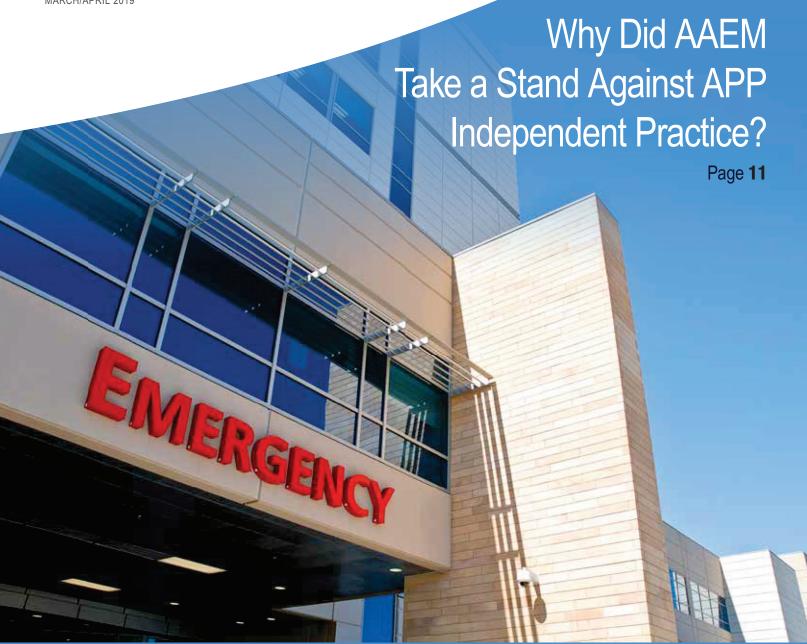
COMMON SENSE



VOICE OF THE AMERICAN ACADEMY OF EMERGENCY MEDICINE

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- Every individual should have unencumbered access to quality emergency care provided by a specialist in emergency medicine.
- The practice of emergency medicine is best conducted by a specialist in emergency medicine.
- 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).
- The personal and professional welfare of the individual specialist in emergency medicine is a primary concern to the AAEM
- 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.
- The Academy supports residency programs and graduate medical education, which are essential to the continued enrichment of emergency medicine and to ensure a high quallity of care for the patients.
- The Academy is committed to providing affordable high quality continuing medical education in emergency medicine for its members.
- 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.

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President's Message

Two Years Since Summa: What Have We Learned?

David A. Farcy, MD FAAEM FCCM AAEM President Mark Reiter, MD MBA FAAEM Immediate Past-President, AAEM





It has been fascinating to watch the story continue to unfold with Summa Health and U.S. Acute Care Solutions (USACS). It's been just over two years since the independent group staffing the Summa Health Emergency

Department and its residency in Akron, Ohio were replaced by USACS on January 1, 2017, with just a few days' notice. The residency was put on probation shortly after USACS took over, perhaps due to poor planning, not clearly understanding the ACGME and Residency Review Committee rules, and/or lack of a qualified core faculty. Later, after a failed appeal, the residency lost its accreditation, forcing every resident to scramble to find a new residency to finish their training. In the fall of 2017, USACS reapplied for a new emergency medicine residency at Summa. On appeal, Summa was not granted approval by ACGME, and they are not allowed to train residents at this time.

For most of the residents, this meant a hurried move out of state to a new program, leaving behind family and friends. I couldn't imagine how stressful, emotionally draining, and disruptive this experience must have been for them. AAEM, ACEP, SAEM, and CORD all released press releases stating their concerns.

The Consequences of CMGs Running Residencies

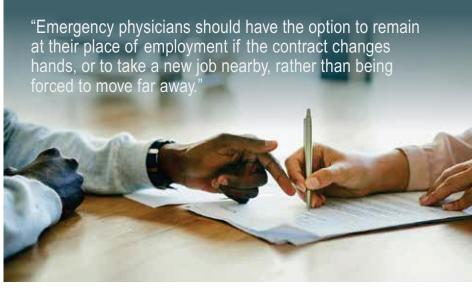
During this tumultuous time, there were many articles and interviews with members of the prior independent group and USACS, with each side pointing the fingers at the others. Meanwhile, the residents who lost their residency were put in a very difficult position. The closing of the Summa Health residency sent shock waves across the academic world and raised concerns regarding contract management groups such as USACS managing residencies across the country.

Contract management groups have a poor track record for providing due process protections to their physicians. Will a contract management group running a residency program offer due process for their residents? For their faculty? Will there be conflicts between their residency's educational mission and their fiduciary duty to maximize profit for their shareholders?

In this transition, USACS hired a Program Director who previously had been a long-time core faculty member at Summa Health, but had left to become Chair of Emergency Medicine at nearby Akron General. His Akron contract included a restrictive covenant clause, prohibiting him from working for another hospital within a 10 miles radius for one year. He gave his 90-day notice to Akron General

and soon after, was terminated from Akron General without cause. USACS and their new program director then filed a lawsuit against Akron General Health System and its emergency physician group, Partners Physician Group. The suit asked for a declaratory judgment from the court, which is a determination that the restrictive covenant is unenforceable.

USACS, the plaintiff, alleged "the noncompete clause is not enforceable, as well as inapplicable because the new program director will be working for USACS and not Summa." The brief went further stating that the Ohio courts have not supported noncompete agreements, "especially disfavored in the physician context because of the enormous impact they have on the public." The complaint detailed that patients who go to an ED do not choose their doctor and that physician has not obtained any trade secrets from Akron General.



A geographic post-employment restrictive covenant (G-PERC), often called a "noncompete clause," states that you are unable to work within a specified number of miles for a specified number of years should you resign or be terminated by your employer. Typically, these clauses also apply if the group loses its contract to another group. Unfortunately, noncompete clauses are common in many emergency physician contracts. However, in this unusual situation, USACS filed a suit to prevent the enforcement of another group's noncompete on its new Summa Health Program Director. This lawsuit has been settled out of court for an undisclosed amount of money.

What Have We Learned?

AAEM continues to firmly oppose post-employment geographic restrictive covenants, which are typically used as a tactic to protect the hospital or the contract group, at the expense of the emergency physician, who are used as pawns. They should not be applicable for emergency physicians, who unlike private practice cardiologists or orthopedists, do not have patients who will follow them from one hospital to another.

Furthermore, emergency physicians do not ordinarily have access to any trade secrets, do not receive any education or training from their employers, and do not use referral lists as a source of patients.

These are the usual arguments in favor of using restrictive covenants. Instead, restrictive covenants are commonly used in emergency medicine to interfere with physician practice rights and to control and exploit emergency physicians.

There are additional consequences to consider when CMGs that include restrictive covenants in their contracts are involved in residency training. The training of residents requires stability of faculty, the disruption of resident's lives and education we saw in the Summa case highlights this fact clearly.

Emergency physicians should have the option to remain at their place of employment if the contract changes hands, or to take a new job nearby, rather than being forced to move far away. AAEM welcomes USACS as an advocate against restrictive covenants and in favor of emergency physician practice rights. We call on USACS to publicly state they will not include restrictive covenants and due process waivers in their physician contracts.

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.

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AAEM Opposes NP and PA Independent Practice

Andy Mayer, MD FAAEM Editor, Common Sense



Talk to any emergency medicine resident, and you'll hear how the incredible burden of student loans looms over them. They calculate the percentage of their future salaries that will be dedicated to repaying these loans, but say the upside is that they expect to have a lucrative job waiting for them.

Residents have delayed their gratification for so long that these loans are just another expected and painful hurdle, but now they face a new and scarier concern, that the golden ring of a secure, lucrative job is no longer certain. What role will they have in the emergency department? Will all advanced practice providers (APPs) with doctorates be called doctors and work independently without physician supervision, limiting the "need" for those expensive and pesky physicians?

It is predicted that the number of APPs will increase by more than a third

in the next decade. (Bureau of Labor Statistics, April 13, 2018). The evolving relationship between emergency physicians and APPs cannot be ignored.

Emergency physicians need to take a stand on this trend if they want to have any impact on the outcome. If money is the reason for the developing role of APPs in EDs, then insurance companies, government agencies, and corporate management groups will devalue board-certified emergency physicians in the workforce in favor of a less expensive option. The bottom line is that this decision will be easy if the dollar is the major determining factor, especially if physicians are out-lobbied.

Various posts and programs by corporate management groups show where this is going. One by Envision on May 18, 2017, stated, "A new program is empowering emergency department advanced practice providers

(APPs) to practice at the top of their license...."² This post stated that the goal of the company's APP Skills, Training, Experience, and Professional Credential (STEP) program is to "prepare APPs to become expert emergency medicine caregivers."

Another example comes from Apollo MD's website: "Apollo MD is proud to offer rewarding practice opportunities for our Advanced Practice Clinicians who serve as vital members of our team. We support our APCs practicing at the top of their licenses..."

Are they supporting independent practice for all of their APPs? What is the top of an APP license? My license enables me to practice as a physician. My credentials and rigorous training enable me to practice as a board-certified emergency physician. The same cannot be said for any APP license.

What about nurse practitioners? A report from the relatively new organization, the American Academy of Emergency Nurse Practitioners

(AAENP), stated that 62 percent of emergency departments were using APPs as of 2016, up from only 23 percent in 2010.⁴ AAENP helped create a national board certification exam for nurse practitioners in emergency care, and they reported a rapidly increasing number of graduate-level programs in emergency care; four new programs opened last year alone. This document also stated that AAENP now represents almost 800 ENPs and "is endorsed and supported by the American College of Emergency Physicians and the American College of Osteopathic Emergency Physicians in its mission to promote high quality, evidence-based practice for nurse practitioners providing emergency care for patients of all ages and acuities in collaboration with an interdisciplinary team."

How slippery of a slope is this to you? Nurse practitioners of the future will have a doctorate of nursing practice and be "board-certified!" Are they the board-certified emergency doctors of the future?



We believe every patient should have unencumbered access to quality emergency care provided by a specialist in emergency medicine, which means certification by ABEM or AOBEM.

AAEM does see a role for APPs in EDs but with a clearly defined and supervised role as part of a physician-led team.

What about the workforce shortage we hear so much about? Do we really need all of these APPs in our EDs? Does anyone else notice the number of emergency physician residencies popping up each year? There is increasingly rapid growth in the number of these new programs, especially those run by corporate management groups. CMGs running residency programs is certainly questionable and is not the subject of this essay, but is the sky really falling? Will there not be enough ABEM/ ABOEM emergency physicians available?

This is the real question that needs to be objectively studied. Mark Reiter, MD, a past president of the American Academy of Emergency Medicine (AAEM), has studied this and said if there is really a significant shortage, the question is where APPs would be most helpful. The job market is always tight in areas where people want to live, and many opportunities are available in less desirable areas. Do we have a shortage or just a distribution problem?

AAEM remains committed to our core and founding beliefs and values, and has taken a clear stand on this issue. We believe every patient should have unencumbered access to quality emergency care provided by a specialist in emergency medicine, which means certification by ABEM or AOBEM. AAEM does see a role for APPs in EDs but with a clearly defined and supervised role as part of a physician-led team. Because of these values, the AAEM board of directors decided to eliminate the allied health category of AAEM membership. The academy is a physician organization for ABEM/ABOEM physicians.

I ask you to review these guidelines carefully.⁵ (See page 12). Our profession faces many significant challenges in the near future, and the expanding role of APPs is high on this list. Please advocate for what you believe, and please consider commenting on this vital matter with a letter to the editor.

Dr. Mayer is the president and medical director of the West Jefferson Emergency Physicians Group, a single-hospital democratic group, in Marrero, LA. He is also the editor of AAEM's newsletter, Common Sense.

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Letter to the Editor



Corporate Headhunters: "Forgive Them, for They Know Not What They Are Doing..."

As Editor of *Common Sense*, I periodically receive information that becomes the grist for my next column in our newsletter. I recently received such a correspondence from Gary Gaddis, MD PhD FAAEM, one of the founding members of

AAEM. I decided that it should be shared with our readers.

I don't know about you, but there seems to be an endless number of calls, emails, and messages that I receive at work and at home. Some of these are from "headhunters" for corporate management groups, looking for "bodies" to fill holes in schedules. How many times have you had those irritating interruptions, while working a busy shift, by a new unit secretary who "puts a recruiter through" to you? This seems to occur with the highest likelihood when you have been juggling details for

multiple patients on a busy shift, right? Just what you needed, one more interruption!

One particularly persistent and aggravating company somehow has obtained one of my son's cell phone numbers, and calls him regularly. I am not sure if an infantry Captain is the person they need to fill "holes" in some contracted facility's emergency physician schedule, but they seem to think so.

Does this circumstance sound familiar to you? Now let's hear from Dr. Gaddis, because he took such a communication, sent as a text message to his mobile phone, and turned it around in a manner that probably speaks for many of us. Gary wasn't on anyone's cross, as the title might imply, but I think the title of this column expresses the level of frustration some of us feel when we are contacted by corporate "headhunters."

In December, Gary shared the following with me:

Dear Andy,

You may enjoy my response to a correspondence I have received from a TeamHealth "headhunter" and to which I have replied. I offer this for consideration for publication, for your column in *Common Sense*.

Sometimes, the opportunity to advocate for reasonable work environments and to try to educate those who work for employers that one could view as "ethically challenged" are just too opportune to pass up.

Let's start with the text message that I have recently received from a recruiter:

Hi, this is Michelle (name removed out of courtesy) from TeamHealth. I am reaching out to you to see if you would be interested in be part of our Emergency Medicine HIT Team working full-time within the Barnes-Jewish Hospital System. Located in MO and IL. We are paying \$275.00 an hour plus travel expenses for a commitment of 120 hours per month. We have PRN rates available for less of a commitment. I look forward to speaking with you! Warm Regards, Michelle

Now, this hits close to home because I work in the BJC system, albeit at its academic "mother ship." I need to send this correspondence on to our corporate leadership, but that is a separate but related matter.

I am frustrated that the leadership of our system contracts with TeamHealth for its emergency physicians, and I am going to try to use my social contacts with our system leadership to try to educate them why TeamHealth is, in my opinion, not good for our system's health.

Meanwhile, pending my setting an appointment to talk to the appropriate members of our leadership team, here is what I have sent to this "Michelle," who is probably just doing her job. I would guess that she is ignorant of the issues that led to my rejoinder, below, but here it is:

Hello Michelle:

I would guess that you have a tough task, to find a doctor for this role, but I am not looking for Locums work and frankly, I know of too many doctors who have had adverse experiences with TeamHealth and similar physician staffing corporations, to be able to recommend any colleagues to you in good conscience. In your free time look up U.S. House of Representatives Bill 3267 re "Waivers of Due Process."

Due process is an important worker protection. I hope you have it in your employment contract. TeamHealth has a documented history of seeking Waivers of Due Process (WODP) by physicians whom they employ. Doctors who work under this onerous provision often feel constrained against speaking up, when hospital procedures represent a danger to patients' health.

You may soon learn of a "whistle blower" suit against a corporation similar to TeamHealth, EmCare, a corporation that has been absorbed within an entity called Envision. I understand that this matter is tentatively set to be tried in February or March of 2019. I have come on good authority to understand that the plaintiff has declined a six-figure settlement offered by the defendant corporation in that matter. Obviously, I am sworn to secrecy as to further details, but that which I state in this paragraph is fully factual.

Therefore, TeamHealth is radioactive to me. At least until they publicly renounce their prior practice of requesting WODP by their employed physicians, they will be on my "Do Not Fly" list.

If they have ever made such a renunciation of the practice of inserting WODP into their contracts, then I am as of now unaware.

Thank you for the opportunity to educate you a bit about ethical vs unethical corporate practices.

