

THE NEWSLETTER
OF THE AMERICAN ACADEMY OF
EMERGENCY MEDICINE

COMMON**SENSE**

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COMMONSENSE

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AAEM Mission Statement

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

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

Membership Information

Fellow and Full Voting Member: \$425 (Must be ABEM or AOBEM certified, or have recertified for 25 years or more in EM or Pediatric EM)

Affiliate Member: \$365 (Non-voting status; must have been, but is no longer ABEM or AOBEM certified in EM)

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President's Message

Why Isn't Every Emergency Physician You Know a Member of AAEM?

William T. Durkin, Jr., MD MBA FAAEM

An emergency physician is asked to attend a meeting with hospital administrators. During this meeting he is asked to besmirch his department head. Having no reason to do so, he refuses. The interrogation persists to the point that he is threatened with the loss of his job. Once again he says that, as far as he knows, the department head is behaving in an ethical manner. The threat is made good and the physician finds himself without a job after several years with the organization. No real explanation is given, and there is no hint of any due process. He seeks the advice of legal counsel and is told he has an excellent case against his former employer. Legal costs will be high, to say the least. He comes to AAEM for help. After reviewing the case, the Academy agrees that this is a flagrant violation of due process and agrees to contribute to his legal defense via the AAEM Foundation.

A national hospital corporation begins to pressure its emergency physicians to meet admission quotas. Its leaders want patients who meet certain criteria to be admitted to the hospital, whether the patient actually needs admission or not. This will help the hospital's bottom line, but may not be best for patients. The physicians reject this order and lose their jobs. They file a *qui tam* suit against the involved entities, and the federal government decides to join them. In 2013, *60 Minutes* exposes the story to a national audience, with the help of the Academy.

The state of Virginia begins retrospectively downgrading ED charges, based on discharge diagnoses. So, a patient admitted to the ED with a chief complaint of chest pain has a full work-up, gets a discharge diagnosis of chest wall pain, and then has his charge down-coded — ignoring the work-up required to determine the cause of the pain. Our state chapter leads the effort to stop this unfair and costly practice.*

A national hospital chain and a contract management group form a joint venture to staff the hospital chain's EDs. They agree to share the profit from this joint venture. Of course that profit is money meant for the emergency physicians who provide care in the chain's EDs. There are federal statutes that prohibit fee-splitting and kickbacks, as well as state laws that prohibit the corporate practice of medicine. Several independent, physician-owned groups lose their contracts to this joint venture. The Academy takes action and brings this situation to the attention of the appropriate authorities — alone — the other major organization of emergency physicians does nothing.

Other similar incidents have occurred over the last two years, but these are the most flagrant attempts to wrest control of the practice of emergency medicine from physicians. We are still the only organization that defends emergency physicians against corporate interests, even to the point of assisting with their legal fees. We are the only organization willing to step forward and attempt to shine the light of day on the abusive and seemingly fraudulent practices of some hospitals and contract management groups. The Academy is alone when it brings violations of corporate practice of medicine laws to the attention of state medical boards and attorneys general.

As I travel around the country giving lectures about the Academy, and go before members of Congress on Capitol Hill, I do so with great pride. Pride that after twenty years we still stand up for our members, still expose the abuses that occur everyday in emergency medicine, and still educate young emergency physicians about the unjust exploitation built into practice models present in at least 45% of our nation's EDs. We are the only organization in emergency medicine that goes out and fights this battle for our physician-members and the specialty itself.

When I became AAEM's president a former mentor of mine, who is also a former ACEP state chapter president, confided that "You are right on message and the only organization that is there for the individual emergency physician. I don't understand why most emergency physicians are not members." You know what? Neither do I!

*See the Virginia AAEM Chapter Update in this issue of *Common Sense*. As of now, Virginia Gov. Bob McDonnell has agreed to include the elimination of this program in his proposed budget. ■

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.

Why AAEM?

Andy Walker, MD FAAEM
Editor, *Common Sense*
AAEM Board of Directors



That question can be taken two ways. Why should an emergency physician join the Academy? Why was there a need to found the Academy to start with? Both interpretations of the question have the same answer: to protect the specialty of emergency medicine, the physicians who practice it, and the patients who come to them for help.

