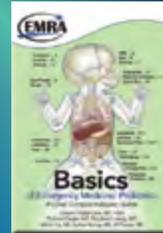
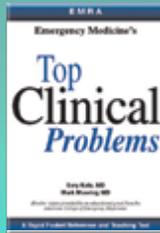
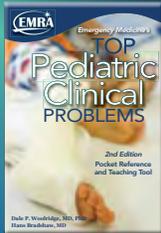
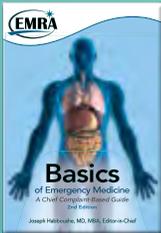


By **Richard M. Levitan, MD**

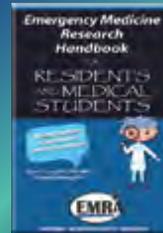
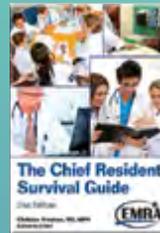
EMRA Member Price \$49; ACEP Member price \$69; List Price \$79

From Bookshelf to Bedside

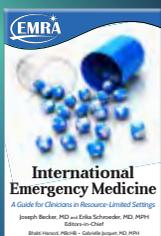
Visit our online bookstore to explore EMRA's **exclusive** list of emergency medicine books and reference cards.



On-the-Job Handbooks



Career-Building Resources



Free e-Books

visit emra.org



Quick-Reference Pocket Cards

PRICING

Handbooks/Resource books

EMRA Members \$17
ACEP Members \$25
List \$27

EXCEPT Basics of EM and Basics of EM Pediatrics

EMRA Members \$9
ACEP Members \$12
List \$15

Pocket Cards

EMRA Members \$7
ACEP Members \$10
List \$12



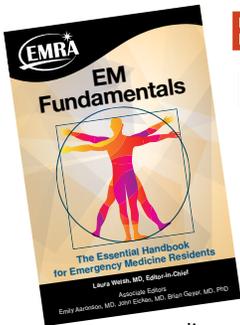
Visit your mobile provider's app store and search "EMRA" to browse our collection of mobile tools, including the EMRA *Antibiotic Guide*, *PressorDex*, *Basics of EM*, *Pediatric Airway*, *Peds Meds*, and *EM Rashes*.

Expand Your Network: Serve on an ACEP Committee

EMRA and ACEP want to help you grow as a professional – and one key way to do that is by serving in volunteer leadership roles. Now's the time to apply!

ACEP is accepting applications for its national committees, with **forms due May 16**. Step up to represent EMRA and your fellow residents. Help ACEP committees in their work to advance the specialty while keeping members' needs in sight.

Apply online at <https://webapps.acep.org/Membership/committeeinterest.aspx>, and include your CV and a letter of support from your ACEP chapter. ★



EM Fundamentals. Knowledge in Your Pocket

Make room on your shelf for *EM Fundamentals: The Essential Handbook for Emergency Medicine Residents*. This pocket-sized publication offers a primer on a vast array of cases you might see during a busy shift.

Brought to you in part by an educational grant from Teleflex, *EM Fundamentals* includes quick guides, can't-miss

diagnoses, common practice overviews, and more. Karen Hust, RN, MSN, CEN, director of Teleflex Inc.'s Professional Development, Clinical and Medical Affairs, says the *EM Fundamentals* endeavor is important.

"Investing in medical education supports the safe and effective utilization of products and procedures that impact patient outcomes in a positive way," Hust said.

Authored by the residents of the Harvard Affiliated Emergency Medicine Residency, the book is edited by Laura Welsh, MD, with associate editors Emily Aaronson, MD, John Eicken, MD, and Brian Geyer, MD, PhD. All EMRA resident members will receive a complimentary copy in the mail. ★

ACGME Resident Review Committee-EM Representative

The ACGME will appoint the next RRC-EM representative later this year – choosing from candidates put forth by EMRA. If you would like to be among those candidates, now's the time to speak up. Email current RRC-EM rep Leonard Stallings, MD, at rccemrep@emra.org to be considered for the nomination.

The RRC-EM representative serves as a non-voting member of the EMRA Board of Directors, with accompanying travel and board responsibilities. In addition, this person is tasked with attending RRC-EM meetings and serving as a voting member of the RRC-EM group.

The position is a 2.5-year commitment and includes a 6-month orientation period. Contact rccemrep@emra.org for more information. ★

ABEM News

The American Board of Emergency Medicine is honoring 270 physicians who have marked 30 or more years of being board-certified in emergency medicine. ABEM salutes these physicians for their dedication to the specialty, recognition of the value of board certification, and commitment to patients. Find out who's on the list at <https://www.abem.org/public/news-notices-exam-dates-fees/other-news-announcements/abem-30-year-certificates>. ★



New Advocacy Handbook Brings Legislative Arena into Focus

More than 70 members of the emergency medicine community have spent months researching, writing, and editing EMRA's "Emergency Medicine Advocacy Handbook, 4th ed." – available in conjunction with the 2016 ACEP Leadership & Advocacy Conference.

The end result, say editors Nathan Schlicher, MD, JD, FACEP, and Alison Haddock, MD, FACEP, is a leaner, more focused edition that helps put the practice of emergency medicine into broader context.

"Most medical challenges filter through policy issues, and knowing the legal, regulatory, and political concerns is critical to being an effective provider," Dr. Schlicher said.

US Acute Care Solutions provided an educational grant to help fund the book because the importance of advocacy is paramount, according to L. Anthony Cirillo, MD, FACEP, the company's director of Clinical Health Policy & Legislative Advocacy.

"The impact of policymaking on the lives of physicians and our patients is difficult to overstate," Dr. Cirillo said. "This is why US Acute Care Solutions' commitment to advocacy is so strong – because it is no exaggeration to say lives depend on it."

Dr. Haddock points out the new edition is packed full of insight relevant to residents and students.

"This knowledge will help, because once you are in practice, it isn't just your clinical skills that matter," she said. "Your ability to understand the health care system in which you work is crucial in order for you to be an effective advocate for your patients and your profession - including making sure that you are fairly reimbursed for the critically important services you provide!" ★

UPCOMING EVENTS

- April 9 Medical Student Symposia
Baltimore, MD
- April 16 Medical Student Symposia
Columbus, OH
- April 30 ACEP Medical Student
Professionalism and Service Award
Applications Due
- May 10–13 SAEM Annual Meeting
New Orleans, LA
- May 15–18 Leadership & Advocacy Conference
Washington, DC
- June 9–11 AMA-RFS 2016 Annual Meeting
Chicago, IL
- September EM Day of Service
(monthlong initiative)
- Oct. 13–19 EMRA Events at ACEP Scientific
Assembly
Las Vegas, NV

Present up to
20 slides in 6 minutes.
Any topic in EM.
In front of your peers.

ACEP16
Las Vegas

Sounds easy? Not so much!

EMRA is looking for the best
lecturer in the country!

IS IT YOU?

Only fifteen spots available! Application process starts soon.

WANT TO SEE THE LAST YEAR'S TOP 3?
emra.org/Events/20-in-6--Resident-Lecture-Competition

This EMRA event
sponsored by



HIPPO
Emergency Medicine
Board Review



DONATE A BRICK

“Pave the Way”
for the
Future of
Emergency Medicine



You've built your career in emergency medicine—now is your chance to
build the future of the specialty.

In 2016, ACEP is moving to a dynamic new headquarters in Irving, TX. To ensure that
emergency medicine research always has a home in ACEP's new building, you can add your
personalized brick to the EMF Plaza, a beautiful collection of brick pavers in the courtyard.

For \$250, residents will have a personalized brick in the EMF Plaza, receive a
brick certificate, and recognition in EMF's newsletter, *SCOPE*, and *ACEP Now*.

Donate today! EMFoundation.org/PaveTheWay

Diagnose this Rash



PHOTOS COURTESY OF SHEHZAD MUHAMED, MD, AND GLAREH IMANI, DO

The Patient

A 54-year-old female presents to the emergency department with a rash on her hands and legs that has progressed over the past day. She reports having used Lysol to clean the house yesterday and believes the rash started shortly after that. Further history reveals she started Bactrim 2 days ago for a back abscess, but the patient swears she has taken Bactrim in the past without any issues. The rash was initially erythematous and pruritic but progressed quickly. She now has blisters on the dorsum of her right hand and medial left wrist, and reports an associated tingling sensation. She denies fevers, chills, abdominal pain, nausea, vomiting, or diarrhea. Physical exam is unremarkable aside from the findings seen in the photographs.

What is the diagnosis?



Shehzad Muhamed, MD,
and Glareh Imani, DO
UF College of Medicine
Jacksonville, FL

See the
DIAGNOSIS
on page 40

The Diagnosis

Fixed Drug Eruption

This patient has a fixed drug eruption (FDE) likely secondary to Bactrim use. While many classes of drugs can cause FDEs, suspicion should be highest in patients who have a history of antibiotic, NSAID, anti-epileptic, sedative, or anti-malarial use. The rash typically presents as well-demarcated, round or oval red macules, but it can evolve into plaques or bullae. An associated tingling or burning sensation, as this patient described, is also common. The reaction can occur anywhere from 30 minutes to several days after exposure.

The diagnosis is usually clinical; however, histopathology may be helpful if atypical features are present. Treatment of FDEs in the acute setting involves symptomatic control in the form of systemic antihistamines and/or topical corticosteroids. The use of systemic corticosteroids is not well established. The lesions typically resolve spontaneously over the course of a week after cessation of the offending agent. FDEs can recur if there is subsequent exposure to the offending agent or to an agent with cross-reactivity. Thus, patch testing and oral provocation may be performed to identify the suspecting agent several weeks after the inciting event. ★

AN INITIATIVE OF
THE EMRA RESEARCH
COMMITTEE

TERMS

Positive Predictive Value (PPV): The probability that a positive test result predicts disease

Negative Predictive Value (NPV): The probability that a negative test result predicts no disease

	Test +	Test -
Disease +	A	B
Disease -	C	D

$PPV = A / (A+B)$

$NPV = C / (C+D)$

Example: Transvaginal ultrasound (TVUS) has a 94% PPV and 100% NPV in the diagnosis of ectopic pregnancy.

What does this mean?

PPV: If a patient has a positive TVUS, there is a 94% probability that they have an ectopic pregnancy.

NPV: If a patient has a negative TVUS, there is a 100% probability that they do NOT have an ectopic pregnancy.

Rapid Research Review

Extra Point: As the prevalence of a disease increases, the PPV increases. As the prevalence of a disease decreases, the NPV increases.

Be sure to see our
Top Research Articles of
2015 on emresident.org!

Board Review

QUESTIONS

Provided by *PEER VIII*. *PEER (Physician's Evaluation and Educational Review in Emergency Medicine)* is ACEP's gold standard in self-assessment and educational review. These questions are from the latest edition of *PEER VIII*. For complete answers and explanations, visit emresident.org (Features section).

To learn more about *PEER VIII*, or to order it, go to www.acep.org/bookstore.



