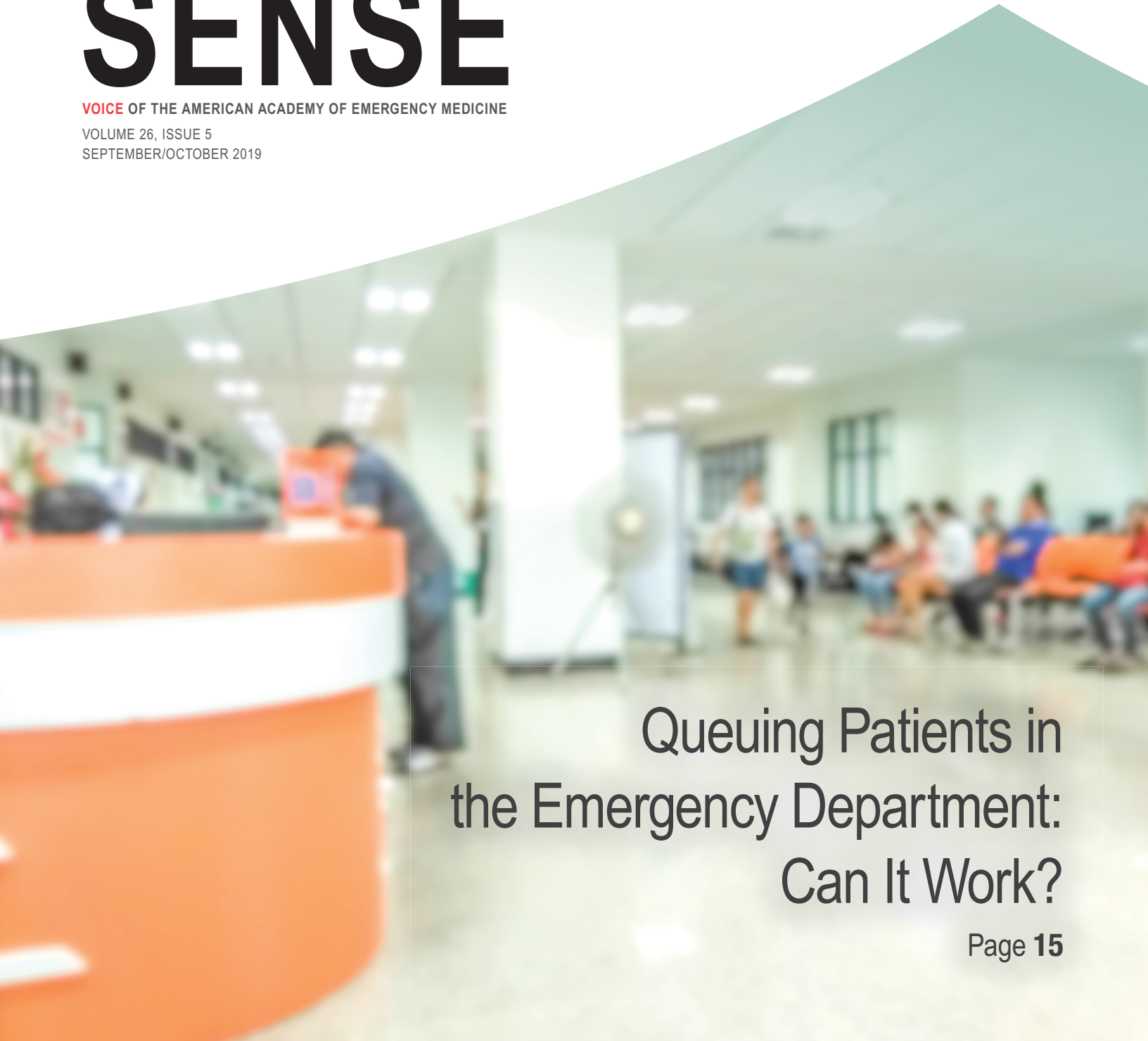


COMMON SENSE



VOICE OF THE AMERICAN ACADEMY OF EMERGENCY MEDICINE

VOLUME 26, ISSUE 5
SEPTEMBER/OCTOBER 2019



Queuing Patients in the Emergency Department: Can It Work?

Page 15

President's Message:
EM Physicians
Treat All **3**

From the Editor's Desk:
Provider
Satisfaction **5**

Wellness:
I Came
Back from
Depression,
and So Can You **17**

AAEM/RSA
President's Message:
An Argument for
the Enforcement of
Electronic Health Record
Cross-Communication **22**

AAEM/RSA Editor:
Harnessing
EMRs for Good **25**



COMMONSENSE Table of Contents

Officers
President
 David A. Farcy, MD FCCM
President-Elect
 Lisa Moreno, MD MS MSCR
Secretary-Treasurer
 Jonathan S. Jones, MD
Immediate Past President
 Mark Reiter, MD MBA
Past Presidents Council Representative
 Howard Blumstein, MD

Board of Directors
 Kevin Beier, MD
 Robert Frolichstein, MD
 L.E. Gomez, MD MBA
 Bobby Kapur, MD MPH CPE
 Evie Marcolini, MD FCCM
 Terrence Mulligan, DO MPH
 Carol Pak-Teng, MD
 Thomas Tobin, MD MBA

YPS Director
 Phillip Dixon, MD MPH

AAEM/RSA President
 Haig Aintablian, MD

Editor, Common Sense
 Ex-Officio Board Member
 Andy Mayer, MD

Editor, JEM
 Ex-Officio Board Member
 Stephen R. Hayden, MD

Executive Director
 Kay Whalen, MBA CAE

Associate Executive Director
 Missy Zagroba

AAEM/RSA Executive Director
 Madeleine Hanan, MSM

Common Sense Editors
 Mehruba Anwar Parris, MD, Assistant Editor
 Adriana Coleska, MD, Resident Editor
 Cassidy Davis, Managing Editor

Articles appearing in *Common Sense* are intended for the individual use of AAEM members. Opinions expressed are those of the authors and do not necessarily represent the official views of AAEM or AAEM/RSA. Articles may not be duplicated or distributed without the explicit permission of AAEM. Permission is granted in some instances in the interest of public education. Requests for reprints should be directed to AAEM, 555 East Wells Street, Suite 1100, Milwaukee, WI 53202, Tel: (800) 884-2236, Fax: (414) 276-3349, Email: info@aaem.org

AAEM is a non-profit, professional organization.
 Our mailing list is private.

Regular Features

President's Message: EM Physicians Treat All	3
From the Editor's Desk: Provider Satisfaction.....	5
Letter to the Editor: Letter in response to May/June 2019 "From the Editor's Desk" titled: Emergency Medicine Wellness Bill Of Rights	7
Foundation Donations.....	8
LEAD-EM Donations.....	9
Upcoming Conferences	10
AAEM/RSA President's Message: An Argument for the Enforcement of Electronic Health Record Cross-Communication	22
AAEM/RSA Editor: Harnessing EMRs for Good.....	25
Resident Journal Review: Neurologic Complications of Correction for Hyperglycemic Hyperosmolar State in the Emergency Department.....	26
Medical Student Council President's Message: Thriving in Third Year	29
Job Bank.....	33

Special Articles

Women in Emergency Medicine: Reports of the Death of the Pelvic Exam Are Greatly Exaggerated	12
Operations Management: Queuing Patients in the Emergency Department: Can It Work?	15
Wellness: I Came Back from Depression, and So Can You.....	17
Young Physicians Section News: Spotlight on Innovators	20
AAEM/RSA Education Committee: Becoming a Night Shift Jedi: Do or Do Not, There is No Try	30

Updates and Announcements

ABEM Update	11
AAEMi: Introduction of the New India Chapter Division of AAEM.....	19
AAEM/RSA Wellness Committee: The Future of Wellness	32

AAEM Mission Statement

The American Academy of Emergency Medicine (AAEM) is the specialty society of emergency medicine. AAEM is a democratic organization committed to the following principles:

1. Every individual should have unencumbered access to quality emergency care provided by a specialist in emergency medicine.
2. The practice of emergency medicine is best conducted by a specialist in emergency medicine.
3. A specialist in emergency medicine is a physician who has achieved, through personal dedication and sacrifice, certification by either the American Board of Emergency Medicine (ABEM) or the American Osteopathic Board of Emergency Medicine (AOBEM).
4. The personal and professional welfare of the individual specialist in emergency medicine is a primary concern to the AAEM.
5. The Academy supports fair and equitable practice environments necessary to allow the specialist in emergency medicine to deliver the highest quality of patient care. Such an environment includes provisions for due process and the absence of restrictive covenants.
6. The Academy supports residency programs and graduate medical education, which are essential to the continued enrichment of emergency medicine and to ensure a high quality of care for the patients.
7. The Academy is committed to providing affordable high quality continuing medical education in emergency medicine for its members.
8. The Academy supports the establishment and recognition of emergency medicine internationally as an independent specialty and is committed to its role in the advancement of emergency medicine worldwide.

Membership Information

Fellow and Full Voting Member (FAAEM): \$525* (Must be ABEM or AOBEM certified, or have recertified for 25 years or more in EM or Pediatric EM)
 Affiliate Member: \$365 (Non-voting status; must have been, but is no longer ABEM or AOBEM certified in EM)
 Associate: \$150 (Limited to graduates of an ACGME or AOA approved emergency medicine program within their first year out of residency) or \$250 (Limited to graduates of an ACGME or AOA approved emergency medicine program more than one year out of residency)
 Fellow-in-Training Member: \$75 (Must be graduates of an ACGME or AOA approved emergency medicine program and be enrolled in a fellowship)
 Emeritus Member: \$250 (Please visit www.aaem.org for special eligibility criteria)
 International Member: \$150 (Non-voting status)
 Resident Member: \$60 (voting in AAEM/RSA elections only)
 Transitional Member: \$60 (voting in AAEM/RSA elections only)
 International Resident Member: \$30 (voting in AAEM/RSA elections only)
 Student Member: \$40 (voting in AAEM/RSA elections only)
 International Student Member: \$30 (voting in AAEM/RSA elections only)

Pay dues online at www.aaem.org or send check or money order to:
 AAEM, 555 East Wells Street, Suite 1100, Milwaukee, WI 53202 Tel: (800) 884-2236, Fax: (414) 276-3349, Email: info@aaem.org

EM Physicians Treat All

David A. Farcy, MD FAAEM FCCM — President, AAEM



*"We're not here to judge
We are here to love
There's no room for hate
We are just one human race
We must rise above
We are here to love
There's no time to waste anymore
Here to Love."*

—Lenny Kravitz

Since my last message, I had the opportunity to represent the Academy in Hawaii for the National Medical Association Meeting and then in the latter part of August, went into full action with Hurricane Dorian's projected path predicted to make landfall in Florida. After activation and preparation, on Friday, August 30th at 11:00pm ET, Dorian turned and during a period of almost 48 hours, devastated Abaco and caused severe damage to the Grand Bahamas, our neighbor country separated by only a 30-45 minute flight or boat ride. No federal mandate came through, but Miami and Miami Beach could not stand and watch our Bahamian brothers and sisters and do nothing. Thus, several teams were mobilized and deployed. As we all know, the initial hours are crucial to the outcome of a disaster. No words can describe what my team found once we were on the ground in Abaco: the shredded town with death lingering around us.

But this presidential message is not a piece on disaster management, nor on disaster response, but rather a piece on a much more important topic. My presidency has been about challenging our members to join, realizing the important fact that sitting around and not participating brings no positive change. My presidency has also been about inclusion based on merit, speaking out on public health issues, and the promotion of racial, ethnic, and gender equality. As leaders in medicine, we have both a duty and a responsibility to educate our patients and their families, not only about medical issues, but about social issues as well. We have a duty to mentor students, residents, and younger faculty, putting them in touch with their unconscious bias, implicit bias, and explicit

but unacknowledged bias. When we see bias at play, we must stand up and point it out, not just turn our back and pretend it did not happen. We must stand up and speak up, when we see gender discrimination, racial discrimination, ethnic discrimination, and health disparity.

If "racism" is to end in America, we must all assume responsibility for ameliorating our unconscious biases and realizing the need to talk about this topic. Racism is part of American history, and frankly it is our legacy, but we have overcome hate through the courageous actions of individuals who stand up and say "NO MORE." As an immigrant myself, I could never understand racism, but today more than ever, disparity, discrimination, and racism continue to proliferate and to deteriorate the values of this country. Our leaders do not condemn it, but instead promote racism, ethnic discrimination, and the worst forms of intolerance perpetrated without basis in any evidence whatsoever. What can we do? It is not enough to say the words "racism" or "racist" and claim we reject it! We must fight it with every fiber of our being. Hate is a powerful force and we cannot defeat it with timidity, weakness, or even with strongly worded letters like those that have been thrown around on social media posts.

Social media might be a place to talk and share positive stories, but we are becoming numb to posts. We are so overwhelmed that it has become almost impossible to have a debate in which any issue is genuinely brought to light.

Since the founding of our country, people of color have been fighting HATE and BIGOTRY, fighting for EQUALITY and JUSTICE,



This is not about politics or about what side of the aisle you sit on; rather this is about our duty as physicians to uphold life and promote life without regard for race, gender, or ethnicity.



But this presidential message is not a piece on disaster management, nor on disaster response, but rather a piece on a much more important topic.



PRESIDENT'S MESSAGE and regardless of our color, regardless of our gender, regardless of our religions, and regardless of our sexual orientation, WE ALL HAVE A RESPONSIBILITY as human beings, as doctors, and as educators to join the fight. YES, this is a fight! In this fight, we must acknowledge this as a systemic problem, now more than ever is the time that we must be vocal, involved, and engaged. We must teach our young that social injustice must be fought through peaceful demonstration instead of rioting and looting, by getting involved, engaged, and donating to the cause; time if you can and dollars if you cannot. Our team raced against time to fight for a young Bahamian boy handed to us by the Coast Guard, lifeless, and cold, with the Coast Guard screaming "we just lost him." Just like all of us in the emergency department, we did not look at the color of his skin, nor his insurance status, but at the fact that he was the sickest patient we had and we came together for a very difficult resuscitation knowing the odds were stacked against him; we gave him the best possible chance.

Historically, individuals whose names were not known to the general public one day said "no more" and they changed the course of history, being remembered as leaders, champions, and visionaries who stood up in peaceful ways to protest against racism and oppression. History remembers Rosa Parks as the mother of the freedom movement, and the Reverend Martin Luther King as the man who dreamed that "injustice anywhere is a threat to justice everywhere."

We all have a responsibility to stand up against HATE. We all must speak up against racial bigotry, intolerance, discrimination, and injustice and not let our unconscious bias or any other bias deter us from speaking up. This is not about politics or about what side of the aisle you sit on; rather this is about our duty as physicians to uphold life and promote life without regard for race, gender, or ethnicity. This is what I saw our fellow emergency physicians and other health care workers fighting for in the Bahamas. Every day in our emergency department stateside we provide care to millions of patients, pretending at times that we have no biases, but our action sometimes would point otherwise. We must learn that it is acceptable for someone to point out our unconscious bias without getting emotionally activated. Take a step back and make a conscious decision to change. I am the first one to admit that change is difficult, but small baby steps toward change will speak louder than any empty words. ●

"People learn to hate and if they can learn to hate, they can be taught to love, for love comes more naturally to human heart than its opposite."

– Nelson Mandela

AAEM Antitrust Compliance Plan:

As part of AAEM's antitrust compliance plan, we invite all readers of *Common Sense* to report any AAEM publication or activity which may restrain trade or limit competition. You may confidentially file a report at info@aaem.org or by calling 800-884-AAEM.



There are over 40 ways to get involved with AAEM

Dive deeper with AAEM by joining a committee, interest group, task force, section, or chapter division of AAEM. Network with peers from around the U.S. sharing your clinical and/or professional interests or meet-up on the local level with members in your state.

Visit the AAEM website to browse the 40+ groups you can become a part of today.

Get Started!
www.aaem.org/get-involved

Provider Satisfaction

Andy Mayer, MD FAAEM — Editor, *Common Sense*



"Your Customers will never be any happier than your employees."

— John Dijulius,

Your practice, I am sure, is being graded and evaluated based on some sort of patient satisfaction score. You and your department probably receive

quarterly to even daily reports of your ability to "wow" your patients. These reviews can seem to be generated in arbitrary ways with questionable statistical significance. This process can often seem to be unfair to some people who feel downtrodden when seeing their results on these metrics. The goal of these patient satisfaction scores, which seems laudable on the surface is to improve the patient experience, improve customer satisfaction, and to improve patient care.