Protect emergency medicine (EM) and its board-certified specialists from what? Is emergency medicine still threatened? How do these threats to EM and emergency physicians affect patients? Wasn't ACEP adequately protecting us before AAEM was around, and isn't the College protecting us now?

Even after EM was recognized as an independent specialty in 1989, many still questioned its legitimacy. By far the biggest threat to emergency medicine's status as a legitimate, independent specialty fully equal to all others, however, came from those who wanted to be emergency physicians but were ineligible to sit for board exams. These physicians sued the American Board of Emergency Medicine (ABEM) and others, tried to have the practice track to board certification reopened, founded their own professional society (the Association of Emergency Physicians), and eventually flocked to an "alternative" board — the Board of Certification in Emergency Medicine (BCEM) — abandoning their hopes for both ABEM and the American Osteopathic Board of Emergency Medicine (AOBEM). Like ABEM, AOBEM requires the successful completion of a residency in **emergency medicine** before sitting for board exams in **emergency medicine**. BCEM does not. In fact, for many years BCEM didn't require the completion of any residency at all in order to take its board exam. I believe that those who say residency training in EM is unnecessary and should not be required for board certification threaten the health and prosperity of our specialty, because they are saying EM shouldn't play by the same rules all other specialties have followed as they were founded and became established. In essence, they are saying EM is not a legitimate specialty. If they are right, isn't the logical and honest response is to quit lying to ourselves and our patients and disband the specialty? Does **anybody** think that is the proper course?

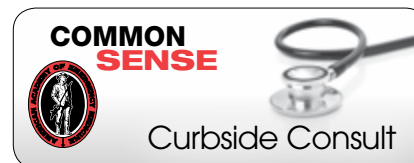
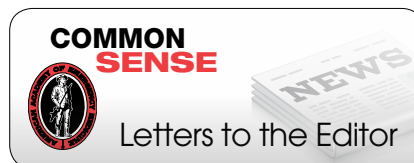
In my opinion, the College was not adequately defending EM against this threat at the time of the Academy's founding, or for many years afterward. In fact, as late as 2009, fellowship in the College (FACEP) was open to members who were not board-certified. The rest of the evidence in support of my opinion is too voluminous to repeat in this column, but can be found in the past issues of *Common Sense* that have been reprinted in the "Blast from the Past" section of our newsletter throughout 2013, as well as in my historical review of this topic, "Legitimate,"

reprinted as our final "Blast from the Past" in this issue of *Common Sense*. In the end, AAEM won this battle to protect our specialty and in the process showed ACEP that it needed to become a more consistent and active participant in the struggle — which it has.

The other serious threat to emergency physicians is economic exploitation and other unfair treatment in the workplace, whether from other physicians, hospital administrators, or especially corporate contract management groups (CMGs). This threat is as severe as ever, although AAEM has mounted an outstanding defense and done a great job of holding back the tide of abuse — a job it has always done by itself and continues to do all alone. In Academy circles, this issue generally goes by the name "practice rights and the corporate practice of medicine (CPOM)." In the College it seems to be known as "private business matters." Again, listing everything the Academy has done to protect private groups and individual emergency physicians from unfair treatment and corporate exploitation would take more space than available here. For an overview of AAEM's efforts and its successes in this area, see the review of Academy legal actions by Drs. Reiter and McNamara in this issue of *Common Sense*. But just to remind you how important this is in the financial lives of emergency physicians, a typical CMG takes almost 25% of its emergency physicians' professional fees — and that's on an **average** contract.^{1,2} That's like working a shift a week just for the CMG.² And remember, that nearly 25% is on top of what the CMG charges its

Continued on next page

We're listening, send us your thoughts!



emergency physicians for things like coding and billing services and malpractice insurance — often provided by companies the CMG owns.

Do these threats to EM and emergency physicians also threaten patients? Yes. Since there is evidence that board-certified specialists in EM improve the quality of patient care,³ anything that lowers the value of ABEM or AOBEM certification is bad for patients. Anything that tends to drive emergency physicians out of clinical practice, such as unfair economic exploitation and the burnout that follows, is bad for patients. Anything that makes it harder for emergency physicians to do the right thing for patients and be vigorous advocates for them, such as being denied due process and peer review before being fired or stripped of medical staff privileges, is bad for patients. In short, anything that interferes with the best doctors available doing the best thing possible, is bad for patients. **That's why AAEM.** For our specialty, ourselves, and our patients.