Gary Gaddis, MD PhD FAAEM

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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 wellbeing overall. LEAD-EM would like to thank the individuals below who contributed from 12-5-2018 to 1-15-2019.

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New Orleans, LA
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ed-management-solutions

September 22-25, 2019

Mediterranean Emergency Medicine Congress
- MEMC19
Dubrovnik, Croatia
www.aaem.org/MEMC19

AAEM Jointly Provided Conferences

April 18, 2019

DVAAEM Residents' Day and Meeting Philadelphia, PA www.aaem.org/DVAAEM

May 10-11, 2019

8th Annual Florida Chapter Division Scientific Assembly - FLAAEM19 Miami Beach, FL www.aaem.org/FLAAEM

September 11, 2019

2019 AAEMLa Residents' Day and Meeting New Orleans, LA www.aaem.org/AAEMLa

AAEM Recommended Conferences

April 26-28, 2019

The Difficult Airway Course: Emergency™
Boston, MA
https://theairwaysite.com/

May 17-19, 2019

The Difficult Airway Course: Emergency™
Orlando, FL
https://theairwaysite.com/

September 13-15, 2019

The Difficult Airway Course: Emergency™ Seattle, WA https://theairwaysite.com/

October 4-6, 2019

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



Why Did AAEM Take a Stand Against APP Independent Practice?

AAEM APP Task Force

Physician members of the American Academy of Emergency Medicine have voiced concerns about the use of advanced practice providers (APPs) in the emergency department and their push for independent practice without the supervision or even availability of a physician. The task force spent hours discussing the issues, comparing the education of physician assistants, nurse practitioners, and board-certified emergency physicians, speaking to physicians about their concerns, and examining the literature. (*J Emerg Med* 2004;26[3]:279; *Acad Emerg Med* 2002;9[12]:1452; *J Emerg Med* 1999;17[3]:427; *Acad Emerg Med* 1998;5[3]:247; *Ann Emerg Med* 1992;21[5]:528.)

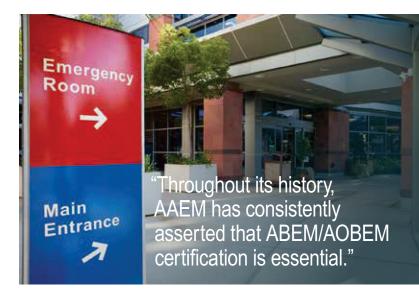
Most emergency physicians have worked with APPs and appreciate that they are talented clinicians who improve emergency department flow, efficiency, and quality of care under the guidance of the emergency physician-led team. Many emergency physicians are aware of situations that place APPs in clinical environments that are beyond their capabilities, level of training, and even scope of practice. This is not the quality of care our emergency patients deserve.

There is a vast difference in the clinical training of APPs compared with EPs. Some APP training programs require only 500 hours of unregulated, supervised clinical experience before graduating, while physicians must complete approximately 4,000 hours of clinical experience during medical school and an additional 8500 hours of highly regulated and supervised training as an emergency medicine resident before entering independent clinical practice. (*J Emerg Med* 2015;48[4]:474.)

APPs do have a valuable role in many emergency departments, but their skills should be used as part of a team led by an ABEM/AOBEM emergency physician. APPs as members of that team should fill a role clearly defined by the emergency physicians in that department which professionally stimulates the APP and results in quality care. The cost of employment is lower for APPs than for EPs. As increasing patient volume drives increased need for coverage, the potential for increased profits grows if APPs replace EPs. The delivery of safe, expert physician-led care to every patient must be the primary factor when making staffing decisions, not profit.

The physicians staffing an emergency department are best capable of determining the needs of their department. Physicians should not be told by management that they must use APPs who have been hired for them. Rather, they should decide how many APPs they need and hire only those candidates who have the expertise and personality to mesh well with the culture of their emergency department team.

We are aware of situations where EPs are expected to supervise three, four, or even five APPs while simultaneously seeing patients primarily. The reality of those situations is often that the EP has only a cursory knowledge of the patients that the APP sees and little or no time to evaluate those patients independently. If defined patients and scenarios are deemed safe for the patient to be seen by the APP with the supervising



physician providing only guidance and backup, then a bill should not be sent in the physician's name. We support meaningful patient care by the physicians who are billing for it and transparency to patients. A signature in medicine implies that the signatory attests to the accuracy of the document. Without direct evaluation of the patient, how can one know the accuracy of the document?

Emergency medicine residency is a time for physicians to learn how to practice their profession. Residents should be trained by those who practice the profession in which they are seeking board certification. In a situation where APPs are practicing alongside EM residents, it is imperative to establish processes so that the training of the EM residents is not compromised. Residents need to complete a certain number of procedures to become competent. Attaining these skills should be a priority, and the residents should be the first priority to perform a procedure to become independently skilled.

It is challenging, if not impossible, for a patient to determine the role of all the people with whom they interact in the emergency department. Patients can easily be misled by non-physicians using the term doctor. They should not be expected to understand the difference between an MD or DO and a DNP or DScPAS (doctorate of science in PA studies). Patients deserve full transparency about who is caring for them, and non-physician clinicians must truthfully represent their level of training.

Throughout its history, AAEM has consistently asserted that ABEM/ AOBEM certification is essential. The academy has also spoken against emergency departments staffed by non-ABEM/AOBEM physicians. Supporting the independent practice of APPs in our emergency departments is inconsistent with these core values. If APP independent practice is tolerated, a logical profit-driven next step is staffing entire emergency departments with APPs and even developing staffing companies to provide that coverage.

Our specialty owes its identity to our founders who demonstrated that the skills required to manage an emergency department expertly were unique in the house of medicine. They struggled to establish the specialty of emergency medicine and define the training required to become a specialist in emergency medicine. The independent practice of APPs has the potential to undermine all the efforts of those men and women who created the specialty of emergency medicine.

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AAEM Position Statement on Advanced Practice Providers

The American Academy of Emergency Medicine (AAEM) believes that emergency department patients should have timely and unencumbered access to the most appropriate care led by a board certified emergency physician (ABEM, AOBEM). We do not support the independent practice of Advanced Practice Providers (APPs)* and other non-physician clinicians.

Properly trained APPs may provide emergency medical care as members of an emergency department team and must be supervised by a physician who is board certified in emergency medicine.

As a member of the emergency department team an APP should not replace an emergency physician, but rather should engage in patient care in a supervised role in order to improve patient care efficiency without compromising safety.

The role of the APPs within the department must be defined by their clinical supervising physicians, who must know the training of each APP and be involved in the hiring and continued employment evaluations of each APP as part of the emergency department team, with the intent to insure that APPs are not put into patient care situations beyond their clinical training and experience.

Collaborating physicians must be permitted adequate time to be directly involved in supervision of care. They must not be required to supervise more APPs than is appropriate to provide safe patient care. Furthermore, supervision must not be in name only. Physicians are expected, and must be permitted, to be involved in meaningful and ongoing assessment of the APPs' work.

Billing should reflect the involvement of the physician in the emergency visit. If the physician's name is used for billing purposes, the physician's involvement must add value to the patient visit.

A physician should not be required to cosign the chart, nor should his/ her name be invoked with regard to any patient unless he/she has been actively involved in that patient's care.

APPs should not supervise emergency medicine residents, nor should they interfere in the education or clinical opportunities for emergency medicine residents.

Every practitioner in an ED has a duty to clearly inform the patient of his/ her training and qualifications to provide emergency care. In the interest of transparency, APPs and other non-physician clinicians should not be called 'doctor' in the clinical setting.

*This designation includes, but is not limited to the following practitioners:

Acute Care Nurse Practitioner (ACNP)

Adult Nurse Practitioner (ANP)

Advanced Nurse Practitioner (APN)

Advanced Practice Registered Nurse (APRN)

Advanced Registered Nurse Practitioner (ARNP)

Certified Nurse Practitioner (CNP)

Clinical Nurse Specialist (CNS)

Certified Registered Nurse Practitioner (CRNP)

Doctor of Nursing Practice (DNP)

Doctor of Nursing Science (DNS, DNSc)

Doctor of Science (DSC)

Doctor of Science in Nursing (DSN)

Doctor of Pharmacy (PharmD)

Emergency Nurse Practitioner (ENP)

Family Nurse Practitioner (FNP)

Nurse Practitioner (NP)

Nurse Practitioner Certified (NPC)

Pediatric Clinical Nurse Specialist OR Psychiatric Clinical Nurse

Specialist (PCNS)

Pediatric Nurse Practitioner (PNP)

Pediatric Nurse Practitioner - Acute Care (PNP-AC)

Women's Health Nurse Practitioner (WHNP)

Advanced Physician Assistant (APA)

Advanced Physician Assistant Certified (APA-C)

Doctor of Medical Science (DMSc)

Physician Assistant (PA)

Physician Assistant Certified (PA-C)

Registered Physician Assistant (RPA)

Registered Physician Assistant Certified (RPA-C)

Dollars & Sense

Books, Blogs, and Podcasts to Check Out in 2019

Joel M. Schofer, MD MBA CPE FAAEM Commander, Medical Corps, U.S. Navy



Whether you like it or not, you have a second job. That second job is managing your personal finances.

Even if you don't do it yourself and use a financial advisor, you still have to know enough to make sure your advisor is giving you solid advice and not ripping you off. Many financial advisors are really

just financial salesman with a particular set of skills. Those skills are designed to take money from your pocket and put it in theirs. You need to know enough to prevent this.

Luckily for us, there are quality blogs that you can read online, podcasts you can listen to while commuting or exercising, and books you can get from your local library. And the best part is that all of these resources are FREE! Here are my personal favorites in 2019. I have read, am reading, or listen to everything on this list.

Physician Specific Resources

The White Coat Investor Empire – Fellow emergency physician, James Dahle, MD, has created a digital and print media empire. You can't go wrong if you make this your solitary source of financial information. This is a blog, internet forum, podcast, and book, so no matter how you prefer to ingest information you can find what you are looking for on this site. In addition, he has partnered with two other physician financial blogs, Physician on FIRE (which stands for Financial Independence, Retire Early) and Passive Income M.D. Both of these are excellent sources as well: www.whitecoatinvestor.com, www.physicianonfire.com, http://passiveincomemd.com.

The Wall Street Physician – This former Wall Street trader and now physician has a very well-developed blog with over 300 posts. Despite what you'd think about a Wall Street trader, he focuses on index funds and puts out what I would consider to be solid investing advice. He just announced that he's not going to be posting as regularly, but there is a wealth of information to churn through already: www.wallstreetphysician. com.

General Resources

Vanguard Resources – Regular readers know I'm a huge fan of Vanguard and do all of my non-military retirement investing there. You should too! If you want to find out why, check out their two podcasts, "Vanguard: Investment Commentary" and "The Planner and the Geek" (both available on iTunes). If you are a reader, you can instead read the Vanguard Blog: https://vanguardblog.com/.

Vanguard Related Resources – Many know that Vanguard was founded by John Bogle, and those who follow his investing principles are selfnamed "Bogleheads." They have a Bogleheads Wiki that you can read, and they recently released a podcast called Bogleheads on Investing. When it comes to books, I'd recommend two that are related to Vanguard



because they are quick reads for busy physicians. For general investing principles and education, read *The Little Book of Common Sense Investing* by John Bogle. I'd also encourage any physician who is using a financial planner to read *The Bogleheads Guide to the 3 Fund Portfolio*. Investing does not need to be complicated, and you probably don't need to be paying that 1% assets under management fee when you can easily do this yourself.

Jonathan Clements – Mr. Clements was the personal finance writer at *The Wall Street Journal* for 20 years and is a well-respected source for financial advice. He has a number of books, but the best one for physicians is also probably his shortest and is called *How to Think About Money*. It will change how you think about money and finances. In addition to his books, he has a blog called "Humble Dollar" that includes a free comprehensive money guide that is a continuously updated guide to all aspects of personal finance.

The Millionaire Next Door and The Next Millionaire Next Door

– Everyone needs to read the personal finance classic called *The Millionaire Next Door*. The 10-15 page section that focuses on all the financial mistakes that physicians make is worth its weight in gold. The updated version just came out, and it is was one of my Christmas presents so hopefully I've read it by the time you read this article.

Get a Financial Life: Personal Finance in Your 20s and 30s – This book is great for those early in their career who are looking for solid financial education on insurance, managing debt, budgeting, investing, taxes, and other core topics. It is one of the top three books I've ever read because it gave me a financial foundation that got me to where I am today.

The Elements of Investing: Easy Lessons for Every Investor – This is my favorite short investing book of all time because it summarizes the principles found in the authors' much longer books. Charles Ellis wrote Winning the Losers' Game and Burton Malkiel wrote A Random Walk Down Wall Street, both of which are classics. If you want to kill these two birds with one much shorter stone, read The Elements of Investing instead.

Other Things I Read or Listen To

If what I highlighted above isn't enough, here are some other resources I'd also recommend:

- Animal Spirits Podcast a summary of recent market/financial news
- A Wealth of Common Sense Blog a blog written by one of the Animal Spirits podcasters
- Money for the Rest of Us Podcast economic and investing lessons based on recent market/financial events
- The Oblivious Investor Blog a tax-focused investing blog by an accountant who also writes a series of very short, informative books on all finance topics

If you'd like to contact me, please email me at jschofer@gmail.com or check out my Navy blog for physicians, MCCareer.org.

The views expressed in this article are those of the author and do not necessarily reflect the official policy or position of the Department of the Navy, Department of Defense or the United States Government.



Let's Discuss Operations Strategies to Increase Efficiency in Your ED

Christopher Morrison



How would you rate the day-to-day operations at your emergency medicine practice?

With EDs now so often used by patients, it's up to staff to ensure EDs are evolving their operations strategies to keep up with demand.

And that means knowing how to resolve issues like overcrowding and a lack of integrated technology so they stop costing your emergency department money and valuable talent.

But before you can create a plan to improve your ED, you'll need to identify your biggest obstacles first.

What's Causing Inefficiency at Your Emergency Department?

Add a checkmark to your notes if your ED specifically struggles with:

Incorrect Documentation and the After-Effects

According to a Department of Health and Human Services report titled Improper Payments for Valuation and Management Services Cost Medicare Billions in 2010, Medicare paid approximately \$7 billion for claims with lacking documentation or improper coding.¹

While several explanations exist for why coding issues happen, some of the most prominent seem to be:

- Coders who get too comfortable, developing bad habits like not digging deep enough into medical records.
- Physicians who are inadequately educated on coding and documentation requirements.
- Erroneous claims that lack follow up.
- Not using a specialized contractor to review emergency medicine services billed by high-coding physicians.

Reviewing high coding physicians more frequently was a recommendation by the Department of Health and Human Services and seems to be one of the least talked about risks of outsourcing.² Many EM groups outsource, but poorly chosen partners are more likely to cut corners.

With inaccurate coding comes inaccurate reimbursement or under compensation, and the potential risk of opening up the practice to compliance risk.

Not Enough Beds or Staff During High Volume Times

Research shows "over 90% of emergency departments report overcrowding at some point during the day", and yours is probably no different.³

But this overcrowding not only affects how many patients you get to see, it also affects wait times and lengths of stay (LOS), which are more frequently being used to evaluate your ED's level of care.

With downsized staff there's often less efficient bed management.

And without enough beds, emergency departments are forced to board patients.



Boarding patients can unfortunately lead to:

- Longer patient stays
- Worse patient outcomes
- Lower overall satisfaction

Experts report boarded patients "are often missed" or unintentionally neglected. Specifically, stroke patients have "poorer management and outcomes when emergency departments are crowded."⁴

So your overcrowding problem isn't just an internal nightmare; it affects patients and may even be putting them in danger.