As a medical director, I am expected to review the scores and comments from patients for every provider. Some of the comments and results are infuriatingly funny, but certainly can be a cause of provider dissatisfaction. In our system only a nine or ten matters. An eight is the same as a zero. Comments from everything that the doctor was great, but I did not get a pillow, or I had to walk too far in the parking lot can torpedo your score even if the patient specifically comments on how great the doctor or nurse was as only that total score matters. Providers on the bottom end of these metrics see these results and their stomach can twist with rage and fear when they feel that no matter what they do or try, that their scores do not improve. They can feel that their livelihood is threatened and can feel hopeless when trying to change the outcome. Should they go park the patient's car or bring extra pillows from home if that is what it seems that they need to improve?

The goal of making patients satisfied sounds like an appropriate proposal. We all can learn and practice new techniques to improve our individual ability to make patients feel that they are being cared for in an empathic way. No one wants a cold or rushed doctor who makes them feel that their issue is not important or that their perceived need is not met. Each of us has a different skill set and the idea of using a practiced list of things to do or even a script to help us remember how to improve our patient's experience is not necessarily a bad idea. Emergency physicians should have the ability to accept constructive ideas in relation to improvement.

Speed can play a big issue in this regard. All of you know the doctor who is the dragon slayer in your department. These providers can see ten more patients a shift than the next fastest provider on a consistent basis. This skill is great on the busy days, but can come at a price if these same providers are the ones who generate the most patient and

staff complaints while also producing the lowest patient satisfaction scores. Being fast does not necessarily mean less empathy. One of the greatest skills in medicine, in my opinion, is the ability to make a patient feel special and cared for in a short period of time. I have a friend who is a cardiologist who can see fifty patients in the office in a day and each one of them feels like the doctor took time with them and made them feel that their concerns and issues were addressed, while in actuality he was only in the exam room for five to ten minutes. I also know doctors who spend twenty minutes explaining things in endless detail to a patient who leaves feeling the doctor is cold and does not really care for them. Where is the difference?

Certainly, there are skills which can be learned and many of us would benefit from examining our own habits when treating patients. Our shop has recently started shadow rounding and suggesting different "techniques" for improving individual provider's scores. These discussions bring the expected eye rolling, but may be of great benefit to the provider if they can actually accept the fact that there are things which they do or do not do which has room for significant improvement. This quest from improved scores though can lead to significant discomfort and anxiety



This quest

from improved scores though can lead to significant discomfort and anxiety for the provider making their already stressful job just that much harder.



Would you

give your job a 9 or a 10 on a satisfaction survey?



FROM THE EDITOR'S DESK for the provider making their already stressful job just that much harder. The goal of any exercise or initiative in this regard must take this fact into consideration or it can just be another step towards burnout.

Some might argue that focusing on improving these measures can lead to the worsening of patient outcomes and increased costs when it can seem that our new goal is to make the patient happy even if what they want is not what they need. This leads to my contention that hospitals and health care systems need to focus more on provider satisfaction if they want to improve patient satisfaction. The quote at the top of this article relates to this fact. Patients can sense when the provider is not interested or involved for whatever reason. Each of us, even the most compassionate and empathetic amongst our specialty have bad days when something in our life is causing us to not be at the top of our game. This does not mean that we are bad, but these are the days when a practiced script might even be more useful. However, I often note that these days of not being at our best performance may be more related to our personal level of job satisfaction or burnout rather than our actual abilities. I sometimes see a sense of doom and gloom over the provider who is at the bottom of any metric whether it be patient satisfaction, RVU production, patients per hour seen, or whichever metric is being evaluated by the administrators that week.

You also may have noted that I keep referring to people as “providers” and not doctors. I did this purposefully as this is now a contributing factor to burnout and leads to uncertainty about our future. The trend of using midlevels as independent practitioners or as replacements for double coverage slots for emergency physicians is rapidly developing, and in many ways more distressing component of many of our practice environments. Many of us feel threatened and fear replacement by someone although less qualified are certainly cheaper than ourselves. I have heard directors of large emergency departments stating that there is no department no matter how large which cannot be properly staffed with two emergency physicians with an ever expanding stable of mid-levels. Other directors will claim that they have hired their last doctor and will only need to add midlevels. How does that make you feel? Will this lead to increased satisfaction scores for yourself?

Are you satisfied? Would you give your job a 9 or a 10 on a satisfaction survey? I think we need to turn the satisfaction industry upside down and look at it from the other end to consider a different approach to improving satisfaction for everyone in the emergency department. I do not just mean patients, I really mean the staff. How do you satisfy a patient? Simply giving them what they want whether it be a CT scan, a blood test, an antibiotic prescription, a dilaudid injection, or whatever is not what we should do ethically. Many of us are fearful and worry that “our scores” are low and we need to improve them. I do believe that there can be real validity in the overall scoring related to an individual physician's interpersonal skills but we should and really must use this information in the proper way. We all know excellent physicians who deliver exceptional care but have terrible patient satisfaction scores. These same physicians can feel pressured into bending their practice habits to “improve” their scores. They will bend and give the antibiotic prescription to treat the virus or order the X-ray that is not really indicated because they can tell that the patient will not be satisfied without these things being done. What does this do to the physician's satisfaction? Does doing the wrong thing make him or her feel better about healthcare or their career? What is the implication for the doctor's wellness to spend ten minutes explaining to a mother why a CT scan should not be performed on a child with a bump on their head all the while knowing that she is not buying it? The doctor knows in their heart that the mother will shortly be posting on social media or filling out a “satisfaction” survey slamming the doctor for doing what is medically correct, protecting the child from needless radiation, improving length-of-stay numbers, and decreasing costs.

The answer to this quandary is not straightforward, but we as a profession cannot shy away from it. Maybe simply acknowledging it will help, but we need to develop strategies to improve our satisfaction. I do believe in the opening quote. Our patients will never be satisfied if we are burned out and can no longer act like the doctors which we trained to be. Remember we are not providers, we are DOCTORS! ●

Introducing the AAEM Member Bulletin



In an effort to keep our members connected, *Common Sense* will begin a column of member updates submitted by our members. We ask you to submit brief updates related to your career. We will also publish the unfortunate news of the passing of current or former members.

Visit the *Common Sense* website to learn more and submit your updates for publication!

www.aaem.org/resources/publications/common-sense ●

Letter in response to May/June 2019 “From the Editor’s Desk” titled: Emergency Medicine Wellness Bill Of Rights



I loved Dr. Mayer’s article in May/June 2019 of *Common Sense*, “Emergency Medicine Wellness Bill Of Rights.” What could be better to bring to our loving democratic culture than an emergency physician bill of rights?

Somewhere along the near universal incorporation of EMRs into medicine, physician wellness seems to have tapered off. “Burnout by a thousand clicks,” one study noting physicians spend more time on the EMR (40 percent),^{1,2,3} than performing direct patient care (30 percent). Have you ever received “the look” from a patient in discomfort or distress while you vigorously document? Meanwhile it’s difficult for the patient to comprehend why the physician is surfing the web instead of delivering care. To compound our wellness woes, nearly half (47 percent) of emergency physicians report having been physically assaulted while at work.⁴

We as physicians should be entitled to a safe and respectful workplace. Somewhere in the course of residency training we accept that becoming an emergency physician means enduring no bathroom breaks, scarfing down food while hiding from administrators and patients in the crannies of the ED, and becoming a stoic wall to verbal threats as well as occasional physical violence.

While I don’t think a physician bill of rights will cure all these problems, it is certainly a good start. Here are some items I’d propose:

- Ability to eat and drink in non-patient care areas in the workplace (without fear of the most recent Joint Commission, State, EMS, etc. audit of the department)
- A mandatory 10-15 minute break where you are required to leave the department to eat/pee/breathe
- Verbally abusive patients are subject to a medical screening examination and then in some fashion can be fired as a patient (they can return to the waiting room to wait for the next provider or they can leave)

- Mandatory scribe implementation; the EMR is here to stay, and until we reform healthcare to what truly matters, patient care and the unfettered ability to actually interact with patient, a strong assist is needed to be able to schedule additional time and remove the focus from itemized billing, most recent CMS measures (yes sepsis, I’m looking at you), RVUs, and of course data entry.

A safe workspace that values and protects its physicians is of utmost importance. The better we are able to care for ourselves, the better we will be able to care for our patients. Implementing a physician bill of rights might just be the start we need. ●

Brad Schwartz, MD
Cheverly, Maryland

Breanna Kebort, MD
Baltimore, Maryland

References

1. Hill RG Jr, Sears LM, Melanson SW. 4000 clicks: a productivity analysis of electronic medical records in a community hospital ED. *Am J Emerg Med.* 2013;31(11):1591-1594.
2. Shanafelt TD, Dyrbye LN, Sinsky C, et al. Relationship between clerical burden and characteristics of the electronic environment with physician burnout and professional satisfaction. *Mayo Clinic Proc.* 2016;91(7):836-848.
3. Salyers MP, Bonfils KA, Luther L, et al. The relationship between professional burnout and quality and safety in healthcare: a meta-analysis. *J Gen Intern Med.* 2017;32(4):475-482.
4. <https://www.newyorker.com/culture/annals-of-inquiry/why-doctors-should-organize>, accessed August 2, 2019.
5. <http://newsroom.acep.org/2018-10-02-Violence-in-Emergency-Departments-Is-Increasing-Harming-Patients-New-Research-Finds>, accessed August 2, 2019.

What stood out to you from this issue of *Common Sense*? Have a question, idea, or opinion? Andy Mayer, MD FAAEM, editor of *Common Sense*, welcomes your comments and suggestions. Submit a letter to the editor and continue the conversation.

Check out the redesigned *Common Sense* online at:
www.aaem.org/resources/publications/common-sense



AAEM Foundation Contributors – Thank You!



Levels of recognition to those who donate to the AAEM Foundation have been established. The information below includes a list of the different levels of contributions. The Foundation would like to thank the individuals below who contributed from **1-1-2019 to 8-15-2019**.

AAEM established its Foundation for the purposes of (1) studying and providing education relating to the access and availability of emergency medical care and (2) defending the rights of patients to receive such care and emergency physicians to provide such care. The latter purpose may include providing financial support for litigation to further these objectives. The Foundation will limit financial support to cases involving physician practice rights and cases involving a broad public interest. Contributions to the Foundation are tax deductible.

Contributions \$1,000 and above

Eric S. Sortan, MD FAAEM

Contributions \$500-\$999

David W. Lawhorn, MD MAAEM FAAEM

Contributions \$250-\$499

Kevin Allen, MD FAAEM

Mark A. Foppe, DO FAAEM FACOEP

Bruce E. Lohman, MD FAAEM

Bryan K. Miksanek, MD FAAEM

Keith D. Stamler, MD FAAEM

Leonard A. Yontz, MD FAAEM

Contributions \$100-\$249

Shannon M. Alwood, MD FAAEM

Justin P. Anderson, MD FAAEM

Scott D. Bentz, MD FAAEM

Robert J. Darzynkiewicz, MD FAAEM

Francis X. Del Vecchio, MD FAAEM

John J. Dillon, MD FAAEM

Robert M. Esposito, DO FAAEM

Paul W. Gabriel, MD FAAEM

Albert L. Gest, DO FAAEM

Kathryn Getzewich, MD FAAEM

Daniel V. Girzadas Jr., MD RDMS FAAEM

Jeffrey Gordon, MD MBA FAAEM

Neil Gulati, MD FAAEM

Patrick B. Hinfey, MD FAAEM

Victor S. Ho, MD FAAEM

Justin W. Holmes, MD

Stephen Lamsens, MD FAAEM

Hector L. Peniston-Feliciano, MD FAAEM

Patricia Phan, MD FAAEM

Brian R. Potts, MD MBA FAAEM

Jeffrey A. Rey, MD FAAEM

Howard M. Rigg III, MD FAAEM

Sachin J. Shah, MD FAAEM

David R. Steinbruner, MD FAAEM

Yeshvant Talati, MD FAAEM

Joanne Williams, MD MAAEM FAAEM

William L. Womack Jr., DO FAAEM

Contributions up to \$50

James K. Bouzoukis, MD FACS

Joseph Flynn, DO FAAEM

David T. Ford, MD FAAEM

Christian Fromm, MD FAAEM

Michael N. Habibe, MD FAAEM

John C. Kaufman, MD FAAEM

Douglas S. Lee, MD FAAEM

Edgar A. Marin, MD

Gregory S. McCarty, MD FAAEM

Kevin C. Reed, MD FAAEM

Brendan P. Sheridan, MD FAAEM

Hector C. Singson, MD

Michael Slater, MD FAAEM

James J. Suel, MD FAAEM

Robert E. Vander Leest IV, MD FAAEM

Jonathan Wassermann, MD FAAEM ●

AAEM PAC Contributors – Thank You!



AAEM PAC is the political action committee of the American Academy of Emergency Medicine. Through AAEM PAC, the Academy is able to support legislation and effect change on behalf of its members and with consideration to their unique concerns. Our dedicated efforts will help to improve the overall quality of health care in our country and to improve the lot of all emergency physicians.

All contributions are voluntary and the suggested amount of contribution is only a suggestion. The amount given by the contributor, or the refusal to give, will not benefit or disadvantage the person being solicited.

Levels of recognition to those who donate to the AAEM PAC have been established. The information below includes a list of the different levels of contributions. The PAC would like to thank the individuals below who contributed from **1-1-2019 to 8-15-2019**.

Contributions \$500-\$999

David A. Farcy, MD FAAEM FCCM

David W. Lawhorn, MD MAAEM FAAEM

Contributions \$250-\$499

Eric W. Brader, MD FAAEM

Liza Chopra, MD FAAEM

Brian J. Cutcliffe, MD FAAEM

Mark A. Foppe, DO FAAEM FACOEP

Bruce E. Lohman, MD FAAEM

Noah A. Maddy, MD FAAEM

Bryan K. Miksanek, MD FAAEM

Steven Parr, DO FAAEM

Rohan Somar, MD FAAEM

Eugene Spagnuolo, MD FAAEM

Keith D. Stamler, MD FAAEM

Timothy S. Talbot, MD FAAEM

Contributions \$100-\$249

Kevin Allen, MD FAAEM

Shannon M. Alwood, MD FAAEM

Justin P. Anderson, MD FAAEM

Scott Beaudoin, MD FAAEM

Mary Jane Brown, MD FAAEM

Mike Butterfield, MD

Patrick D. Cichon, MD JD MSE FAAEM

Theodore Clarfield, MD

Alessandra Conforto, MD FAAEM

Ryan M. Cruz, MD

Richard E. Daily, MD FAAEM

Robert J. Darzynkiewicz, MD FAAEM

Francis X. Del Vecchio, MD FAAEM

John J. Dillon, MD FAAEM

Timothy P. Dotzler, DO

Bryn E. Eisefelder, MD

Robert M. Esposito, DO FAAEM

Deborah D. Fletcher, MD FAAEM

Jessica Folger, MD FAAEM

Robert A. Frolichstein, MD FAAEM

Albert L. Gest, DO FAAEM

Kathryn Getzewich, MD FAAEM

Daniel V. Girzadas Jr., MD RDMS FAAEM

Jeffrey Gordon, MD MBA FAAEM

Katrina Green, MD FAAEM

Matthew J. Griffin, MD MBA FAAEM

Steven E. Guillen, MD FAAEM

Neil Gulati, MD FAAEM

William B. Halacoglu, DO FAAEM

David A. Halperin, MD FAAEM

Patrick B. Hinfey, MD FAAEM

Victor S. Ho, MD FAAEM

Stephen E. Hunter, DO

Stephanie Kok, MD FAAEM

Stanley L. Lawson, MD FAAEM

Theodore G. Lawson, MD FAAEM

Robert E. Leyrer, MD FAAEM

Gregory J. Lopez, MD FACEP FAAEM

Heidi Ludtke, MD FAAEM

John R. Matjucha, MD FAAEM

Gregory S. McCarty, MD FAAEM

Nevin G. McGinley, MD MBA FAAEM

Paul D. McMullen, MD FAAEM

Vicki Norton, MD FAAEM

Isaac A. Odudu, MD FAAEM

Ramon J. Pabalan, MD FAAEM

Raviraj J. Patel, MD FAAEM

Hector L. Peniston-Feliciano, MD FAAEM

Patricia Phan, MD FAAEM

Brian R. Potts, MD MBA FAAEM

Jeffrey A. Rey, MD FAAEM

Brown Robertson Jr., MD FAAEM

James E. Ross Jr., MD FAAEM

Michael Rosselli, MD FAAEM

Sachin J. Shah, MD FAAEM

Michael Silberman, DO FAAEM FACEP

Peter John Simic Jr., MD FAAEM

Susan Socha, DO FAAEM

Robert E. Stambaugh, MD FAAEM

David R. Steinbruner, MD FAAEM

Matthew W. Turney, MD FAAEM

Misty T. Wetzel, MD FAAEM

Richard Joe Ybarra, MD

Ernest L. Yeh, MD FAAEM FAEMS

Contributions up to \$50

Timothy P. Dotzler, DO

David T. Ford, MD FAAEM

Melanie S. Heniff, MD FAAEM FAAP

Kristina N. Hester, MD FAAEM

John J. Kahler, MD FAAEM

Julie Phillips, MD FAAEM

Nandita Sapre, DO FAAEM

Brendan P. Sheridan, MD FAAEM

Michael Slater, MD FAAEM

Zachary M. Sletten, MD FAAEM

Gerald M. Smith, DO FAAEM

Marc D. Squillante, DO FAAEM

Yeshvant Talati, MD FAAEM

Robert E. Vander Leest IV, MD FAAEM

Jonathan Wassermann, MD FAAEM

Anna L. Woekener, MD FAAEM ●

LEAD-EM Contributions – Thank You!