- In a patient with ataxia, what diagnosis is suggested by a positive Romberg test?
 - Cerebellar ataxia
 - Motor ataxia
 - Sensory ataxia
 - Vestibular ataxia
- In a patient who intentionally overdosed on paroxetine 6 hours earlier but has remained asymptomatic, with normal vital signs and a normal physical examination, which of the following test results is needed to guide management?
 - Serum acetaminophen concentration
 - Serum ethanol concentration
 - Urine drugs of abuse screen
 - Urine tricyclic antidepressant screen
- A mother brings in her 5-day-old son because she is concerned about his color. She says he has not fed well for the past 24 hours and always seems to be breathing hard. Vital signs are blood pressure 73/44, pulse 120, respirations 65, and temperature 37.2°C (99°F). Physical examination reveals perioral cyanosis and dusky skin of the face and trunk. Immediate management includes:
 - 100% oxygen by nonrebreather mask
 - Isotonic crystalloid fluid 20 mL/kg
 - Phenylephrine 5 mcg/kg IV bolus
 - Synchronized cardioversion at 0.5 to 1 J/kg
- A 42-year-old man presents after a motor vehicle crash in which he was the unrestrained driver. He has shortness of breath and pain and crepitation on the right side of his chest. In the ambulance, he became tachycardic, tachypneic, and hypotensive. Symmetrical breath sounds are noted. What is the appropriate next step?
 - Order chest radiography
 - Perform needle decompression of the chest
 - Set up for a tube thoracostomy
 - Start normal saline 1 L bolus IV
- A 35-year-old woman with known myasthenia gravis presents with a fever and right lower quadrant pain. Abdominal CT scanning reveals acute appendicitis. While in the emergency department, she begins to complain of increasing shortness of breath. Vital signs remain stable. What is the appropriate next step?
 - Administer pyridostigmine
 - Measure forced vital capacity
 - Perform emergent intubation
 - Perform the ice bag test

EM Resident

Official Publication of the Emergency
Medicine Residents' Association



**Full of Personality and
Engaging Personalities**

Published six times a year. **Read by
14,000+ emergency medicine residents.**
*Written by residents for residents and
leaders in the specialty.* Chockful of clinical
content and lifestyle news.

**We occupy a unique space
in the house of medicine**

**PRINT AND ONLINE MARKETING
OPPORTUNITIES AVAILABLE**

Contact **Cynthia Kucera** | 201-767-4170
advertising@emra.org

Download EM Resident Media Kit
emra.org/advertise

CLASSIFIED ADVERTISING

ARIZONA

Casa Grande: Banner Casa Grande Regional Medical Center is a full-service community hospital with an annual volume of 39,000 emergency patients. Excellent back up includes 24-hour hospitalists. Casa Grande is located just south of Phoenix and north of Tucson. Beautiful weather year round, unlimited outdoor activities and major metro areas a short distance away make this an ideal setting. EMP offers democratic governance, open books and equal equity ownership. Compensation package includes comprehensive benefits with funded pension, CME account, and more. Contact Bernhard Beltran directly at 800-359-9117 or e-mail bbeltran@emp.com.

CALIFORNIA

Madera: Pediatric EM — Excellent compensation package (\$300K/yr) at Valley Children's Hospital. Join an outstanding team of fellowship trained/board certified pediatric emergency medicine physicians, with 100,000 pediatric emergency patients treated annually, excellent back up, PICU, and in-house intensivist coverage. The ED physicians also staff the hospital-wide sedation service. The compensation package includes comprehensive benefits with funded pension, CME account, family medical/dental/prescription/vision coverage, short and long term disability, life insurance, malpractice (occurrence) and more. Contact Bernhard Beltran directly at 800-359-9117 or email bbeltran@emp.com.

Northern: Placerville, Marshall Medical Center — Equity partnership position with stable, democratic group at modern community hospital seeing 31,000 emergency pts./yr. New 24 bed ED opened in 2013. Desirable area proximate to the amenities of the Bay Area, Sacramento, Napa Valley, Lake Tahoe and Yosemite. Emergency Medicine Physicians (EMP) is a dynamic, majority clinician-owned, democratic group offering unparalleled career opportunity for our physicians. We offer open books and excellent compensation plus shareholder status. Comprehensive benefits include funded pension, CME account, family medical/dental/prescription/vision coverage, relocation allowance, short and long term disability, life insurance, malpractice (Occurrence) and more. Please contact Bernhard Beltran at 800-359-9117 or email bbeltran@emp.com.



Section of Emergency Medicine Fellowship Programs!

The Section of Emergency Medicine at Baylor College of Medicine in Houston, TX is offering fellowship positions beginning July 2016.

Current fellowship offerings include:

- Medical Education
- Ultrasound Education and Administration
- Administration and Operations
- Emergency Medical Services
- Health Policy and Advocacy
- Global Health

Fellows receive a faculty appointment and are eligible for full benefits. Fellows work clinically in all of the sites staffed by the section. Tuition support for various Masters' programs, as well as support for travel and CME, is provided per the specific curriculum. For more information on individual programs, contacts, and the application process, please visit:

<http://bit.ly/bcmEMfellow>



YALE UNIVERSITY SCHOOL OF MEDICINE

Department of Emergency Medicine

Fellowship Programs



For specific information including deadlines and requirements, visit: <http://medicine.yale.edu/emergencymed>

The **Research** fellowship is a 2-3 year program focused on training clinician scholars as independent researchers in Emergency Medicine. Scholars will earn a Master of Health Sciences degree from Yale combining clinical experience with extensive training in research methods, statistics and research design. With the guidance of research content experts and professional coach mentors, the scholar will develop a research program, complete a publishable project and submit a grant application prior to completion of the program. The program is credentialed by the Society for Academic Emergency Medicine. For further information, contact **Steven L. Bernstein, MD**, steven.bernstein@yale.edu.

The fellowship in **Emergency Ultrasound** is a 1 or 2 year program that will prepare graduates to lead an academic/community emergency ultrasound program. The 2-year option includes a Master of Health Sciences with a focus on emergency ultrasound research. This fellowship satisfies recommendations of all major societies for the interpretation of emergency ultrasound, and will include exposure to aspects of program development, quality assurance, properties of coding and billing, and research. The program consists of structured time in the ED performing bedside examinations, examination QA and review, research into new applications, and education in the academic/ community arenas. We have a particular focus on emergency echo and utilize state of the art equipment, as well as wireless image review. Information about our Section can be found at <http://medicine.yale.edu/emergencymed/ultrasound>. For further information, contact **Chris Moore, MD, RDMS, RDCS**, chris.moore@yale.edu, or apply online at www.usfellowships.com.

The fellowship in **EMS** is a 1-year program that provides training in all aspects of EMS, including academics, administration, medical oversight, research, teaching, and clinical components. The ACGME-accredited program focuses on operational EMS, with the fellow actively participating in the system's physician response team, and all fellows offered training to the Firefighter I or II level. A 1-year MPH program is available for fellows choosing additional research training. The fellowship graduate will be prepared for a career in academic EMS and/or medical direction of a local or regional EMS system, and for the new ABEM subspecialty examination. For further information, contact **David Cone, MD**, david.cone@yale.edu.

The **Administration** fellowship is a new 2-year program that will prepare graduates to assume administrative leadership positions in private or academic practice. By having an active clinical practice in our department, the fellow will acquire experience in all facets of emergency department clinical operations. Fellows will complete the Executive MBA program at the Yale School of Management and a clinical Emergency Medicine Administrative Fellowship. In addition, the candidate will play a leadership role on one or more projects from the offices of the Chair and Vice Chair for Clinical Operations. For further information, contact **Andrew Ulrich, MD**, andrew.ulrich@yale.edu.

The **Global Health and International Emergency Medicine** fellowship is a 2-year program offered by Yale in partnership with the London School of Hygiene & Tropical Medicine (LSHTM). Fellows will develop a strong foundation in global public health, tropical medicine, humanitarian assistance and research. They will receive an MSc from LSHTM, a diploma in Tropical Medicine (DTM&H) and complete the Health Emergencies in Large Populations (HELP) course offered by the ICRC in Geneva. In addition, fellows spend 6 months in the field working with on-going Yale global health projects or on an independent project they develop. For further information, contact the fellowship director, **Hani Mowafi, MD, MPH**, hani.mowafi@yale.edu.

NIDA K12: Partnering with Yale's Clinical and Translational Sciences (CTSA), Robert Wood Johnson Foundation Clinical Scholars Program, the Center for Interdisciplinary Research on AIDS (CIRA) and the VA Connecticut Healthcare we are offering the Yale Drug Abuse, HIV and Addiction Scholars K12 Research Career Development Program. The DAHRS K12 Scholars Program provides an outstanding 2-3 year research training experience that offers a Master of Health Science, a mentored research program as well as career and leadership development activities. For further information, contact **Dr. Gail D'Onofrio** at gail.donofrio@yale.edu

The **Wilderness Medicine** fellowship is a 1-year program that provides the core content of medical knowledge and skills in being able to plan for and to provide care in an environment that is limited by resources and geographically separated from definitive medical care in all types of weather and evacuation situations. The fellow will be supported to obtain the Diploma in Mountain Medicine and other Wilderness Medical education. The fellow will become a leader and national educator in the growing specialty of wilderness medicine. For further information, contact **David Della-Giustina, MD, FAWM** at david.della-giustina@yale.edu

The **Medical Simulation** fellowship is a 1-year program that provides training in all aspects of simulation education, including high fidelity mannequin simulation with computer program training, acquisition of debriefing skills and procedural simulation. The fellow will participate in all educational programs for medical students, residents and faculty at the new Yale Center for Medical Simulation (opening in the winter of 2014-15). The fellow will receive training in research methodology through the Research Division of the Department of Emergency Medicine and participate in the medical education fellowship through Yale Medical School. The fellow will attend a one week Comprehensive Instructor Workshop at the Institute for Medical Simulation in Boston. The fellow will also have the opportunity to participate in an international exchange through the Yale-China Association Xiangya School of Medicine. For further information, contact **Leigh Evans, MD** at leigh.evans@yale.edu.

All require the applicant to be BP/BC emergency physicians and offer an appointment as a Instructor to the faculty of the Department of Emergency Medicine at Yale University School of Medicine.

Applications are available at the Yale Emergency Medicine web page <http://medicine.yale.edu/emergencymed> and are due by November 15, 2016 with the exception of the Wilderness Fellowship, which are due by October 15, 2016.

Yale University and Yale-New Haven Hospital are affirmative action, equal opportunity employers and women, persons with disabilities, protected veterans, and members of minority groups are encouraged to apply.



**We are the
future of
health care.**

EMERGENCY MEDICINE PHYSICIAN OPPORTUNITIES

NORTHERN & SOUTHERN CALIFORNIA

Practice opportunities for Emergency Medicine Physicians are available with Kaiser Permanente in various regions across California.

At Kaiser Permanente, we believe in promoting a healthier way of life for both our patients and physicians. As a member of our cross-specialty team, we offer a balanced call and work schedule and an integrated health care system emphasizing collaboration.

We offer our physicians an excellent compensation and benefits package. Our locations are inspiring: whether you're drawn to breathtaking natural surroundings, year-round recreational amenities, a great climate, colorful changes of season, big city attractions or small-town charm, Kaiser Permanente has a location you'd love to call home. Incentives may be available to you to compensate for experience, training and geographic choice.

**Learn more about our leadership mission and how we inspire
good health by contacting us today.**

Northern California

Narlyn Villaruel
Narlyn.Villaruel@kp.org
(510) 625-5932

Southern California

Glenn Gallo
Glenn.Gallo@kp.org
(877) 608-0044



KAISER PERMANENTE®

<http://physiciancareers.kp.org>

We are an EOE/AA/F/D/V Employer.



CHALLENGE YOURSELF AS A U.S. ARMY EMERGENCY MEDICINE PHYSICIAN.

As part of the U.S. Army health care team, you can make a real difference treating the immediate medical needs of Soldiers and their families while also growing in your career:

- You'll work with the most advanced emergency technology and have the opportunity to experience a variety of settings.
- You'll develop as a leader, learn from the best and have the ability to make quality patient care your main focus.
- You'll receive excellent benefits such as special pay, as well as the potential for continuing education and career specialty options.

To learn more, call 800-431-6717 or visit healthcare.goarmy.com/at63



PICTURE YOURSELF AT QUESTCARE

JOIN US AS WE GROW!