Without a solution, it will continue to spiral out of control, skyrocket costs, put more patients at risk, and push talented staff out the door, just like this next issue.

Physicians are Too Busy with Paperwork

As a result of cost-cutting efforts and the ACA rollout, ED physicians now spend 43% of their time on data entry and a mere 28% of their time with patients.⁵

The less time spent with patients, the longer they may wait in your ED and slow down your process.

If your emergency doctors can't do what they're trained to do because they're too busy filling out paperwork, they'll soon leave for another independent ED group that functions better.

So how do you improve the way yours operates?

Just because your emergency medicine practice does everything,

doesn't mean you're doing everything well. Use these tips to work

smarter, save money, and help more people.

Another option is practicing parallel — not sequential-processing.

Many EDs push patients through a traditional, linear workflow including registration, medical screening, and waiting for an ED bed.

Direct bedding and bedside registration streamlines front-end operations and lowers wait times by working smarter.

So rather than waiting for one step to be completed before moving on to the next during triage, patients are seen by a nurse, registration worker, and care provider at the same time in parallel processing.⁸

This direct bedding requires a brief intake of your patient's history just to get the ball rolling on charting and order entry. Their full registration will then be completed some time during your patient's ED stay.

Following these intake practices, many EDs have reported:9,10

- Lower LWBS (left without being seen) rates
- · Decreased wait times
- · Shorter LOS

But being able to immediately place patients in open ED beds can only happen if your staff can get a handle on bed management.

#3. Learn Better Bed Management

The CDC says upwards of 66% of hospitals have bed coordinators[*]. How does your ED compare?

When you have a dedicated person in this position, it will alleviate potential bottlenecks which lead to ED overcrowding.

Hire dedicated bed czars or bed directors and they'll manage all inpatient beds and coordinate and match ED admissions. They'll also be the go-to person when your ED experiences a rush in arrivals.¹¹



5 Key Operations Strategies to Improve Your ED Efficiency

When you create a plan to streamline care, your emergency department can spend more time and energy on true emergencies and less time dealing with things that may be hurting your overall efficiency.

So consider implementing the following strategies:

#1. Make an Efficiency Plan Everyone's On Board With

Improving operational efficiency should be everyone's goal, not just stakeholders and board members.

So you'll need to create a comprehensive plan detailing what should happen during both peak hours and slower periods for all your staff.

Stats show only 40% of EDs actually have a full capacity protocol in place.⁶ Don't be this kind of emergency department.

Having the right amount of staff members on the floor at the right times ensures your door-to-doctor times are short and your doctors will still be able to provide exceptional care.

This one improvement has a huge impact on patient satisfaction scores.

Leave the guesstimations at home and use real-time data to make these important decisions.

After all, how will you know which aspects of your process need to be reworked if you have no idea how you're currently operating?

To do this, gather a baseline of your ED data, including:

- What your emergency department is like during peak and slow times
- · Staff coverage across all shifts during peak and slow hours
- The exact touch points patients go through before, during, and after seeing a doctor
- · Current processes and how long each step takes

Once you've compiled these key pieces of information, you can step back and see which areas need more attention and which can be replicated for improved efficiency.

One of the best places to start improving operations also happens to be the first your patients encounter.

#2. Redesign Your Front Entrance With a Specific Purpose

The solution to ED overcrowding may come from solving workflow problems. So your initial focus should be on your ED's front entrance.

Think about adding a registration kiosk.

This self-service touch screen will give non-emergent patients the ability to register, provide their medical history, self-assess their condition, and give access to their records to free up your staff members.⁷

Use a real-time bed census so your ED staff always know how many and which type of beds are currently available. This one step alone can shorten LOS in the ED.

Create a discharge lounge to be a specific space your patients can stay while they await discharge. This means your inpatient beds will free up for new patients sooner.

These next two ideas may prevent crowding before patients even step foot in your ED.

#4. Offer ED Appointments and Post Wait Times

To control the influx of patients with non-emergency issues, the most popular and successful EDs:

Post current ED wait times either online, on a local billboard, or through automated text messaging services.

Publicly posting ED wait times will help you distribute patient flow and help patients with non-emergent issues make an informed decision about when to seek care. ¹²

You can also **offer ED appointments**, also known as ED reservations. You'll have the ability to spread out non-emergent patient arrivals so you can budget your staff and other resources effectively.

In one survey, 79% of patients with minor issues preferred the reservation system over the walk-in process because they didn't have to wait in the ED forever¹³.

And this system may even help motivate staff to keep up with their scheduled appointments and turn over beds faster.¹⁴

Our final strategy can happen in-house or be outsourced.

#5. Adopt Telemedicine

You should also start offering telephone consults and telemedicine options like chat and virtual appointments.

These will help patients determine if their condition is an emergency requiring a visit to the ED or something they should make an appointment to discuss with their PCP.

Evidence shows EDs with telemedicine options decrease costs by reducing the number of draining non-emergent ED visits.¹⁵

When a large agency in California covered a telemedicine provider, patients made over 3,700 "visits" and were less likely to have a follow-up either at the ED or via telemedicine compared to those visiting an ED or PCP first. 16

Either providing this service or outsourcing it to the experts may be worth the cost if it means your emergency physicians can do more of what they do best.

How to Establish Your ED Efficiency Plan

EDs face operational issues affecting both patient outcomes and their bottom line every day. But that doesn't mean operations have to stay that way.

Create a new efficiency plan for your ED by learning and understanding your biggest struggles, both during peak and slow times.

Then start implementing the short- and long-term ideas we discussed to fix your troubled areas before they get any worse.

These emergency department operations strategies will help you strike a balance between improving efficiency and providing the best patient care simultaneously so you don't have to sacrifice one for the other.¹⁷

Christopher Morrison has been in Healthcare Marketing Leadership roles for over 7 years. His exposure spans from Dentistry to Healthcare Revenue Cycle Management. His focus over the past 2 ½ years has been solely on the growth within the Emergency Medicine segment, identifying key initiatives and emerging trends within the market. Prior to his immersion in the Healthcare industry, Chris was a key player in hospitality marketing, developing deep and meaningful partnerships with the likes of The NBA, The Colorado Rockies and Mario Andretti, to name a few. Chris lives outside of the Atlanta area with his wife and 2 kids and loves cheering for their alma-mater, The Miami Hurricanes!

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From Fleeing Communism to Harvard: Emergency Medicine has Shaped Three Generations of Physicians

Michele Perez



Julio Perez, Sr. seriously injured his knee. He was 20 years old in Havana Cuba lying in a hospital bed for a long recovery. He watched, listened, and began reading medical books while in the hospital. He

was inspired to help people and attended the Medical University of Havana graduating in 1947 eventually becoming a radiologist in Cuba. In 1960 he sent his

two teenage sons to Spain so they could escape the communist dictatorship of Fidel Castro. A year later Julio, his wife and their youngest son joined them in Spain. They left Cuba with just the clothes on their backs having to surrender all of their possessions to the government. When they received permission to come to the United States they moved to New Jersey where Julio, Sr. worked as an orderly at Elizabeth General Hospital until he was able to take his Foreign Medical Boards.



Julio Perez, Sr. and family in Havana Cuba

When they got to the United States, seventeen year old Julio Perez, Jr. found himself in a foreign country where he didn't speak the language. He got a job at Alexian Brothers Hospital in the lab and started studying medical technology. Julio met the only female employee at the hospital, a nurse anesthetist named Barbara. They married and soon began having children. In order to make ends meet for his growing family Julio worked shifts at the General Motor plant, often putting in 80 hour work weeks between the lab and the plant.

"Educate yourself. They can't take what's in your brain unless they kill you." — Julio Perez, Sr.

"Educate yourself, they can never take that from you." The words of his father inspired Julio to tell his wife that he wanted to become a doctor. But in order to do so they would have to sell everything they owned and move to the west coast of Spain. After a few weeks of tears, Barbara agreed to go. They sold all of their possessions and once again, with the clothes on his back, a wife, four children and one on the way, Julio headed to Spain. He graduated from the six year program in Santiago de Compostela in four years and nine months.

Julio and his family moved to Orlando in late 1974 and he started an internship in pathology. But with mouths to feed he needed to make money. Fast. He joined the Navy and worked as a general doctor in their clinic. He would also moonlight in the "emergency room" of hospitals throughout the region. After leaving the Navy, Julio worked full time in emergency departments in Orlando. He was grandfathered into emergency medicine and sat for the boards in 1992.



Julio Perez, Jr.

Julio's oldest son, Jude, attended medical school at the University of Florida. When he graduated he was the only person to pick emergency medicine as his specialty. We met his first year of medical school and I can remember him thinking about all of the different ways he could practice medicine. He knew he wanted to take care of the whole person, even when they were the most ill. It had to be emergency medicine.

Married and pregnant with our first daughter we moved to Jacksonville Florida where he took the PGY II, III, IV residency doing his first year in internal medicine. He graduated from residency in 1994. By then all three of our children were born and he began his career. We eventually ended up in Rockford, Illinois. He served as medical director of a level one trauma center and the helicopter program. He currently works with Madison Emergency Physicians, an AAEM Certificate of Workplace Fairness recipient.



Jude Perez at medical school graduation

Our oldest daughter, Alina, knew she wanted to be a doctor for as long as she can remember. She would sometimes spend the night in the department office when her dad worked night shifts, sleeping in a lazy boy with heated blankets the nurses would bring her. In the mornings they would go to the doctors' lounge and get a donut. It was a huge adventure!

Alina attended the University of Illinois at Chicago's Medical School. She was able to stay in Rockford at one of their satellite campuses and she rotated through the emergency department with her dad as one of her attendings. We watched as she explored all the different ways she could practice medicine. Would it be plastics? Surgery? Ophthalmology? But once again, the call of emergency medicine could not be ignored. She knew what she was getting into.

Alina graduated, got married to Michael Winans and is now in residency at Beth Israel Deaconess Hospital in Boston. Later that year her grandfather officially retired after 42 years of practicing emergency medicine, often serving as medical director in many of the departments throughout his career.

Julio Perez, Jr. has seen the evolution of emergency medicine from it's infancy in the 70's to the respected specialty it is today. Even though Jude was considered a maverick when he chose EM he knew he was participating in the evolution of a great specialty. As Alina heads towards the future, her grandfather and father look forward to watching as she and the specialty continue to grow. The past, present, and future of emergency medicine is alive and well in one family.



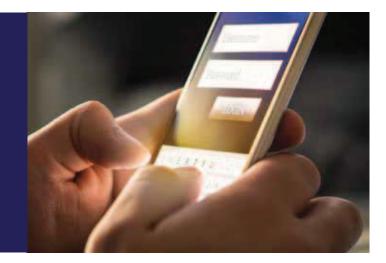
Julio Perez, Jr., MD FAAEM; Alina Winans, MD; and Jude Perez, MD FAAEM at Alina's graduation

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.



Administrative Hippocratic Oath?

Mark Borden, MD FAAEM

Common Sense has recently received an interesting letter from a long time member who has an idea. His proposal is unique and certainly deserves some careful thought.

Common Sense asks you to carefully read this proposed oath and consider becoming involved in drafting a final form. If interested, then please contact the author or the editor with thoughts, ideas, or comment.

Andy Mayer, MD FAAEM Editor, Common Sense cseditor@aaem.org



When I first began to discuss this topic with my fellow EPs and friends I was very surprised at the powerful emotional response it evoked. From my father, a retired orthopedist, "I say you drop it right now! This idea will not put shoes on your children's feet, or food in their mouths ... DROP IT!" In my whole life I have never heard my father more emphatic. From several full time EPs, "Sounds good, but don't men-

tion that I had anything to do with it." And, "I will be glad to help you, but don't mention me in any way. If you do, I will deny any involvement."

At first these comments surprised me, but they are the result of our current "practice climate." During my 25 years I have witnessed a huge decrease in physician influence ... "power" if you wish. I have also noted an equally impressive increase in the number of, and power of, hospital administrators.

The biggest change in medical practice that has occurred during my 25 years as a physician is the open acceptance of physician employment. From 1993-2005 I worked in California, and there were laws preventing the corporate practice of medicine. Even then, however, physicians were

actually employed, just not openly. The CEO chose/chooses a group of emergency physicians to staff the hospital's ED. The terms of the staffing contract are compared to other groups that compete for the contract. Now physicians negotiate "employment" contracts. Any attempt to mask the employer/boss (CEO) employee/worker (physician) relationship has been discarded.

"As physicians we take an oath. The intention of our oath is to ensure that our medical practice retains the goal of serving and helping patients as the overriding force.

Profit cannot be the overriding force in medical care."

Physician employment was, and is, an intrinsically flawed arrangement that was considered absolutely unacceptable for obvious reasons for the entire history of medical practice! To the CEO a CT scanner is a multimillion dollar piece of equipment that needs to be maintained and staffed 24/7. The CEO would like to see it being used as often as possible! To a physician a CT scanner is one of many diagnostic tools from which to choose. It is a tool that produces variably useful images at the cost of \$250-\$500 X-rays worth of radiation delivered to the patient. Sometimes

an ultrasound is better (e.g., gallstones), costing less and without radiation. This difference in thought process became clear to me as ED Medical Director when my CEO suggested we offer my physicians a \$50 bonus for each CT ordered! A CEO can choose to renew the contract of the physician that orders an average of four CT's a shift, and "let the physician go" that orders an average of one CT per shift.

When did physician employment start? Well, that is not as clear as the advent of physician employment contracts signed by the CEO. My father, an orthopedist, was on medical staff at three San Diego hospitals. When one CEO approached him and demanded that he perform hand procedures under general anesthetic, rather than by using the regional blocks he preferred (faster, safer, far less expensive for the patient) he was able to say, "That is unacceptable. If you insist, I will perform my procedures at (the other local hospitals)." The CEO rapidly dropped the issue. Were my father employed by a single hospital, with his employment contract signed (or not) annually by the CEO ... well you can see the difference!



CEO wants profit, and the money end of the deal is a great driving force. The CEO decides if he/she will choose a group with an NP/PA model, or a pure physician group, for example. The administration decides if the new EMR will be physician/patient friendly, or if it will squeeze every dollar out of every patient encounter, and keep all of the physicians typing for hours after every shift.

As EPs we have always been employed. Only in a truly unaffiliated, freestanding ER could we potentially be free of the business dictates of the administration. So ... what can we do about it? At this point there is little hope of reversing the trend of physician employment. All we can hope to do is work to ensure that the administration shares our goals and ethos. As physicians we take an oath. The intention of our oath is to ensure that our medical practice retains the goal of serving and helping patients as the overriding force. Profit cannot be the overriding force in medical care. Our oath provides that we should have a comfortable living, and prestige. Certainly, hospital administrators should also receive the fair "fruits of their labors," but it is arguable that a 49 million dollar annual CEO bonus violates the spirit of medical care. I believe we should extend our line of altruistic thinking, and actions, to include the hospital administration.

The oath that follows is intended as a draft, and not as a final product. I do not claim much originality, and most of the concepts are borrowed from our Hippocratic Oaths, both ancient, and more modern. Collaboration and discussion between physicians and administrators will be needed to arrive at a final document. I believe that many hospital administrators will be proud to agree to, and live by, such an oath.

This is an issue for the "old guard" to address. As a young physician, your job is solely to practice quality medicine, think of your patient's first, and continue to improve on your capabilities. As a young physician in our current culture you cannot afford to risk appearing critical of current hospital administrative practices.

Medical Administrators Hippocratic Oath

I swear to fulfill, to the best of my ability and judgment, this covenant.