The AAEM Institute for Leadership, Education & Advancement in the Development of Emergency Medicine, Inc. (LEAD-EM) was established after the tragic and unexpected death of AAEM president, Dr. Kevin G. Rodgers.

The Kevin G. Rodgers Fund and the Institute will LEAD-EM just like Dr. Rodgers did. The funds will support important projects such as development of leadership qualities, and clinical and operational knowledge of emergency physicians with a view toward improving and advancing the quality of medical care in emergency medicine, and public health, safety and well-being overall. LEAD-EM would like to thank the individuals below who contributed from 1-1-2019 to 8-15-2019.

Contributions \$1,000 and above

Kevin H. Beier, MD FAAEM

Contributions \$500-\$999

Eric S. Csorban, MD FAAEM
Daniel F. Danzl, MD MAAEM FAAEM
David A. Farcy, MD FAAEM FCCM
John M. McGrath, MD FAAEM
Mark Reiter, MD MBA MAAEM FAAEM

Contributions \$250-\$499

Leon Adelman, MD MBA FAAEM
Justin P. Anderson, MD FAAEM
Stephen W. Barnhart, MD FAAEM
Jason P. Becker, MD FAAEM
Laura J. Bontempo, MD MEd FAAEM
Eric W. Brader, MD FAAEM
Damon Dietrich, MD FAAEM
Stephanee J. Evers, MD FAAEM
Joseph Flynn, DO FAAEM
Robert A. Frolichstein, MD FAAEM
Katrina Green, MD FAAEM
Stephen R. Hayden, MD FAAEM
Raif Joffe, DO FAAEM
Amin Antoine Kazzi, MD MAAEM FAAEM
Matthew Kostura, MD FAAEM
David W. Lawhorn, MD MAAEM FAAEM
Kari A. Lemme, MD FAAEM, FAAP
Michael Michel, MD FAAEM
Kerry W. Novak, MD FAAEM
Steven Parr, DO FAAEM
Brian Phillips, MD FAAEM
Kevin C. Reed, MD FAAEM
Howard M. Rigg III, MD FAAEM
Matt Rutz, MD FAAEM
Jason T. Schaffer, MD FAAEM
Russell D. Sharpshain, DO FAAEM

Mark O. Simon, MD FAAEM
William E. Swigart, MD FAAEM
Timothy S. Talbot, MD FAAEM
Chad Viscusi, MD FAAEM
Leonard A. Yontz, MD FAAEM

Contributions \$100-\$249

Sudhir Baliga, MD FAAEM
Michael M. Bermudez, MD FAAEM
Dale S. Birenbaum, MD FAAEM
William S. Boston, MD FAAEM
Mary Jane Brown, MD FAAEM
Adrienne Buggs, MD MPH FAAEM
Anthony J. Callisto, MD FAAEM
Patrick D. Cichon, MD JD MSE FAAEM
Alessandra Conforto, MD FAAEM
Nancy Conroy, MD FAAEM
Randolph J. Cordle, MD FAAEM
Francis X. Del Vecchio, MD FAAEM
John J. Dillon, MD FAAEM
Luke Espelund, MD FAAEM FAAP
Robert M. Esposito, DO FAAEM
Mark A. Foppe, DO FAAEM FACOEP
Christopher J. Freeman, MD FAAEM
Joshua P. Gaspard, MD FAAEM
Albert L. Gest, DO FAAEM
Daniel V. Girzadas Jr., MD RDMS FAAEM
Neil Gulati, MD FAAEM
Emily E. Gundert, MD FAAEM
Neal Handly, MD FAAEM
Katherine A. Harrison, MD FAAEM
Kathleen Hayward, MD FAAEM
Sarah Hemming-Meyer, DO FAAEM
William R. Hinckley, MD CMTE FAAEM
Victor S. Ho, MD FAAEM
Andrew LP Houseman, MD PhD FAAEM

Christopher Kang, MD FAAEM
John C. Kaufman, MD FAAEM
Keith J. Kuhfahl, DO FAAEM
Mark I. Langdorf, MD MHPE FAAEM
RDMS

Tim Lenz, MD FAAEM
Rick A. McPheeters, DO FAAEM
Rebecca A. Merrill, MD FAAEM
Joel Mosley, MD FAAEM
Heather M. Murphy-Lavoie, MD FAAEM
FUHM
Wynne Myint, MD FAAEM
Isaac A. Odudu, MD FAAEM
Robert C. Oelhaf Jr., MD FAAEM
Travis Omura, MD FAAEM
Hector L. Peniston-Feliciano, MD FAAEM
James A. Pfaff, MD FAAEM
Patricia Phan, MD FAAEM
Andrew T. Pickens IV, MD JD MBA FAAEM
Jeffery M. Pinnow, MD FAAEM FACEP
Brian R. Potts, MD MBA FAAEM
Jeffrey A. Rey, MD FAAEM
Anthony R. Rosania III, MD FAAEM
Chintana Sang-urai, MD FAAEM
Ari Schwell, MD FAAEM
Chester D. Shermer, MD FAAEM
Richard D. Shih, MD FAAEM
Joshua M. Smith
Thomas Snyder, MD FAAEM
Eugene Spagnuolo, MD FAAEM
David R. Steinbruner, MD FAAEM
Maxwell Stephenson, MD
Yeshvant Talati, MD FAAEM
Lindsay Tanner, MD FAAEM
Mark Tschirhart, MD
Robert E. Vander Leest IV, MD FAAEM

Robert Stephen Venable, MD FAAEM
Andrea L. Wolff, MD FAAEM
Julianne Wysocki Broadwater, DO FAAEM
Jorge M. Zeballos, MD FAAEM

Contributions up to \$75

Mobarak Al Mulhim, MD MBA FAAEM
Benjamin J. Archer, MD
Robert W. Bankov, MD FAAEM FACEP
Hong Chong, MD FAAEM
Jason Della Vecchia, DO
Christian Fromm, MD FAAEM
Jessica K. Fujimoto, MD
Paul W. Gabriel, MD FAAEM
Steven H. Gartzman, MD FAAEM
David A. Halperin, MD FAAEM
Jennifer Kanapicki Comer, MD FAAEM
Douglas S. Lee, MD FAAEM
Sharon A. Malone, MD FAAEM
Gregory S. McCarty, MD FAAEM
David B. Misner, MD FAAEM
Richard B. Moleno, DO FAAEM
Chris Muhr, MD
Marcus Obeius, DO FAAEM
Marie T. O'Connor Parker, MD FAAEM
George J. Reimann, MD FAAEM
Nandita Sapre, DO FAAEM
Peter John Simic Jr., MD FAAEM
Hector C. Singson, MD
Michael Slater, MD FAAEM
Zachary M. Sletten, MD FAAEM
Marc D. Squillante, DO FAAEM
Jonathan Wassermann, MD FAAEM
Joanne Williams, MD MAAEM FAAEM
Emily L. Wolff, MD FAAEM ●

Join the Diversity and Inclusion Committee

Our Mission:

To strive for increased diversity throughout the practice of emergency medicine and to reduce inequality beginning at AAEM and extending to all of our affiliate institutions and beyond.

Visit the website to learn more and join today:

www.aaem.org/diversity-inclusion-committee



Upcoming Conferences: AAEM Directly, Jointly Provided & Recommended

AAEM is featuring the following upcoming conferences and activities for your consideration. For a complete listing of upcoming conferences and other meetings, please visit: www.aaem.org/education/aaem-recommended-conferences-and-activities.

AAEM Conferences

April 19-23, 2020

26th Annual Scientific Assembly – AAEM20
Phoenix, AZ
www.aaem.org/AAEM20

AAEM Jointly Provided Conferences

November 5-9, 2019

Emergency Medicine Update Hot Topics
Oahu, HI
www.aaem.org/education/events/emergency-medicine-update-hot-topics

AAEM Recommended Conferences

October 4-6, 2019

The Difficult Airway Course: Emergency™
Chicago, IL
<https://theairwaysite.com/>

November 12, 2019

Advances in Cancer Immunotherapy™ — SITC
Philadelphia, PA
<https://www.sitcancer.org/education/aci/2019-20/philadelphia>

November 14, 2019

Advances in Cancer Immunotherapy™ — SITC
San Francisco, CA
<https://www.sitcancer.org/education/aci/2019-20/sanfrancisco>

December 4, 2019

Advances in Cancer Immunotherapy™ — SITC
Nashville, TN
<https://www.sitcancer.org/education/aci/2019-20/nashville>

December 9-11, 2019

2019 ACMT Total Tox Course
Washington, DC
www.acmt.net/TotalTox.html

December 11-14, 2019

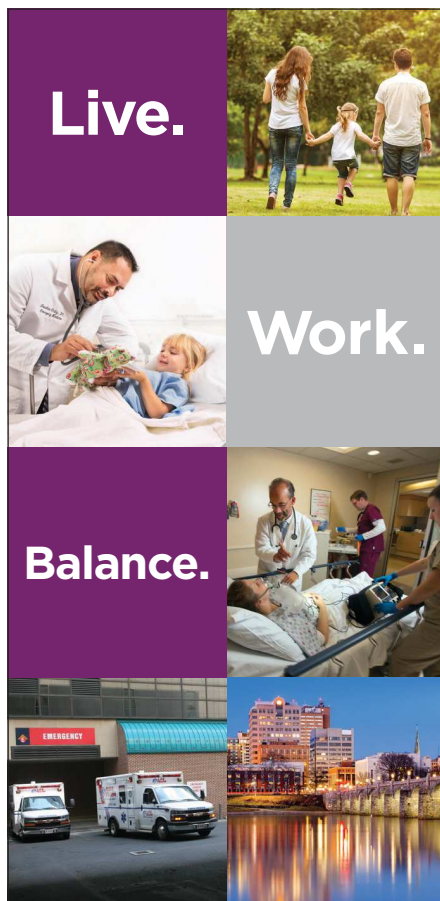
Emirates Society of Emergency Medicine
Scientific Conference (ESEM19)
Abu Dhabi, United Arab Emirates
<http://www.esemconference.ae/>

December 12, 2019

Advances in Cancer Immunotherapy™ — SITC
San Diego, CA
<https://www.sitcancer.org/education/aci/2019-20/sandiego>

June 15-18, 2020

ICEM 2020 Conference
Buenos Aires, Argentina
<http://www.icem2020.net/>



Clinical, Academic, and Leadership Opportunities Available

Your work is your passion. But it's not your whole life. Join a system that supports your need to balance work and home life. You can find great dining, art, entertainment, and culture in our cities, as well as peace and quiet in our rural areas. With opportunity for advancement and great schools and colleges nearby, it's a great place to grow your career and your family.

UPMC Pinnacle — a growing, multisite health system in south central Pennsylvania — can meet your needs at one of our eight acute care hospitals.

Join our Emergency Medicine Team

- Employed position
- Traditional block and flexible schedules
- UPMC Emergency Residency Program coming soon!
- Competitive salary — above MGMA median salary
- Shift based pay with differentials for nights, weekends, and holidays
- Strong advanced practice provider support at all locations
- Great administrative and clinical leadership support

Schedule a call with our recruiter today!

Contact Rachel Jones, MBA, FASPR
Physician Recruiter
rajones@pinnaclehealth.org
717-231-8796

UPMC Pinnacle

UPMCPinnacle.com/Providers

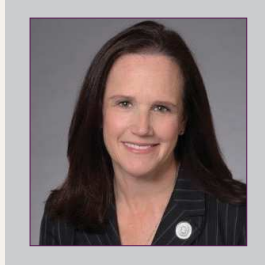
UPMC Pinnacle is an Equal Opportunity Employer.

EOE

ABEM Update

Jill M. Baren, MD, Elected President of ABEM

Jill M. Baren, M.D., has been elected President of the American Board of Emergency Medicine (ABEM). Dr. Baren has been a member of the Board of Directors since July 2012, and was elected to the Executive Committee in 2016. She has served ABEM in a number of capacities, including as an examiner for the Oral Certification Examination, as Chair of the inter-organizational Clinical Ultrasonography Task Force, and Chair of the Pediatric Emergency Medicine Subboard.



Dr. Baren also has served as Chair of the Finance, Nominations, and Test Administration committees and is a member of the Executive and Test Development committees.

Dr. Baren received a medical degree from the University of Pittsburgh School of Medicine and completed residency training in Emergency Medicine, and fellowship training in Pediatric Emergency Medicine at the Harbor-UCLA Medical Center. She also earned an M.S. from the University of Pennsylvania's Department of Medical Ethics, and an M.B.A. from the Heller School of Management and Social Policy at Brandeis University. She is a graduate of the Executive Leadership in Academic Medicine (ELAM) Program (2009-2010) and the American Council on Education Fellows Program for emerging leaders in Higher Education (2018-2019). Dr. Baren is currently Professor of Emergency Medicine, Pediatrics, and Medical Ethics at the Perelman School of Medicine, University of Pennsylvania and the Provost's Faculty Leadership Development Fellow. She served as Chair of the Department of Emergency Medicine from 2011-2017. ●

Others elected to the Executive Committee are:

Robert L. Muelleman, MD, Immediate-Past-President. Dr. Muelleman is Professor and Past-Chair of the Department of Emergency Medicine at the University of Nebraska Medical Center

Michael S. Beeson, MD, President-Elect. Dr. Beeson is Program Director of the Emergency Medicine Residency Program under ACGME application at Summa Health in Akron, Ohio.

Mary Nan S. Mallory, MD, Secretary-Treasurer. Dr. Mallory is Professor of Emergency Medicine and Attending Physician at the University of Louisville Hospital, and Vice Dean for Clinical Affairs at the University of Louisville School of Medicine.

Marianne Gausche-Hill, MD, Member-at-Large. Dr. Gausche-Hill is Medical Director of the Los Angeles County Emergency Medical Services Agency, Professor of Emergency Medicine and Pediatrics at the David Geffen School of Medicine at UCLA, and clinical faculty member at Harbor-UCLA Medical Center Department of Emergency Medicine.

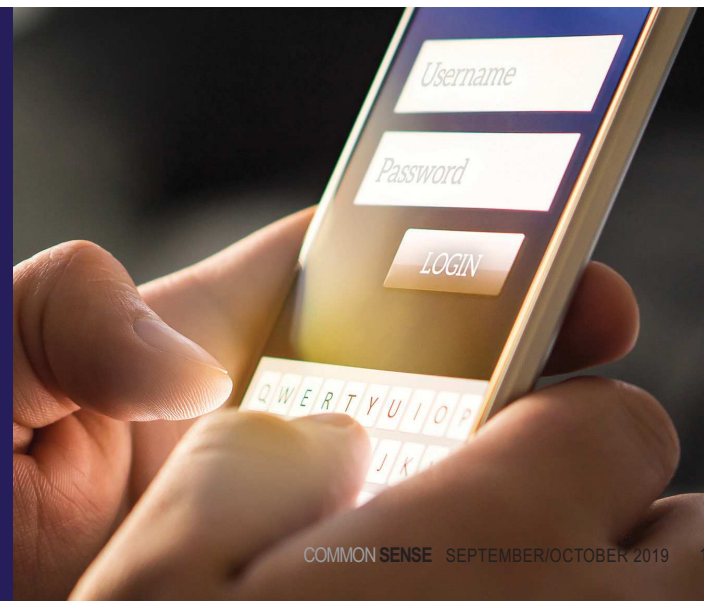
Robert P. Wahl, MD, Senior-Member-at-Large. Dr. Wahl is Associate Professor (Clinician-Educator) in the Department of Emergency Medicine at Wayne State University School of Medicine, and an attending physician at Detroit Receiving Hospital.