Are you interested in an opportunity to join a group of medical professionals who are serious about their work AND play? With Questcare, you will find a company that creates the work/play balance that you have the power to choose.

Get in touch with us TODAY.
jobs@questcare.com or (972) 763-5293

www.questcarecareers.com



EXCITING EMERGENCY
MEDICINE
OPPORTUNITIES
AVAILABLE IN
TEXAS AND OKLAHOMA



AS A QUESTCARE PARTNER:

- Work in high-demand metropolitan areas
- Group decisions are made by you and doctors like you
- You will have scheduling flexibility to enjoy what moves YOU



questcare
EMERGENCY MEDICINE

CLASSIFIED ADVERTISING

Kettering Health Network, a not-for-profit network of eight hospitals serving southwest Ohio, is assisting a highly regarded, regional group in their search for full-time **Board Certified/ Board Prepared Emergency Medicine physicians**. These positions offer competitive salary, sign-on bonus of up to \$40,000, a rich benefits package, and moving expense reimbursement.

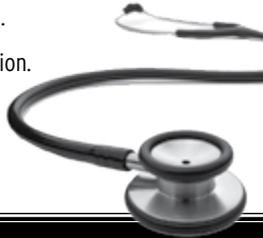
This group, comprised of 63 physicians and advanced practice providers, currently staffs six of Kettering Health Network's Emergency Departments; four hospital locations (Trauma Level II/III choices); and two freestanding Emergency Centers. Choose your perfect setting!

The network has received numerous awards for excellent clinical care and service. In fact, CareChex named Kettering Medical Center #1 in Ohio for trauma care – a testament to our team and the exceptional care it provides at its Level II Trauma Center.

We are scheduling site visits now!

Contact Audrey Barker, Physician Recruitment Manager, at audrey.barker@ketteringhealth.org; (740) 607-5924 cell; (937) 558-3476 office; (937) 522-7331 fax.

Visit ketteringdocs.org for more information.



"Our group allows our physicians to have a challenging career & maintain a high quality of life"

- **Abigail Adams, MD**
Assistant Medical Director
& EMPros Partner



Live & Work
Where **MOST**
Vacation!

- ◆ Independent democratic group in business for over 35 years
- ◆ 3 East Central Florida Hospital ED's & 2 urgent care centers
- ◆ Health, Life, 401K, Disability & CME Account
- ◆ Partnership opportunity in 18 months



San Francisco: Chinese Hospital – Located in the heart of San Francisco's Chinatown, Chinese Hospital has served the diverse healthcare needs of this community since 1924. Although the volume of emergency patient visits is low (6,500 per year), the acuity is high with a wide spectrum of interesting and complex medical cases. A brand new state of the art ED is opening in 2016. The supportive medical staff of approximately 250 represents most major specialties. ED shifts are 12 hours in length and provide for a high quality of life through a manageable work schedule. Emergency Medicine Physicians (EMP) is a stable, democratic, clinician owned group that offers true career opportunity and outstanding benefits. We maintain progressive management with our primary commitment to patient care. Compensation includes some of the best benefits in emergency medicine including a pension contribution and a Business Expense Account, medical, dental, vision, prescription coverage and more. Please contact Bernhard Beltran at 800-359-9117 or submit your CV to bbeltran@emp.com.

South Bay: Adult & Pediatric EM Physician BC/BP to join private group in busy, 200 bed community hospital in South Bay, 5 minutes from the beach. Catchment area from Palos Verdes peninsula to El Segundo/Manhattan Beach. As a team member you'll have: 8-10 hour shifts, designed to allow for physician longevity; Competitive hourly rate, with well-defined increases once you are full time; All docs are independent contractor status for tax benefits; 11 overlapping physician shifts/day, 95 physician hours of coverage, MLP in triage & fast track 3 shifts/day; 70,000+ visits with 21% admit rate; EPIC EMR with Dragon Dictation; Ideal call panel (ENT, urology, cardiothoracic, pediatric surgery, podiatry, ophthalmology, interventional and non-interventional cardiology, etc.); Stroke and STEMI receiving center, Paramedic Base station. 24/7 ultrasound, CT, XR, MRI in US Top 100 Hospital. Contact Luis Abrishamian, abrishamian@gmail.com for details.

CONNECTICUT

Meriden, New London and Stamford: MidState Medical Center is a modern community situated between Hartford and New Haven, seeing 57,000 EM pts./yr. Lawrence & Memorial is a Level II Trauma Center on the coast near Mystic seeing 50,000 pts./yr. The Stamford Hospital is a Level II Trauma Center seeing 49,000 ED pts./yr., located 35 miles from New York City near excellent residential areas. Ownership Matters – EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

FLORIDA

Emergency Physician – Florida Hospital Zephyrhills. Florida Emergency Physicians is looking for outstanding Emergency Medicine Physicians to join the team at Florida Hospital Zephyrhills. **\$50,000 sign-on bonus; 138 hours/month; Comprehensive benefits package; Leadership opportunities; Relocation Assistance.** If you're looking for an opportunity to work for the largest health care provider in the state of Florida while enjoying the small-town, close-knit community environment, Florida Hospital Zephyrhills may be the place for you. This 139-bed regional medical center is located only a short drive from Tampa, the sandy beaches of St. Petersburg and Clearwater, and the world-famous Orlando attractions. Since its earliest history, FEP has provided a work environment for individual practitioners with a flexible work schedule. FEP has grown through the years and at present is one of the larger, truly independent emergency medicine groups in the nation. Apply today at syarcheck@floridaeap.com.

Daytona Beach: Halifax Health Work for the Largest ED in Florida! Halifax Health in Daytona Beach, Florida, a popular tourist destination on the sunny East Central Florida coast, is actively recruiting EM BC/BP physicians. Halifax Health opened in 1928 and currently maintains 678 beds, represents over 46 subspecialties and proudly has more than 500 physicians on their medical staff. This state-of-the-art level II Trauma Center encompasses 89,000 square feet, 8 clinical units (including Pediatrics) with a total of 110 treatment rooms, the areas only Obstetric Emergency Department and is the largest Emergency Department in Florida. This is a democratic hospital employed group with outstanding administrative support and 24/7 multi-physician coverage plus physician extenders. Halifax Health offers competitive compensation with RVU incentive, sign on and relocation bonuses, CME allowance, comprehensive benefits package and retirement plan, malpractice insurance and flexible scheduling. Contact Jerri Sills at jerri.sills@halifax.org.

MARYLAND >> VIRGINIA >> WASHINGTON, D.C. >> WEST VIRGINIA

EMA, an established sixteen-hospital, regional, democratic, physician-managed group seeks full and part-time BC or BP Emergency physicians to practice in Maryland, Northern Virginia, Washington, D.C. and West Virginia. Since 1971, EMA has offered our physicians an unmatched quality-of-life with the security of our 100% contract stability!

TOP
WORK
PLACES
2018

The Recognition Panel

- Physician-owned/managed group
- Democratic partnership structure
- Quality-of-life centered practice
- Administrative & clinical opportunities
- Initially five weeks of paid time off per year
- Full benefits package for physicians and family

Send CV: Emergency Medicine Associates, P.A., P.C.
Phone: 1-800-942-3363
Fax: 240-686-2334
Email: Recruitment@EMAonline.com
www.EMAonline.com

LIVE, WORK & PLAY WITH US!

EMA
EMERGENCY MEDICINE ASSOCIATES, P.A., P.C.

CLASSIFIED ADVERTISING

Jacksonville: St. Luke's Emergency Care Group, LLC — Independent physician run group at St Vincent's Medical Center Southside in beautiful Northeast FL. Great area/community with river and ocean access, good schools, sports, and entertainment. Emergency Medicine residency trained BC/BP physicians with PA's providing MLP coverage. FT/PT available. Low physician turnover. Flexible scheduling with 10 hr. shifts. Holiday pay, shift differential, competitive base salary, and a quarterly RVU bonus pool. Cerner EMR. Supportive medical staff with hospitalists in house and intensive care coverage, L&D/Neonatal ICU. Currently we staff 50 hours physician + 20 hours MLP coverage/day with overlapping shifts. Best coverage for volume in NE Florida. 39,500 ED visits/year. **Please contact us directly and send CV to: Kathering Considine, MD, President and Medical Director kconsidine@jaxhealth.com (904) 296-3885.**

Sarasota: Fantastic EM opportunity exists in beautiful Sarasota County for ABEM/AOBEM Physicians to practice in one of America's most desirable places to live, work and raise a family. Doctors Hospital of Sarasota is a beautifully designed 155-bed, acute care facility. The newly expanded 19-bed ED treats over 27,000 patient visits annually with staffing model allowing for a comfortable 2.0 pph. Offering premium remuneration, employee benefits, occurrence based malpractice and sign-on/relocation bonus. For additional information contact Frances Miller, Physician Recruiter at 727.507.2507 or frances_miller@emcare.com.

GEORGIA

Atlanta: EmergiNet, a progressive, well-established physician owned emergency group has positions available for BC/BP, EM residency trained physicians at multiple facilities in the Atlanta area. We work as a team emphasizing quality emergency care, dedicated customer service, professional and personal growth. Fee-for service based compensation, plus benefits, in the \$350K range. Malpractice and tail coverage are provided. Flexible scheduling, no non-compete, and much more. E-mail CV to Neil Trabel, ntrabel@emerginet.com; fax 770-994-4747; or call 770-994-9326, ext. 319.



Contact us at
recruitment@umem.org
or 410-328-8025

UMEM is an EOE/AEE



UNIVERSITY of MARYLAND

Community and Academic Openings for BE/BC Emergency Physicians

Vibrant and varied career possibilities in community and academic settings in the Baltimore metropolitan area as well as near Washington, Philadelphia, and Maryland's coastline

Live and work in an urban, suburban, or rural community, in an atmosphere that encourages work/life balance

Current EM Practice Opportunities

Downtown Baltimore – Volumes from 21 to 62K www.umem.org/page/opportunities/academic
North of Baltimore – Volumes from 32 to 62K www.umem.org/page/hospitals/uc
Eastern Shore – Volumes from 15 to 37K www.umem.org/page/hospitals/eastern_shore
DC Suburbs – Volumes from 34 to 60K www.umem.org/page/hospitals/pg_county

Our supportive team approach in the delivery of high quality patient care features:

- Dedicated fast track and intake units staffed by family practice physicians and PAs
- ED scribes and medical information systems
- Stroke centers & STEMI programs
- Ultrasound programs with bedside US machines
- Advanced airway equipment including GlideScope®

Generous Compensation and Benefit Package

- Hourly rates with shift differentials
- Quarterly incentive bonus plan
- Health/dental/disability/life insurance coverage
- Employer-paid CME, PTO, and 401K safe harbor retirement plan
- Employer-paid malpractice insurance with full tail coverage



Emergency Physicians of Tidewater (EPT) is a democratic group of BC/BP (only) EM physicians serving 7 EDs in the Norfolk/VA Beach area for the past 40+ years. We provide coverage to 5 hospitals and 2 free-standing EDs. Facilities range from a Level 1 Trauma, tertiary care referral center to a rural hospital ED. Members serve as faculty for an EM residency and 2 fellowships. All facilities have EMR, PACS, and we utilize MPs. Great opportunities for involvement in ED Administration, EMS, US, Hyperbarics and medical student education.

Very competitive financial package leading to full partnership/profit sharing. Outstanding, affordable coastal area to work, live, and play. Visit www.ept911.com to learn more.