I will realize that as a Medical Administrator I must place people's welfare ahead of profit and prestige. If I am unable to maintain this prime directive, I will seek employment outside of the medical field.

I will respect the hard-won knowledge and abilities of the physicians and caregivers with whom I work, and which I may employ. I will assist them to provide the best care possible for those that seek our help.

I will gladly share my administrative knowledge and wisdom with those who are to follow. I will share the concepts herein, and counsel my trainees to ensure they find employment that will mirror their ethos. I will assist those not suited to medical administration in their efforts to find a suitable career.

I will work to ensure that resources are available to provide, for the benefit of the sick, all measures that are required.

I will aggressively support and fund the prevention of disease, utilizing those preventative measures that are proven least harmful, and most effective, realizing that prevention is preferable to cure.

I will fund and support equally those effective tests and treatments that are both more, and less profitable.

I will realize that resources are not unlimited, and will strive, with the assistance of my providers, to do the most good, for the most people, with those resources that are available.

I will be very careful with incentives and awards, ensuring that the end result is both safe, and beneficial to the people that entrust me with their health and welfare.

I will value and support both the technical excellence of my colleagues, and their human graces.

I will not reward or praise over treatment or therapeutic nihilism.

I will not be ashamed to not know medicine, as medicine is not my realm of expertise. I will defer decisions regarding treatment and testing to my trusted providers.

I will respect the privacy of my patients, holding myself to the same standards, in that regard, to which I hold my providers.

I will realize that the business decisions that I make have powerful and far reaching effects upon patient care, and will bear this awesome responsibility with great humbleness and awareness of my own frailty. Above all, I must not play at god.

If I do not violate this oath, may I enjoy life and good health, respected while I live, and remembered with affection thereafter.

I would suggest we form a group to discuss and refine the above oath. A physician group that meets AAEM's best practice criteria, managed by an administration that agrees to such an oath would indeed be the ideal.



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Women in Emergency Medicine Committee

Equal Rights Amendment

Kristen Kent, MD FAAEM



A couple centuries ago, the Founding Fathers left women out of the United States Constitution. This problem could likely be fixed this year — it is the perfect time to review the Equal Right Amendment, its history, and why we need it.

The Equal Rights Amendment (ERA) is a proposed amendment to the United States constitution. It consists of three sections, with the essence of

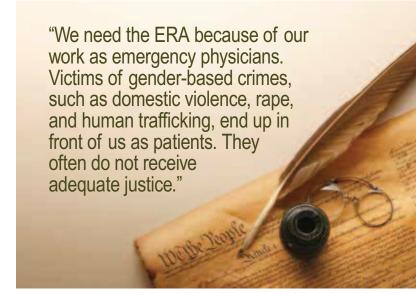
the amendment in the first section. "Equality of rights of the law shall not be abridged or denied by the United States or by any state on account of sex." It simply prohibits sex discrimination in our country by our Constitution. The following two sections state that Congress can enforce the amendment and that the amendment will take effect two years after ratification.

The concept of the ERA came long before 1923, but 1923 was the first year that it was introduced to the United States Congress. The ERA did not gain much traction at that time; however, it was introduced to every session of the US Congress from 1923 until 1972. In 1972, US Congress passed the ERA by two-thirds vote. As a reminder, proposed amendments become part of the US Constitution by US Congress passing the proposed amendment by two-thirds vote, followed by three-fourths of the states ratifying the amendment. In the case of the ERA, Congress sent the proposed amendment to the states with an arbitrary seven-year deadline written in the preamble of the bill. Immediately, states began to ratify the ERA. However, at the same time, an anti-equality force was developing. This force grew from a skillfully organized, well funded campaign with the message that the ERA would destroy families and morality. States stopped ratifying the ERA. Only 35 states ratified the ERA by 1977. In 1979, US Congress extended the arbitrary deadline by three more years (until 1982). Still, no more states ratified, and many thought that the ERA was dead.

In 1992, the Madison Amendment became the 27th amendment to our Constitution. Although this amendment does not pertain to equality (it involves rules for congressional pay), it is noteworthy because three-fourths of the states ratified it 202 years, 7 months, and 10 days after the US Congress passed it. Knowing this, 7 years, 10 years, or even 46 years seem like a short time frame to allow for ratification.

In 2017, Nevada became the 36th state to ratify the ERA, and in May 2018 Illinois became the 37th state to ratify the ERA. Virginia legislatures prefiled a bill for Virginia to ratify the ERA to be introduced on the first day of Virginia's legislative session on January 9, 2019. Most of the remaining 12 un-ratified states will also introduce bills for ratification this year.

At the federal level, Senate Joint Resolution 5 and House Joint Resolution 53, both to remove the arbitrary deadline to the ERA, were stalled in committees for the 2017-2018 session. It is likely that similar bills will be introduced this year.



People often ask if we need the ERA anymore. Of course, we do. We need the ERA because we do not have it. When the United States Constitution was written, women were treated according to English common law and social tradition; women were denied most legal rights. Updates to include women in our Constitution never happened ... except for one right. The only right where it is prohibited to discriminate based on one's sex is the right to vote, and that did not happen until the ratification of the 19th Amendment in 1920. The omission of women from our constitution allows a culture of discrimination to continue largely unchecked.

We need the ERA to protect the progress made for equality and secure the ability to advance further. In the past 40-60 years we have made improvements with laws like the Equal Pay Act, Title VII of Civil Rights Act, Title IX of the Education Amendment, Pregnancy Discrimination Act, Violence Against Women Act, and Lily Ledbetter Fair Pay Restoration Act. We need these laws, but they often put a band aid on a specific problem instead of tackling the issue at its core, which the ERA would do. Moreover, elected officials can easily modify or eliminate these laws much easier than an amendment.

We need the ERA because of the way in which courts view discrimination cases. Courts use the concept of judicial scrutiny when there is an allegation of a violation of one's constitutional right. It is used to determine which has more weight: a citizen's constitutional right or a government law or regulation that might discriminate between groups of people. The higher the level of scrutiny, the more favorable weight is placed on the citizen's constitutional right. With discrimination cases that involve national origin, ethnicity, religion, or alienation, strict judicial scrutiny is used. With this, the government law or regulation must be: 1) justified by a *compelling* governmental interest, 2) *narrowly tailored* to achieve that interest, and 3) the *least restrictive means* for achieve that interest.

With cases involving sex discrimination, intermediate judicial scrutiny, a lower level of scrutiny, is used. With intermediate judicial scrutiny, the government law or regulation must: 1) serve an *important* governmental interest and 2) be *substantially related* to serving that interest. Intermediate scrutiny has led courts to rule with varied and often unpredictable outcomes. In addition, the outcomes are less favorable for (mostly) women than if strict scrutiny were applied. The ERA would raise the level of scrutiny and in validate more discriminatory legislation.

We need the ERA because of our work as emergency physicians. Victims of gender-based crimes, such as domestic violence, rape, and human

trafficking, end up in front of us as patients. They often do not receive adequate justice. Courts treat crimes against women with greater lenience than other violent crimes. When seeking justice under our current legal system, with the Equal Protection Clause, the Commerce Clause, and the 14th Amendment has fallen short to provide justice against violence against women. The ERA could change that.

After almost 100 years of this amendment holding on in our legislative system, this could finally be the year where it becomes part of our Constitution. Stay tuned. ●



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Geriatrics Interest Group

Confessions of Country Doc: "Dementia with Behaviors" is Not a Diagnosis

Robert S. Anderson, MD FAAEM



You may have never heard the term "dementia with behaviors" and that would make me happy. However, as Epic and other electronic health records continue their slow, crushing domination of our work lives, you probably will. I first came across the term when trying to populate a "problem list" for a patient with dementia. The computer gave me only two choices when I typed in "dementia." I was forced to choose

between "dementia with behaviors" and "dementia without behaviors." I was immediately incensed and stewed on this new twist forced upon my medical judgement. (I know, I should probably get out more). Not only do I think that neither of the choices are actual diagnoses, but I'm weary of forever labeling a person as having "behaviors."

Our current understanding of dementia and its treatment is less than satisfying. We can't tell an alive person exactly which subtype they have, we can't predict how it will progress, and we don't have good medicines to treat it. If you're looking for a simple and refreshing definition for dementia, consider Dr. G. Allen Power's reflection, "Dementia is simply a different way of looking at the world." (If you're interested, his enlightening books include *Dementia Beyond Disease and Dementia Beyond Drugs*). In my opinion and experience, the best and most effective treatments for dementia are love and compassion, not drugs.

The problems with diagnosis "dementia with behaviors" are many. First, it implies that the person with dementia has bad behaviors. Second, it implies that the person with dementia has chosen to make those bad behaviors. (In fact, in this sense, it would be more accurate to label people as "diabetes with behaviors," "COPD with behaviors," "heart disease with behaviors," etc.). Third, it forever links the person's dementia diagnosis with bad behaviors — a rap sheet that will forever color the decisions of the dozens or hundreds of providers down the line. Finally, and most distressing, the diagnosis "dementia with behaviors" seems to allow doctors to prescribe antipsychotic medications with reckless abandon.

Let me tell you about Ken. I looked after Ken for years in the locked dementia unit where he was captive lived. Ken's dementia was profound, he spent his days sitting quietly and smiling. He never spoke a complete sentence to me. Ken had previously been diagnosed with "dementia with behaviors." Ken was also a championship defecator. One day, he struck out at a caregiver and was sent to the emergency department. He was admitted to a geriatric psychiatric unit where his "behaviors" were treated with antipsychotic medications during a week-long admission.

The problems, it turned out, were me and the caregiver. I incorrectly had him on an aggressive chronic bowel regimen he didn't need. On the day in question, the caregiver decided to clean him up with three BOXES of wipes. At some point during the cleaning, Ken had enough and communicated in the only way he could — a push. So it was really not Ken's

"behavior" that was the problem, it was ours. When I figured out the issue and when Ken came back to me, I did my best to scale back his bowel regimen and antipsychotics.

Don't get me wrong, people with dementia can have behavior problems. However, the "behaviors" are often very human and natural responses to things none of us would like: being in an unfamiliar place, being scared, being cold, being in pain, being wiped excessively, suffering an acute medical illness, and the list goes on. People with dementia can also have depression, anxiety and other conditions that should be treated. Finally, I don't pretend to claim that I have never prescribed antipsychotics to old people with dementia. I will admit, however, that I am embarrassed that I have.

"Pry apart the 'behavior' from the 'dementia' and free your mind."

So, on your next shift when you meet a patient branded "dementia with behaviors," remind yourself that it is at best a sloppy term and at worst a dangerous label that could lead to misdiagnosis and antipsychotic medications. Pry apart the "behavior" from the "dementia" and free your mind.

Consider what is really going on. Is the patient delirious? Is there a new underlying medical condition or adverse drug event? Was the "behavior" simply situational? As is often the case, family is present and you've already called the facility for more information. During their time in the ED, you have an opportunity for concentrated doctoring — focused and intense time with a patient, the family, and their caregivers. That time, along with ability for rapid testing, can be worth weeks of office visits.

Ok, I've ignored Epic for too long, she's getting jealous. I need to get back to figuring out how to diagnose people again; six clicks for an ankle sprain, seven clicks for pneumonia, etc. Not to mention being the transcriptionist, coder, and biller that medical school and two residencies trained me for. (But that's a different rant).

I look forward to hearing from you. info@aaem.org

Diversity and Inclusion Committee

The Role of Bias in Performance Evaluations and Inclusion the Workplace

Danya Khoujah, MBBS FAAEM



Bias is a prejudice for or against something or someone, related to their gender, race, ethnicity, religion, sexual orientation, disability, socioeconomic status, or any other entity. While frequently viewed as a negative construct that only affects narrow-minded individuals, the reality is that bias is pervasive. In the realm of our profession as emergency medicine providers, bias affects our patients' access to health

care, our trainees' education, and our own compensation, promotion, and professional fulfillment. This article discusses how bias affects the latter two entities from a specific standpoint; performance evaluations.

Performance evaluations are commonplace in both the educational and care-delivery environments, with a prevailing belief that performance evaluations are of high quality, which is false. We assume that an observation of a performance is the most accurate way to assess an individual's performance, without the acknowledgement of how bias affects these observations, and affects the accuracy of evaluations.

While bias may be explicit or implicit, implicit bias is more difficult to address, as it does not necessarily align with declared beliefs, making it harder to identify and change. While positive bias in which we tend to favor our own group is natural, it should not justify driving an action in which other individuals are discriminated against.

Examples for bias include:

- "Halo effect," in which our impression of an individual (how likeable they are) affects our evaluation of their work
- "Confirmation bias," in which we look for elements in the individual's behavior that fit in with our presumptive understanding of their abilities, and use those elements as evidence of their performance, rather than looking at the whole picture
- "Contrast effect," in which we compare an individual's performance to that of others, rather than the predefined performance standard.

An interesting study by Dayal, et al., was published in *JAMA* in 2017, and examined over 33,000 evaluations of 359 emergency medicine (EM) residents, based on the EM milestones. Although both female and male residents started their residency with equal milestones, by the end of their residency, male residents attained an average of 0.15 milestones more than the female residents; equal to three to four months of training. Although the study does not offer a specific explanation for the reason behind this apparent lag, the authors offer the discrepancy in evaluation as a leading cause, rather than an actual difference in performance.

Another study analyzing gender differences in qualitative evaluations of EM residents sheds some light on the culprit; the words used to describe an ideal emergency medicine resident are traditionally male descriptors:

decisive, independent, confident, and takes charge, to name a few.² It is no surprise that female residents were falling short when the ideal descriptor is that of a male, rather than a gender-neutral standard.

Taking a step away from performance evaluations in medicine and into a wider realm, the issue persists. Women are more likely to be praised for being relationship-oriented (compassionate), whereas men are more likely to be praised for being task-oriented (analytical), despite their equal performance on more objective measures. While both are positive traits, they speak to different expectations of the individual, and when it's time to advance at the workplace, the analytical individual is more likely to get a promotion than the compassionate one.^{3,4}

This discrepancy in the focus of evaluations becomes an even bigger issue with women who violate gender stereotypes and display traditionally male qualities, termed the "backlash effect." Women are expected to

"The unfortunate reality of many institutions is that they focus on recruitment of non-majority individuals and hold them against the biased ruler that defines success. This results in a disparate assessment of achievements, and hindering of the advancement of these individuals in the workplace."

be communal: cooperative, supportive, and connected. Men are expected to be competent and dominant: self-reliant, ambitious, independent, competitive, decisive, and aggressive. Women who display communal trends are liked but viewed as less competent, and those who display agentic traits are viewed as competent but not liked, as they are insufficiently feminine. In either case, women are discounted on their ability to become adequate leaders, while men with identical behaviors are judged less harshly on this "lack of niceness." It is worth noting that this backlash effect related to expectations of being communal is not limited to gender relations, but extends to other systems of inequality, such as race.

These are only some examples from the literature regarding inequality in evaluating the performance of non-majority individuals in the workplace, a sad truth that must be addressed in order to have true inclusivity, as diversity does not exist without inclusion. The unfortunate reality of many institutions is that they focus on recruitment of non-majority individuals and hold them against the biased ruler that defines success. This results in a disparate assessment of achievements, and hindering of the advancement of these individuals in the workplace.

Identifying a Solution

Moving from identifying the problem to identifying a solution can be as simple as starting a conversation at your institution. Many individuals are unaware of how bias affects their perceptions and evaluations, and think of it as "someone else's problem." Awareness of the problem is the first step to change. The second is to examine how you complete your own evaluations of learners, superiors, and colleagues. Are you being biased? Are you evaluating these individuals based on the tasks and learning goals expected (as should be), their likeability, or by comparing them to their peers? If you are in a position of power and are on the receiving end of evaluations, keep your eyes open for patterns in evaluations that may allow you to identify bias. Taking it one step further, you may choose to revamp the tools that are used to evaluate your own trainees and staff, using non-biased clear wording that measures what is intended, and conduct faculty training on completing these evaluations.