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Congress Continues Bipartisan “Doc Fix” Efforts as First Session Winds Down

Williams & Jensen, PLLC

The House and Senate tax writing committees have undertaken a joint, bipartisan effort to advance “doc fix” legislation prior to the 24.4 percent cut to the Medicare physician fee set to take effect on January 1, 2014. In October, the House Ways and Means and Senate Finance Committees released a joint discussion draft, outlining a permanent repeal of the Medicare Sustainable Growth Rate (SGR) and reforms to the current fee-for-service (FFS) payment model. The proposal would incentivize physician participation in alternative payment models and link quality measures in current law to a system that would allow physicians to earn incentive payments. It would also enhance the availability of public Medicare data by requiring the online publication of utilization and payment data.

While the outline permanently repeals the SGR, it does not provide for positive Medicare payment updates during the years 2014-2023. However, starting in 2024, physicians participating in alternative payment models would receive annual updates of one to two percent. Similar to the previous drafts released in the House, it is expected that states and specialty groups would play a role in shaping quality measures.

The Senate Finance Committee announced an open executive session on December 12, to consider SGR repeal legislation. The committee also plans to consider other health-related extenders that are set to expire at the end of this year. Earlier this year, the House Energy and Commerce Committee unanimously approved SGR repeal legislation, but the Congressional Budget Office (CBO) scored the bill at nearly \$176 billion over 10 years, which was a higher than expected price for a permanent fix. By not including positive Medicare payment updates in the 10 year budget window, the authors of the discussion draft hope to keep the cost down. CBO’s most recent estimate is that freezing payments would cost nearly \$140 billion.

None of the drafts have included provisions to offset the cost of the legislation, which will be attached to the bill before it is brought to the House or Senate floor for a vote. A lack of agreement on cuts of this magnitude, which would likely come from other parts of the health care budget, would probably result in a less expensive one or two year fix. If a deal on permanent repeal that includes “pay-fors” is not reached in the coming weeks, Congress may take short-term action to prevent the cut from taking place on January 1 or advance a retroactive fix in early 2014.

The President signed into law one notable health care bill in 2013, an act that clarifies the U.S. Food and Drug Administration’s (FDA) role in regulating compounded drugs and establishes requirements for the tracking of prescription drugs through the supply chain. The bipartisan legislation was agreed to by the House in September before being approved in the Senate in November.

The School Access to Emergency Epinephrine Act (Public Law 113-48) was also among the 55 bills that have been signed into law in 2013. The legislation encourages states to enact laws that require schools to plan for severe allergic reactions by allowing the Department of Health and Human Services (HHS) to give funding preference to states for asthma-treatment grants if they meet the following requirements: (1) maintain a supply of epinephrine; (2) allow trained school personnel to administer epinephrine; and (3) implement a plan to ensure that trained personnel are available during all hours of the school day. Under the legislation, states must also certify that their laws have been reviewed to ensure that liability protections are afforded to school staff that have been trained to administer epinephrine. The bill represents a delicate compromise on medical liability language, which has been an issue of particular contention between Congressional Republicans and Democrats. The legislation was endorsed by AAEM.

Congress is expected to focus on budget issues in December and January, with the most recent government funding measure set to expire on January 15, 2014. Congress’ self-imposed deadline to reach a budget deal is December 13, 2013, and there are reports that House and Senate negotiators have made progress in their efforts to reach a modest agreement on spending. If a deal is reached, it could clear the way for Congress to enact relief from sequestration, which has resulted in an ongoing two percent Medicare provider cut that began in April.

Meanwhile, numerous Congressional efforts to repeal or modify the Affordable Care Act (ACA) have advanced in the Republican-controlled House but have not been moved by the Democratic-controlled Senate. Recent efforts in the House have included a bill that would allow health insurance providers in the individual market to continue offering plans that were in effect in 2013. The House Committee agenda has continued to focus on ACA oversight, with a variety of hearings examining problems associated with the roll-out of the HealthCare.gov website. In the past month some Democratic Senators have sponsored legislation that would make changes to the ACA, including a bill to extend the open enrollment period beyond March. Efforts to change the law may gain momentum in 2014, particularly if there is a perception that adequate progress is not being made to fix the problems associated with the law’s implementation.