Send CV to: EPT
4092 Foxwood R, Ste 101
Va Beach, VA 23462
Phone (757) 467-4200
Email eptrecruiter@gmail.com

CLASSIFIED ADVERTISING

HAWAII

Pali Momi Medical Center: Emergency Medicine Physicians (EMP) is seeking Emergency Medicine Physicians to join us at Pali Momi Medical Center. Pali Momi Medical Center is a 116 bed facility with an annual volume of 66K patients. If you have ever dreamed of moving to Hawaii, now is your chance. This is your opportunity to practice in a challenging and rewarding setting while enjoying the lifestyle that only this island paradise can offer. EMP offers democratic governance and excellent compensation. Compensation package includes comprehensive benefits, family medical/dental/prescription/vision coverage, short and long term disability, pension contribution, CME allowance, life insurance, malpractice and more. This is a very rare opportunity, for additional information I urge you to contact me Bernhard Beltran at 800-359-9117 or submit your CV via email for immediate consideration bbeltran@emp.com EMP, 4535 Dressler Road NW, Canton, OH 44718.

ILLINOIS

Chicago Heights/Olympia Fields: Franciscan St. James Health (2 campuses seeing 34,000 and 40,000 pts./yr) is affiliated with Midwestern University's emergency medicine residency program. Situated just 30 miles south of Chicago, the location makes for easy access to a variety of desirable residential areas. Ownership Matters — EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Chicago-Joliet: Presence Saint Joseph Medical Center (70,000+ pts./yr.) is a respected hospital SW of Chicago proximate to the Hinsdale and Naperville suburbs. Comprehensive services include a dedicated pediatric ED. Outstanding opportunity to join a dynamic director and supportive staff. Ownership



Assistant/Associate Residency Program Director

Emergency Medicine Core Faculty

Pediatric Emergency Medicine Faculty

The Emergency Medicine Department at Penn State Milton S. Hershey Medical Center seeks energetic, highly motivated and talented physicians to join our Penn State Hershey family. Opportunities exist in both teaching and community hospital sites. This is an excellent opportunity from both an academic and a clinical perspective.

As one of Pennsylvania's busiest Emergency Departments with 26+ physicians treating over 70,000 patients annually, Penn State Hershey is a Magnet[®] healthcare organization and the only Level 1 Adult and Level 1 Pediatric Trauma Center in PA with state-of-the-art resuscitation/trauma bays, incorporated Pediatric Emergency Department and Observation Unit, along with our Life Lion Flight Critical Care and Ground EMS Division.

We offer salaries commensurate with qualifications, relocation assistance, physician incentive program and a CME allowance. Our comprehensive benefit package includes health insurance, education assistance, retirement options, on-campus fitness center, day care, credit union and so much more! For your health, Hershey Medical Center is a smoke-free campus.

Applicants must have graduated from an accredited Emergency Medicine Residency Program and be board eligible or board certified by ABEM or AOBEM. We seek candidates with strong interpersonal skills and the ability to work collaboratively within diverse academic and clinical environments.

For additional information, please contact:
Susan B. Promes, Professor and Chair, Department of Emergency Medicine, c/o Heather Peffley, Physician Recruiter, Penn State Hershey Medical Center, Mail Code A590, P.O. Box 850, 90 Hope Drive, Hershey PA 17033-0850, Email: hpeffley@hmc.psu.edu



PennState Health
Milton S. Hershey Medical Center

The Penn State Milton S. Hershey Medical Center is committed to affirmative action, equal opportunity and the diversity of its workforce. Equal Opportunity Employer – Minorities/Women/Protected Veterans/Disabled.

CLASSIFIED ADVERTISING

Matters — EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

KENTUCKY



Northern: Your career in Urgent Care starts here. BC/BP physicians wanted to work in our Urgent Care offices. We have Urgent Care locations to choose from with 10 hour shifts, no call, no in-patient work, and hourly rates with the possibility for productivity incentives. Enjoy Northern Kentucky's natural charm and all the Greater Cincinnati metropolitan area has to offer. We offer competitive salaries and a comprehensive benefit package. For more information about us, please visit our website at www.stedocs.com. **Please apply by sending your CV to Cathy Drennen, 859-344-7202, cathy.drennen@stelizabeth.com.**

MAINE

Central: In search of BC/board prepared emergency physicians to join our democratic hospital-employed group! Central Maine Medical Center, located 30 miles north of Portland, Maine, is an accredited Level II trauma center, tertiary referral hospital, and base station for Life Flight of Maine. Our ED volume is 50,000 patients/year and our providers typically see 1.5-2.0 patients/hour with a 15-20% admission rate. The department boasts diverse pathology and has both fast track and observation areas with low patient waiting times and minimal ED boarding. We have excellent subspecialty support including a cardiac cath lab, in-house intensivists, adult and pediatric hospitalists and an EMR. As part of an integrated health system, our providers also staff 2 critical

access rural EDs and 1 small community ED, each with a volume of 10-13,000 patients/year, allowing for a unique and diverse clinical practice setting. We offer a highly competitive compensation package, comprehensive benefits, a sign-on bonus and student loan repayment. Maine is known for being a safe place to live and to raise a family with nationally-ranked schools. Spend your free time enjoying a thriving arts, music and restaurant scene, and unparalleled outdoor recreation that includes skiing, biking, hiking, surfing and sailing. Learn more about Central Maine Medical Center and "The Way Life Should Be" by contacting Julia Lauer, CMMC Medical Staff Recruiter, 300 Main Street, Lewiston, ME 04240; Call 800/445-7431; Email JLauer@cmhc.org; Fax 207/755-5854.

MINNESOTA

St Paul: HealthEast is seeking **BC/BE ABEM Emergency Physicians** to join our outstanding team in the Twin Cities Eastern Metro areas of St. Paul, Minnesota. Join a unique team of 30 EM physicians and 6 PA's, which offers an employed model that is managed with input from all members. Practice at our Level III hospitals. St. John's Hospital, Maplewood, MN, with 24 beds and 38,000 annual visits; St. Joseph's Hospital, St. Paul, MN with 20 ED beds and 25,000 annual visits; and Woodwinds Hospital, Woodbury, MN with 15 ED beds and 28,000 annual visits. We offer 8, 9 and 10 hour shifts with flexible scheduling, nocturnist coverage and scribes. There are opportunities to participate in administration and to teach Family Medicine Residents. You'll receive a competitive base salary, call, productivity and quality incentive pay. Excellent benefit package that includes health, dental, short and long term disability, life, matched 403b, two retirement plans, cash benefit plan of 3%, CME, and medical malpractice (includes tail). HealthEast is a community-focused, non-profit organization, and the largest, locally owned health care organization in the Twin Cities' East Metro with over 7,000 employees, 1,400 physicians on staff, and 1,200 volunteers. Formed by the joining of hospitals rich in spiritual tradition, HealthEast knows the healing benefits of treating the body, mind and spirit. We



ED Physician FT or PT at Hallmark Health

Full and part-time ED positions are available at Hallmark Health, located 10 minutes North of Boston with locations in Melrose and Medford Massachusetts.

Hallmark Health is a two hospital system, located about 10 minutes north of Boston in a desirable community with full service Emergency Departments at Melrose Wakefield Hospital and Lawrence Memorial Hospital.

There are 70,000 annual combined patient visits, a new department, 24/7 angioplasty, anesthesia, OB/GYN, in-patient psychiatric unit, hospitalist program and excellent compensation package.

Very flexible work schedules and robust coverage.

To learn more contact Dr. Chris Defazio at cdefaziomd@hotmail.com or call 781-979-3635



An affiliate of



Akron General Medical Center is:

- More than 110,000 annual visits at our Main Campus and Three Freestanding ED's
- Verified Level I Trauma Center by the American College of Surgery
- Accredited Chest Pain Center (Society of Chest Pain Centers and Providers)
- A Primary Stroke Center with the Gold Seal of Approval™ from The Joint Commission
- One of the oldest Emergency Medicine Residencies
- Robust research with many publications
- Leadership in local EMS
- Press Ganey Guardian of Excellence Award 2013
- Press Ganey Guardian of Excellence Award 2014
- Emergency Nurses Association Lantern Award 2013

To join our team, the successful applicant will be an excellent clinician, interested in resident and medical student education and will develop an area of EM expertise. The applicant must also be fun and a good fit for our emergency care team.

Interested?

Nicholas Jouriles, MD

Chair, Emergency Medicine Akron General Health System

Professor & Chair, Emergency Medicine

Northeast Ohio Medical University

Past President,

American College of Emergency Physicians

Nick.Jouriles@akrongeneral.org

330.344.6326



CLASSIFIED ADVERTISING

provide compassionate service that respects the dignity of each person and welcomes all faith traditions, cultures and communities. We constantly move forward with new technology, while continuing to be a leader in providing high quality, compassionate care. The Twin Cities area is a vibrant metropolitan area with a population of 3.5 million, home to 20 Fortune 500 companies, strong educational system, major universities, professional sports teams, fine dining and numerous arts and cultural activities. To learn more about HealthEast and our opportunities, Please visit our website at www.healtheast.org, or contact: Julie Juba, Provider Recruitment, 651-326-2403, jwjuba@healtheast.org

NEVADA

Las Vegas: Full time opportunities for Pediatric Emergency Medicine Physicians. Children's Hospital of Nevada at UMC is the main teaching hospital of the University of Nevada School of Medicine and serves as the region's only Pediatric Trauma Center and Burn Center. Our 20-bed department cares for 31,000 pediatric patients annually. There is excellent sub-specialty coverage with 24 hour in-house intensivist coverage and a level 3 NICU. EMP is a physician managed group with open books, equal voting, equity ownership, funded pension, comprehensive benefits and more. Please contact Bernhard Beltran at 800-359-9117 or e-mail bbeltran@emp.com.

NEW YORK

Albany area: Albany Memorial Hospital has a newer ED that sees 44,000 pts/yr. and hosts EM resident rotations. Samaritan Hospital in Troy is a respected community hospital, minutes from Albany, which also treats 45,000 ED pts/yr. Ownership Matters – EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson, (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd, NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Cortland: Cortland Regional Medical Center is a modern, full-service facility situated in the Finger Lakes Region between Syracuse and Ithaca. A broad mix of pathology makes up 33,000 ED pts/yr., and there is strong support from medical staff and administration. Ownership Matters – EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson, (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd, NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Port Jefferson: EMP is pleased to announce our newest affiliation with John T. Mather Memorial Hospital. Situated in a quaint coastal town on Long Island's north shore, the facility sees 42,000 emergency patients per year. Pathology is broad with moderate acuity, and most services are represented. Enjoy a variety of residential options, outdoor recreation and shopping and access to NYC. Ownership Matters – EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson, (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd, NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Saratoga Springs: Practice In the Perfect Place: Vibrant Saratoga Springs, NY! Saratoga Emergency Physicians, P.C. (SEPPC) seeks enthusiastic, BC/BP Emergency Medicine physicians to join our comfortable, physician-owned practice in the small, but vibrant Upstate New York city of Saratoga Springs, near Albany, at the edge of the Adirondacks. This is an exceptional opportunity to join a stable practice at Saratoga Hospital, with annual volume of 40,000 visits, in a spacious, state-of-the-art, 41-bed ED, constructed six years ago. SEPPC has staffed the hospital for 26 years. We offer comprehensive benefits and locally competitive compensation. There is a two-year shareholder track with no financial buy-in.

Don't just join
another ED.
Join a system
of opportunity!

21 Hospitals in Long Island, Queens, Staten
Island, Manhattan and Westchester County

Whether you are just starting out as an Emergency Physician or have decades of experience, Northwell Health has the career opportunity you want today. We can also help you plan for tomorrow with flexible options for scheduling or transferring to different locations as your goals and needs change. So, don't just plan your next move. Plan your career.