Access Your Member Benefits

Get Started!

Visit the redesigned website:
www.aaem.org/membership/benefits

Our academic and career-based benefits range from discounts on AAEM educational meetings to free and discounted publications and other resources.



Reports of the Death of the Pelvic Exam Are Greatly Exaggerated

Livia Santiago-Rosado, MD and Mary E. McLean, MD



Many of our colleagues are hating on the pelvic exam these days.

In the emergency department (ED), when it comes to lady

parts, "...we'll do whatever we can to get out of the pelvic exam," explains Rick Pescatore.¹ In one study measuring the time between patient rooming and resident self-assignment for 68 chief complaints, vaginal bleeding had the longest pick-up time.¹ "Vaginal bleeding" Ryan Radecki commented, "... is deservedly pulling up the rear."² (Deservedly?!) A

2015 retrospective review of pregnant ED patients with first trimester vaginal bleeding found that only 19% had a pelvic exam.⁴ *Have we concluded that the pelvic exam should no longer be part of the ED assessment?*

A review on the utility of the ED pelvic exam looked at 43 articles, most of which were observational and provided a low level of evidence.² Nonetheless, the review concluded, "routine use of pelvic examination is not supported by the literature" when sonography is available. Should observational research with low level of evidence dictate that we omit the pelvic exam, or are we just making excuses?

Ultrasound is a crucial advancement in ED care, but it's a slippery slope to say it can replace (rather than supplement) the pelvic exam. Based on that logic, instead of performing abdominal exams, we could obtain an MRI for any abdominal complaint. Better yet, we could obviate all physical exams and pan-scan all patients on their way into the ED, no matter what the chief complaint. Will the only physicians left be radiologists and surgeons? Should the rest of us hang up our stethoscopes (and speculums)?

“*Since it's not about patient comfort or throughput; what is left, shamefully, is provider discomfort performing the exam.*”

The fact is there is no conclusive evidence that omitting pelvic exams is safe. Linden et al authored a prospective, randomized trial in *Annals of Emergency Medicine* concluding pelvic exams are unnecessary for pregnant ED patients with vaginal bleeding or lower abdominal pain.³ However, limitations included the homogeneity of its population (non-English speakers were excluded), its subsequently underpowered sample size, and its reporting on outcomes it was not designed to study. Most importantly, all subjects had ultrasound-confirmed intrauterine pregnancies, so their conclusions are not applicable to the typical undifferentiated ED patient.

Theoretical concerns are that pelvic exams are time-consuming, or may cause some psychological and physical discomfort. Radecki argued in his commentary that pelvic exams detract from ED throughput.³

However, when Linden et al actually measured length of stay for ED encounters with vs. without pelvic exam, there was no significant difference. While they reported that patients for whom the exam was omitted were 12.5% less likely to report feeling uncomfortable, their methods were not designed to study this outcome.

Regardless, before discussing length of stay or comfort, we should be addressing safety. Similar to the pelvic exam, a rectal exam may be uncomfortable, and require additional time and a chap-erone; yet aren't rectal exams still indicated for patients with rectal bleeding or pain?

A prospective cohort study included pregnant and nonpregnant patients with abdominal pain and/or vaginal bleeding, and measured the utility of the ED pelvic exam.³ Since unexpected findings that significantly changed management were present in "only" 6% of subjects, the authors concluded that "the pelvic exam rarely offered additional information." Rarely is misleading here; the likelihood of the pelvic exam yielding management-altering findings was similar to that of finding an intracranial bleed on non-contrast head CT in patients with stroke symptoms.³ Applying this

logic, should we stop recommending head CT before thrombolytic therapy, since it rarely changes management?

Pelvic exam findings may contradict the history, and help determine the patient's appropriate treatment and disposition.

“*In the first place it's not so easy to even find your vagina. Women go weeks, months, sometimes years without looking at it ... You've got to get in the perfect position, with the perfect light, which then is shadowed somehow by the mirror and the angle you're at.*”

—Eve Ensler, *The Vagina Monologues*



WOMEN IN EMERGENCY MEDICINE

A pelvic exam is required to diagnose pelvic inflammatory disease, a potentially life-threatening infection. How else should

we diagnose or treat a vaginal laceration, an abnormal mass, or a foreign body such as a forgotten tampon or that \$66 vaginal jade egg from Gwyneth Paltrow's new-age "wellness" company, GOOP? (Spoiler alert: jade eggs are porous, and likely a risk factor for bacterial vaginosis and toxic shock syndrome.³)

It should be noted there is no consensus definition of what constitutes the "ED pelvic exam." Complete versions may take several minutes and involve stirrups, a speculum, or specimen collection. Abridged versions, such as limited external and bimanual assessments, take under one minute. It would behoove us to determine the role of complete vs. abridged versions, because even the abridged exam may offer significant value in certain patients; that quick external look is essential in diagnosing primary herpes rather than a urine infection in patients presenting with dysuria.

So why does the pelvic exam get such a bum rap? There is a historical reluctance to address pelvic complaints. Remember the pudendal nerve and artery from anatomy class? "Pudendal" is derived from the Latin "pudendum" which translates to "parts to be ashamed of."³ Perhaps this informs the exclusion of the female reproductive tract from the physical exam, even when not one single clinical trial provides solid evidence that doing so is safe. Since it's not about patient comfort or throughput; what is left, shamefully, is provider discomfort performing the exam. Those omitting pelvic exams may be serving self-interest rather than the patients'.

Men can see and palpate their own genitals, but for women, only the tip of the iceberg (the vulva) is easily accessible.

Logically, we should have a lower threshold to do pelvic exams than male genitourinary exams. A well-known emergency medicine maxim comes to mind: always check the feet of a diabetic with peripheral neuropathy. These patients may not know they have occult trauma, an infected ulcer, or a maggot infestation, so astute emergency physicians know to check.

Until we have solid, current evidence that its omission is safe, we propose that physicians always recommend a pelvic exam for women with vaginal bleeding or discharge, lower abdominal pain, or unexplained systemic symptoms, who cannot see and palpate their own vagina, uterus,

and ovaries. And, as no woman has the capability to completely examine their own genital organs, every woman presenting to the ED with these symptoms should have a pelvic exam. ●

References:

1. Pescatore R. "3 thoughts on 'The End of the 'Emergency' Pelvic Exam.'" 2017. *Emergency Literature of Note*. Retrieved from <http://www.emlitofnote.com/?p=4022>.
2. Patterson B et al. "Cherry Picking Patients: Examining the Interval Between Patient Rooming and Resident Self-assignment." *Academic Emergency Medicine*. 2016. doi: 10.1111/acem.12895. Retrieved from <https://onlinelibrary.wiley.com/doi/epdf/10.1111/acem.12895>
3. Radecki R. "Excitement and Ennui in the ED." *Emergency Medicine Literature of Note*. 2016. Retrieved from <http://www.emlitofnote.com/?p=3132>
4. Thompson J et al. The utility of pelvic exams in emergency department patients with first trimester vaginal bleeding: a feasibility study and medical record review. *Canadian journal of emergency medicine*. Conference: 2015 CAEP/ACMU. Canada 2015; 17(null): S53
5. Isoardi K. Review article: the use of pelvic examination within the emergency department in the assessment of early pregnancy bleeding. *Emergency Medicine Australasia*. 2009-12;21:440-448
6. Linden J et al. "Is the Pelvic Examination Still Crucial in Patients Presenting to the Emergency Department With Vaginal Bleeding or Abdominal Pain When an Intrauterine Pregnancy is Identified on Ultrasonography? A Randomized Controlled Trial." *Ann Emerg Med*. 2017. Retrieved from [https://www.annemergmed.com/article/S0196-0644\(17\)31387-2/fulltext](https://www.annemergmed.com/article/S0196-0644(17)31387-2/fulltext)
7. Radecki, R. "The End of the 'Emergency' Pelvic Exam." *Emergency Medicine Literature of Note*. 2017. Retrieved from <http://www.emlitofnote.com/?p=4022>
8. Brown J et al. "Does pelvic exam in the emergency department add useful information?" *West J Emerg Med*. 2011;12(2):208-212. Retrieved from <https://escholarship.org/uc/item/10j2b8t5>
9. Andersen K et al. Hemorrhagic and Ischemic Strokes Compared: Stroke Severity, Mortality, and Risk Factors." *Stroke*. 2009; 40:2068-2072
10. 10 Gunter J. "Dear Gwyneth Paltrow, I'm a GYN and your vaginal jade eggs are a bad idea" Dr. Jen Gunter: Wielding the Lasso of Truth. 2017. <https://drjengunter.com/2017/01/17/dear-gwyneth-paltrow-im-a-gyn-and-your-vaginal-jade-eggs-are-a-bad-idea/>
11. 11 "Pudendum." *Oxford English Dictionary Online*. March 2019. Retrieved from <https://en.oxforddictionaries.com/definition/pudendum>.
12. Ensler E. "The Vagina Monologues: The official script for the 2008 V-Day Campaigns." 2008. Retrieved from: <http://web.mit.edu/dvp/Public/TVMScript2008.pdf>

Discounts Available

Multi-year discounts available for full voting members when you sign up for 3 or more years.

Standing Up for You, Standing Up for EM

AAEM is the champion of the emergency physician. For over 25 years, we've protected board certification and supported equitable practice environments to allow you to deliver the highest quality of patient care.

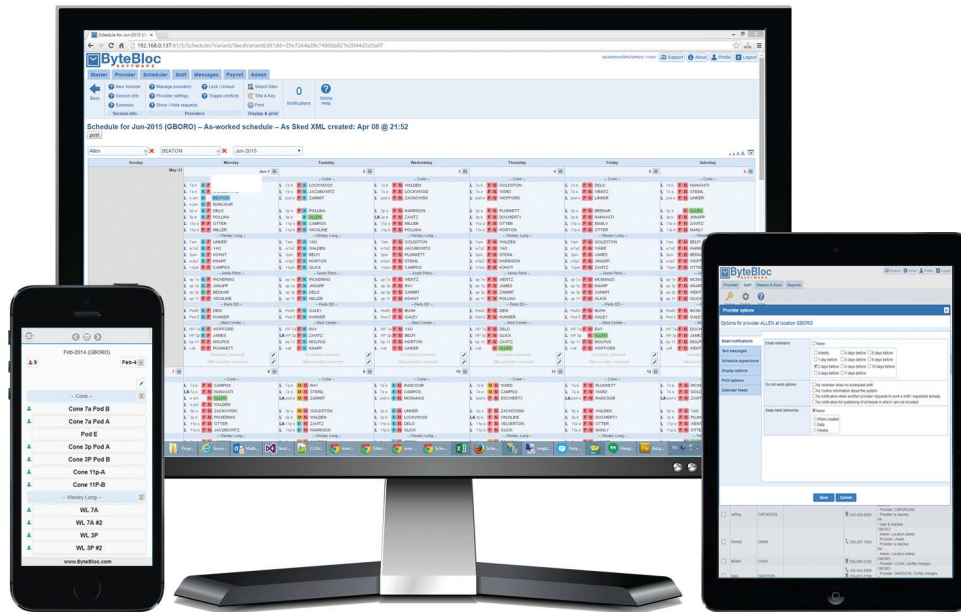
Renew for 2020 Today!

As a member of AAEM, you're part of a growing network of physicians from all over the U.S. and from all practice environments, committed to enhancing the EM specialty together.



ByteBloc Software

Scheduling Emergency Providers Since 1989

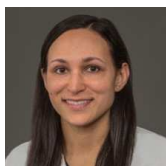


- ✓ Highly flexible
- ✓ Automates scheduling
- ✓ Saves time and money
- ✓ Mobile & web support
- ✓ Trade, split, and give away shifts
- ✓ Extensive reporting & payroll support
- ✓ Track requests, vacations, and worked hours
- ✓ And many more...

For a free trial, visit us at www.bytebloc.com

Queuing Patients in the Emergency Department: Can It Work?

Andrea Blome, MD



What is queuing theory?

Queuing theory originated more than a century ago from the study of telephone delays and congestion. A simple queue is defined by a stream of arriving customers or tasks that are handled by a server. The goal of queuing models is to eliminate the disparity between the demand for service and the capacity to meet that demand. The concept is used in many service industries to strategize how to improve efficiency.¹ For instance, a grocery store that struggles with long lines for check-out could add an express lane for customers with smaller amounts of items to reduce waiting time overall. In addition, call centers for customer service have used technology to improve caller wait times with the 'virtual queue,' which keeps the caller in line, but calls the customer back when the agent is free.²



In the emergency department (ED), decreasing patient wait times is vital.

How does it work in the ED?

In the emergency department (ED), decreasing patient wait times is vital. Increased wait times lead to delayed diagnosis, poor patient satisfaction, and increased morbidity and mortality. The ED can be simplified to a 'multiple server, single phase'

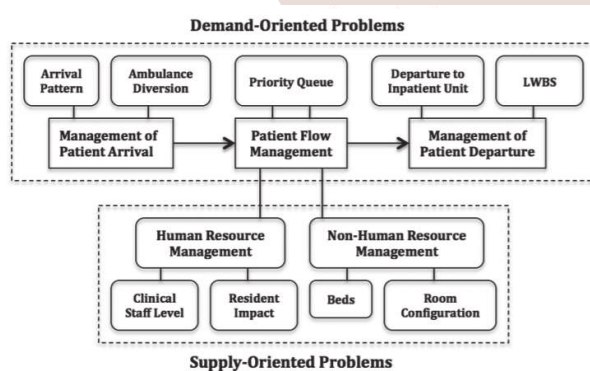
queue, in which patients wait in one line (the waiting room) for servers, including the triage nurse, the bedside nurse, and the physician.³

In health care, queuing calculations are generally based on patient arrival rate, service rate (time for exam, tests, treatment), and the number of servers (number of providers and ancillary staff).⁴ Most models use the Poisson arrival process, which assumes patients arrive according to a random process. Arrival and service times can vary based on the time of day, the season, etc.¹

In the ED queue, interventions should focus on either reducing the server utilization or reducing variation. To reduce server utilization, the rate of service can be increased, with the goal of identifying wasteful elements and reducing or eliminating them. To reduce variation in service, the alignment of the staffing should first match demand before adding additional servers to the system. By predicting the average distribution of patient arrivals by hour, the staffing model can be adjusted to have more servers during high demand times.¹ To reduce variation, the variation in arrival and/or the variation in service should

be decreased. Reducing variation in arrivals can be difficult, as not much can be done to impact the timing of emergencies. Variation in service is usually related to issues of process, layout, supplies, equipment, and supporting services. For instance, a laceration repair might take longer if supplies are not readily available and stocked in the room where the procedure is being done. Even small adjustments to these issues can reduce service variation.¹

Figure 1: Opportunities to Reduce Variation⁵



Can it work?

Queuing theory can be used to predict the effect of patient arrivals, treatment time, and ED boarding on the patients who leave without being seen (LWBS). One institution used a queuing model to analyze the ED flow model currently in place and found that a queuing model was able to predict the variation in patients who LWBS.⁵

Lehigh Valley Health Network in Pennsylvania took the theory one step further. The institution used a queuing model to identify that the ED was understaffed during peak hours and overstaffed during non-peak hours. After aligning resource capacity with hourly demand, the hospital saw a reduction of length of stay by 20% and reduced walk-out rates by 58%.⁵

Figure 2: How to Implement Queuing in the Emergency Department

- Determine patient arrivals/hour
- Understand the server staffing model
- Match patient demand with staffing
- Reduce service variation
- Analyze patient wait times/LWBS rates

ED's are complex, especially in large, academic teaching hospitals. Relying solely on averages to determine forecasts can certainly affect the model. Accounting for residents and medical students in the formula can also impact predicted outcomes. However, queuing models can and should be considered in ED's in order to improve efficiency and decrease wait times. ● >>

References:

1. Crane, Jody, and Noon, Chuck. "The Definitive Guide to Emergency Department Operational Improvement." CRC Press, 2011, (119-145).
2. Kulbyte, Toma. "5 ways to manage (and reduce) your customer service queues." November, 2018. <https://www.superoffice.com/blog/customer-service-queues/>.
3. "Introduction to Queuing Theory." What is Six Sigma? <https://www.whatissixsigma.net/queueing-theory-introduction/>.