Bias exists, and we must systematically dismantle how it affects performance evaluations, as these evaluations are essential for the retention and advancement of residents, physicians, and health care providers alike. Until this is recognized and addressed, we will not have equity, despite having diversity.

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EOE

Critical Care Medicine Section

Delirium in Critically III Emergency Patients

Ashika Jain, MD FAAEM, Critical Care Section President Elect David A. Farcy, MD FAAEM FCCM, AAEM President





In recent years delirium has been getting a lot of attention in critically ill patients and has been associated with increased risk of mortality, prolonged ICU stay, significant long-term effect and impairment. Delirium in any patient is daunting on

the patient, their families and to our health care system. Since the 2013 guideline for pain, agitation and delirium routine screening and monitoring has been recommended and can be facilitated using the delirium check list (see Figure 1).^{1,2,3} Delirium alerts providers to a perilous process that is associated with poor outcomes. While it is unclear if delirium itself is the cause for this elevated consequence, there is a connection.

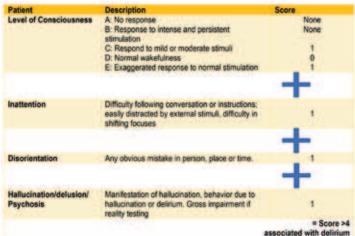


Figure 1: Intensive Care Delirium Screening Checklist

What is Delirium?

The American Psychiatric Association's fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) recently revised the diagnostic criteria for delirium. Delirium is a syndrome of an acute change in mental status from baseline, "alterations in the content (that is, attention) and/or level (that is, arousal) of consciousness are core to the diagnosis of delirium."⁴

In critically ill patients, such changes can be noted as: hypervigilance, inattention, disorganized thinking, altered level of consciousness. These can be temporary and often a reversible state of altered mentation, secondary to an acute process. Delirium is further divided into three subtypes:

- 1. Hyperactive (characterized by restlessness, agitated behaviors, confusion, hallucinations)
- 2. Hypoactive (characterized by sedation, motor slowness, lethargy withdrawal from interactions)
- 3. Mixed (fluctuation between hypoactive and hyperactive subtypes)⁵

Delirium should be categorized by suspected subtype etiology so that treatment can be catered. Hyperactive delirium is more easily recognized given its more outwardly visible presentation. Whereas hypoactive



delirium is perhaps more occult given presentation of lethargy and hypoactivity. This can often be assumed as "resting", when in fact is a form of delirium and thereby undertreated. Mixed type delirium is more difficult to treat given that patients may experience elements of both previous noted subtypes in a short amount of time.

Vulnerable Populations

Special consideration should be taken for vulnerable patient populations such as the elderly and pediatric populations. Both have propensity for long term neurological effects and higher mortality.

Elderly patients are at highest risk for delirium due to concomitant confounders such as hearing and visual loss. Nearly 30 percent of admitted elderly patients will exhibit delirium at some point during a hospital stay.6,7 Incidence rises to 50 percent in elderly patients admitted for complex surgical procedures.8 One study suggested that patients with more severe delirium after hip surgery, including psychomotor agitation, had higher rates of mortality and nursing home placement. Furthermore, delirium that does not resolve before discharge is also a risk factor for nursing home placement.9,10

Factors that increase the risk for delirium and confusion in all patients including traumatic brain injury; in the elderly, include dementia, stroke, Parkinson's. Extrinsic factors include medications, sepsis, drugs, dehydration, and situational changes.

Differential Diagnosis

A broad differential diagnosis in the emergency department is crucial and extensive. Workup should commence first an foremost by ruling out catastrophic processes such as hypoglycemia, infection cerebral vascular accident, traumatic brain injury, sun-downing, non-convulsant seizure, psychosis, and delirium tremens, just to name a few.

Many medications can cause delirium and should be considered when attempting to identify cause of acute change in mentation. 30 percent of all cases of delirium are associated with drug toxicity.¹¹ In the ICU, worsening of the underline condition should be considered or complication related to the hospitalization, medication.

In admitted patients with established medical diagnosis who develop altered mentation, potential worsening of the underline process should be the priority focus. For example, avoiding the mistake of attributing new altered mention in a patient admitted for acute stroke to delirium when in fact, the cause is progression of ischemia or secondary injury.

Delirium vs. Dementia

Delirium and dementia can be confused. Delirium disturbs attention versus dementia disturbs memory. Delirium typically has a sudden onset with a clear onset, whereas dementia typically has an uncertain onset, is slow to start and gradual in progression. Confusion can be due to either, especially in the acute phases of delirium or the onset of dementia. Evaluation to differentiate the two is crucial in order to appropriately treat and or mitigate long term effects.

Evaluation

Evaluation and examination are difficulty in assessing delirium since the majority of history is dependent on secondary account. Family and friend provided history may elucidate a state of "just not right" or "just not himself/herself today". Not eating or drinking as usual may also be a presenting sign. A thorough physical exam including a complete neurological exam is critical to rule out source of altered mentation as well as diagnose altered mentation in and of itself.

Clinical instruments such as the Intensive Care Delirium Screening Checklist (ICDSC) or the Confusion Assessment Method for ICU (CAM-ICU) tool should be incorporated in to emergency department workup and in ICU daily in-patient evaluation to aid in early and correct diagnosis of delirium. ^{2,3} The ICDSC is a screening checklist of eight items and administered daily, with sensitivity 99 percent sensitivity and 64 percent specificity for early detection of delirium. Critics of the ICDSC tool, make note that the tool was studied in ICU patients with mainly medical, cardio-vascular and surgical disease and not validated for emergency medicine use. The CAM-ICU score takes 5 minutes to assess and has a sensitivity of 94-100 percent and a specificity of 90-95 percent. ^{12,13} A review of 11 bedside instruments used to identify the presence of delirium in adults supported the use of the CAM-ICU as the best, and the Mini Mental State Exam as the least accurate test. ¹⁴ (Figure 1, Figure 2)

Laboratory tests may elucidate sources of acute altered mention. Workup should include but not limited to thyroid functions, vitamin B12 level, urinalysis, CBC for evidence of acute infection, with known limitation in elderly who may or may not mount fevers or leukocytosis, lumbar puncture to identify meningitis when other sources of infection have not been identified.

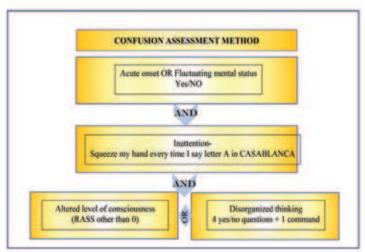


Figure 2: CAM-ICU Method

underlying cause and outward presentation are

paramount to reduce days of delirium and reduce the potential for long term affects."

Treatment

While correct identification and classification is paramount, equally is treatment. There is no magic bullet to treat delirium, especially as each patient's individual medical process is different, making broad recommendations for whole populations difficult.

First steps include treating the underlying cause of the delirium such as antibiotics for bacterial infections, mitigating agents for acute drug withdrawal, cessation of drug induced delirium, reduce location changes.

Non-pharmacological agents should be attempted as first line treatment; verbal reorientation, early ambulation, clock in visual field of patient, windows and good lighting, and avoiding sleep-wake cycle disturbances. Units that addressed these ambient factors have shown to have decreased incidence of delirium. ¹⁵⁻¹⁸ More and more guidelines include "Family engagement/empowerment". We too often discard or ignore family members by having restricted access to the department or the ICU. Family members can be trained in assisting, re-orientating, and participating in plan of care. Harnessing their bedside presence can be a useful way to limit medication use and time consumption/frustration by the medical team.

Current evidence does not support the use of any medications in order to prevent delirium. Haloperidol did not prevent delirium in ICU patients in the REDUCE trial. While Haloperidol remains the mainstay of treatment and can be given orally, intramuscular or intravenous, the current recommendation is to avoid routine treatment with Haloperidol and or other medication. Patients who are agitated and could potentially harm themselves or others may benefit from short term, low doses of Haloperidol. Of note, intravenous administration is associated with prolonged QT and should be monitored.

In one study, haloperidol and chlorpromazine showed improvement in delirium compared to lorazepam.²⁰ Risperidone (0.5 mg every 12 hours) was associated with a reduced incidence of clinical delirium in post cardiac surgery patients.²¹ Quetiapine, risperidone, ziprasidone, and olanzapine have fewer side effects compared to haloperidol, and in small studies they appear to have similar efficacy to the former.²²⁻²⁴

Cholinesterase inhibitors have been proposed to prevent delirium in selected patients, but these, too, have not shown efficacy towards prevention. ²⁵⁻²⁷ Gabapentin and melatonin have shown some efficacy in reducing delirium namely by reducing pain and improving sleep cycles, respectively. ^{28,29}

Whether in the ICU or the emergency department, mechanically ventilated patients are at high risk to develop delirium. The New Clinical Practice Guidelines for the Prevention and Management of Pain, Agitation/ Sedation, Delirium, Immobility, and Sleep Disruption in Adult Patients in the ICU recommends avoidance of haloperidol, use of dexmedetomidine or propofol as a sedative agent that also reduces days of delirium and ventilator days.³⁰

Benzodiazepines have a limited role in the treatment of delirium; they are primarily used as a sedative drug, treatment for alcohol withdrawal or when neuroleptic drugs are contraindicated. Benzodiazepines use is associated with poor outcomes in ICU patients and in elderly populations.^{20,31-34}

Physical restraints should only be used as last resort and in conjunction with pharmacological agents to mitigate symptoms. Isolated use of restraints increases likelihood of rhabdomyolysis, acute kidney injury, hyperthermia and death.

In general, symptomatic treatment is not used for hypoactive delirium. One study suggested that patients with hypoactive delirium have a similar response to treatment with haloperidol as those who were agitated.³⁵ Some case reports have attempted to show use of stimulants to mitigate hypoactive delirium with no avail.

Conclusion

Delirium has a significant impact on patients and is associated with poor outcomes, highest in older patient populations. Delirium is not only associated with higher mortality, it is also associated with prolonged hospital stays, likelihood for nursing home stays as opposed to discharge to home, overall functional and cognitive decline. Delirium impacts patients as well as family members. Early recognition and treatment of both the underlying cause and outward presentation are paramount to reduce days of delirium and reduce the potential for long term affects. Currently, there is no concrete treatment option for delirium; some are better than others, but none are ideal. More studies need to be done to better understand delirium and treatment options.

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Wellness Committee

National Academy of Medicine Action Collaborative on Clinician Well-Being and Resilience

Mary Jane Brown, MD FAAEM Wellness Committee



As emergency physicians, we are often the specialty with the highest or near the highest rate of burnout (emotional fatigue and depersonalization) and I sometimes wonder if we are not the canary in the coal mine. As individuals and as a specialty we cannot make many inroads into the broad challenges medicine and health care faces as a result of this burnout crisis. With what must seem like a daunting

task, in 2016, the NAM (National Academy of Medicine) organized the Action Collaborative on Clinician Well-Being and Resilience with three main goals:

- 1. Raise the visibility of clinician burnout, depression, stress, and
- 2. Improve baseline understanding of challenges to clinician well-being
- 3. Advance evidence-based, multidisciplinary solutions that will improve patient care by caring for the caregiver

Over 150 organizations have committed to combating clinician burnout including AAEM who joined as a network partner.

Clinician well-being is not just an individual issue. The New England Journal of Medicine recently published, "To Care is Human: Collectively Confronting the Clinician Burnout Crisis." The NEJM article created from the work of the NAM partnership emphasized the complexity and system-based nature of burnout that requires a multidisciplinary approach to solve. The American College of Physicians, in 2017, looked at administrative tasks that have potential adverse effects on physicians, their patients and the health care system. AAEM endorsed the ACP recommendation to reduce administrative tasks (colloquially known as hassles and burdens). Reducing or eliminating tasks not significant to pa-

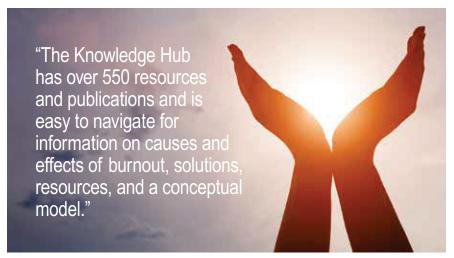
tient care will foster and improve work-life balance for the clinician, AAEM members can reference the position statement for use and discussion with their home institutions with the goal of putting clinical care first. Learn more at www.aaem.org/ wellness-committee.

One great resource that was created as part of the collaborative is the Clinician Well-Being Knowledge Hub. Available on the NAM website for clinician well-being, The Knowledge Hub has over 550 resources and publications and is easy to navigate for information on causes and effects of burnout, solutions, resources, and a conceptual model. There are survey tools to assess individual well-being. There are also resources on organizational strategies to promote well-being. The conceptual model is worth reviewing as the most comprehensive and inclusive "wellness wheel" highlighting individual as well external factors to clinician well-being. The center of this model includes patient well-being and clinician well-being. You can visit the NAM website at: https://nam.edu/ resource-toolkit-clinician-well-being-knowledge-hub/.

Finally, a unique deliverable was the development of a digital art gallery. On the NAM website over 100 artists have art featured that captures clinician burnout, well-being, and resilience from these individual perspectives. The digital gallery is to promote greater awareness, understanding, and solutions forward through the artists' creations. Several emergency physicians are featured, including Dr. Cleavon Gilman, resident physician in New York. In his powerful piece, he wrote and sang "Rise Up Now." One can watch his performance on YouTube or go to the NAM website NAM.edu and select expressions of clinician well-being under exhibition artwork.

Going forward, the Action Collaborative vision is to build a campaign of systems to connect, network, and organize to improve clinician wellbeing. Nearly 150 organizations are committed to improving clinician well-being in the Action Collaborative. Peer reviewed publications will be sought and encouraged that look at solutions and ways to promote clinician well-being. Public meetings will be held to highlight the work of the Action Collaborative and the overarching goal that clinician well-being is

> essential for safe, highquality, patient care. AAEM has committed to being a partner in this collaborative, recognizing the value here for patients, clinicians, and health care systems. Please consider following along as your interests dictate or join with AAEM and the NAM in this important work.



Palliative Care Interest Group

Identification of the Hospice vs. Palliative Care Patient in the ED

Deniece Boothe, DO



The terms "hospice" and "palliative care" remain synonymous for many health care providers. Despite the intertwined relationship, it is important that we understand the differences in an effort to provide appropriate resources for our patients facing serious, life-limiting illness. Palliative care, also known as palliative medicine, is specialized medical care for people living with serious illness. It focuses on pro-

viding relief from the symptoms and stress of a serious illness whatever the diagnosis. The goal is to improve quality of life for both the patient and the family.¹ Hospice care is designed to give supportive care to people in the final phase of a terminal illness and focus on comfort and quality of life, rather than cure. Those with a prognosis of six months or less meet criteria for hospice. A Center to Advance Palliative Care survey found that most health care professionals erroneously equated palliative care with end-of-life (EOL) care.¹ This lack of understanding leads to ineffective communication between the provider and patient or health care proxy.

Let us look at two cases where hospice vs. palliative care is appropriate.