Year in Review

2013 was a successful year for AAEM’s advocacy efforts in Washington, D.C. Williams & Jensen worked with AAEM leaders to develop and execute an active government relations strategy that included Hill visits from the Government Affairs Committee (June), AAEM/RSA (October), and the board of directors (November). These events allowed the membership to directly engage with policymakers on issues such as due process, the corporate practice of medicine, medical liability reform, and the “doc fix.”

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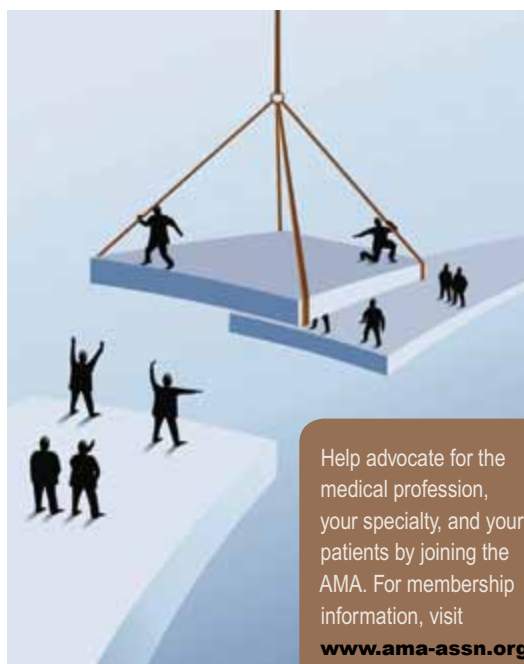
Throughout the year, meetings were facilitated with numerous key Congressional Members and staff, including but not limited to: House Ways and Means Committee Chairman Dave Camp (R-MI), House Ways & Means Committee staff, House Energy and Commerce Committee staff, House Judiciary Committee Chairman Bob Goodlatte (R-VA), House Republican Study Committee Chairman Steve Scalise (R-LA), Rep. Marsha Blackburn (R-TN), Rep. Diane Black (R-TN), Rep. Phil Roe, MD (R-TN), Rep. Joe Pitts (R-PA), Rep. Joe Heck, MD (R-NV), Rep. Michael Burgess, MD, Rep. Pete Sessions (R-TX), Rep. Renee Ellmers (R-NC), Rep. Randy Hultgren (R-IL), Rep. Jim Renacci (R-OH), Rep. David Joyce (R-OH), Rep. Lou Barletta (R-PA), House Majority Leader Eric Cantor (R-VA), House Minority Whip Steny Hoyer (D-MD), Rep. Raul Ruiz, MD, Rep. Jan Schakowsky (D-IL), Rep. Ted Deutch (D-FL), Rep. Dan Lipinski (D-IL), Rep. Beto O'Rourke (D-TX), Rep. Eric Swalwell (D-CA), Rep. Jackie Speier (D-CA), Rep. Dina Titus (D-CA), Rep. Dutch Ruppersberger (D-MD), Rep. Scott Peters (D-CA), Rep. Eleanor Holmes-Norton (D-DC), Rep. Gary Peters (D-MI), Rep. Brad Schneider (D-IL), Rep. Danny Davis (D-IL), Rep. Joe Crowley (D-NY), Rep. Allyson Schwartz (D-PA), Rep. Marcia Fudge (D-OH), Rep. Dan Kildee (D-MI), Senate Finance Committee staff, Senate HELP Committee staff, Senator Bill Nelson (D-FL), Senator John Barrasso, MD (R-WY), Senator Chuck Grassley (R-IA), Senator Tim Scott (R-SC), Senator Marco Rubio (R-FL), Senator Tom Coburn, MD (R-OK), Senator Bob Corker (R-TN), Senator Lamar Alexander (R-TN), Senator Dean Heller (R-NV), and Senator Roy Blunt (R-MO).