4. Chowdhury, Naser, et al. "Using Queuing Theory to Reduce Wait, Stay in Emergency Department." Sept 2018. <https://www.physicianleaders.org/news/queueing-theory-reducing-wait-stay>.
5. Hu, Xia, et al. "Applying queueing theory to the study of emergency department operations: a survey and a discussion of comparable simulation studies." *Intl. Trans. in Op. Res.* 25 (2018) 7-49 DOI: 10.1111/itor.12400.
6. Wiler, JL, et al. "An emergency department patient flow model based on queueing theory principles." *Acad Emerg Med.* 2013 Sep;20(9):939-46. doi: 10.1111/acem.12215.



AAEM19 is Now Available on AAEM Online!

Didn't get a chance to make it to AAEM19 or missed a couple lectures that you really wanted to see? AAEM Online is a FREE members-only benefit that allows you to stream video or audio from past AAEM scientific assemblies online, or download the MP3 or MP4 files.

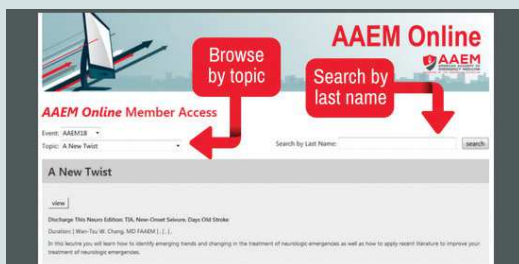


AAEM19 Las Vegas

Start Watching

Watch • Listen • Download • FREE

Browse the AAEM Online Catalog



Other Featured Topics

Watch lectures on topics such as: Abdominal, Cardiovascular, Care of Terminally Ill/End-of-Life Care, Controlled Substance Prescribing, Critical Care, Cutaneous, EM Careers, EMS, Endo/Metabolic, ENT, Financial, Infectious Disease, Geriatrics, Heme/Onc, Imaging, Medical Ethics, Medicolegal, MSK, Neuro, OB/Gyn, Pain Management, Patient Safety, Pediatrics, Pharmacology/Devices, Practice of EM, Psych, Pulmonary, Renal/Urogenital, Risk Management, Suicide Assessment/Management, Technology, Thoracic-Respiratory, Trauma, Ultrasound, and Wellness.

AAEM19 Plenary Sessions

- Water and Stars - Matthew Wetschler, MD
- Emergency Cardiology 2019: The Articles You've Got to Know! - Amal Mattu, MD FAAEM
- Sepsis – New Recommendations - Peter M.C. DeBlieux, MD FAAEM
- New Horizons in Trauma Resuscitation - Thomas M. Scalea, MD
- Efficient EM Care of the Child with Special Needs - Ilene Claudius, MD FAAEM FAAP FACEP
- Essential Resuscitation Articles 2018-2019 - Corey M. Slovis, MD FAAEM FACP FACEP
- Neurology Updates - Evie G. Marcolini, MD FAAEM FACEP FCCM
- Critical Care in Review - Haney Mallemat, MD FAAEM

Log-in and Start Watching Today!

www.aaem.org/aaem-online

I Came Back from Depression, and So Can You

David Hoyer, MD FAAEM



*We have a **crisis in medicine** — physicians are dying by suicide at twice the rate of the general population in the United States, averaging more than one per day.*



“Any man’s death diminishes me, because I am involved in mankind, and therefore never send to know for whom the bell tolls; it tolls for thee.” Those moving words are just as relevant today as they were almost four centuries ago when John Donne wrote them.

We have a crisis in medicine—physicians are dying by suicide at twice the rate of the general population in the United States, averaging more than one per day. (New York Times. Sept. 4, 2014; <http://nyti.ms/2oU0Y43>.) Emergency physicians are part of this group because almost two-thirds report burnout, depression, or both. (Medscape. National Physician Burnout & Depression Report 2018, Jan. 17, 2018; <http://wb.md/2E58ouW>.)

Solutions to this crisis will need to come from all stakeholders in health care (hospital administrators, health insurance companies, professional organizations, government, the legal system, patients, etc.), but it is also clear that physicians are not availing themselves of mental health care. Reasons for not getting help include skepticism of depression as a real disease, doubts about antidepressants, and fear of the stigma associated with getting psychiatric help.

I was plagued by all those faulty reasons when I felt burned out and clinically depressed back in the 1980s. I did my best for months to pull myself up by my bootstraps with exercise and other recommendations. When those efforts failed, I saw a psychiatrist, opting initially for psychotherapy, which also failed. So I tried a new medicine called Prozac (fluoxetine), the first SSRI, which within a few days lessened my depressive symptoms and at two weeks had freed me of depression altogether. After a few months on the medication, I stopped taking it and have never needed it again.

My concern about being stigmatized turned out to be unfounded, even 20-30 years ago. I have reported my depression on every job and credentialing application, and experienced only one instance of discrimination. That happened when my application to join the U.S. Army Medical Corps was initially rejected by an Army Strong screening physician, but his decision was quickly overturned by wiser superiors. I served my eight years in the Army and have my honorable discharge proudly framed in my home. Today I get job offers daily.

Addendum to “I Came Back from Depression, and So Can You”

Fortunately, there are now additional protections from stigmatization and discrimination compared to when I went through my “journey to

wellness.” In November 2018, the AAEM Board approved:

Position Statement on Inquiries about Diagnosis and Treatment of Mental Disorders in Connection with Professional Licensing and Credentialing

AAEM endorses the following points regarding inquiries about diagnosis and treatment of mental disorders in connection with professional licensing and credentialing:

- AAEM believes that state licensing boards and credentialing organizations should require physicians to disclose mental disorders only when the disorder currently impairs their judgment or ability to practice.
- AAEM believes that state licensing boards and credentialing organizations should refrain from asking about past history of mental disorders as such inquiries discourage professionals from getting treatment that could prevent impairment.

This policy is published on AAEM’s website along with references to similar policies by the American Medical Association and the American Psychiatric Association.

Finally, we now have legal protection from such discrimination in that the courts have determined that “broad-based, time-unlimited questions regarding the physician’s mental health history without regard to current impairment” are impermissible under Title 2 of the Americans with Disabilities Act.¹ ●

References:

1. E.E. Frezza. “Moral Injury: The Pandemic for Physicians”. Texas Medicine March 2019, p7.



Solutions to this

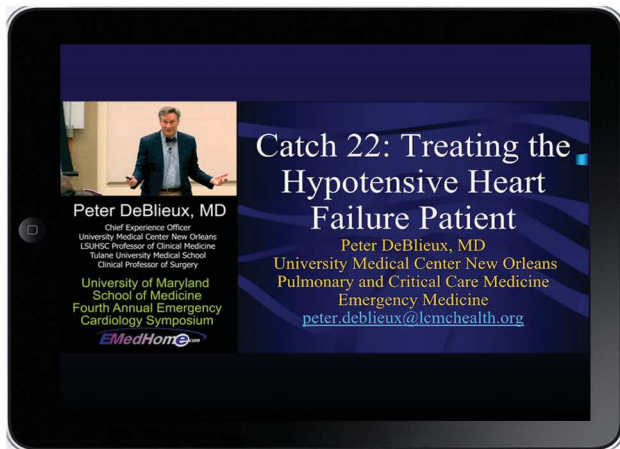
crisis will need to come from all stakeholders in health care (hospital administrators, health insurance companies, professional organizations, government, the legal system, patients, etc.)...





ACT NOW!

Exclusive 15% Off Discount Code: AAEM15

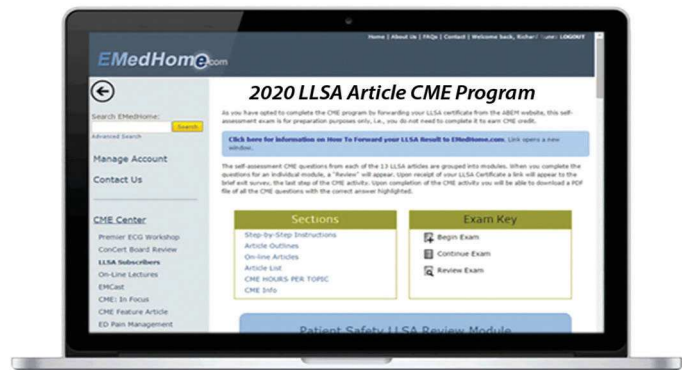


NOW ONLINE!

**OVER 60 CME VIDEOS
FROM THE 2019 AAEM
SCIENTIFIC ASSEMBLY**



**Taking an LLSA or COLA Exam This Year?
Sign Up For the EMedHome LLSA or COLA Articles CME Program**



- Easily Pass the Exam
- Key Point Outlines & Full Text Articles
- Get *Category 1 AMA/PRA CME Credit™*
- Forward Your Certificate of Completion in Lieu of a CME Exam!

www.EMedHome.com

AAEMi: Introduction of the New India Chapter Division of AAEM

John Acerra, MD MPH FAAEM



Greetings from the new India Chapter Division of the American Academy of Emergency Medicine (AAEMi)! I am excited about our new home here at AAEM and hope to keep our membership informed on issues related to emergency medicine specialty development in India. To quote our bylaws, the

chapter “has been created and is organized for the purpose of promoting and protecting excellence and integrity in the practice and management of emergency medicine in all clinical and administrative settings within India.” I want to take this opportunity to introduce you to AAEMi and update you on some issues regarding EM development in India in 2019.

India has a fairly complicated system for overseeing post-graduate medical training. There are basically two bodies which oversee post-graduate training: The Medical Council of India (MCI) which oversees medical colleges and approves “MD” programs in medical specialties, and the National Board of Examinations (NBE) which oversees training programs at private institutions and approves Diplomate of National Board (DNB) programs in medical specialties. The MCI recognized emergency medicine as a specialty in 2009, and the NBE approved DNB emergency medicine in 2013. Mission Accomplished! Right?! Well, not exactly. Recognition of the specialty did not lead to the widespread growth of training programs like many hoped and predicted. The development of the specialty of emergency medicine has been slow and even controversial. Currently, there are around 200 graduates of MD and DNB emergency medicine programs annually, which is not nearly enough to support the country’s emergency medicine needs. The article “The Making of a New Medical Specialty: A Policy Analysis of the Development of Emergency Medicine in India” outlines many of the complex reasons why specialty growth has been slow and erratic. If you’re interested in this topic, I strongly suggest you have a look at this and 2 other articles published in 2018 by the same author, Veena Sriram, on the topic.^{1,2,3} Ms. Sriram was our guest at our annual meeting in March and helped the group to understand the complexities and challenges facing specialty development.

Today, there is clearly still a need to support quality emergency medicine training and specialty growth in India. The specialty is in its infancy in India, and health policy decisions made in the very near future can have a tremendous impact on how the specialty will develop. AAEMi remains dedicated to supporting policy decisions that will encourage quality emergency medicine training program expansion and ultimately increase access to emergency care throughout India. If you share this vision, I encourage you to renew your membership or join AAEMi, and encourage a friend or colleague to join as well. Membership is very affordable, and membership in AAEM is not required. More information on joining the section can be found at: <https://www.aaem.org/aaemi>. We will continue to work with our partners in the Society for Emergency Medicine India (SEMI) and advocate for quality emergency medicine training throughout the country, whether they come from the MCI, DNB, or other pathways.

If you have any thoughts on how the new AAEMi can be an advocate for emergency medicine in India, please feel free to reach out and make your voice heard. I want this organization to represent you, our members, as best as possible, and the only way to do that is to hear from you.

Finally, our friends in India are sponsoring the Asian Congress for Emergency Medicine (ACEM) 2019 in New Delhi, India from November 10-14. More information can be found at <http://www.acem2019delhi.com/>. Many AAEMi members will be participating, and it would be a great way to get more involved in emergency medicine in southeast Asia. ●

References:

1. Sriram V, Hyder AA, Bennett S. The making of a new medical specialty: a policy analysis of the development of emergency medicine in India. *Int J Health Policy Manag.* 2018; 7(11): 993-1006.
2. Sriram V et al. Socialization, legitimation, and the transfer of biomedical knowledge to low- and middle-income countries: analyzing the case of emergency medicine in India. *International Journal for Equity in Health* 2018 17:142.
3. Sriram V, Baru R, Bennett S. Regulating recognition and training for new medical specialties in India: the care of emergency medicine. *Health Policy and Planning.* 2018; 33: 840-852.

NEW AAEM Member Benefit:

AAEM Member Networking Facebook Group

- Internally network with fellow AAEM Members
- Share ideas or concerns that connect back to AAEM’s Mission
- Patient access to care, board certification, physician wellness and work environment, fair and equitable practice environments, medical education/residency programs, CME, supporting international EM

This is a closed Facebook Group, which only AAEM members can access. Please join and share the AAEM Member Networking Facebook Group with other colleagues!



Spotlight on Innovators

Molly Estes, MD FAAEM

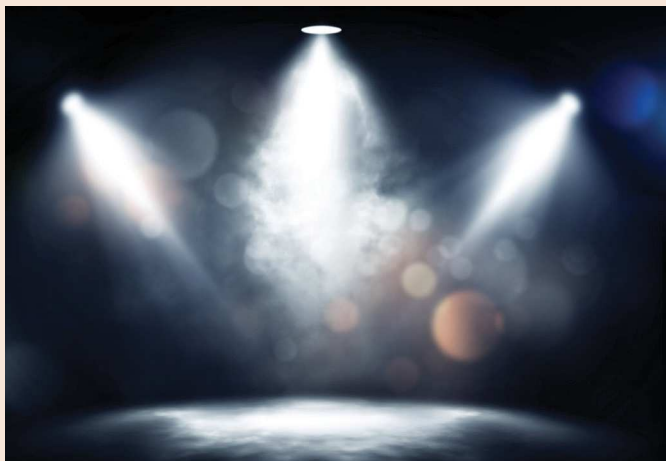


AAEM Young Physicians Section has members all across the world doing incredible things in their daily lives. Beyond just clinical work, our colleagues continue to find new and innovative ways to make their mark in the world and advance our specialty.

In this edition of *Common Sense*, we would like to highlight the efforts of Dr. Iltifat Husain and Dr. Blake Briggs from Wake Forest University Baptist Medical Center. Drs. Husain and Briggs are the creators of the podcast *EM Board Bombs*, their clever wit and golden pearls of knowledge making on-the-go learning fun and readily accessible. We interviewed these education masterminds to get a deeper look into why they do what they do.

What inspired you to create a podcast? Why this topic and why this media?

Well it seemed everyone has a podcast nowadays, so why not us? Honestly though, we found that the existing podcasts for EM board review were a little too serious, and most definitely too long. Podcasts were an obvious medium to utilize because of how popular they have become and how easy they are to digest. We often receive comments about how people listen to us while walking their dog or on their way to work. We believe most EM docs want education to be efficient and



fun. Studying shouldn't always be dreadful. Instead of talking about the usual medical topics, why not mix in pop culture and nerdy things we, as medical professionals love? "Wingardium leviosa and status epilepticus," "Bark for Dogmentin," and "Urethral injury: Trouble at the Meatus" - their catchy titles say it all! We are here to provide edutainment (educate + entertainment). Our goal was, and still is, to produce a podcast that is like on-shift teaching: efficient, less than 15-minute high-yield topics, entertaining, and memorable. You cannot help but smile when listening.

Our goal was, and still is, to produce a podcast that is like

on-shift teaching:
efficient, less than 15-minute
high-yield topics,
entertaining, and
memorable.

We are here
to provide
edutainment
(educate +
entertainment).

What was easier than you expected in designing this podcast?

Ironically, the easiest part is sitting down and simply recording an episode. The cool thing about our little shindig is that we don't have a script. We research a topic, make sure it's board relevant, high-yield, and up-to-date. Then we just... talk. The outrageous question stems, jokes, and moments of laughter are always unscripted, and that's what makes it so authentic and fun to do.

What was harder than you expected?

Editing! The audio software we utilize for editing is fantastic, but is very time consuming since we need to condense our episodes down to a palatable 10-15 minutes. We can record an episode in about 30 minutes, but the editing takes hours. Our social media presence also takes a lot of effort, but we enjoy participating in the #FOAM community online.

What has been the biggest surprise throughout this process?

When we started the podcast, we almost dreaded the thought of how much work it would be to record a bunch of episodes and see if it would take off. Now we realize that stuff all came naturally and it's really been a source of entertainment and free education for both of us. The attending-to-resident mentorship has been really awesome too. We were also pleasantly surprised to attract a major medical student following. In addition to the podcast, we produce high-yield, 1-2 page PDFs on classic pathologies. Some examples include "Eggplant Emergencies: Priapism" and "Airway Superiority: ED RSI." They've been a major hit and attract attention!



Where do you want to see things go from here? Any plans to conquer the FOAM world?