Case 1

Mrs. A, a 35-year-old female with recent diagnosis of ovarian cancer is your next patient to be seen. You review her vital signs and note that she is tachycardic: HR 116BPM, BP 124/80, RR 16, O2 sat 100% on room air, temp 98.4. The patient states that she has persistent abdominal pain despite using her short acting morphine 5mg every four hours over the past two weeks. She admits to nausea and constipation as well. Her overall functional status is fair. She recently started chemotherapy and has tolerated treatment thus far with minimal symptoms. Her workup in the ED reveals progression of disease in the liver, a negative study for pulmonary emboli and labs are within normal limits. She receives a total of 2mg of Dilaudid in the ED and reports that her pain has subsided from a level 10 to level 4. The patient is discharged home and advised to continue with morphine prn, to follow up with her PCP and oncologist as soon as possible.

Case 2

Mr. B is an 89-year-old male with hx of HTN, CVA, and advanced dementia. He presents to the ED from a long term care facility in respiratory distress. The documents accompanying the patient state that he was found to be less responsive today, hypoxic - sat's 70's, improved with oxygen prior to arrival. You note that the patient had three prior visits resulting in admissions over the past six months for sepsis secondary to pneumonia, UTI. On exam the patient is contracted, with noted bi-temporal wasting and is minimally responsive to painful stimuli. Respirations are labored, oxygen saturation remains at 90% on venti mask. Additional vitals: BP 80/40, HR 120 - irregular, RR 30, temp 103.4. You sift through the documents from the facility and note that the patient does not have

an advanced directive or POLST document. Family members arrive at bedside. You identify his wife as his legal next of kin and inform her that the patient will require intubation due to respiratory failure as well as a central line to administer pressors. You express concern for septic shock and explain that the patient will be admitted to the intensive care unit for further management.

Hospice or Palliative Care?

Patient A is an appropriate patient for palliative care services. Patients with a serious illness often experience substantial physical burden due to pain and symptoms such as fatigue, anorexia, nausea, and dyspnea. Anxiety and depression are also common after the diagnosis of a life threatening illness. Any of these symptoms may alter a person's ability to fulfill roles critical to self-identity.² Early integration of palliative care services in the emergency department will allow for improved quality of life. The patient requires appropriate pain management i.e., incorporation of a long acting opiate vs. adjuncts for adequate pain control. A bowel regimen should be instituted and persistent nausea should be addressed. Additional palliative care services should incorporate symptom management, support and establish the patient's goals in the setting of advanced disease.

Patient B is appropriate for hospice services. It is essential that the treatment goals are established in the ED setting prior to aggressive interventions if possible. Further discussion with the patient's health care proxy or legal next of kin may lead to a decision directed towards comfort care vs. initiating life sustaining measures. An understanding of advanced dementia and the trajectory of illness will serve as an important foundation for the physician when addressing the goals of care.

Continued on next page

"Proper identification and disposition of the hospice vs. palliative care patient is essential to our practice in the field of emergency medicine. ED providers may serve as the sole source of information for patients



In both cases the conversation should incorporate the following:

- 1. Eliciting the understanding of illness
- 2. Assessing willingness to hear information
- 3. Provide information and options of care
- 4. Respond to emotions
- 5. Review and summarize

Proper identification and disposition of the hospice vs. palliative care patient is essential to our practice in the field of emergency medicine. ED providers may serve as the sole source of information for patients facing serious illness. The primary goal when meeting with these patients is to ensure quality of life. "Quality" is defined by the patient, health care proxy or legal next of kin. Each has an ideal definition of quality of life. One that is specific to that individual. It is important that this is recognized as this definition will be what drives the conversation and ultimately define the goals of care.

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Three Steps to ABEM Certification

Note: This is the second in a series of articles about ABEM and board certification. Next: I'm certified! What do I need to do to maintain my certification? To read part one of this series, visit: www.aaem.org/get-involved/sections/yps/common-sense

There are three steps to ABEM certification:

- 1. Apply for Certification
- 2. Pass the Qualifying (Written) Exam
- 3. Pass the Oral Exam

Application

In mid-April, your program director will receive application information to distribute to residents who are scheduled to graduate, and ABEM

makes the online application available to these residents. (This means that you can begin the application process before you graduate from residency, but you must have graduated by November 1 in order to take the written exam).

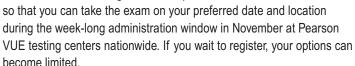
The normal application period is from mid-April through August; a late application period runs until early October but includes a substantial late fee. The application is straightforward, requesting basic information such as date of birth, contact information, and medical license (if you have one). You are asked to verify the documented training information. Once the ap-

plication and fee have been submitted, ABEM will process it and verify successful completion of your training.

The Qualifying (Written) Examination

The second step to certification is to take and pass the Qualifying Examination, also known as the "written exam." The normal registration period usually runs from early May through late October, with a late registration period running until early November. The exam is eight

hours long (including breaks) and consists of approximately 305 multiple choice questions. The exam is "criterion referenced," meaning that if you meet a certain standard you will pass (there are no quotas or curves involved in scoring). Once you are registered, you will receive information about how to schedule your exam at a Pearson VUE testing center. ABEM recommends scheduling as soon as possible





The Oral Examination

The final step to becoming certified is taking and passing the Oral Certification Examination. After you pass the Qualifying Examination, you will be randomly assigned to one of the next year's administrations of the Oral Exam (one takes place in the spring and the other in the fall). The exam is a half-day long, consists of seven cases, and is administered near Chicago O'Hare International Airport. You must have a medical license in compliance with ABEM policy in order to take the exam.

Advice About the Certification Process

Apply early to avoid late fees and register for exams in the first period available to you. If you don't register to take the examinations in your first year after residency, you will have to complete additional requirements to maintain your board eligibility. Once you graduate, you have five years of board eligibility to get certified. Research has shown that the earlier you take the exam, the higher your likelihood of passing. More information is available www.abem.org under the "Become Certified" tab. If you have questions, please call 517-332-4800. ●

1,440 Minutes: Five Tips to Make the Most Out of Your Minutes

Jennifer Kanapicki Comer, MD FAAEM YPS Director



There are 1,440 minutes a day. That is 1,440 minutes we spend in clinical shifts, doing charts, answering emails, and spending time with loved ones. How do you use your 1,440 minutes? As my family grows I've begun really thinking about time and how to best use it as the items on my "to-do" list also grows. As I began to educate myself on the art of time management, common themes began to emerge.

1. Avoid checking your email constantly. It lets other people dictate how you spend your time.

I fully understand the desire to check your email. The unpredictability of getting a new email is definitely addictive. What does that EM conference entail? When is our department's holiday party? But every time you

check your email it is interrupting your focus and takes up time. What about all those junk emails and newsletters you somehow got subscribed to? Unsubscribe from all email lists that you don't use or want. Each one of these is taking up your time. Check your email three times a day and schedule it on your time. Take off the automatic email alerts (both on your phone and computer). Don't let others dictate how you spend your day. Be proactive with your time instead of reactive to your emails.



Also be on the lookout for colleagues popping into your office saying, "Got a minute?" Remember it's important to stick to your daily schedule and every



one of those "pop-ins" are using your valuable minutes.

4. Use the Pomodoro method to be more productive.

Studies have shown that most people are more productive in the beginning of the day with cognitive capacity declining as the day wears on. To be more productive it's important to build in mental breaks within your day. When you purposely take a break you can increase your productivity. The Pomodoro method is one way to do just that. You set a timer for 25 minutes (there are apps that do this, one is called Focus Keeper). In that

25 minutes you work on a task giving it 100% of your focus. Then once the timer goes off you take a five minute break (stretch your legs, meditate, etc.). You can try this out and see what timing works for you. I know it has made me more productive in finishing charting after a shift or reading through residency applications before interview days. You may benefit from a longer focus time or longer break time. The take home point is scheduling breaks while working on a task can actually make you more productive.

2. Have a MIT (most important task) each day.

What is your most important task to complete today? Essential to time management is prioritizing your "to-do" list. Tackle your MIT first thing in your day. So often we procrastinate and do the more enjoyable tasks first. Tackle it early when you're the most productive. Are you putting off writing that grant, preparing that lecture, writing that article? Figure out the most important task you need to focus on every day and make a plan for how to get it done.

3. Meetings, Meetings, Meetings.

I know a lot of my week is taken up with meetings. There are department meetings, hospital meetings, not to mention committee meetings. Meetings can be inefficient and can break up your day's focus. We also often make meetings for a standard 30 or 60 minutes. Who made that rule? Schedule meetings in increments of 5-10 minutes. Not all meetings need a standard 30 or 60 minutes so don't just fill up the slotted time, change it. If you need to have a meeting it should start and end on time. Be professional and considerate of other people's minutes. It should have an agenda and those in attendance should only be the people that have to be there.

5. If a task takes less than five minutes to complete, complete it now instead of putting it off.

I think this tip comes in most handy when checking emails. So many times we see an email, read through it a bit, only to put off answering it until later. Well later we are going to have to re-familiarize ourselves with the content to respond to it, which wastes time. Use "touch it once" mentality. You can use this tactic when checking email, doing dishes (and not just leaving them in the sink), or calendaring an event your Chair just told you about. By getting the job done the first time, you waste less time going back to it later.

I hope these five tips help you make the most of your 1,440 minutes. I know by using these techniques I feel like I'm being the most productive I can be during my "work" time so I am more available during my family time. Remember time will always be your most valuable asset.



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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.





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AAEM/RSA President's Message

The Light at the End of the Tunnel

MohammedMoiz Qureshi, MD AAEM/RSA President



As of January 1, 2019, current second year residents in three year programs have officially completed half their residency! Just under 18 months away from completing a long and grueling journey. It's remarkable how much you grow from a fourth year med student to a semi-competent senior resident in the ED. As we look forward to the second half and start looking at the next stage in our careers there is an over-

whelming feeling of unease in terms of where to begin the "grown-up" job search and what to assess and prioritize.

This holds especially true in three year programs, where there is a dedicated focus on learning the skills of the trade and not as much time to delve in to personal areas of interest and determining where/how to apply and interview. In a recent statistic, almost half of new physicians end up changing jobs in their first five years out of residency. So how do we go about finding our dream job? There are way too many varying factors to make a generic set of rules and most everyone can gauge the geographical locations they are interested in but further than that I have narrowed down some factors that all of us should review prior to signing that contract.

The Dollar-Dollar Bills

Obviously and rightly so, one of the first things to look at is the proposed salary. With an average of roughly half a million dollars of debt for graduating residents, finding a job that will help pay off that debt is imperative. But salary and benefits should be evaluated in a broader context. A lucrative salary may not be so lucrative if you're practicing in tax heavy California or are contracted to work twenty-one 12hour shifts in solo coverage with 100K annual visits and high acuity. Considering independent wellness and overall liability is a huge component that is not nearly harped enough. Along those lines, a lesser salary may not truly be less if cost of living is low, CME reimbursements are high, and there are included benefits of housing and transportation stipends. (Yes, those jobs, albeit most at international hospitals, do exist.) It is also important to assess RVU vs. set salary, often times there are offers of a minimal base salary that appears laughable, but the RVU incentive is great and you end up with more than you would with just a higher set salary. So yes, you may be required to do some math and compare cost of

livings and asking for numbers for average take home over the last five years for every place you interview will create a more even playing field.

The "Man"

When starting the job search it is important to understand the types of employers we are looking at and who you are going to be answering to. The most common set ups are democratic groups, hospital systems, and corporate groups, also called contract management groups (CMGs). CMGs like EmCare and TeamHealth have some hundreds of contracts with hospitals to staff their EDs. This means when you work for a hospital that contracts with a CMG, you are an employee of, or an independent contractor, with the CMG and paid by the CMG. So what's the difference? Recognize that not all practice opportunities are equal and there will be glaring disparities. Look for those that have the highest employee satisfaction and will give you the best support for a long and happy career in emergency medicine. CMGs have been found to increase profit by acquiring more contracts and minimizing physician pay. This can lead to unfair compensation. Many CMGs have also been found to enforce fee splitting in which they are essentially charging you a fee for the privilege of having a job. Often times to work in particular location we have to

Continued on next page



"The end is in sight. And while it is a terrifying reality that after years of supervision and back up, we may truly be on our own, it is also an exciting opportunity to come in to our own." accept that. Some CMGs do not allow open books. As a professional, from a legal and personal standpoint, you should know what is being billed and collected for your professional services. Federal agencies hold us responsible for billings and collections and not keeping tabs can leave you susceptible to crippling liabilities.

Also know that not all CMGs are bad and sometimes given your location constraints you may have to, or even want to work for a CMG. A third of all EPs work for one and in a lot of regions a CMG may be the only option. Being employed directly by a hospital, university, or individual contract-holder, is no guarantee at better work conditions and can be equally abusive and exploitative. There are democratic groups that have essentially unobtainable partnership tracks and on the flipside there are CMGs that follow fair and equitable business practices, like due process and open books. So being diligent and evaluating the proposed contract and asking the right questions will help assess what you are obliging to.

Scope of Practice

As an EP we are trained to manage almost anything that walks in through the door. And while that may be the case, there are clinical cases that we as individuals enjoy managing more. So if you don't enjoy trauma and chest tubes, or contrarily can't go a day without placing a central line, looking at the volume and acuity of your potential workplace is important. Geography plays a big role in this but often times certain hospitals in the same location can have very different patient populations depending on Trauma classifications.

You're likely to deal with blunt tractor trauma in an Amish population like we do here in Hershey, but we don't see as many penetrating gunshot wounds like inner city Detroit. So location remains paramount when looking at EM jobs as higher paying jobs could come in locations where acuity or litigation is higher. States like Texas and Florida have Tort Reform Laws

that limit litigation and will prove to be more protective for physicians versus cities like Washington, D.C. that have some of the highest litigation in the country Its for these reasons that also recognizing who accounts for malpractice insurance premiums and claim settlements is key when evaluating opportunities.

Asking the Suits

Once you've found a potential job opportunity that appeals to you and have been offered a contract, head straight over to an employment attorney. Shelling out \$500 to have a contract looked over that is evaluating a six figure salary with huge liabilities is truly a drop in the bucket. Ask them to go through and find clauses of concern and also let them know what you understand of the contract. Often times there are blatant misunderstandings and clarifying the terms is of utmost importance. It may be steep to cover on a resident salary but may be well worth the investment if it saves you from a debilitating year-long contract. Furthermore, having experienced faculty read over your contract and review benefits, malpractice coverage, insurance coverage, etc. provides a second set of eyes to ensure no acute oversight. If something comes up fishy, confront it. Ask questions and points of clarification to ensure you aren't contractually signing away every weekend on what you thought was an alternating eight shift a month contract.

The end is in sight. And while it is a terrifying reality that after years of supervision and back up, we may truly be on our own, it is also an exciting opportunity to come in to our own. We have the clinical skills and the medical knowledge and now it is time to join the ranks of those before us and serve the communities we swore to help in all of our med school personal statements. Finding the right capacity to do so through our jobs remains one of the final hurdles and just like the innumerable hurdles we've crossed to get here, I'm sure we will each find our niches in the months to come. We're EM trained: Ask the right questions, consult for help and trust your gut, it has worked for us so far.

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AAEM/RSA Editor's Message

Code Scooter

Jake Toy, DO AAEM/RSA Publications & Social Media Committee Chair



It's 2:00am on a Friday night in your emergency department. A trauma call goes out. Twenty-four-year-old male with head trauma and multiple extremity abrasions after suspected electric scooter (e-scooter) accident. Agitated. Suspected intoxication... If you're rotating or working in an urban center, trauma runs with this mechanism may already be a daily norm.