This high level of engagement allowed AAEM to work with sponsors of legislation supported by the Academy, such as the School Access to Emergency Epinephrine Act which became law in 2013. AAEM also worked with members of congressional leadership and sponsors of other AAEM-endorsed bills, such as the Good Samaritan Health Professionals Act and the Training Tomorrow's Doctors Today Act.

In 2013, AAEM also had several meetings with the Department of Health and Human Services (HHS) and the Center for Medicare/Medicaid Services (CMS), to discuss due process and the corporate practice of medicine. Additionally, AAEM has taken the opportunity to submit comments on proposals such as CMS' plan to release Medicare physician data. AAEM has submitted numerous comments to congressional stakeholders on issues that include repeal of the Medicare Sustainable Growth Rate and complimentary reforms, due process, and medical liability reform.

Finally, AAEM participated in a number of small group and private events throughout the year with Senators and Representatives, several of whom served as physicians prior to joining Congress. AAEM's level of political engagement sharply increased in 2013, as the Academy and its leadership developed relationships with champions and prospective champions of emergency medicine.

We look forward to another productive year in 2014. ■



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Help Us Bridge the Gap

Join the AMA!

Having the support of physicians from many specialties can help us resolve some of EM's most important problems. Currently, AAEM has no seats in the American Medical Association (AMA) House of Delegates (HOD). Help us reach our goal of 50% of AAEM members also holding membership in the AMA so we can add our voice to the deliberations with a seat in the HOD.

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AAEM is featuring the following upcoming endorsed, sponsored, and recommended conferences and activities for your consideration.

For a complete listing of upcoming endorsed conferences and other meetings, please log onto

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- 20th Annual Scientific Assembly
New York, NY
- Preconference Courses — February 11, 2014
Advanced Ultrasound
Introductory Ultrasound
Resuscitation for Emergency Physicians
Pediatric Emergency Department Simulation: Critical Skills from Delivery to Stepping on the School Bus
Health Care Reform: Is Your ED Prepared? The Operations Management Perspective (Presented by the Operations Management Committee) — 2 day course
- Preconference Courses — February 12, 2014
High Risk Electrocardiography
Living the Tactical Life: Lessons and Skills from Tactical Emergency Medicine (Jointly Sponsored by USAAEM)
Medical Student Track
<http://www.aaem.org/AAEM14>

March 15-16, 2014

- FLAAEM 3rd Annual Scientific Assembly
(Jointly sponsored by FLAAEM)
Miami, Florida
www.flaaem.org

Do you have an upcoming education conference or activity you would like listed in *Common Sense* and on the AAEM website? Please contact Emily DeVillers to learn more about the AAEM endorsement and approval process: edevillers@aaem.org.

All sponsored and recommended conferences and activities must be approved by AAEM's ACCME Subcommittee.

AAEM-RECOMMENDED CONFERENCES

March 14-16, 2014

- The Difficult Airway Course: Emergency™
Orlando, FL
www.theairwaysite.com

April 2-6, 2014

- 52nd Annual Weil/UC San Diego Symposium on Critical Care & Emergency Medicine
Las Vegas, NV
<http://cme.ucsd.edu/weil>

April 4-6, 2014

- The Difficult Airway Course: Emergency™
Las Vegas, NV
www.theairwaysite.com

May 2-4, 2014

- The Difficult Airway Course: Emergency™
Boston, MA
www.theairwaysite.com

May 3, 2014

- Vanderbilt Emergency Medicine 20th Reunion/CME
Nashville, TN
www.vanderbiltem.com

May 30-June 1, 2014

- The Difficult Airway Course: Emergency™
Dallas, TX
www.theairwaysite.com

June 11-14, 2014

- International Conference on Emergency Medicine (ICEM 2014)
Hong Kong
www.icem2014.org

September 12-14, 2014

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Recognition Given to Foundation Donors



Levels of recognition to those who donate to the AAEM Foundation have been established. The information below includes a list of the different levels of contributions. The Foundation would like to thank the individuals below who contributed from 1-1-13 to 11-19-13.

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

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Contributor

Ademola Adewale, MD FAAEM
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Special Episode: Join us for the critical care track at the 20th Annual Scientific Assembly! In this podcast-short, track chair, Michael Winters, MD FAAEM FACEP, highlights the educational track, "In a New York Minute — Critical Care in Your ED" which will run over two days at the assembly, beginning on the afternoon of Wednesday, February 12th and return on the morning of Thursday, February 13th.