We love the #FOAM world, especially FOAMed, but we continue to fill our own niche. Right now, we are the only EM in-service/board exam podcast that is not just high yield, but entertaining and efficient. We salute and support our fellow members of FOAM and their never-ending quest to teach in this ever-evolving age of medical education.

What is some practical advice you can give anyone else thinking to start their own podcast?

Make sure you realize that recording is the easiest part, and the editing and post-production takes nearly five times more time and effort. If you decide to start, PLAN! You really need to have a game plan in place and your mission statement pretty well-defined. People listen to podcasts for all sorts of reasons. We purposely made ours to fill a specific niche; if you try to be something else that's not unique or not wholly your idea, you'll likely fail. Additionally, don't do this to become a podcast sensation! It probably won't happen (#sorrynotsorry). Do it because you want to learn, you want a new experience, and most importantly, you want to have fun!

Is the reason you continue this the same reason you started it in the first place?

Absolutely. We set off to revolutionize board studying into an unscripted, honest, entertaining podcast. That mission continues and we look forward to more growth and new subscribers! We will also be free, promise to make you smile, and promise to drop lots of hashtags. Join us for the next episode on iTunes, Spotify, Google Play, or streaming directly from our website.

You can catch the latest episode of EM Board Bombs at www.emboard-bombs.com or follow them on Twitter @EMBoardBombs. If you or someone you know is doing something amazing and innovative in their lives, we want to know about it! Drop us a note at mzagroba@aaem.org.

Dr. Ilifat Husain received his Doctorate in Medicine from Wake Forest University School of Medicine and is an Assistant Professor of Emergency Medicine at Wake Forest School of Medicine. He is the founder of iMedicalApps.com, a medical technology review site. He is the co-creator of the EPIC and Cerner versions of the Heart Pathway tool, and the Apple Heart Pathway app. He is obsessed with everything NBA and deeply enjoys time with his family.

Dr. Blake Briggs received his Doctorate in Medicine from the University of Tennessee College of Medicine and is currently an emergency medicine resident at Wake Forest University Baptist Medical Center. Since his first year of medical school, he has tutored a variety of scientific disciplines for the medical, dental, and physician assistant programs. Blake authored and published "201 Pathophysiology Questions," an USMLE Step 1 focused review book. He enjoys traveling and backpacking treks. ●

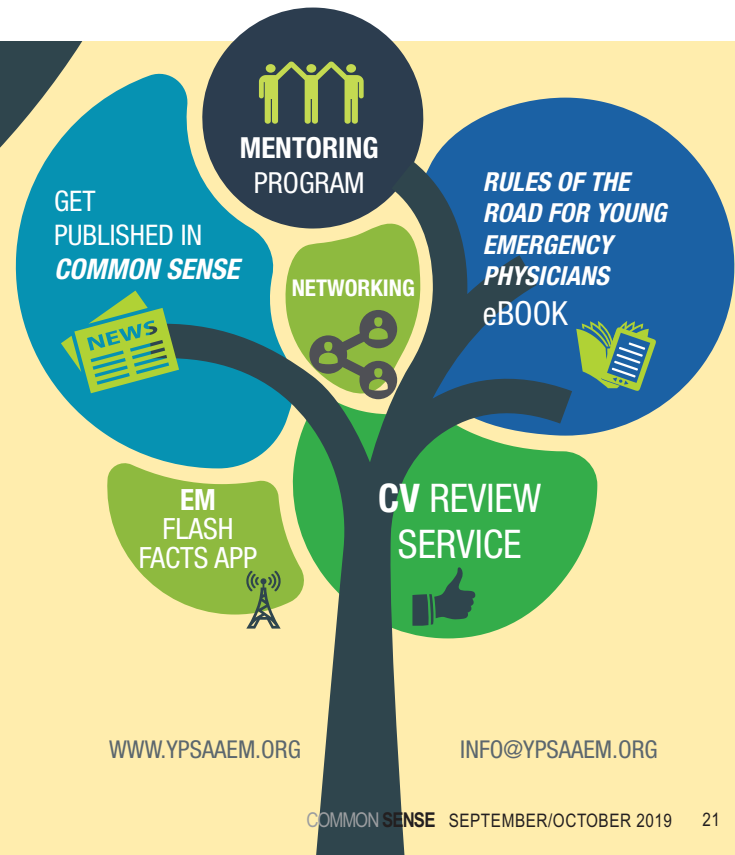


AAEM
Young Physicians
Section (YPS)

FREE



Personalized resources for your first 5 years out of residency!



WWW.YPSAAEM.ORG

INFO@YPSAAEM.ORG

An Argument for the Enforcement of Electronic Health Record Cross-Communication

Haig Aintablian, MD — AAEM/RSA President



A 77-year-old patient comes into the ED for a complaint of shortness of breath x 6 months. This is the first time the patient has come to this hospital

and there are no medical records in the EHR. The patient doesn't remember what problems they have, but they know they're on some sort of medication for their heart. They deny any kidney problems. You optimize the patient in the ED, see no acute ECG changes, no troponin elevations, but a creatinine of 2.3 and a BNP that is mildly elevated. You admit for heart failure and AKI. Multiple renal and cardiac studies are done in house because his records can't be retrieved. Once they are retrieved you see that his BNP and Cr are within baseline and the patient did not require admission.

EMS brings in an obtunded, short of breath 86-year-old patient from a SNF. You have documents that are limited to a PCP note from one year ago, and a barely legible medication list, as well as some transfer paperwork from the SNF. No POLST or code status can be found.

They are teetering toward intubation and you have no family or MPOA to contact regarding medical decision making. You try to call the SNF, but they are not helpful with determining code status. You intubate and resuscitate the patient and they are admitted to the ICU. Two days later a POLST is found with a DNR/DNI status from an OSH. The ICU team must now determine their course of action with this patient.

A 32-year-old female comes in due to abnormal uterine bleeding x 3 weeks. Her bleeding has not changed and she went to the hospital across the city yesterday for similar complaints but was discharged. She doesn't recall what they did, and does not have her paperwork with her. You order a pelvic ultrasound, urine and serum studies, and ultimately find no signs of anemia, pregnancy, and an ultrasound that shows a fibroid. You discharge her with instructions to follow-up with her OB/GYN. Her OSH did the same workup yesterday and had the same recommendations.



In many ways, sharing between EHRs could be one of the most successful cost-saving measures in modern medicine.

A 24-year-old girl comes to the ED with her dad due to severe headaches x 4 weeks that are associated with morning nausea and vomiting. Neither her nor her father have a lot of medical literacy and are very concerned as her headaches have not gone away. She has a story that concerns you for pseudotumor cerebri versus an intracranial mass. Her dad says that she was just discharged from an OSH last week, and that they did studies but he's not sure what exactly they were. You order a CT scan and perform an LP. Everything is within normal limits. You discharge the patient with neurology follow-up. Her OSH had already done this workup and her inpatient neurology notes showed concern for atypical migraines.

A 43-year-old female comes to your ED with a complaint of severe chest pain radiating to the back. She is asking for pain medications as her pain is extremely severe. She denies having had this before and states that it had just started an hour prior. Her state-mandated opiate screen reveals concern for opiate seeking behavior. However given your concern for both medicolegal and patient risk, you order multiple lab studies, a CTA of her aorta, and give her more than one dose of morphine for what seems to be real pain. You find that her heart and lungs have no significant findings on any of the studies and before you give her the



results the nurse informs you that she has eloped. In the last day, two outside hospitals had performed similar high contrast and radiation studies after which she also eloped.

These aren't uncommon cases found in the ED – many of them are based on cases I and others have witnessed personally. Multiple times every shift, we are dealt with ordering labs and imaging studies, calling consults, and admitting patients that may not have required these interventions should we have had better access to their complete medical records. I suspect that every specialty has similar grievances regarding the lack of proper communication between EHRs. In one way or another, this topic should be a non-issue, but I also understand why it is.

Sharing large amounts of personal data between EHRs is a massive and burdensome task. It has multiple legal and HIPAA potholes that would need to be paved out. How far back should EHRs share? Should a physician or non-physician provider be allowed to access every single HER record on a patient? What implications will this have on HIPAA? Do

you share across city or state lines? What if a patient's records were accessed from a facility in no relation to a patient? How easily could all this data get breached if one facility's EHR were compromised? Should this be an opt-in option for patients? Should we only share the immediate last two weeks of data?

In many ways, sharing between EHRs could be one of the most successful cost-saving measures in modern medicine. It could avoid expensive studies that were done by other physicians, unnecessary consults that stretch our healthcare thin, and costly admissions for chronic problems masked as acute ones. Above all though, it would be an incredible save for our patients, not only by decreasing their healthcare costs significantly, but also by saving them massive doses of radiation and complications from interventions.

American healthcare is complex in many ways, and this issue is definitely not without its entanglements. However, if we, as the next generation of physicians, would like to take back control of our healthcare and optimize it for what's best for the patient, this wouldn't be a bad place to start. ●

Join an AAEM/RSA Committee!

Apply Today:

www.aaemrsa.org/get-involved/committees

Wellness Committee

Committee members will focus on resident and student wellness initiatives including taking on new initiatives like creating a wellness curriculum and identifying the unwell resident and/or student. Committee members will act as liaisons to the AAEM Wellness Committee in helping to plan activities for the annual Scientific Assembly that enhance their vision of making Scientific Assembly a rejuvenating wellness experience for EM physicians, residents, and students.

Advocacy Committee

Committee members staff three sub-committees, focusing on patient advocacy, resident advocacy and political advocacy both at the state and national levels. Your activities include developing policy statements, outreaching to AAEM/RSA members about critical issues in emergency medicine, and collaborating with the AAEM Government Affairs Committee.

Diversity & Inclusion Committee

Committee members will work with the AAEM Diversity and Inclusion Committee outreach to underserved medical schools, and create resources for minority residents and students in emergency medicine.

Publications and Social Media Committee

The Social Media Committee members will contribute to the development and content of RSA's four primary media outlets: the RSA Blog Modern Resident, the AAEM/RSA website, Facebook and Twitter. The committee also oversees development and revisions of AAEM/RSA's multiple publications including clinical handbooks and board review materials. You will have numerous opportunities to edit, publish, and act as peer-reviewers, as well as work from the ground-up in developing AAEM/RSA's expansion to electronic publications.

Education Committee

Committee members plan and organize the resident educational track at the AAEM Scientific Assembly, which will be held April 19-23, 2020 in Phoenix, AZ. You will also assist with the medical student symposia that occur around the country.

International Subcommittee

The International Committee will have the opportunity to contribute to international medicine projects and resource development that are helpful and beneficial to students and residents.

{ Job Opportunities }

Division Chief, Pediatric Emergency Medicine
EMS Fellowship Director/EMS Medical Director
Assistant Medical Director
PEM/EM Core Faculty
Vice Chair Research Emergency Medicine

What We're Offering:

- We'll foster your passion for patient care and cultivate a collaborative environment rich with diversity
- Salaries commensurate with qualifications
- Sign-on bonus
- Relocation assistance
- Retirement options
- Penn State University Tuition Discount
- On-campus fitness center, daycare, credit union, and so much more!

What We're Seeking:

- Experienced leaders with a passion to inspire a team
- Ability to work collaboratively within diverse academic and clinical environments
- Demonstrate a spark for innovation and research opportunities for Department
- Completion of an accredited Emergency Medicine Residency Program
- BE/BC by ABEM or ABOEM
- Observation experience is a plus

What the Area Offers:

We welcome you to a community that emulates the values Milton Hershey instilled in a town that holds his name. Located in a safe family-friendly setting, Hershey, PA, our local neighborhoods boast a reasonable cost of living whether you prefer a more suburban setting or thriving city rich in theater, arts, and culture. Known as the home of the Hershey chocolate bar, Hershey's community is rich in history and offers an abundant range of outdoor activities, arts, and diverse experiences. We're conveniently located within a short distance to major cities such as Philadelphia, Pittsburgh, NYC, Baltimore, and Washington DC.



FOR ADDITIONAL INFORMATION PLEASE CONTACT:



PennState Health

Susan B. Promes, Professor and Chair, Department of Emergency Medicine c/o Heather Peffley,
Physician Recruiter, Penn State Health Milton S. Hershey Medical Center
500 University Drive, MC A595, P O Box 855, Hershey PA 17033
Email: hpeffley@pennstatehealth.psu.edu
or apply online at: hmc.pennstatehealth.org/careers/physicians

Penn State Health is committed to affirmative action, equal opportunity and the diversity of its workforce. Equal Opportunity Employer – Minorities/Women/Protected Veterans/Disabled.

Harnessing EMRs for Good

Alexandria Gregory, MD — AAEM/RSA Publications & Social Media Committee Chair



It is June 30th, a day of mixed emotion for soon-to-be interns. Most of us are preoccupied with the excitement of learning critical procedures and truly having ownership of our patients for the first time, simultaneously contrasted with the fear of inadvertently harming those patients as we become

more independent. Though lower on our list of worries, electronic medical records (EMRs) present a real obstacle to both resident education and patient care as the year begins. While the EMR is viewed by many as nothing more than a nidus for burnout (perhaps rightfully so), residents are in a unique position to turn the EMR into a tool for facilitating education.

” **Creating macros**
for common complaints, such as chest pain, enables a user to become better at pattern recognition.

Medical Decision Making (MDM)

Though the MDM exists primarily for others to understand your thought process, learners can use the MDM section to better formulate a coherent plan. Writing down a differential diagnosis can help you consider pathology you might otherwise forget to include, which in turn can help better organize the patient's workup. Explaining why you chose to order or forego a specific test allows for application of and increased familiarity with clinical decision tools and clinical reasoning in general. Overall, the way you write an MDM is a reflection of how you think as a physician, so developing this skill may in turn shape your practice style.

Macros

Most EMRs offer some type of macro in which a user can pre-populate information into the chart based on the patient's chief complaint. On the surface, macros help to improve the tedium of charting, but they can also be a tool for learning. Creating macros for common complaints, such as chest pain, enables a user to become better at pattern recognition. For instance, having the HEART score and Wells' criteria prepopulate in your chest pain note not only make you more familiar with those specific tools, but also bolster your clinical decision-making framework.

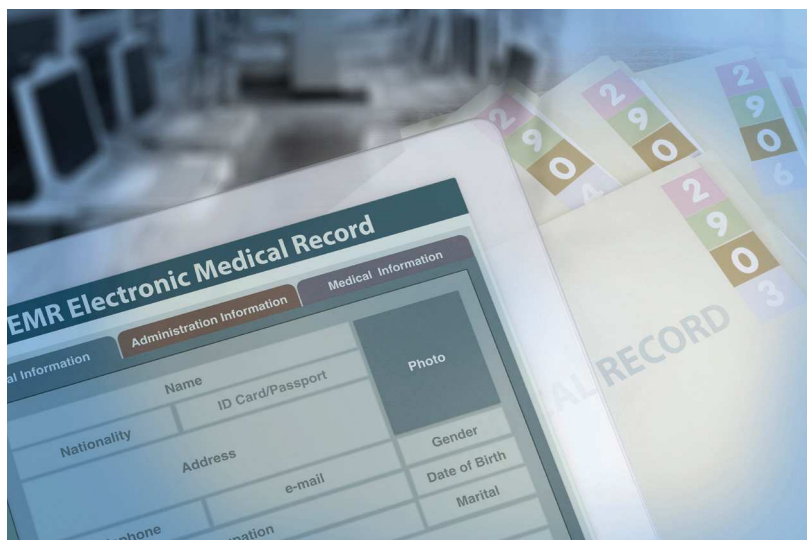
Order Sets

Many EMRs offer order sets - commonly ordered tests or medications for a given chief complaint as a shortcut to fewer clicks. However, order sets can also be used to develop pattern recognition skills. Early in residency,

becoming familiar with commonly ordered tests and medications is crucial, and order sets can assist with this. Similarly, paying attention to the pre-populated dosages of commonly ordered medications may help you learn them faster, which is especially useful as you enter orders on your own for the first time.

Patient Follow-up

EMRs make it easier to follow up on your patients once they leave the emergency department. This allows you to learn what you did well as well as how to improve in the future. This is particularly useful when the patient is complicated or the diagnosis was unclear. It can shape your differential diagnosis or remind you that a specific test may be useful in the future. Less concretely, following up on your patients can be humbling when you miss something, but rewarding when you do the right thing for your patient.