San Diego, San Francisco, Washington D.C., Denver, Austin, Minneapolis, Atlanta. These are among the numerous cities with active e-scooter populations. Bird and Lime, both California-based e-scooter companies, are amongst the most recognizable names in this growing, multi-billion dollar, dockless, e-scooter sharing industry that turned one year old in September 2018. Nearly anyone with a smart-phone and the mobile application can unlock and use one of these e-scooters. From an emergency medicine perspective, the most important piece of information to know when an e-scooter trauma run is headed your way is that the e-scooters' top speed is around 15 mph.

These companies appear to promote e-scooter rider safety by clearly stating on their website and on the scooters themselves that helmets are required, a rider must be greater than 18-years-old with a valid driver's license, only one rider per scooter, and that scooters must be ridden in bike lanes. Yet, despite safety guidelines, a stroll down any street in a city with e-scooters and non-compliance with all of the above is hard to miss. Recently, I was passed on a sidewalk by a mother with her approximately five year old child traveling at top scooter speed with the child standing in front of her on the scooter base and holding the vertical portion of the scooter handle bar base. Both were un-helmeted. Not far behind was her husband on another scooter with their other child in similar form.

Though no formal clinical studies have been conducted to date to assess the incidence and injury profile associated with e-scooters, news articles and anecdotal evidence is widespread. News agencies, medical groups, blogs, and other social media platforms have documented an acute rise in traumatic head injuries, long bone fractures, displaced teeth, and road rash associated with e-scooters and coinciding with the introduction of these dockless e-scooters in late 2017. ¹⁻³ Sadly, the first suspected e-scooter death was also reported in September 2018. ⁴ The fatality reported was a 24-year-old man who was found unconscious approximately 500ft from a broken e-scooter in the early morning weekend hours in Dallas. He was later pronounced dead on arrival to the hospital. Doctors at multiple academic centers, including UCSF, have pledged to begin collecting data on e-scooter injuries. It's only a matter of time until the first clinical literature is published that characterizes injuries from this new transportation trend. ¹

Though e-scooter injuries have not been characterized in current literature, one recent study took an interesting look at e-scooters safety culture. Investigators looked at Bird's official Instagram account that had



over 66,000 followers (as of Nov. 2018) and assessed posts during a one year period to determine how Bird promoted and demonstrated safety culture surrounding its product.⁵ The study found that 69% of posts contained a person with a Bird e-scooter. However, only 6% contained persons wearing protective gear (including a helmet, wrist guards, elbow pads, or knee pads), and 7% had protective gear somewhere in the post. Investigators concluded that Bird placed less emphasis on protective gear, which seemingly normalized a culture of safety non-compliance, especially with regard to helmets. Though Bird began offering free helmets to riders in early 2018, this action was underscored by their sponsorship of a recently passed bill (AB-2989) in the California Legislation that now allows adults to ride e-scooters without helmets (as opposed to the previous law which required helmets regardless of age).^{6,7} From the medical and public health perspective, it's clear that there may be a disconnect between the e-scooter industries lax promotion of safety culture compared to the reality of an acute rise in high-speed e-scooter injuries.

E-scooters are another highlight in the growing app-based ridesharing industry. They are exhilarating to ride and a convenient and inexpensive solution to the "last mile" problem between existing public transport systems and a destination. Yet, they represent a safety nightmare. These scooters can be unlocked 24-hours a day with any smart phone and noncompliance with safety measures, especially helmets, is widespread and

apparently socially accepted. It's generally established that one should wear a helmet when biking (though no state has a universal bike helmet law). E-scooters should be no different. As clinicians, we must educate our patients on the dangers of e-scooters and collect data in order to provide tangible evidence supporting increased safety measures and regulation of the e-scooter industry.

Have e-scooters hit cities in your state yet?					
Arizona	Louisiana	Oklahoma			
Arkansas	Maryland	Oregon			
Atlanta	Massachusetts	Rhode Island			
California	Michigan	South Carolina			
Colorado	Minnesota	Tennessee			
Connecticut	Mississippi	Texas			
Florida	Missouri	Utah			
Georgia	Nevada	Virginia			
Idaho	New Jersey	Washington D.C.			
Illinois	New York				
Indiana	North Carolina				
Kentucky	Ohio				

Figure: States with Bird or Lime e-scooters as of December 2018.

Source: https://www.bird.co/cities/, https://www.li.me/locations. Accessed December 12th, 2018. ●

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AAEM/RSA Advocacy Committee

Lay Corporations Running Residency Programs

Most of you who are reading this are here because you live, breathe, and bleed emergency medicine. EM offers the perfect mix of medicine. procedures, and adrenaline. Unfortunately, not all parties involved do it for the love of emergency medicine. While EM may be one of the youngest specialties, its short history is rife with conflict pitting hospitals against emergency medicine practitioners in the form of lay entities incorporated to manage emergency departments even though there are statutes against this practice in many states, and some even run residency programs. 1 A lay entity means that a non-physician owns and operates the emergency department. For an excellent history lesson as told by James Keaney, MD MPH FAAEM, the first president of AAEM, we highly suggest that every medical student and resident interested in EM read *The Rape* of Emergency Medicine.2

Although the book was published 26 years ago, the threat of lay corporations fighting to take control of emergency departments away from EM docs is ongoing. One unfortunate route to controlling EM reimbursement is through graduate medical education. A growing number of emergency medicine residency programs and fellowships are operated by incorporated lay entities. According to state law in 38 states, lay entities are prohibited from owning or operating medical practices.3 State laws vary in restrictions, however, several state laws, including Texas and Florida directly prohibit corporations from employing physicians to provide medical services.3 When a lay entity signs a contract to staff an emergency department, that contract, in many cases, is a clear violation of the state statute. Unfortunately, many of the entities have utilized loopholes and lobbying to work around state law. Lay entities who manage emergency departments and residency programs can be found nationwide with at least 14 residency programs and more to come.

Furthermore, there has been a push from some lay corporations for family medicine practitioners to complete one-year EM fellowships. We believe that patients are best treated by emergency medicine board prepared and trained physicians, and not those who complete a one-year fellowship. There is a long history of filling emergency departments with non-EM trained physicians as outlined in Dr. Keaney's book.

Another consideration regarding lay corporations managing emergency medicine departments is their ability to undercut emergency physicians by paying lower than fair market wages and often distributing excess fees for services rendered away from EM physicians. 4-6 In some cases, as much as 22% of potential fees for service are being diverted from physicians. Essentially, one out of every four shifts, or every fourth hour as an attending working for one of these entities will be on the house.⁷

AAEM/RSA urges all students to strongly consider where they apply. Applicants and residents should be well aware of their future and current employers and



the motives that drive the program. We recommend that students applying to residency do their due diligence and consider their role in supporting lay entities whose mission to increase their profits at the cost of the individual physician, and most importantly at the cost of patient safety.

Corporate-owned programs exist in Florida, Georgia, Pennsylvania, Ohio, Michigan, West Virginia, Illinois, Nevada, Texas, and Oklahoma.

The official AAEM/RSA position statement regarding corporate management groups running residency programs can be found here: http://www. aaemrsa.org/about/position-statements/cmgs-running-residencies.

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Resident Journal Review

Bedside Ultrasound for the Diagnosis of Pneumonia

Authors: Ted Segarra, MD; Taylor Conrad, MD; Rithvik Balakrishnan, MD; Taylor M. Douglas, MD Editors: Kami Hu, MD FAAEM and Kelly Maurelus, MD FAAEM

Respiratory distress is a common presentation in both the pediatric and adult emergency department (ED). Community acquired pneumonia (CAP) is a common cause for this distress, and carries the potential for high morbidity and mortality if inadequately treated. In a fast-moving and potentially resource-limited ED, however, it can sometimes be difficult to decide which patients require further imaging to differentiate CAP from the myriad of other potential etiologies for respiratory distress such as bronchiolitis, asthma, chronic obstructive pulmonary disease (COPD), heart failure, and pulmonary embolism. Although both the British Thoracic Society (BTS) and Infectious Disease Society of America (IDSA) state that bacterial CAP is a clinical diagnosis based on persistent fever, retractions, and tachypnea, they agree that radiographic imaging should be obtained in any patient requiring hospital admission or with significant clinical uncertainty. 1.2 Unfortunately, even if the ED provider decides to pursue chest X-ray (CXR) imaging, he or she may still miss the diagnosis, as CXR has been shown in several studies to have a notable false negative rate (FNR) and high inter-observer variability in the diagnosis of CAP.3,4,5,6 The limitations and inherent radiation exposure of CXR, in combination with the increasing availability of and familiarity with bedside lung ultrasound (LUS) imaging, have prompted many ED physicians to begin looking to LUS as a potential alternative in the evaluation of patients with suspected CAP.

- 1. What is the level of sensitivity and specificity of LUS compared to traditional CXR and clinical findings in the diagnosis of CAP?
- 2. Do other aspects of bedside LUS (i.e. lack of ionizing radiation, speed of assessment, easy repeatability, ability to monitor progression of disease, cost) make LUS a more feasible alternative in resource-limited environments?

Patel CJ, Bhatt HB, Parikh SN, et al. Bedside lung ultrasound in emergency protocol as a diagnostic tool in patients of acute respiratory distress presenting to emergency department. *J Emerg Trauma Shock*. 2018;11(2):125-9.

Studies have shown that ultrasound has the capability to diagnose pneumonia along with many other thoracic pathologies, and several researchers have worked to design and study a standardized approach to lung evaluation, especially in the critically-ill patient. The bedside lung ultrasound in emergency (BLUE) protocol is an attempt at creating this standard approach that, in prior studies, has been shown to have a diagnostic accuracy of approximately 90%. Been shown to have a diagnostic accuracy of approximately 90%. Down to have a diagnostic accuracy of approximately 90%. Down this process defines characteristics of different profiles that represent various disease states. Four anterior upper and lower left chest points are used, along with the posterolateral alveolar and/or pleural syndrome (PLAPS) point, which is essentially the posterolateral lung base. Several characteristic profiles are described and are listed in Table 1. The ultrasound findings that make up these characteristics include the following: A-lines, B-lines, absence or presence of lung sliding, lung point, C-lines or consolidated lung, PLAPS (presence of small pleural effusion and/or lung consolidation at the PLAPS point), and

the presence of venous thromboembolism. The application and resulting pathologies associated are described in Figure 1.

Profile	Characteristics
A-Profile	A-lines with normal lung sliding (aerated lung)
B-Profile	Diffuse B-lines (interstitial process)
C-Profile	C-lines or consolidations anteriorly
A/B Profile	Unilateral B-lines
A'-Profile	A-lines without lung sliding
B'-Profile	B-lines without lung sliding

Table 1: The characteristics of each profile.7

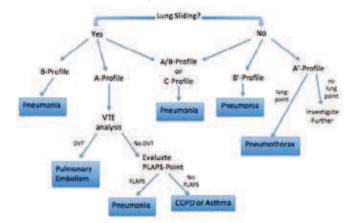


Figure 1: BLUE Protocol starting with evaluation of the four anterior points. VTE is venous-thromboembolism. Adapted from Lichtenstein.⁷

Patel, et al., attempted to replicate the prior BLUE protocol studies to determine the accuracy of the protocol when applied in the ED. This study was a small (n = 50), prospective observational study with patients over the age of 12 admitted to the intensive care unit (ICU) with acute respiratory distress. The patients were enrolled over a span of two months. The ED provider responsible for the ED care and disposition was the ultrasonographer; ICU teams were blinded to the ultrasound results and images. The prior mentioned BLUE protocol was utilized, and the patient's ultimate diagnosis was compared to the initial presumptive diagnosis determined by the protocol. Non-standardized means of determining the final diagnosis were used and included patient history, treatment response, laboratory findings, X-rays and computed tomography (CT) scans. Specifically for pneumonia, when all profiles were considered, the authors report a sensitivity (Sn) of 94.1% and specificity (Sp) of 93.9%, corresponding to a positive likelihood ratio of approximately 15. The results were similar to prior findings by Lichtenstein and Dexheimer.^{8,9}

This study is important in its attempt to replicate the results of previous studies and determine the protocol's applicability in the ED. Numerous limitations exist, however, severely dampening any potential impact this study might have. The small size and fact that it is at a single center

limits its generalizability. Additionally, the fact the ultrasonographer is also the treating ED provider introduces multiple biases and likely influences the future diagnosis, which in this study had no standardized method of being concluded. It is also important to note that only ICU patients were evaluated. Nevertheless, the bottom-line argument that LUS is an ever increasingly useful tool likely still holds. It is important to continue research into the utility of ultrasound and its application as a rule-in diagnostic tool for pneumonia and other lung pathologies.

Balk DS, Lee C, Schafer J, et al. Lung ultrasound compared to chest X-ray for diagnosis of pediatric pneumonia: a meta-analysis. *Pediatr Pulmonol.* 2018;53(8):1130-9.

Balk, et al., performed a systematic review and meta-analysis to compare the accuracy of LUS to CXR in the diagnosis of pediatric community acquired pneumonia (pCAP), searching PubMed, EMBASE, and Web of Science using the keywords "pneumonia," "lung ultrasound," and "pediatric population." The authors required that these studies include pediatric patients, assess for bacterial pediatric CAP (pCAP), use both CXR and LUS, and use a gold standard of expert pediatrician clinical diagnosis for the ultimate diagnosis of pCAP. They initially identified 784 potential studies, which were then further screened and narrowed using Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) followed by a 14-item Quality Assessment of Diagnostic Accuracy Studies (QUADAS) tool to screen for relevant and unbiased studies. A final 12 studies including 1510 patients were ultimately selected for data extraction, and the authors used Freeman Tukey transformation of the data to calculate Sn, Sp, positive predictive value (PPV), and negative predictive value (NPV). Heterogeneity was assessed using Forest plots and calculations of inconsistency (I2) and Cochrane Q.

The 12 studies spanned 10 years (2008-2017) with a majority being prospective studies (9/12), half of which were from Italy with the remainder based in the USA, Turkey, India, Greece, Russia, and Taiwan. The study locations were equally split between the ED and inpatient floors. Four studies relied solely on expert clinical diagnosis as the gold standard for pCAP, while the remaining eight studies used a combination of expert clinical diagnosis and CXR. In regard to the sonographic diagnosis of pCAP, all 12 studies used trained sonographers, eight of which used only experts. Of the remaining four studies, two did not specify sonographer experience level, one used novice radiologists, and one used both pediatric ED residents and expert sonographers. Ten studies used a 12-view lung evaluation, while the remaining two studies used an eight-view evaluation. LUS exams were considered positive for bacterial pCAP if they showed a) consolidation with or without air or fluid bronchograms (12 of 12 studies), b) focal B lines (4 of 12 studies), and c) pleural line abnormalities (1 of 12 studies).

The authors noted a significantly higher pooled Sn of LUS compared to CXR [95.5% (95% CI 93.6-97.1%) with no significant heterogeneity vs 86.8% (95% CI 83.3-90%) with significant heterogeneity]. Both LUS and CXR showed similarly high Sp (95.3% and 98.2%, respectively; with no significant heterogeneity between studies). There were no significant differences between LUS and CXR in PPV (99% and 99.6%, respectively) or NPV (63.1% and 43.6%, respectively).

Though overall a well-designed study demonstrating results consistent with prior literature, this meta-analysis contains a few notable limitations with regard to patient demographics and inter-study heterogeneity. All 12 study populations had a relatively high prevalence of disease and pretest probability of pCAP, which likely explains the equally high PPVs and low NPVs across both study groups. This high prevalence of disease also limits extrapolation to populations without an equally high pretest probability of disease. In addition, since half of the studies were performed in Italy, the results may not be applicable to other patient demographics. Furthermore, there was notable heterogeneity between studies regarding both the clinical and sonographic diagnostic criteria of pCAP, which could skew the number of false positives and negatives. Despite these limitations, however, the authors found no significant heterogeneity in the final calculations of LUS Sn, LUS Sp, and CXR Sp, indicating that LUS may indeed be significantly more Sn in diagnosing pCAP, while sharing a similarly high Sp with CXR.