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Special Episode: Join us for the operations management preconference course at the 20th Annual Scientific Assembly! In this podcast-short, course director, Joseph Guarisco, MD FAAEM FACEP, highlights the preconference course "Health Care Reform: Is Your ED Prepared? The Operations Management Perspective" which will run over two days prior to the 20th Annual Scientific Assembly, beginning on the afternoon of Tuesday, February 11th and continue on the morning of Wednesday, February 12th.



AAEM podcasts are available on the AAEM website and on iTunes. Visit the AAEM blog, part of AAEM Connect, to leave comments and engage in a conversation around the issues discussed in these episodes.

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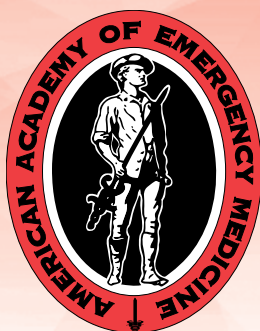
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Blast from the Past

Andy Walker, MD FAAEM
Editor, *Common Sense*
AAEM Board Member

For the past year, *Common Sense* has celebrated AAEM's twentieth birthday by reprinting articles from its first few issues. For our very last "Blast from the Past," we reprint a more recent article I wrote for our newsletter's previous editor, David Vega, MD FAAEM, in 2010. Sometimes I fear that emergency physicians have forgotten all that AAEM has done for them and our specialty, or think that other professional societies are both willing and able to fight for them the way the Academy has — and continues to do. As you read this final "Blast from the Past," pay special attention to what happened in Florida, when BCEM was granted formal recognition in its home state, and who was behind that. Also be sure to read the adjacent review of AAEM legal actions on behalf of emergency physicians. Nobody else in our specialty is doing this. Without the Academy, it wouldn't get done. Now, imagine what AAEM could do if its membership and budget were doubled — and try to make that happen! ■



AAEM – COMMITTED TO PROVIDING
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Legitimate

Andy Walker, MD FAAEM
AAEM Board of Directors

Legitimate:

(adj. 1. Being in accordance with established or accepted patterns and standards. 2. Based on logical reasoning; reasonable. 3. Authentic; genuine. 4. Being in compliance with the law; lawful.)¹ Is emergency medicine a legitimate specialty? Wasn't that question settled decades ago? Yes and....maybe not. More than twenty years after the American Board of Emergency Medicine (ABEM)² closed the practice track to board certification, several organizations and thousands of people in the United States are still hard at work trying to find a way for physicians trained in other specialties to call themselves board certified in emergency medicine. Although imitation may be the sincerest form of flattery, success in this self-serving quest would threaten the future of emergency medicine as an independent specialty. Before looking at the history and recent activity of this movement, we must consider the history of legitimate board certification.

Justified fears over the state of medical education in the U.S. led to the famous Flexner report³ in 1910, and an overhaul of medical education followed. This had no effect, of course, on physicians already in practice. At the time, any doctor could claim to be a specialist in any field, regardless of actual training. Concern about this state of affairs among ophthalmologists led to the founding of the American Board for Ophthalmic Examinations (later the American Board of Ophthalmology) in 1917. This was the first of several specialty boards to be established over the following years, and in 1935, the American Board of Medical Specialties (ABMS) was created to link the specialty boards and ensure a certain amount of consistency. There are currently 24 primary specialty boards in ABMS, including ABEM. It should be noted that most boards allowed a practice track at the time of their founding, so those physicians who founded their specialties could "grandfather in" to board eligibility without a residency in their fields. The median time to closure of these practice tracks was seven and a half years. ABEM's practice track was open for nine years, its closure in 1988 being announced when ABEM was accepted into ABMS in 1979. Applications via the practice track were accepted until 1990, as long as all requirements had been fulfilled by 1988. In fact, ABEM left its practice track open longer than any specialty founded after 1950. No board has ever reopened a practice track after it was closed.⁴

In 1990, Gregory Daniel and 176 co-plaintiffs filed suit against ABEM and several codefendants, alleging restraint of trade and seeking to have the practice track reopened. In 1991, the Association of Disenfranchised Emergency Physicians (now the Association of Emergency Physicians, or AEP) was founded, mainly by plaintiffs in *Daniel v. ABEM*, with Dr. Daniel serving on its board of directors.^{5,6} After 15 years of court decisions and appeals, the *Daniel* lawsuit was ultimately dismissed in 2005, with legitimate board certification intact and seemingly safe. However, the story did not end with the *Daniel* case.