Contact Andria Daily to learn more:
844-4EM-DOCS • EmergencyMedicine@northwell.edu
northwellhealthemphysicians.com



North Shore-LIJ is now Northwell Health.
We are an equal opportunity/AA employer: F/M/Disability/Vet



**THE PREMIER PROVIDER OF
EMERGENCY DEPARTMENT
MANAGEMENT SERVICES
IN THE MIDWEST**

We Are Infinity

Infinity HealthCare seeks clinicians who aspire bigger and better things as they advance through their careers. Infinity offers an enticing range of career advancement opportunities and practice locations across Wisconsin and Northern Illinois. Whether seeking a position in a metropolitan area with high volume and acuity, or a quieter, rural setting, opportunities are available through Infinity HealthCare.

All Infinity clinicians share a common ethic, expectation and intent to prosper. Infinity strives to ensure that each new healthcare provider who joins its team is not only an ideal fit for Infinity, but that Infinity is an ideal fit for the clinician as well. Infinity doesn't simply offer physician jobs in the Midwest, it offers rewarding careers and stimulating lifestyles.

INFINITY HEALTHCARE

infinityhealthcare.com
414.290.6700
Milwaukee, WI

f t o in



Southern New Hampshire
Medical Center

Emergency Medicine Physician

**Experience Work/Life Balance at
Southern New Hampshire Medical Center**

**Join a stable group of 16 Board Certified
EM Physicians at a Level III trauma center.**

SNHMC is a 188-bed regional medical facility that serves an estimated 100,000 patients annually. It is a premier medical facility of Southern New Hampshire Health, which has more than 500 providers in primary, specialty & immediate care.

SNHMC is Massachusetts General Hospital's only clinical affiliate in the region, giving patients easy access to advanced clinical expertise in areas including stroke, cancer, trauma, & pediatric specialties.

We offer: • Excellent subspecialty backup & outstanding nursing, ancillary, radiology & lab support.

Benefits Include: • Competitive salary & benefits • Malpractice insurance • Short & long term disability • Health & dental insurance • Six weeks paid time off • Two weeks of CME • Vision Coverage • Basic & Supplemental Life Insurance Coverage • Flexible Spending Accounts • Health Savings Account (with employer contribution) • 403(b) and 401(a) Retirement • Savings Plan Options .

Nashua, NH—A Great Place to Work & Live • Nashua is the only city in America to be ranked #1 Best Place to Live by Money Magazine twice • Close proximity to Boston, Portsmouth & the seacoast, the White Mountains & the Lake Region • Excellent public, private, & specialty schools • Tax free living.

Send CV to:

Dr. Joseph Leahy, Medical Director Emergency Services
8 Prospect Street, Nashua, NH 03060
joseph.leahy@snhhs.org
603.577.2538 snhhealth.org



WANTED:

Emergency Medicine Physicians

Full-Time & Per-Diem Available

KINGMAN & LAKE HAVASU, ARIZONA

COMPETITIVE INDEPENDENT CONTRACTOR RATES

- *12 hour shifts with accommodating scheduling
- *Residency Program
- *Profit Sharing
- *Medical Insurance and CME Stipend
- *Sign on Bonus and Relocation Allowance
- *Malpractice and Tail Paid
- *Democratic Group with Partnership

Arizona Emergency Medicine Specialists

If you are looking to grow with a stable group of committed physicians this is the place for you!

www.aemspc.com

About Us

Opportunity to live in a community with amazing weather, beautiful scenery, great schools and a variety of leisure activities, including golf, boating, kayaking, paddle boarding, fishing, hiking, mountain biking, and off-roading!!

Kingman: 52k pt/yr 2.2 pt/hr with scribes, mid-levels and EM Residency Program. Level IV Trauma. EMR: Allscripts/HMed. 22% Admit rate.
Lake Havasu: 28k pt/yr, 1.6-2 pt/hr, mid-levels and PA students. Level III Trauma. Nearly all sub-specialists available. EMR: Medhost. High acuity with 28% admit rate.

If you are a skilled, confident, dependable, BC/BP EM Physician call today!

Kristi Scott 928-706-8785 kristiscott@outlook.com

Now also accepting 2017 grads- monthly stipend for early signing!

CLASSIFIED ADVERTISING

Check out our website at www.seppc.com. Contact: Denise Romand, Saratoga Hospital (518)583-8436, email: docfind@saratogacare.org. Famous venues locally include Saratoga Race Course, Saratoga Spa State Park, and the Saratoga Performing Arts Center. Visit us at: www.saratogahospital.org, www.saratoga.org, <http://discoversaratoga.org/>, and <http://www.ilovesaratoga.us>.

NORTH CAROLINA

Charlotte: EMP is partnered with eight community hospitals and free-standing EDs in Charlotte, Lincolnton, Pineville and Statesville. A variety of opportunities are available in urban, suburban and smaller town settings with EDs seeing 12,000 – 81,000 pts./yr. Ownership Matters — EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Charlotte/Statesville: Iredell Memorial Hospital is a respected community hospital situated north of Charlotte and seeing 41,000 ED pts./yr. Statesville is easily commutable from desirable north-Charlotte suburbs like Mooresville (highly regarded schools), with access to lakeside, small town and rural residential options as well. . Ownership Matters - EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Morehead City: Modern community hospital on the Atlantic coast minutes from Atlantic Beach! This 135-bed facility sees 39,000 emergency pts./yr. and is active in EMS. Ownership Matters — EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive

Arnot Ogden Medical Center is seeking an ABEM-Certified Emergency Medicine Physician to join our Emergency Department. A fully equipped ER with 24-hour angioplasty, anesthesia, double physician coverage and dedicated Fast Track will create the environment for you to blend your talents and skills in a progressive and financially sound health system that serves over 47,000 emergency medicine visits annually.

Our multispecialty practice group and DO residency program with a truly collegial staff provide excellent support and contribute to the rewards of a balanced professional and personal lifestyle. The Southern Finger Lakes and Pennsylvania Grand Canyon and the cities and suburbs of Elmira and Corning offer a truly exceptional lifestyle. Excellent schools, convenient shopping, low crime rates, and high air and water quality combine to foster a superior environment with very affordable housing. The region is a mecca for outdoor enthusiasts offering an abundance of activities in all seasons. The region is centrally located within an easy 4-5 hour drive to major cities in the Northeast.

The successful candidates will receive competitive compensation with a newly enhanced initiative and benefit package including loan forgiveness, residency stipend and relocation. Arnot is an osteopathic training facility with an accredited EM residency program. Core faculty positions are available.

EEO Employer

For confidential consideration, please contact:
Francis DiBari, Director Medical Staff Recruitment,
Arnot Health, 600 Ivy Street, Suite 105, Elmira, NY 14905
Phone: (607) 735-4620; Fax: (607) 737-7700;
Email: fdibari@arnothealth.org

or visit our web-site at: <https://www.arnothealth.org/careers>

CLASSIFIED ADVERTISING

benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

New Bern: CarolinaEast Medical Center is a respected 313-bed regional medical center located at the intersection of the Trent and Neuse Rivers just off the central coast. 70,000 ED pts./yr. are seen in the ED. Beautiful small city setting. . Ownership Matters – EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Pinehurst: Sandhills Emergency Physicians needs ABEM BC/BP physicians to join our 27 physician democratic group. You'll have scheduling equity from day one, competitive salary, and a comprehensive benefits package. Partnership in two years. We staff four Emergency Departments in the Sandhills of North Carolina, combined volume 125k. With the flagship FirstHealth Moore Regional Hospital in Pinehurst, golf and equestrian activities abound. Equidistant between Blue Ridge Mountains and NC Beaches. Excellent working environment with Wellsoft, ultrasound, and extensive specialist coverage. Many of our staff have, or will, enjoy the area and their practice enough to stay their entire EM career with our democratic group. We welcome all inquiries, and have openings for Advanced Practice Providers also. Email us at madju@nc.rr.com or call 910-692-8224.

OHIO

Springfield: Springfield Regional Medical Center is a new, full-service hospital with supportive administration committed to emergency medicine. Situated 45 miles west of Columbus and 25 miles northeast of Dayton, the ED sees 75,000 patients/yr. Ownership Matters – EMP is a majority physician owned group

OUTSTANDING CAREER OPPORTUNITIES IN NEW YORK

- ⇒ New sites in Westchester County
- ⇒ Sites commutable from New York City
- ⇒ New rates with RVU incentives at most sites
- ⇒ Career development/advancement opportunities
- ⇒ Programs for residents — inquire for details

For additional information, please email careers@medexcelusa.com

845-565-9700



Wonderful Emergency Medicine Opportunity in the Midwest

Altru Health System (www.altru.org), a not for profit, integrated health system in Grand Forks, ND is currently seeking an additional BC/BE Emergency Medicine physician to join a team of 12 ER physician's in a 20 bed unit.

Practice Information

- Averages 30,000 visits per year
- Work 9 and 12 hour shifts
- 3 to 4 shifts per week
- 1500 hours per year (extra shifts are available)
- 4 weekends out of every 10 week block
- See 2 patients per hour with 25% admission rate
- Annual salary starts at \$350,000 with an earning potential of approximately \$400,000+

Altru Health System provides competitive compensation, reviewed annually with specialty specific industry data. Altru also offers an extensive and comprehensive benefit package.

About the community of Grand Forks:

Grand Forks (<https://www.visitgrandforks.com/>), is a community of 60,000 with an excellent school system, safe neighborhoods, low crime rate, affordable housing and an abundance of cultural and recreational activities. Our community has over 50 miles of bike trails along with soccer fields and many beautiful parks and golf courses.

The University of North Dakota School of Medicine (<http://www.med.und.edu/>) located in Grand Forks offers teaching opportunities with residency programs in family practice and general surgery.

To learn more about this practice opportunity or to forward your CV for consideration contact:
Kerri Hjelmstad, Physician Recruiter
Altru Health System
PO Box 6003
Grand Forks, ND 58201-6003
1-800-437-5373 ext. 6596 – office / 701-739-4346 - cell
khjelmstad@altru.org



Emergency Medicine Physician

Growing employed physician group is seeking to recruit an Emergency Medicine physician to join the team of (14) practice providers in a thriving, acute care hospital located in Lewisburg, PA.

Qualifications:

- BC/BE EM Physician. Certified by ABEM or ABOEM, preferred.
- Full time, minimum nights; group will consider full time nights; average 9.0 hour shifts; triple coverage with two physicians and one AP 12.0 hours per day; share schedule equally; cohesive group, non-competitive
- Coverage includes 21 emergency rooms to include Fast Track; nearby Tertiary Center
- Physicians employed in physician practice group which encompasses (80) physicians providing clinical services of Anesthesia, Cardiology, General Surgery, Internal Medicine, Neurology, Palliative Medicine, Pediatrics, Primary Care, OB/GYN, Orthopedics, and Rheumatology

Compensation and Benefits:

- Highly competitive salary
- Full-time Benefits: Medical, Dental, Vision, Flexible Spending, Long Term *Disability, Basic Life and AD&D, Extended Leave, Employee Assistance Program (EAP), 401k plan and an additional elective deferral plan
- \$10,000 annual allocation for CME, to include (80) hours for continued education

About the Community: Lewisburg, PA

ECH is located in beautiful Lewisburg, Pennsylvania, which is listed on the National Register of Historic Places, and is home to Bucknell University making it a quaint, amiable and vibrant university town.

- Top ranked public schools (top 4% in PA);
- Low crime community; low cost of living; no traffic!
- The charming and vibrant downtown retail boutique community bustles with everything from antiques and art to bistros and fine dining with a variety of local entertainment.