Amatya Y, Rupp J, Russell FM, et al. Diagnostic use of lung ultrasound compared to chest radiograph for suspected pneumonia in a resource-limited setting. *Int J Emerg Med.* 2018;11(1):8.

All studies prior to this one had been conducted in high- or medium-income settings, and that factor spurred Amatya et al. to implement this method in Nepal. The importance of studying LUS in a resource-limited setting, in addition to the low generalizability of other research study results in this setting, is the truth that cheap, fast testing has a particularly important role when patients pay out-of-pocket and often must be transported by their family members for any tests ordered.

Criteria for inclusion in the study included age of 18 years or older with at least three of the following clinical characteristics: temperature >38°C, history of fever, cough, dyspnea, respiratory rate >20, and oxygen saturation <92%, in accordance with both the BTS and the European Society for Clinical Microbiology and Infectious Diseases (ESCMID) definitions of suspected CAP as well as criteria used in other studies.^{2,10} After training physicians to perform LUS, they identified a convenience sample of

patients with these characteristics whenever an ultrasound-trained physician was available. All enrolled patients received a Posterior-Anterior CXR as per usual care in this hospital and then also had a LUS exam and a CT scan of the chest (at no extra cost to the patient). Lateral views on X-ray were not included as they, in daily practice, incur an additional cost to the patient, further demonstrating the importance of cost in care in Nepal but also limiting the diagnostic value of the X-rays in the study.

A positive LUS exam was defined as the presence of unilateral B lines (A/B-profile) or subpleural lung consolidation (C-profile). Whether or not other BLUE protocol profiles were taught or evaluated is not mentioned, but these definitions are in accordance with the above and other BLUE protocol-based studies. Patients with positive radiologic exams were compared to patients with the same clinical characteristics who had negative radiologic exams. No comparison was made to patients who did not have the same clinical presentation, although this would be a valuable comparison due to the high prevalence of TB and chronic lung disease.

The incidence of pneumonia in the study, using CT as the diagnostic standard, was 71%, similar to rates seen in other studies. LUS demonstrated higher sensitivity for pneumonia than CXR (91 vs 73%, respectively, p=0.01) with no difference in specificity (61 vs 50%, respectively, p=0.62). Both CXR and LUS missed the same four cases of pneumonia, all in the middle of the lung parenchyma, deep to the pleura. The sensitivities of each modality are consistent with prior studies and meta-analyses in high-income and middle-income countries, however the specificities seen in this study are much lower, which the authors attribute to the higher prevalence of chronic lung disease and TB leading to more false positives. Importantly, LUS was faster (patients would not have to wait the two hours for transport, film acquisition, as well as preparation and interpretation of the image) and was performed at low/no cost to the patient, two factors that were not quantitatively measured but are inherent to LUS.

The major limitations of this study are its small size and inadequate power, convenience sample design, and lack of blinding of the ultrasonographers. It also left some questions unanswered regarding the design and results. One limitation in study design is that patients with these characteristics who presented when no trained physician was present were not identified or discussed, providing no evidence that this sample was not biased for an unidentified reason. Additionally, the lack of a lateral view potentially limited the performance of CXR, although inclusion of the lateral view would have increased cost to the patients, opposite the researchers' goal. The authors also mention in the study protocol that if pneumonia was not clearly addressed in the radiologist interpretation then they were asked specifically to comment upon it. These studies could have been indeterminate or very obviously negative, however this distinction was not made or discussed so it is unknown if this would have affected results.

Notably, the study was not actually powered to evaluate specificity, so although there was no statistically-significant difference between the two groups, the outcome would perhaps change in a larger, appropriately-powered study, and the authors also make a valid argument regarding false positives and subsequent lower specificity due to lung disease. They also admit their results are limited because they were in a single hospital in an urban area, but the same existing issues of out-of-pocket costs,

high pneumonia incidence, and high prevalence of chronic lung diseases and tuberculosis (TB) help make results seen in this setting applicable to other low-resource areas. Finally, one should consider the possibility that, in populations with a high prevalence of TB, it may be unwise to abandon CXR in favor of only LUS. This study, the first of its kind in a resource-limited setting, provides a jumping-off point for future studies but does not represent definitive evidence that LUS for pneumonia will become the diagnostic method of choice in such areas.

Conclusion

While CAP and pCAP are considered clinical diagnoses, research and practice demonstrates that imaging is frequently used as an adjunct in cases with diagnostic uncertainty or unstable patients. LUS has most recently been proposed as a cheap, fast, bedside, radiation-free method to evaluate for CAP and pCAP. Various LUS criteria have been tested to determine what ultrasound characteristics should be used to diagnose CAP and pCAP, and the BLUE protocol has been demonstrated to be a well-defined set of criteria that could be used to standardize future research. The studies reviewed above present encouraging results, despite the heterogeneity and variability in clinical definition of CAP and pCAP, ability of ultrasonographers, and comparators (clinical decision vs CT vs CXR). The current research provides support for future studies into LUS as it compares to clinical decision-making, CXR, and CT as methods of identifying pCAP and CAP.

Now we return to the questions posed in the introduction:

- 1. What is the diagnostic accuracy of LUS compared to traditional CXR in the diagnosis of CAP?
 - The studies detailed in this article find LUS to have high sensitivity and specificity identifying CAP as compared to other modalities, such as CXR and clinical findings alone, but is dependent on sonographers' level of experience and expertise. Specificity was lower in a resource-poor setting with high prevalence of other lung pathologies.
- 2. Do other aspects of bedside LUS (lack of ionizing radiation, speed of assessment, easy repeatability, ability to monitor progression of disease, cost) make LUS a more feasible alternative in resource-limited environments?
 - While these aspects of LUS make it an intuitively more appealing alternative on the surface, no current studies quantitatively assess them, and considerations have to be made regarding the need for well-trained ultrasonographers as well as the diagnostic value of the CXR in cases of TB, another lung disease prevalent in resource-limited environment. More research is needed to fully evaluate the impact of LUS replacing CXR in this setting.

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Caring for the Acutely Psychotic in the

ED, Psychosis or Not?

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Medical Student Council President's Message

Medical School Scholarship Programs

Shea Boles Medical Student Council President



There's no denying the huge burden of cost that medical school brings to students. According to the AAMC, students who borrow for medical school have a median debt or \$192,000 in 2018. At private schools, 21% of students have debt of \$300,000 or more. The average four-year cost for public school students is \$243,902. For private school students, the cost is \$322,767. For many students, the choice

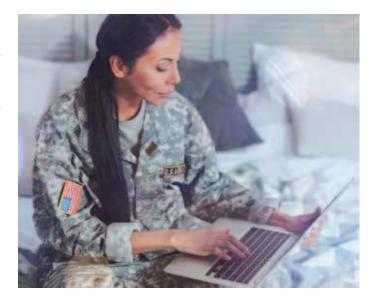
between public and private is more about where they get interviewed and feel comfortable and less about trying to find the cheapest institution. There are a few ways to get through medical school debt free, including the Health Professions Scholarship Program, which I am involved in, and the National Health Service Corps Program. These are great options but should not be used if the sole purpose is to be debt free. These are programs that require commitment in varying ways.

National Health Service Corps Program

The National Health Service Corps Program is a competitive full scholarship designed for medical students who are passionate about providing primary care to underprivileged communities. The scholarship requires one year of work as a primary care doctor in an underserved region for every year of scholarship funding that is granted, with a minimum of two years of service.

Health Professions Scholarship Program

The Health Professions Scholarship Program, or HPSP, is a military-sponsored scholarship program that offers full pay to medical school, as well as a monthly stipend, computer rental, the cost of books and supplies, and reimbursements for board exams. In return, the student must pay back with service in their branch of choice for one year per year they receive the scholarship, with a minimum of three years of active duty service. As an Air Force HPSP student myself, this means that after residency I will owe four years as an



active-duty emergency medicine physician. In addition to this commitment there is a minimal commitment during the four years of medical school. Each year requires one active duty tour (ADT), which can come in many forms. Officer Training school is one of those required tours, which currently is a five-week course in the summer that teaches new officers how to be leaders in the United States Air Force. During my third year, I was given the opportunity to complete Aerospace Medicine 101 as an elective, where we learned the basics of aerospace medicine and received one hour of pilot training. The last two ADTs were EM away rotations.

While the commitment during school is minimal, the commitment to serve as an officer in the United States Military is still significant and requires sacrifice. In the Air Force, EM is extremely competitive, with the match rate being around 55% in recent years, which means that while the AF does not restrict which specialty you choose, it may be more difficult to match. EM is also extremely deployable, and we are told that we will likely deploy two to three times during our four-year commitment. This is exciting to those of us who chose to be in the service, and not desirable or feasible for others. It is not too late to join as a first-year medical student, but many do choose to join upon being accepted into medical school. Ultimately the pros and cons must be weighed thoughtfully, but if you are interested contact a recruiter in your region to learn more about the program or ask those who have done it before. The cost of medical school can be a huge burden and this is one way to alleviate that cost while serving your country.

"The Health
Professions
Scholarship Program,
or HPSP, is a militarysponsored scholarship
program that offers full
pay to medical school,
as well as a monthly
stipend, computer
rental, the cost of
books and supplies,
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Pharmacy Toolkit Update:

A New Approach to 'Stop the Bleed'?

Maryam Zaeem, PharmD and Michael Ullo, MD





Case

A 67-year-old male with a history of hypertension and atrial fibrillation presented to the emergency department with sudden onset headache. nausea, and gait instability that occurred one hour prior to eval-

uation. He was compliant on daily rivaroxaban. His vitals were significant for a systolic blood pressure of 210mmHg. An emergent CT scan of the head without contrast revealed a large intracerebral hemorrhage.

Clinical Question: What strategies exist for anticoagulant reversal of life-threatening bleeds in patients taking oral factor Xa inhibitors?

Direct factor Xa (FXa) inhibitors are a class of anticoagulants widely used for the treatment and prophylaxis of venous thromboembolism (VTE) and prophylaxis for acute cerebrovascular accidents (CVA) in select patients with atrial fibrillation. These agents work within the clotting cascade to inhibit factor Xa-mediated conversion of prothrombin to thrombin and include the oral agents rivaroxaban (Xarelto) and apixaban (Eliquis). When compared to warfarin, these agents are non-inferior with regards to efficacy but have a slightly better safety profile when it comes to bleeding events such as intracranial hemorrhage. Of note, higher doses of FXa inhibitors have been associated with increased rates of gastrointestinal bleeding when compared to warfarin.

The increasing popularity of this drug class poses a unique challenge to the emergency physician as no known antidote existed for life threatening bleeding. The current guidelines for anticoagulant reversal developed by the Neurocritical Care Society and Society of Critical Care Medicine recommend that in the setting of intracranial hemorrhage, 4-factor prothrombin complex concentrate (4-FPCC) or activated PCC (aPCC) be used for reversal of anticoagulation if within 3-5 half lives of drug exposure or liver failure. These two intravenous agents provide coagulation factors II, VII, IX and X and are considered to be the antidote for vitamin K antagonists such as warfarin. While anticoagulant reversal has not been shown to directly improve clinical outcomes, administration of 4-FPCC or aPCC has been shown to prevent hematoma expansion.

In May 2018, the US Food and Drug Administration (FDA) approved a new agent for anticoagulant reversal aimed specifically at factor Xa inhibitors. Andexanet alfa (US: Andexxa) is a recombinant modified factor Xa protein that acts as a decoy and binds to factor Xa inhibitors, preventing these drugs from binding to endogenous factor Xa, and thereby reversing the anticoagulant effect. It also binds and inhibits the activity of Tissue Factor Pathway Inhibitor (TFPI) increasing thrombin generation. Currently, and exanet carries an FDA approval for use in patients treated with apixaban or rivaroxaban requiring anticoagulant reversal in the

setting of life-threatening or uncontrollable bleeding. The dosing scheme is as follows:

Andexanet alfa Dose Based on Apixaban or Rivaroxaban Dose						
FXa inhibitor	FXa inhibitor last dose	Timing of FXa Inhibitor Last Dose Before Andexanet alfa Initiation				
		<8 Hours or Unknown	≥8 Hours			
Apixaban	≤5 mg	Low dose [¥]	Low dose [¥]			
	>5 mg/unknown	High dose*				
Rivaroxaban	≤10 mg	Low dose [¥]				
	>10 mg/ unknown	High dose*				

¥Low dose: 400 mg IV bolus administered at a rate of ~30 mg/minute, followed 2 minutes later by 4 mg/minute IV infusion for up to 120 minutes

*High dose: 800 mg IV bolus administered at a rate of ~30 mg/minute. followed 2 minutes later by 8 mg/minute IV infusion for up to 120 minutes

Summary

While the evidence is limited, and exanet alfa is a new tool that may be useful for the reversal of life threatening bleeding secondary to anticoagulation with apixaban or rivaroxaban. There are currently several trials being conducted globally to further determine the efficacy and safety of this drug.

When making the decision to reverse anticoagulation, patient factors such as thrombotic risk should be considered and weighed against any potential benefit. Consultation with subspecialists may be necessary to help guide management. Furthermore, goals of care should be discussed with the patient and family when feasible as life threatening bleeds are often detrimental and reversal agents have not been shown to directly improve outcomes.

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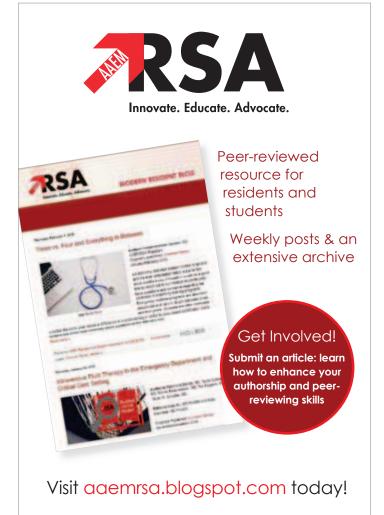
Financial Disclosures: Maryam Zaeem and Michael Ullo have no financial disclosures to report.

Evidence supporting the efficacy and safety of this reversal agent is summarized as follows:

Trial name	Study population	Intervention	Endpoints	
			Efficacy	Safety
ANNEXA-A (Phase III)	Healthy volunteers, aged 50-75 given apixaban 2.5 mg BID for 3.5 days	Andexanet low dose*	↓ anti factor Xa activity vs. placebo by > 90% for both dosing schemes (p < 0.001)	Not Assessed
ANNEXA-R (Phase III)	Healthy volunteers, aged 50-75 given rivaroxaban 20 mg daily for 4 days	Andexanet high dose*		
ANNEXA-4 (Phase IIIb/IV)	Patients ≥ 18 y/o with major bleed who received last dose of apixaban or rivaroxaban ≤ 18 hours of andexanet administration	Andexanet low* or high* dose depending on agent, dose and timing	↓ anti factor Xa activity vs. placebo by > 80% for both dosing schemes - Rivaroxaban: 86% reduction (95% CI, 55-93) - Apixaban: 92% reduction (95% CI, 85-94) 79% (n=39) of patients achieved excellent or good hemostasis at 12 hours (95% CI, 64-89)	30 day thrombotic event: 18% (n =12) 15% mortality rate (n = 10)

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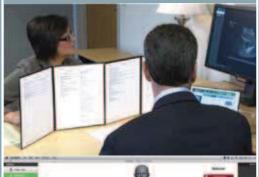
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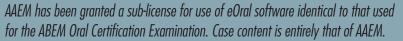






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