Final Tips

- Get to know your EMR. It might take more work up-front, but you might be surprised at how much time you can save during your day-to-day work.
- Be positive. While we all love to complain about electronic charting, it is here to stay, so complaining is not productive. That being said, most EMRs are dynamic systems, so offering ideas for improvement can actually make a difference.
- Don't overuse or become overly dependent on the tools discussed above. While mental shortcuts are helpful for many reasons, it is most important to know why you're making the decisions you're making, and when to deviate from those shortcuts. ●

Neurologic Complications of Correction for Hyperglycemic Hyperosmolar State in the Emergency Department

Mark Sutherland, MD; Megan Donohue, MD; Caleb Chan, MD; Robert Brown, MD
Editors: Kami M. Hu, MD FAAEM; Kelly Maurelus, MD FAAEM

Questions

1. What is the preferred therapy for correction of hyperglycemic hyperosmolar states (HHS) in the emergency department, and what potential adverse neurologic effects of these corrective therapies should be considered?
2. What is the incidence of osmotic demyelination syndrome (ODS) or cerebral edema when aggressively correcting hyperglycemic states?
3. Who is at greatest risk for ODS and what can be done to reduce their risk?
4. Who is at greatest risk for cerebral edema and what can be done to reduce their risk?

Introduction

Acute hyperglycemic states are often reasons for presentation to an emergency department. The terminology, classification and approach to these patients, however, are frequently changing. In addition, while correction of physiologic derangements from these states is typically a top priority in emergency care, there remains some concern for negative sequelae secondary to aggressive correction. It is important for EM physicians to understand the optimal therapies and targets when correcting the abnormalities seen with severe hyperglycemia.

Scott AR, The Joint British Diabetes Societies hyperosmolar hyperglycaemic guidelines group. Management of hyperosmolar hyperglycaemic state in adults with diabetes. *Diabet Med.* 2015;32(6):714-24.

In the UK there is no single accepted definition of HHS. This article proposes the following criteria: serum osmolality > 320 mOsm/kg, blood glucose > 30 mmol/L (540 mg/dL), and severe dehydration with a sense of feeling unwell. HHS has a higher mortality than the related condition of diabetic ketoacidosis (DKA) and may be complicated by myocardial infarction, stroke, seizure, cerebral edema, and osmotic demyelination syndrome (ODS). Rapid changes in osmolality may be the cause of the relationship with ODS. This article summarizes the 2015 guidelines on management of HHS from the Joint British Diabetes Societies for Inpatient Care and recommends the following three principals to avoid complications:

1. Monitor the response to treatment
 - a. Measure or calculate the serum osmolality regularly (every hour initially)
 - b. Aim to reduce osmolality by 3-8 mOsm/kg/hr
2. Fluid and insulin administration
 - a. Use 0.9% normal saline
 - b. Keep in mind that fluid administration alone will decrease serum glucose
 - c. Hold insulin until blood glucose is no longer falling with IV fluids alone (unless ketonemia is present)

>>

AAEM/RSA Podcasts – Subscribe Today!

Episode Highlight — Myths, Bias, and Lies My Medical School Taught Me

TOPICS
INCLUDE:



This podcast series presents emergency medicine leaders speaking with residents and students to share their knowledge on a variety of topics.

Don't miss an episode - subscribe today!
COMMON SENSE SEPTEMBER/OCTOBER 2019

Steps to Building a Career in Emergency Medicine
Niches in EM
Physician Suicide
Wilderness Medicine Fellowships
Ultrasound Fellowships
Administration Fellowships
Caring for the Acutely Psychotic in the ED, Psychosis or Not?
Psychiatry in the Emergency Department
FOAM at the Bedside
Developing International Residency Programs
Global Emergency Medicine Development
Significance of Completing a Residency Rotation Abroad
RSA Advocacy Opportunities
RSA Advocacy
Corporate Practice of Emergency Medicine
FemInEM
American Board of Emergency Medicine (ABEM)
How to Match in EM
How to Excel on your EM Clerkship Programs

- d. Keep in mind that an initial rise in sodium is expected and should not be an indication for hypotonic fluids
 - e. Do not give insulin prior to IV fluids
3. Deliver appropriate care
- a. Early consultation to diabetes team
 - b. Disposition patients to a unit familiar with the management of HHS (often an ICU)

Guerrero WR, Dababneh H, Nadeau SE. Hemiparesis, encephalopathy, and extrapontine osmotic myelinolysis in the setting of hyperosmolar hyperglycemia. *J Clin Neurosci.* 2013;20(6): 894-6.

Osmotic demyelination syndrome is a well-described process of myelin destruction. When this demyelination occurs at the center of the basis pontis, it is specifically referred to as central pontine demyelination (CPM). It manifests clinically as a range of devastating neurologic deficits - from a depressed level of consciousness to flaccid quadriplegia. It has typically been described in the setting of rapid correction of hyponatremia. Several reports, however, have now described the occurrence of ODS in the normonatremic setting of HHS.

The case described a 25 year-old man with type 1 diabetes mellitus. After a two-week history of anorexia, nausea, vomiting, abdominal pain and altered mental status, he was found to have a blood sugar concentration greater than 700 mg/dL and pH of 7.0. He was treated for hyperosmolar hyperglycemic coma, but as his anion gap improved and he was being weaned from the ventilator, he developed left sided weakness. A non-contrast head CT showed reduced attenuation in the posterior limb of the right internal capsule. Two weeks later, neurologic deficits which included left sided hemiparesis involving the face, arm, and leg with increased resting tone and reflexes remained present. Additionally, he was only oriented to self, exhibited impaired concentration, word recall difficulties, and frontal lobe function. MRI demonstrated hyperintensities on T2 weighted imaging consistent with demyelination and edema. The patient did not have changes to his serum sodium concentration during his course.

The classic understanding of ODS involves the sudden shrinkage of brain cells caused by a rapid increase in serum osmolality, as occurs due to over-rapid correction of hyponatremia. Two theories exist to explain oligodendrocyte shrinkage and myelinolysis associated with rapid rises in serum osmolality. The first is that injury to the blood-brain barrier results in local inflammatory demyelination. The second suggests that oligodendrocyte apoptosis is triggered as a result of hypertonic stress caused by serum osmolality that changes too quickly for idiogenic osmolytes. These are organic solutes that shift across the cell membranes to protect the cells from osmotic injury.

Cellular accommodation involves a shift of potassium ions and idiogenic osmolytes from the intracellular to the extracellular space. This process, referred to as “regulatory volume decrease” can take up to 48 hours to achieve equilibrium. Therefore, rapid changes in serum osmolality does not allow the body’s natural accommodation mechanism to take effect.

This supports the concept that ODS can occur during rapid changes in osmolar state as with HHS, even with normal sodium concentrations. An awareness of this complication is necessary for treating providers.

O’Malley G, Moran C, Draman MS, et al. Central pontine myelinolysis complicating treatment of the hyperglycaemic hyperosmolar state. *Ann Clin Biochem.* 2008;45(4):440–3.

The authors here describe another case of HHS during which CPM/ODS developed. They describe a 49 year-old woman who presented with drowsiness and was found to have a serum glucose of 106 mmol/L (1,908 mg/dL). Her presenting serum sodium was 135 meq/L. Over the first 6 hours of her treatment, she was given IV insulin and normal saline, which resulted in a drop in her glucose to 60 mmol/L (1,080 mg/dL) and a rise in sodium concentration to 159 mmol/L. She was subsequently noted to have flaccid quadriparesis and pseudobulbar palsy. MRI showed lesions consistent with CPM. The patient eventually recovered to near normal functional capacity.

HHS leads to a reduction in serum sodium due to the dilutional effect of water shifts. Over time this hyponatremia is corrected by our body by extruding sodium and potassium (over a period of hours) and by generating organic osmolytes (over a period of days). If the hyponatremia is corrected more rapidly than these compensatory mechanisms would have allowed, there is a rapid drop in the neuronal intracellular volume which can lead to shrinkage and demyelination. Calculation of a corrected sodium allows assessment of the degree of derangement in sodium homeostasis (this patient’s corrected sodium on presentation was 178 meq/L). In cases where the corrected sodium is significantly elevated, serum glucose should be corrected more cautiously and serum sodium should be closely monitored for excessive rebound. Hypotonic fluids should be considered instead of isotonic fluids to avoid extreme sodium rebound upon glucose correction.

Siwakoti K, Giri S, Kadaria D. Cerebral edema among adults with diabetic ketoacidosis and hyperglycemic hyperosmolar syndrome: Incidence, characteristics, and outcomes. *J Diabetes.* 2017;9(2):208-9.

Although cerebral edema is a feared complication of DKA treatment in children, its incidence in adults with hyperglycemic states is unknown. This study used a large claims database covering US patients to examine ICD codes. They examined 252,645 adult hospitalizations for severe hyperglycemic states; they did not differentiate HHS from DKA. Of this set, 80 patients (0.03%) had a diagnosis of cerebral edema which did not appear to be attributable to another cause aside from treatment of their hyperglycemic state. The mortality of patients with cerebral edema was 35% versus 1.1% mortality for those without. The authors also cited an incidence of about 0.5-0.9% for cerebral edema in pediatric DKA patients for comparison.

This study has several limitations but may serve as a starting point in identifying how common a complication such as cerebral edema may be in the treatment of adult hyperglycemic patients. This study suggests that while cerebral edema may occur with treatment of adults with HHS, it is likely relatively rare.



Conclusions

Structural neurologic complications such as cerebral edema or ODS may occur in the treatment of adult hyperglycemic states, including HHS. However, these are probably exceedingly rare complications. While the available literature and evidence for the incidence and risk factors for these complications are limited, the pathophysiology and the data suggests that risk increases when development of the hyperosmolar state or correction of the state is undertaken extremely rapidly.

To avoid ODS, providers caring for HHS patients with exceedingly elevated glucose values should calculate a corrected sodium, consider frequent monitoring of serum glucose, sodium, and osmolality levels, and consider switching to hypotonic fluids or decreasing fluid rate when rapid rebounding of serum sodium occurs upon glucose correction. The optimal method to avoid cerebral edema in adult HHS patients is unknown, but extrapolating from the pediatric DKA literature it may be reasonable to slightly reduce the aggressiveness of fluid administration in patients.

Answers

Aggressive restoration of euolemia by administration of IV fluids (typically isotonic fluids) remains the mainstay of therapy for HHS. Providers should be aware of the possibility of neurologic complications such as ODS and cerebral edema developing in these patients.

Cerebral edema may complicate approximately 0.03% of DKA/HHS admissions. The rate of ODS is unknown, but is likely exceedingly low based on the limited literature.

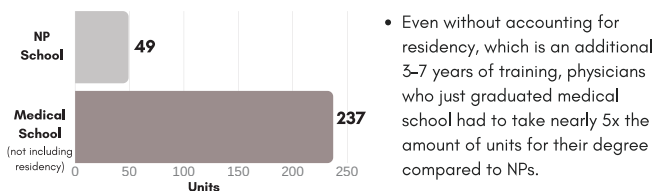
Patients with an elevated corrected sodium concentration on presentation are likely at increased risk of ODS. In these cases, serum glucose, sodium, and osmolality should be measured regularly and should be slowly corrected (goal correction 3-8 mosm/kg/hr).

It is unknown what factors increase risk for cerebral edema in adult patients treated for HHS. Extrapolating from the pediatric DKA literature, it may be reasonable to be less aggressive with fluid resuscitation in patients with elevated potassium and/or urea levels, but it should be kept in mind that cerebral edema is likely a very rare complication of adult HHS treatment and should not dissuade clinicians from providing appropriate therapy. ●

WHAT IT TAKES TO MAKE A DOCTOR

The Educational Differences between Medical Doctors and Nurse Practitioners

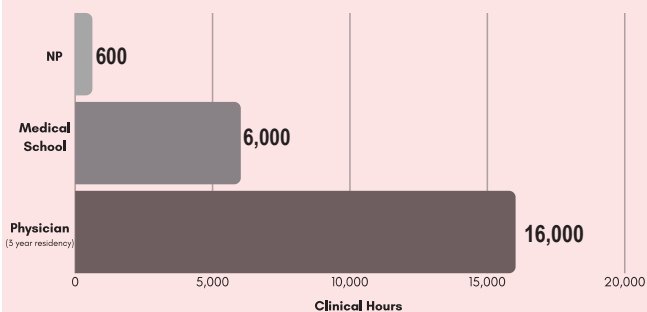
CERTIFICATION BY UNIT REQUIREMENT^{1,2}



• Even without accounting for residency, which is an additional 3-7 years of training, physicians who just graduated medical school had to take nearly 5x the amount of units for their degree compared to NPs.

* Example programs are listed that state their specific unit requirements for graduation. These sources closely resemble other programs of their same degree.

CLINICAL HOURS REQUIRED FOR CERTIFICATION



- While some nurse practitioner degrees can be completed 100% online in as little as 5 years including college, physicians must complete at least 11 years and more than 16,000 hours of hands-on training before treating patients independently.³
- An NP has less than 4% of the clinical hour training of an MD/DO (with the minimum 3 years residency training).⁴
- **A medical student, who is not allowed to treat a patient independently, would have undergone nearly 5x the amount of unit requirements and 10x the amount of clinical training that a fully licensed NP has.**



With the vast amount of education, training, and clinical hours required to produce a single physician (the most of any healthcare team member), physicians can rely on a much larger breadth of knowledge in each of the medical decisions they make. This is why we at AAEM/RSA believe that all healthcare team members, including nurse practitioners, should be under the supervision of a physician in order to ensure the safety and proper health care of our patients.

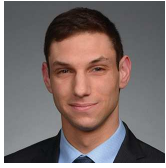
#ASKTOSEEOURPHYSICIAN



1. https://www.samuemntt.edu/nursing/np_nursing/curriculum
2. <http://med.stanford.edu/medhandbook/section-4-curriculum-overview.html>
3. <https://help.org/med/edu/all/downloads/advocacy/scope-education.pdf>
4. <https://www.tsf.org/Media/Default/Downloads/advocacy/scope-ramas.pdf>

Thriving in Third Year

David Fine — Medical Student Council President



The beginning of the year brings new residents and medical students to the floors. A question that all new learners have on their minds is, “How can I succeed?” Personally, I can’t speak to the resident experience, but any medical student knows that there is not just a single way to do well. Over the

course of the year you will be challenged with new concepts, different practicing styles, and inconsistent expectations. There is not just a single method that will be successful in your unique training environments, but I believe that there are a few key pieces of advice that will help you thrive and adapt throughout the year.

1. **Take a Stand:** Coming up with a plan is more difficult early in the year and at the start of every new rotation, but it also makes the difference between being a scribe and an interpreter. Collecting patient information and sharing that in a clear presentation is without a doubt an important skill. Taking that information and suggesting a plan is what makes you a physician. It doesn’t have to be the best plan and it doesn’t even have to be the right plan. What matters is that you take a stand and hold opinions. Previously, your pre-clinical years may have resembled regurgitating information for exams. Now is your time to start flexing those physician muscles, and start synthesizing next steps. Without a doubt learning the art of medicine may take some getting used to, but your attendings will help push those plans in the right direction, and you will learn more than if you had been given the correct answer from the start.
2. **Prepare to be Challenged:** Practice a phrase similar to, “I don’t know, but I will follow-up and get back to you.” There will be times when you collect a thorough history and physical, but forget to ask a key question. Other times you will be asked a clinical question and you won’t even be able to come up with an intelligent sounding guess. You want to be trustworthy and you want to take ownership of your education. Admitting that you don’t know something can be an uncomfortable sensation, and you may feel stressed or defensive. This is why practicing an expression and having it in your back pocket is important. Furthermore, it’s not just an expression because the theme of third year is recognizing deficits and working

Furthermore, it’s not just an expression because the theme of third year is **recognizing deficits** and working to improve.

Over the course of the year **you will be challenged** with new concepts, different practicing styles, and inconsistent expectations.

to improve. You don’t have to give a 5-minute presentation on each topic you research, but follow-up and let your team know what you are reading and learning. This tip also applies to receiving feedback. Be patient, be responsive, and even if you disagree with the feedback take it to heart and try to see where the suggestion is coming from.

3. **Know Social Histories:** What is your patient going home to? Is it a safe environment? Who are they going home to? How would they get home? Do they have a ride? Do they smoke/drink and how much? What do they do for work? What stressors are they dealing with? These are a few general questions that will help you establish a rapport with patients but this serves more than one purpose. It may affect their treatment plan and it will certainly affect their discharge planning. You are not solely training to be a diagnostician, so this information is vital to patient care. Your attendings will interpret this as you thinking ahead and being able to connect well with patients. You don’t have to present everything you gather, but you should know it and mention what you learn when it relevantly and inevitably is needed.