Contact Dennis Burns, Manager Physician Recruitment
570-522-2739 Dennis.burns@evanhospital.com

CLASSIFIED ADVERTISING

with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Urbana: Mercy Memorial Hospital services the SW Ohio region's residents in Champaign County, the facility treats approximately 18,000 emergency pts./yr. Desirable residential areas in Dayton are easily accessible. Ownership Matters – EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Lancaster: Located 30 minutes SE of Columbus, Fairfield Medical Center sees 55,000 emergency patients per year. Modern facility, excellent back up, and dedicated partners make this a great place to live and work. Ownership Matters – EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Cincinnati: Mercy Hospital-Anderson is located in a desirable suburban community and has been named a "100 Top Hospital" ten times. A great place to work with excellent support, the renovated ED sees 43,000 emergency pts./yr. Ownership Matters – EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

NEED A ROAD MAP?

Get ESP's Resident Job Search Toolkit

Everything a graduating EM resident needs to know:

- Resident Road Map
- Top 10 Mistakes that EM Residents Make
- Interviewing Tips for Medical Residents
- Resident Employment Timeline



Emergency
Service
Partners, LP

Visit us online to request your report at
www.eddocs.com/residents



Western Wyoming

Excellent new Emergency Medicine and Urgent Care Medicine Hospital Employment Opportunities are now available in one of the most scenic Mountain communities in Spectacular Northwestern Wyoming!

Emergency Medicine:

Opportunity to join a well established, 5 member Emergency Medicine Department and enjoy a full time ER practice working an average of 12 - twelve hour, single coverage shifts per month.

Urgent Care Medicine:

Opportunity to enjoy a full time Urgent Care Medicine practice in a newly designed Urgent Care Clinic and work an average of 12 shifts per month.

The impressive Critical Access Hospital is a Planetree Facility and has been recognized as one of the Top 100 Critical Access Hospitals in the US. Their new, state-of-the-art Emergency Department sees an average of 8,200 patient visits annually and has a superb hospital-based EMS service in town, providing flight for life transportation for their 52,000 person service area.

The Hospital is offering a:

- Highly Competitive Salary
- Attractive Signing Bonus
- Student Loan Repayment Assistance
- Malpractice Insurance
- Comprehensive Benefits Package with Medical, Dental and Vision Insurance
- Employer Matching 401K
- PTO for Vacation and CME with an annual CME allowance
- Relocation Assistance

Situated near Yellowstone National Park and along the famous Yellowstone River, this community has a mild, four season's climate and a local airport with daily flights throughout the US. Western Wyoming offers an incredible lifestyle for the outdoor enthusiast with some of the best Fly Fishing, Big Game Hunting, Hiking, Biking and Kayaking areas found in the Rocky Mountain Region! There is No State Income Tax in Wyoming and the real estate and educational options for your family are excellent!

For more information, please contact:
Cathy Sweeney
Director of Physician Recruitment
Phone: 303-708-9954
Email: cathy@msoinc.org

CLASSIFIED ADVERTISING

Cincinnati Region: EMP's affiliation with the Mercy Health System in eastern and western Cincinnati includes nine respected community hospitals seeing 14,000-60,000 emergency pts./yr. Locations are proximate to desirable residential areas. Ownership Matters — EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Concord, Madison and Willoughby: Lake Health is situated in the eastern Cleveland Suburbs. TriPoint Medical Center was built in 2009 and treats 31,000 emergency pts./yr. The Madison Medical Campus hosts a freestanding ED seeing 12,000 pts./yr. West Medical Center is a state-of-the-art acute care hospital serving 37,000 ED pts./yr. Ownership Matters — EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

OKLAHOMA

Tulsa: Brand new, state-of-the-art, 85-room ED opened in Fall 2014. Saint Francis Hospital is a modern 971-bed regional tertiary care center seeing 96,000 ED patients per year, with broad pathology, high acuity, modern facilities and supportive environment. Ownership Matters — EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

OREGON

Salem: Partnership opportunity with independent, democratic, and well established group at 95K annual volume Salem Hospital, Level II trauma center with excellent specialty support. New ED built in 2009, EPIC EMR with scribes, extensive leadership opportunities. Benefits include flexible scheduling, CME stipend, malpractice, medical, 401K, and more. Must be EM BC/BP. Salem is located 45 minutes south of Portland, in the heart of Oregon's wine country. We love it here and you will too. Send CV, cover letter and recent photo to sepspc@salemhealth.org or call us at 503-561-5634.

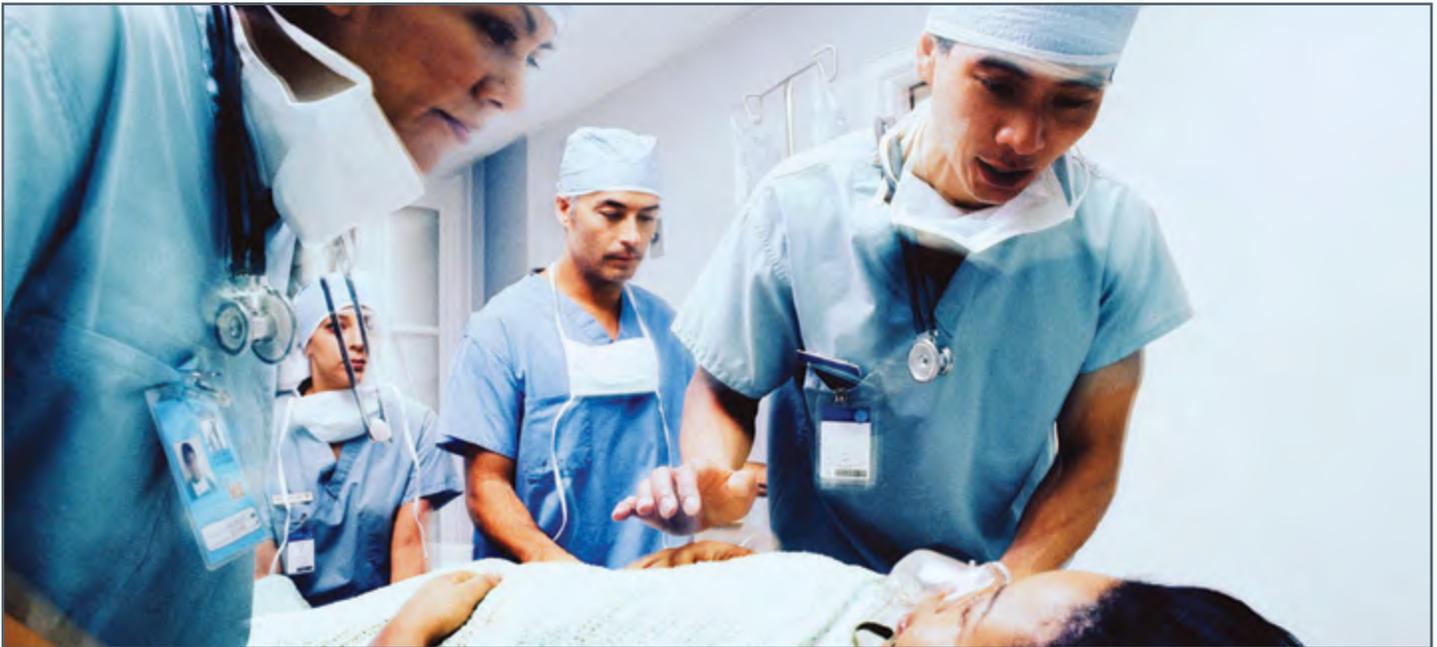
PENNSYLVANIA



Hazleton: Emergency Medicine Physicians, Lehigh Valley Health Network – Hazleton. \$150,000 in Bonus Payments. *Need an incentive to leave urban life? How about a significant financial bonus plan to help defray those student loans?* With the recent demand for ED physicians, rural areas have had challenges recruiting BC/BP physicians to staff their Emergency Departments. Lehigh Valley Health Network—Hazleton — is offering financial retention bonuses for those qualified physicians who want to work in the comfortable and affordable community of Hazleton, Pennsylvania. Join the Lehigh Valley Health Network and Lehigh Valley Physician Group (LVPG) and share in our success. The greater Hazleton area is nestled in the foothills of the beautiful Pocono Mountains—a vacation spot where opportunities abound for skiing, boating, fishing, hunting, mountain biking, golf, and more. Hazleton is a friendly, family-oriented community located 2 and 1/2 hours from NYC, 2 hours from Philadelphia, and 1 hour from the Lehigh Valley. It offers a choice of solid public or private schools, many surrounding colleges and universities, and some of Pennsylvania's most breathtaking scenery. The 18-bed ED receives 32,000 visits per year and has a robust MI alert process and a certified stroke and bariatric center. Benefits include: **\$150,000 in Retention Bonuses; Employed Position; Generous Base Salary; Superior Healthcare Benefits for you and your Family; 6 weeks time off + 1 week of CME; Reimbursement for ACEP/ACOE boards; Paid Medical Liability Coverage; 3 Methods of Retirement Saving. Interested, energetic and talented BC/BP Emergency Medicine Physicians should send a CV to: Alex Rosenau, DO, Senior Vice-Chair of LVH Emergency Medicine. c/o Karen_R.Fay@lvhn.org or call 484-862-3206.**

Sharon: Sharon Regional Health System has an extremely supportive administration/medical staff, newer ED, and full service capabilities making this a great place to work with 37,000 patients treated annually. Small city setting offers beautiful housing and abundant recreation less than an hour from Pittsburgh and Cleveland. Ownership Matters — EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Western — Connellsville, Ellwood City, and New Castle: Allegheny Health Network Emergency Medicine Management (AHNEMM) is a majority physician owned organization offering outstanding opportunity with equal equity ownership, equal voting and industry leading benefits and professional development programs. Ownership Matters! These smaller town settings within an hour of Pittsburgh provide a great practice of emergency medicine. The Ellwood City Hospital sees 12,000 emergency pts./yr. and affords easy access the



Looking for a rewarding career opportunity in emergency medicine?
You just found it.

Pennsylvania's Leader in Emergency Medicine

ERMI is Pennsylvania's largest emergency medicine physician group and is part of UPMC, one of the nation's leading integrated health care systems. ERMI is a physician-led company that offers unmatched stability, and a host of other advantages:

- Multiple sites in Pittsburgh/Western Pennsylvania
- Suburban, urban, and rural settings
- Coverage averages less than two patients per hour
- Excellent compensation and benefits
- Employer-paid occurrence malpractice with tail
- Employer-funded retirement plan
- CME allowance
- Equitable scheduling
- Abundant opportunities for professional growth

For more information about joining Pennsylvania's emergency medicine leader, contact our recruiter at 412-432-7400 (toll-free 888-647-9077) or send an email to ermicareers@upmc.edu.



Quantum One Building, 2 Hot Metal Street, Pittsburgh, PA 15203 • Telephone: 888-647-9077 • Fax: 412-432-7480

EOE. Minority/Female/Vet/Disabled

72298 TACS 01/15



Southern California

Rare opportunity for BC/BP residency trained Emergency Medicine Physician at Providence Saint John's Health Center, a prestigious 30,000 visits Level II community hospital located in Santa Monica, CA 20 blocks from the beach.

Well respected, single contract group for over 20 years. We emphasize quality lifestyle with superb coverage, 8-11 hour shifts, PAs, scribes and excellent call panel coverage. We offer competitive compensation, paid malpractice, 401k, and a rich benefit package.

We are seeking part-time/full-time candidates, preferably EPIC proficient. If interested please email CV to Jocelyn.Lai@providence.org.