These are just a few tips that have been fundamental for me, and I hope they help you as well. Over the course of the year you will pick up evidence-based medicine practices and with practice you will become better at both obtaining information and presenting your patients. I want to send you the best of luck as well as the strongest assurances that your enthusiasm and willingness to improve will be more than enough to help you thrive during your clinical years. ●



Becoming a Night Shift Jedi: Do or Do Not, There is No Try

Patrick Wallace, DO



Emergency medicine (EM) physicians will inevitably work night shifts during their career. With transitions of days and nights occurring as frequently as once a week, it is imperative to maximize the quality of sleep and recovery time. Abundant research has been done on various aspects of sleep hygiene and

effective techniques to combat difficulties surrounding night shift-work.

This article will address some of those key factors including napping, caffeine, sleep environment, and long-term health consequences.

1. Preparing

Acquisition of sleep debt during the transition to and from night shift often arises from staying awake the entire day leading up to the first night.¹

By minimizing sleep debt going into night shift, performance can be improved and recovery hastened.²

a. Napping

Napping prior to night shift is effective at decreasing accumulation of sleep debt, improves performance, and increases alertness on shift.¹⁻⁸ Pre-shift naps should last no more than 60-90 minutes. This allows for completion of one REM cycle.² Although sleeping during the day can be difficult, naps are recommended between 2:00pm and 6:00pm when level of fatigue is highest.

b. Sleep Environment

Temperatures below 70°F help initiate and facilitate sleep.^{9,10}

Blackout curtains and sleeping masks also improve quality of sleep and enhance recovery, mood, and performance on shift.^{1,2,9} Adjuncts such as ear plugs, fans, or other white-noise devices can be used to screen out disruptive sound.¹¹

2. Eating

Digestion and metabolism are decreased at night to coincide with regular sleep patterns. Eating large meals during night shift can increase fatigue and decrease alertness. Eating a main meal before the shift and small snacks during the shift as needed can prevent undue fatigue.²

At night, there is a decrease in the satiety hormone leptin and an increase in the hunger hormone ghrelin. Additionally, metabolism and enzyme activity is lowest at night, putting night shift workers at an increased risk of obesity regardless of calories consumed due to tendencies of eating more fats and carbohydrate heavy meals.¹²⁻¹⁵

A meta-analysis investigating obesity found a dose-dependent effect of increased obesity with increasing number of night shifts. Another study found an increase of .24kg/m² in BMI with every year exposed to night

shifts.¹⁶ The article was unclear on how many night shifts were worked in a year, but it appears the participants were full-time night-shift workers or nocturnists.

3. Caffeine

Smith et al. studied techniques for night shift workers and concluded that “The combination of caffeine consumption and an evening nap substantially improves night shift performance and enhances the ability to remain awake, and could possibly be one of the best countermeasures for night shift alertness...”.¹ 4 mg/kg is the recommended dose to be taken around midnight and caffeine should be avoided 4-6 hours prior to sleep.^{2,8,17} For reference there is about 100mg of caffeine in an average 8oz cup of coffee.

” *Although sleeping during the day can be difficult, naps are recommended between 2:00pm and 6:00pm when level of fatigue is highest.*

4. Melatonin

Melatonin is a very controversial topic when it comes to sleep. There are well designed studies to include double blinded randomized placebo-controlled studies showing melatonin (5-10mg) decreases time to sleep and increases total sleep duration.^{18,19} However, Cochrane reviews show there is no change with melatonin compared to placebo. Melatonin does have a favorable side effect profile and is fairly inexpensive.¹⁸ Although not guaranteed, it may provide benefit to some.

5. Light Exposure

Numerous studies have demonstrated scheduled bright light and darkness affects circadian rhythm.^{10,20-23} Specifically, sunglasses on the commute home have been studied and proven to aid in the circadian rhythm shift.^{1,8-10} This also goes along with using blackout curtains or sleeping masks for daytime sleeping.^{1,2,9}

6. Resetting to Days

As previously discussed, light exposure is important in regulating the circadian rhythm. Research suggests a short nap (90-180 minutes) when getting home from the final night shift. Afterwards, exposure to bright light and exercise can help re-entrain the circadian rhythm. Lastly, it is recommended to go to sleep at a normal time and not stay up too late or go to sleep earlier than normal. All of these in combination help to realign to a normal “day” circadian cycle.^{1,2}



7. Health Effects

It is important to be aware of the long-term health effects as a career night-shift worker. Night shift is associated with cardiovascular disease, gastrointestinal symptoms, diabetes, breast cancer, prostate cancer, and gastrointestinal cancers.^{22,24,25} Cancer risk specifically can be increased as much as 3% for every 5 years of night shifts worked.²⁶ EM physicians must be diligent about their scheduled cancer screening and maintain an otherwise healthy lifestyle.

Takeaways

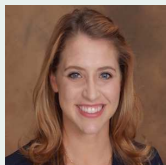
- Take a nap before the first night shift
- Splurge on the caffeine (4mg/kg around midnight)
- Utilize sunglasses when leaving the hospital and on the commute home
- Keep the sleeping room cold, dark, and quiet. Use blackout curtains, ear plugs, and a white-noise device
- Consider melatonin as it is cheap and safe, but understand there is mixed research on the topic
- At the end of a string of nights, take a 1-2 hour nap, expose yourself to light, exercise, then get to bed at a normal time
- Lastly, be aware of the health risks associated with working night shifts ●

References

1. Smith M, Fogg L, Eastman C. A Compromise Circadian Phase Position for Permanent Night Work Improves Mood, Fatigue, and Performance. *Sleep*. 2009 Nov 1; 32(11): 1481–1489.
2. McKenna H, Wilkes M. Optimizing sleep for night shifts. *BMJ*. 2018;360:J5637
3. Smith-Coggins R et al. Night Shifts in Emergency Medicine: The American Board of Emergency Medicine Longitudinal Study of Emergency Physicians. *J Emerg Med*. 2014 May 29. Pii: S0736-4679(14)00377-1.
4. Smith-Coggins R, Howard SK, Mac DT, et al. Improving alertness and performance in emergency department physicians and nurses: the use of planned naps. *Ann Emerg Med*. 2006;48:596–604.
5. Ribeiro-Silva F, Rotenberg L, Soares RE, et al. Sleep on the job partially compensates for sleep loss in night-shift nurses. *Chronobiol Int*. 2006;23:1389–99.
6. Fallis WM, McMillan DE, Edwards MP. Napping during night shift: practices, preferences, and perceptions of critical care and emergency department nurses. *Crit Care Nurse*. 2011;31:e1–11
7. Schweitzer PK, Randazzo AC, Stone K, Erman M, Walsh JK. Laboratory and field studies of naps and caffeine as practical countermeasures for sleep-wake problems associated with night work. *Sleep*. 2006 Jan; 29(1):39-50.
8. Kuhn G. Circadian rhythm, shift work, and emergency medicine. *Ann Emerg Med*. 2001;37:88–98.
9. Richards J, Stayton T, Wells J, Parikh A, Laurin E. Night shift preparation, performance, and perception: are there differences between emergency medicine nurses, residents, and faculty? *Clin Exp Emerg Med*. 2018 Dec; 5(4): 240–248.
10. Dawson D, Encel N, Lushington K. Improving adaptation to simulated night shift: Timed exposure to bright light versus daytime melatonin administration. *Sleep*. 1995;18:11–21.
11. Purnell MT, Feyer A, Herbison GP. The impact of a nap opportunity during the night shift on the performance and alertness of 12-h shift workers. *J Sleep Res*. 2002; 11: 219–27.
12. Grant C, Dorrian J, Coates A, Pajcin M, Kennaway D, Wittert G, Heilbronn L, Della Vedova C, Gupta C, Banks S. The impact of meal timing on performance, sleepiness, gastric upset, and hunger during simulated night shift. *Ind Health*. 2017, 55(5):423-436.
13. Sun M, Feng W, Wang F, Li P, Li Z, Li M, Tse G, Vlaanderen J, Vermeulen R, Tse LA. Meta-analysis on shift work and risks of specific obesity types. *Obes Rev*. 2018, 19(1):28-40.
14. Chen Y, Lauren S, Chang BP, Shechter A. Objective Food Intake in Night and Day Shift Workers: A Laboratory Study.
15. Shechter A; Grandner MA; St-Onge M-P The role of sleep in the control of food intake. *Am. J. Lifestyle Med*. 2014, 8, 371–374.
16. Marqueze EC, Lemos LC, Soares N, Lorenzi-Filho G, Morenao CR. Weight gain in relation to night work among nurses. *Work*. 2012; 41(Suppl 1): 2043–2048.
17. Muehlback MJ, Walsh JK. The effects of caffeine on simulated night-shift work and subsequent daytime sleep. *Sleep*. 1995;18(1):22-29
18. Sadeghniaat-Haghighi K, Aminian O, Pouryaghoub G, Yazdi Z. Efficacy and hypnotic effects of melatonin in shift-work nurses: Double-blind, placebo-controlled crossover trial. *J Circadian Rhythms*. 2008;6:10
19. Liira J, Verbeek JH, Costa G, et al. Pharmacological interventions for sleepiness and sleep disturbances caused by shift work. *Cochrane Database Syst Rev*. 2014
20. Czeisler CA, Johnson MP, Duffy JF, Brown EN, Ronda JM, Kronauer RE. Exposure to bright light and darkness to treat physiologic maladaptation to night work. *N Engl J Med*. 1990;322:1253–9.
21. Eastman CI. High intensity light for circadian adaptation to a 12-h shift of the sleep schedule. *Am J Physiol*. 1992;263:R428–R36.
22. Boivin DB, James FO. Circadian adaptation to night-shift work by judicious light and darkness exposure. *J Biol Rhythms*. 2002;17:556–67.
23. Crowley SJ, Lee C, Tseng CY, Fogg LF, Eastman CI. Combinations of bright light, scheduled dark, sunglasses, and melatonin to facilitate circadian entrainment to night shift work. *J Biol Rhythms*. 2003;18:513–23.
24. Kecklund G, Axelsson J. Health consequences of shift work and insufficient sleep. *BMJ*. 2016;355
25. Hunter CM, Figueiro M. Measuring light at night and melatonin levels in shift workers: a review of the literature.
26. Liu W, Zhou Z, Dong D, Sun L, Zhang G. Sex differences in the association between night shift work and the risk of cancers: a meta-analysis of 57 articles. *Dis Markers*. 2018;26:7925219

The Future of Wellness

Andrea Purpura, MD; Robert Lam, MD; and Ryan DesCamp, MD



If you feel like you are suffering symptoms of burnout, you are not alone. Most prevalence studies show that more than 65% of all emergency physicians are experiencing symptoms of burnout.¹ Most physicians find they are no longer able to mitigate the challenges of an increasingly frustrating work environment with individual resilience practices alone. This frustration mirrors the shift in our current understanding of burnout and physician well-being.

In an initiative to address the crisis of clinician burnout, The National Academy of Medicine (NAM) created the most comprehensive model of drivers of burnout to date.² The NAM's model starts with the link between patient and physician well-being. The main drivers of burnout were



*If you feel like you are suffering symptoms of burnout, **you are not alone.***

divided into individual and external. Individual drivers include personal factors, skills and abilities. External drivers include factors related to society & culture, rules & regulations, system-based challenges, learning & practice environment, and healthcare responsibilities. In a paradigm shift, a larger portion of clinician well-being now relates to the external category. This model and our changing understanding of burnout was the inspiration for the Society of Academic Emergency Medicine's (SAEM) consensus conference this year.

The SAEM Consensus Conference joined some of the top minds in emergency medicine to create an agenda for research to improve the working and learning environment. Drs. Lam, Purpura, and DesCamp

from AAEM and AAEM/RSA represented you in this landmark effort. Our goal was to advocate for changes to the system to address the current and emerging issues of physician wellness through research, data, and consensus.

Multiple engaging group sessions were held, each addressing one external factor of burnout based off of the NAM model. The ideas and discussion generated from these groups were used to curate a list of the most robust and pressing research questions for the future. It is our hope that this research roadmap will catapult us forward in our understanding of the external and individual drivers of burnout in an effort to find and create solutions to promote and protect our right to well-being in the workplace.

The closing speech was given by Timothy Brigham, MDiv PhD. He discussed ACGME's commitment to supporting residents, fellows, and faculty in physician well-being. His words reinforced that we cannot stand alone in this battle against burnout. In fact, one of the keys to solving burnout may be found in greater human connection at work and positive social relationships. Another point Brigham made was the importance in the search for joy in work over happiness, which can be superficial and fleeting. Finding or reinvigorating joy in practicing medicine can lead to deeper meaning and connection to your work that will be long lasting.

There is still much work to be done. We are charged with the task of propelling this topic from the contemplative to the action stage. This can only be accomplished with strong evidence and best practices. AAEM and AAEM/RSA's involvement in this consensus conference was pivotal to ensuring that your voices are heard and that we remain steadfast in our commitment to be the Champion of the Emergency Physician. ●

References:

1. Rotenstein LS, Torre M, Ramos MA, et al. Prevalence of Burnout Among Physicians: A Systematic Review. *JAMA*. 2018;320(11):1131–1150. doi:10.1001/jama.2018.12777
2. https://nam.edu/clinicianwellbeing/wp-content/uploads/2019/06/Factors-Affecting-Clinician-Well-Being-and-Resilience_May-2019.pdf



*Our goal was to **advocate for changes to the system** to address the current and emerging issues of physician wellness through research, data, and consensus.*



American Academy of Emergency Medicine

CHAMPION OF THE EMERGENCY PHYSICIAN

Today's emergency physician has a lot to navigate.
That's why AAEM is in your corner providing advocacy and education.



A Strong Voice

Your concerns reach the ears of our leaders in Washington. AAEM actively works to ensure the needs of EPs are being addressed on the national and state levels. We offer support & legal assistance to members whose rights are threatened. The strength of the Academy is in your corner.

Effective Advocacy

For over 20 years we have been committed to your personal and professional well being. Our primary concern is supporting you: your practice rights, your autonomy, your relationship with your patients. That's the AAEM difference.

Why I Joined

Hear from fellow EPs why they chose to become a member and how AAEM is addressing APP independent practice.

Top Tier Education

In addition to the Annual Scientific Assembly, AAEM offers educational opportunities online and in-person at our Oral Board Review, Written Board Review, and ED Management Solutions courses, as well as other regional courses and meetings.

Meaningful Connections

AAEM is over 8,000 members strong and growing. We offer multiple ways for you to get involved with the topics that matter most to you through engaging committees & projects plus multiple ways to network with fellow members in the U.S. and around the globe.



www.aaem.org/whyaem

CHAMPION OF THE EMERGENCY PHYSICIAN

COMMONSENSE

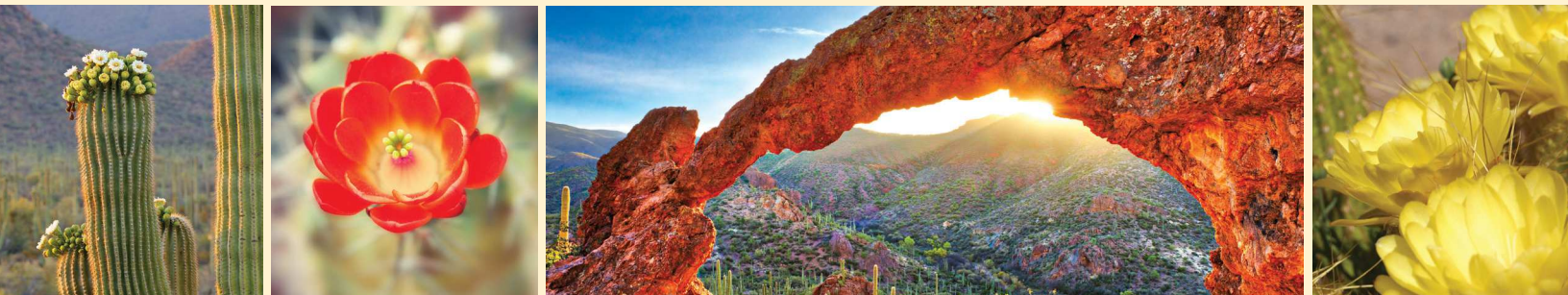
555 East Wells Street / Suite 1100
Milwaukee, WI 53202-3823

Pre-Sorted
Standard Mail
US Postage
PAID
Milwaukee, WI
Permit No. 1310

SAVE THE DATE

26TH ANNUAL SCIENTIFIC ASSEMBLY

APRIL 19-23, 2020
SHERATON GRAND PHOENIX
PHOENIX, AZ



#AAEM20

www.aaem.org/AAEM20



FREE registration for AAEM members*

**Refundable deposit required*