CLASSIFIED ADVERTISING

north-Pittsburgh's most desirable suburbs. Highlands Hospital in Connellsville, Jameson Hospital in New Castle, and Saint Vincent Hospital in Erie. Contact Jim Nicholas (jnicholas@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Somerset: Somerset Hospital has a beautiful new ED seeing 19,000 ED pts./yr. The facility hosts close-knit and supportive EM and administrative staffs which provides for a great work environment. Located in the Laurel Highlands region, easy access is afforded to the mountains and great ski resorts, biking/hiking and a number of rivers and lakes, as well as the metropolitan amenities of Pittsburgh which are just an hour away. Ownership Matters – we are a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Jim Nicholas (jnicholas@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Indiana: Indiana Regional Medical Center is a full-service community hospital in a college town located 50 miles northeast of Pittsburgh. IRMC sees 45,000 ED pts./yr. and is situated in a nice college town. AHNEMM/EMP offers equal equity ownership/partnership, equal voting and the opportunity to be part of a progressive EM group. Ownership Matters -we are a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Jim Nicholas (jnicholas@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Pittsburgh – Canonsburg: Canonsburg Hospital is a friendly, community oriented facility situated 21 miles south of Pittsburgh near the region's most attractive suburbs including Peters Township, Upper St. Clair and Mt. Lebanon. A modern ED sees 19,000 pts./yr., and most major services are available on-site. AHNEMM/EMP offers equal equity ownership/partnership, equal voting and

St. Joseph Hospital • Bangor, Maine Seeking Emergency Medicine Physicians



We offer a competitive salary with sign on bonuses, excellent benefits and incentives

- A board certified ABEM or AOBEM
- ED residency trained and NBSP
- Newly renovated 23 Bed ER
- Trauma Level II Center
- 27,000 patient visits per year
- Practice is supported by Hospitalist Program
- Utilizing T-Systems as EHR on tablet computers



st. Joseph Healthcare
Emergency Department
stjoeshealing.org

Please send CV to
Paige Hagerstrom:
careers@covenanthealth.net

Advocate Health Care

Emergency Medicine Opportunities

Advocate Medical Group is expanding its Emergency Medicine service line throughout the state of Illinois!

Advocate is seeking BE/BC Emergency Medicine physicians to join our progressive organization. Advocate is named among the nation's Top 5 large health systems and is the largest health system in Illinois. Advocate is the largest emergency and Level I Trauma network in Illinois.

Details:

- Collegial practice environment with superior physician leadership
- High physician satisfaction with low attrition rate
- Competitive salary and excellent benefits package
- No financial tail obligation and no restrictive covenant

Why choose Advocate?

- Advocate Medical Group is physician-led and physician-governed
- Advocate has over 1,400 employed physicians and offers more than 300 sites of care, 12 acute-care hospitals
- Advocate's mission to provide the highest level of care available has resulted in a series of national recognitions
- Advocate is a financially stable organization
- Advocate offers a great work/life balance

Locations currently recruiting:

- **Advocate BroMenn**-Bloomington/Normal, Illinois- Level II trauma, 40,000 visits
- **Advocate Trinity**- Chicago, Illinois- 40,000 visits
- **Advocate South Suburban**- Hazel Crest, Illinois- Level I trauma 52,000 visits

If you are interested in providing high quality, compassionate care, please submit a CV and cover letter to:

Sarah Smith, Physician Recruiter at Sarah.Smith5@advocatehealth.com





**DEPARTMENT OF
EMERGENCY MEDICINE
Yale School of Medicine**



Seeking qualified applicants for the **Yale Drug Abuse, Addiction and HIV Research Scholars (DAHRS)** program, a three year post-doctoral program preparing investigators for careers focusing on drug abuse, addiction and HIV in general medical settings. Scholars earn the Master in Health Sciences research degree that combines vigorous research methodology, statistics and design didactics in small group sessions and seminars covering topics related to drug abuse, addiction and HIV, leadership, grant writing and responsible conduct of research.

Candidates complete mentored research project(s), multiple manuscripts, and apply for independent funding.

Additional information and application instructions
<http://medicine.yale.edu/dahrs>

Applicants may also contact
Gail D'Onofrio, MD, MS dahrs@yale.edu

Yale is an Equal Opportunity/Affirmative Action Employer

CLASSIFIED ADVERTISING

the opportunity to be part of a progressive EM group. Ownership Matters – we are a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Jim Nicholas (jnicholas@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Pittsburgh – Natrona Heights: Allegheny Valley Hospital is situated just 18 miles north of Pittsburgh and sees 39,000 ED pts./yr. A newer, state of the art ED and strong medical staff, administration and community support make for a great work environment. Ownership Matters - Allegheny Health Network Emergency Medicine Management (AHNEMM) offers an outstanding professional arrangement. We are a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Jim Nicholas (jnicholas@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

Pittsburgh: Allegheny General Hospital is a highly regarded quaternary care center with Level I trauma designation and an international reputation for excellence. A full-range of medical and surgical specialties supports residency programs in 22 specialties including EM and EM/IM, plus fellowships in EMS and EM Ultrasound. 50,000 ED patients are treated annually. Ownership Matters – Allegheny Health Network Emergency Medicine Management (AHNEMM) offers an outstanding professional environment. We are a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Jim Nicholas (jnicholas@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

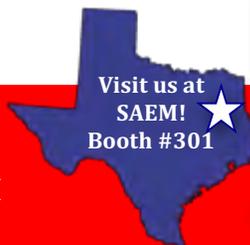


LEMA
LEADING EDGE MEDICAL ASSOCIATES
Clinical Excellence ~ Innovative Solutions

PRACTICE EM IN TEXAS!

- **TOP COMPENSATION- 400K+ /FULL BENEFITS**
- **WORK IN A VARIETY OF CLINICAL SETTINGS**
- **FLEXIBLE FULL/PART TIME EMPLOYEE MODEL**
- **LEADERSHIP DEVELOPMENT INSTITUTE**
- **CONTRACT STABILITY**

FOR MORE INFO
SUZY MEEK, MD
SMEEK@LEMA-EM.COM
903.235.9493



**CHOOSE YOUR
IDEAL WORK-LIFE
BALANCE**



Health System

PHYSICIANS NEEDED for Emergency Department Coverage

- 115 bed Emergency Department
- 3 ERs (Community, Trauma and Pediatric)
- 150,000 patient visits annually
- Level I Trauma/ Regional Referral Center
- 40+ Physicians in current employed group

The position offers an excellent compensation package including above MGMA average salary with RVU-based incentives, paid vacation, CME allowance, health and life insurance, malpractice insurance, and a 401k plan with employer contribution. The hospital has 24/7 in-house Hospitalist, Radiology, Cardiology, Trauma, Orthopaedic and Neurosurgical Coverage as well as EMR and Mid-Level support. Four different units make up our Emergency Department: Level I Trauma Center downtown with 75 beds and fast track, Medical Observation Unit with 16 beds, Pediatric ER at Children's hospital with 16 beds, and a 21 bed community hospital ER in Madison. Teaching opportunities with 3rd/4th year medical students from UAB and Family Medicine and Internal Medicine Residents at UAB-Huntsville rotate through our ED. Qualified candidates include: Emergency Medicine, Med/Peds, Pediatric Emergency and Family Medicine Physicians.

Huntsville, is situated in the fastest growing major metropolitan area in Alabama, and with the highest per capita income in the southeast, Huntsville is the best place to live, learn and work. We are a community on the move, rich with values and traditions while progressing with new ideas, exciting technologies and creative talents. With a population of 386,661 in the metro area, we are a high-tech, family oriented, multi cultural community with excellent schools, dining and entertainment.

**For further information, please contact Kimberly Salvail
at (256) 265-7073 or physicianrecruitment@hhsys.org**



huntvillehospital.org

CLASSIFIED ADVERTISING

RHODE ISLAND

Westerly: The Westerly Hospital is a 125-bed community hospital situated in a beautiful beach community in SE RI, 45 minutes from Providence and 1.5 hours from Boston. Modern, well-equipped ED sees 26,000 pts./yr. Ownership Matters - EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

TEXAS



Northeast: Leading Edge Medical Associates is a one-of-a-kind, private, independent group of all board-certified EM physicians in northeast Texas, offering the top aspects of EM. LEMA is unique in its ability to offer physicians the best of both worlds, hospital-based and free-standing, academic and community medicine. LEMA doctors can tailor their practice to include hospital-based and/or free-standing clinical opportunities. LEMA is a group of exemplary physicians who work together as a team, value each member's input, and have a level of integrity, honesty and trust that make this innovative group truly one-of-a-kind. For More Info: SUZY MEEK, MDSMEEK@LEMA-EM.COM 903.235.9493.

VERMONT



Champlain Valley Physicians Hospital

Vermont: Emergency Medicine Opportunities: The University of Vermont Health Network-Champlain Valley Physicians Hospital (UVMHealth.org/CVPH) seeks BC/BP EM Physicians to join its Emergency Department (50,000 annual visits). Schedule has 60 hrs/day of physician coverage. Enjoy working in our newly renovated ER which includes a new EMR system. Incoming physicians may either be hospital employed with a comprehensive benefit package or be independent contractors. **Community** (NorthCountryGoodLife.com) offers a rich family lifestyle on Lake Champlain at the foothills of the Adirondack Mountains. Enjoy close proximity to the Lake Placid Olympic Region, Montreal and Burlington, VT. Practice in a university affiliated hospital and live where others vacation! For info: Becky Larkin, 518-314-3025, rlarkin@cvph.org.

WASHINGTON



You already love the Northwest. Why not love your career, too? The Everett Clinic is looking for great Physicians to join our exceptional team. The Everett Clinic is looking for Physicians trained in Primary Care, ER, or Urgent Care to provide care at one of our Walk in Clinic locations. Located at our Everett, Harbour Pointe, Lake Stevens, Marysville, Mill Creek, Silver Lake, Smokey

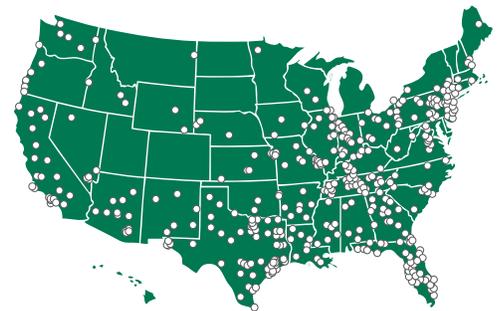
EmCare is Committed To Providing Residents With Unparalleled Support

From Residency Dinners to lecture series by some of the country's top thought leaders, and web-based tools and resources, EmCare is committed to being your "go to" resource provider.

Visit our Resident Resource Center on the web at www.EmCare.com.

EmCare is recognized for:

- Innovation (cutting-edge tools and resources, national leaders in Telehealth and Mobile Integrated Health)
- Quality of Provider Practice (advanced practice providers, medical scribes, EMR and equitable scheduling)
- Practice Diversity (FT/PT/IC and moonlighting opportunities, EmBassador travel team, EMS control, Aeronautical Medicine and Telehealth)
- Clinical Education and Career Growth (comprehensive CME offerings, Leadership Institute, Director, Associate Director and Administrative Career Track)



COAST-TO-COAST OPPORTUNITIES

CONTACT US TODAY

855.367.3650
Recruiting@EmCare.com
EmCare.com



The University of Florida Department of Emergency Medicine is Seeking Emergency Medicine Faculty

The University of Florida Department of Emergency Medicine in Gainesville, FL, is seeking talented, highly motivated emergency physicians for our Division of Community Emergency Medicine to staff our two freestanding, full-service emergency departments.

Successful candidates will hold UF appointments and become part of our 36 full-time faculty, six fellows, 24 residents and more than 200 staff members that make up our robust, dynamic department.

Our current freestanding emergency department in the Springhill section of Northwest Gainesville has an annual volume of 30,000 visits and includes 36 hours of physician coverage with 8 hours of advanced practice provider coverage. Our newest freestanding emergency department, to be located in southwest Gainesville and opening in the fall of 2016, will feature a similar volume with 24 hours of physician coverage and 12 hours of additional physician or advanced practice provider coverage for the first year.

The UF department of emergency medicine is affiliated with UF Health Shands Hospital, an 872 bed teaching hospital with a Level 1 trauma center and burn center, and is the major referral center for North Central Florida.

Our freestanding EDs offer physicians the opportunity to independently practice community-based emergency medicine while enjoying the academic benefits of working in the country's only academic health center with six health-related colleges, nine major research institutes and versatile research facilities located on a single contiguous campus. There are numerous opportunities within our department and within the College of Medicine for emergency physicians with teaching, research and administrative interests.

Gainesville is a beautiful, dynamic and vibrant college town, centrally located in North Florida. Residents are close to major airports, family entertainment and some of the best beaches in the world. Home of the "Gator Nation," award-winning college sports and year-round outdoor activities, Gainesville has repeatedly been voted as one of the best places to live in the U.S.

Join the UF College of Medicine faculty and earn an extremely competitive salary as a UF assistant or associate professor in a community-practice setting. Enjoy the full range of University of Florida state benefits, including occurrence-type medical malpractice; health; life and disability insurance; paid sick leave; and a generous retirement package.

All physicians are ABEM/ABOEM Board Certified/Board-Eligible.



The University of Florida requires all applications to be submitted online.

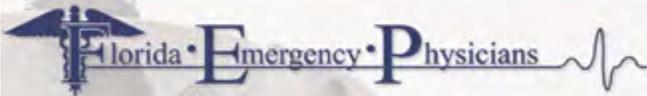
For additional information or to apply for a position, visit emergency.med.ufl.edu/opportunities.

Questions? Please email Amy Smith at amysmith@ufl.edu.

Women and minorities are encouraged to apply. The University of Florida is an Equal Opportunity Employer.

THIS IS YOUR...

CALL TO ACTION!



GENEROUS SIGN-ON BONUS

NOW HIRING BOARD-CERTIFIED EMERGENCY MEDICINE PHYSICIANS

FOR OUR EDs IN THE CENTRAL FLORIDA & ORLANDO AREA

COMPREHENSIVE BENEFITS
GENEROUS CME STIPEND
RELOCATION ASSISTANCE

APPLY TODAY
SYARCHECK@FLORIDAEP.COM

CLASSIFIED ADVERTISING

Point, Snohomish and Stanwood locations our physicians work flexible schedules 12-13 shifts per month. Working with our team of Physicians and Advanced Clinical Care Providers you will experience: Coordinated Care — across multiple disciplines; Excellent communication with Providers; Epic EMR; Variable and exciting patient care mix; Patient Focused Environment; Integrated Practice Unit — Collaborative care model working to facilitate disease management. Median Income — \$285,000. **We offer above market compensation with comprehensive benefit package including malpractice, CME, Medical/Dental/Vision, 401K with match and more!** About Us: Our providers and our staff do what is right for each patient. This core value, and the opportunity to work alongside other trusted experts, is why excellent healthcare providers choose to practice medicine here. The Everett Clinic featured on the PBS documentary "U.S. Health Care: The Good News." See more at: everettclinic.com/about-us/more-90yearsexcellence#sthash.13Y7hWoq.dpuf. Founded in 1924, The Everett Clinic is a multi-specialty physician operated group practice providing comprehensive, community-wide healthcare to 300,000 patients in greater Snohomish County, Washington. The Everett Clinic's team of nearly 500 providers offers more than 40 specialty care services. **Who We Care For:** 318, 329 active patients; Includes 49,553 Medicare patients; 942,000 patient visits annually (total in 2013); 3,464 patient visits daily; 27,000 procedures annually. **Our Healthcare Team:** 359 Physicians; 145 Advanced Care Practitioners; 504 Total healthcare providers; 1,679 Staff; 2,183 Total Staff and Providers. See more at: everettclinic.com/aboutus/clinicservices#sthash.b3oYCxfh.dpuf. Contact Kelly Ulrich (Ristow), The Everett Clinic, KUlrich@everettclinic.com.

Wenatchee: Stable Democratic ED group seeking BC/BP ED Physicians for expanding volume ED in a great family oriented community. Great outdoor recreation with skiing, mountain biking, hiking, fishing, hunting. Great schools. Level 3 trauma center with patient volume 40,000. Competitive income with partnership in one year. Contact Dr Eric Hughes, cehughes@nwi.net.

WEST VIRGINIA

Wheeling: Ohio Valley Medical Center is a 250-bed community teaching hospital with an AOA approved Osteopathic EM and EM/IM residency program. Enjoy teaching opportunities, full-specialty back up, active EMS, and two campuses seeing 27,000 and 20,000 pts./yr. Ownership Matters — EMP is a majority physician owned group with equal voting, equal equity ownership, funded pension and comprehensive benefits, plus industry-leading training programs, support services and career development options. Contact Ann Benson (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd. NW, Canton, OH 44718, 800-828-0898 or fax 330-493-8677.

WISCONSIN



MINISTRY HEALTH CARE

Ministry Health Care invites you to explore an Emergency Medicine opportunity in Northcentral Wisconsin. This is an ideal opportunity for a physician looking to treat a full range of trauma patients while still offering a high-level of personalized care. This physician will provide coverage at both Good Samaritan Hospital in Merrill, WI and at Ministry Saint Clare's Hospital in Weston, WI (approximately 25 miles from one another). This is a full-time (13 twelve-hour shifts/month — we envision 7 at Good Samaritan and 6 at Saint Clare's) opportunity that offers lucrative compensation and a comprehensive benefit package. Loan repayment options are available. **Ministry Good Samaritan Hospital:** 9-Bed Trauma Level IV; annual volume 12-13,500, Easy access to sub-specialty referrals off site; easy one call transfers, Dynamic team of three physicians and two advanced practice clinicians that boast strong staff/physician relationships as well as low nurse turnover rates, Charming rural setting with opportunity to treat a full range of patients, Ideally located just 15 miles outside of the Wausau/Weston area (pop. est. 55,000), **Ministry Saint Clare's Hospital:** 15-Bed Trauma Level III; annual volume 14,000, Experienced team of 6 physicians and two advanced practice clinicians, state-of-the-art, technologically renowned referral center ideally located in the center of the state, growing metropolitan area — urban amenities coupled with small-town charm and affordability, Physicians who have recently joined us indicate that the excellent work/life balance combined with friendly, safe and affordable communities was ultimately what drew them here. Visit ministryhealth.org/recruitment to hear from our physicians. For more information, contact: Brad Beranek, 715-342-7998, mmgrecruitment@ministryhealth.org.



Department of Emergency Medicine Yale University School of Medicine

Advancing the Science and Practice of Emergency Medicine

The Department of Emergency Medicine at the Yale University School of Medicine has expanded to a total of 4 clinical sites: Adult Emergency Services at York Street Campus; Shoreline Medical Center; Saint Raphael's Campus; and the West Haven VA Emergency Department with a combined ED volume of 195,000 visits per year. We are seeking faculty at all levels with interests in clinical care, education or research to enhance our existing strengths. The successful candidate may be a full time clinician committed to excellence in patient care and emergency medicine education or one that would want to join the academic faculty promoting scholarship to enhance the field of emergency medicine. We offer an extensive faculty development program for junior and more senior faculty. We have a well-established track record of interdisciplinary collaboration with other renowned faculty, obtaining federal and private foundation funding, and a mature research infrastructure supported by a faculty Research Director, a staff of research associates and administrative assistants.

Eligible candidates must be residency-trained and board-certified/-prepared in emergency medicine. Rank, protected time and salary will be commensurate with education, training and experience.

Yale University is a world-class institution providing a wide array of benefits and research opportunities.

To apply, please forward your CV and cover letter to Gail D'Onofrio, MD, MS Chair, via email: jamie.petrone@yale.edu, or mail: Yale University School of Medicine, Department of Emergency Medicine, 464 Congress Ave, P.O. Box 208062, New Haven, CT 06519-1315.

Yale University is an affirmative action, equal opportunity employer. Women and members of minority groups are encouraged to apply.

Emergency Physicians Hershey, PA



The Emergency Medicine Department at Penn State Milton S. Hershey Medical Center seeks energetic, highly motivated and talented physicians to join our Penn State Hershey family. Opportunities exist in both teaching and community hospital sites. This is an excellent opportunity from both an academic and a clinical perspective.

As one of Pennsylvania's busiest Emergency Departments with 26+ physicians treating over 70,000 patients annually, Penn State Hershey is a Magnet® healthcare organization and the only Level 1 Adult and Level 1 Pediatric Trauma Center in PA with state-of-the-art resuscitation/trauma bays, incorporated Pediatric Emergency Department and Observation Unit, along with our Life Lion Flight Critical Care and Ground EMS Division.

We offer salaries commensurate with qualifications, relocation assistance, physician incentive program and a CME allowance. Our comprehensive benefit package includes health insurance, education assistance, retirement

options, on-campus fitness center, day care, credit union and so much more! For your health, Hershey Medical Center is a smoke-free campus.

Applicants must have graduated from an accredited Emergency Medicine Residency Program and be board eligible or board certified by ABEM or AOBEM. We seek candidates with strong interpersonal skills and the ability to work collaboratively within diverse academic and clinical environments.

Apply online:
www.pennstatehersheycareers.com/EDPhysician

For additional information, please contact: **Susan B. Promes Professor and Chair, Department of Emergency Medicine c/o Heather Peffley, Physician Recruiter, Penn State Hershey Medical Center, Mail Code A590, P.O. Box 850, 90 Hope Drive, Hershey PA 17033-0850, Email: hpeffley@hmc.psu.edu**



PennState Health
Milton S. Hershey
Medical Center

The Penn State Milton S. Hershey Medical Center is committed to affirmative action, equal opportunity and the diversity of its workforce. Equal Opportunity Employer – Minorities/Women/Protected Veterans/Disabled.



I WANT TO BE THE BEST PHYSICIAN POSSIBLE.

“TeamHealth helps me improve my skills as a doctor constantly and provides the support I need with great scheduling, compensation and leadership opportunities.”

Jeremy Bearden, DO

Emergency Medicine National Director
Special Ops West

TEAMHealth[®]
SPECIAL OPS

888.861.4093
www.teamhealth.com
www.MYEMCAREER.com
physicianjobs@teamhealth.com



TEAMHEALTH SPECIAL OPS PHYSICIAN TEAM

- > First-class experience with first-class pay
- > Practice across your region but live where you want
- > Preferred scheduling
- > Work 120 hours a month
- > Leadership training and opportunities
- > ABEM or AOBEM EM residency trained
- > Exciting travel and reimbursement for licensure and certifications
- > Stipend for benefits available at most locations

**TO JOIN THIS ELITE GROUP, CONTACT TINA RIDENOUR
AT 865.985.7123 OR TINA_RIDENOUR@TEAMHEALTH.COM.**



Emergency Medicine Residents' Association

1125 Executive Circle
Irving, Texas 75038-2522
972.550.0920
www.emra.org

PRSR STD
U.S. POSTAGE PAID
BOLINGBROOK, IL
PERMIT NO. 467

If you can't beat 'em. Join us.



Together we have more muscle. Together we will remain majority physician led and owned. We won't be pushed around, traded or sold. Backed by the green of a powerhouse financial partner, we're fortified to attract the best EM clinicians and empowered to provide the best care for our patients. At USACS, we looked at how the big publicly traded groups were strong-arming the healthcare industry and said enough is enough, it's time to unite. Together we will remain physician strong.



US Acute Care Solutions



Start your future. Visit usacs.com
or call Ann Benson at 800-828-0898. abenson@usacs.com

Founded by TBEP, MEP, EPPH and EMP