There are organizations in addition to AEP that would like to find a way for their ABEM-ineligible members to call themselves board certified in emergency medicine. Most importantly, these include the Board of Certification in Emergency Medicine (BCEM) and the Section on Certification and EM Workforce (Certification Section) of the American College of Emergency Physicians (ACEP). BCEM was founded in 1987, the year before the practice track closed in emergency medicine. From that time up until the year 2000,

BCEM was willing to designate a physician as "board certified" in emergency medicine without the completion of any residency.⁷ Even now, it will bestow "board certification" on a physician who has never completed a residency in emergency medicine. BCEM is by far the largest component of the American Board of Physician Specialties (ABPS).⁷ ABPS is the certifying body of the American Association of Physician Specialists (AAPS), and I will refer to both as AAPS hereafter. In fact, at the website of these organizations you can see that AAPS, ABPS and BCEM all have the same address and phone number (www.abpsus.org).

AAPS began as the American Association of Osteopathic Specialists (AAOS) in 1952. At that time, doctors of osteopathic medicine (DOs) were not eligible for certification by ABMS boards, even if they had done an allopathic residency, and boards under the authority of the American Osteopathic Association would not certify DOs who did an allopathic rather than an osteopathic residency. AAOS was created to fill this gap, which fortunately no longer exists since ABMS boards will now certify DOs. The leaders of BCEM, recognizing the opportunity presented by the closure of the ABEM practice track, asked the AAOS to change its membership criteria so that allopathic physicians could join. This was done, and the name was changed from AAOS to AAPS.

ACEP's Certification Section has a long and interesting history, including name changes that occurred as its primary goals shifted. I highly recommend going to ACEP's website (www.acep.org), putting the cursor over "membership," and then clicking on "sections of membership" followed by "certification and em workforce." You can then read the newsletters of the Certification Section, which go back to February 1994. I especially recommend the March 2008 issue (vol.14 #2), which includes a historical timeline containing such interesting facts as:

1993 - A group of ACEP members and other emergency physicians form the Association of Emergency Physicians to represent their interests.

2000 - ACEP Board approves "Recognition of Certifying Bodies in Emergency Medicine" policy, which includes the asterisk statement: "ACEP acknowledges that there exists a non-ABMS and non-AOA certifying body, the Board of Certification in Emergency Medicine (BCEM), that may allow emergency physicians who do not meet existing training standards of ABEM or AOBEM to present themselves for evaluation and testing in the clinical content of emergency medicine and achieve certification based on specified criteria. This ACEP policy is not intended to pass judgment on the work of BCEM."

2001 - ACEP representative quietly presents ACEP's official "Recognition of Certifying Bodies" policy to the Florida Board of Medicine; the Florida BOM subsequently votes to officially recognize the BCEM.

2002 - ACEP Board adopts "ACEP Recognized Certifying Bodies in Emergency Medicine" policy, now with no mention of BCEM. The wording "...is not intended to pass judgment on the work of BCEM" is now gone from official ACEP language.

The decision of the Florida Board of Medicine mentioned in the timeline focused the attention of AAEM on the board certification activities of state medical boards. It was a watershed event in

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Legitimate - continued from page 8

the post-Daniel struggle to preserve the value of legitimate board certification in emergency medicine. Neither the Academy nor its Florida chapter were aware of the AAPS hearing before the Florida medical board, seeking permission for its members to advertise themselves as board certified. The board was told that diplomates of AAPS were required to have residency training. After reviewing transcripts of that meeting, however, I can find no indication that the board was ever told that BCEM made up a majority of AAPS or that BCEM would grant "board certification" in emergency medicine to physicians who had not completed a residency in emergency medicine. ACEP's Florida chapter did have a representative at the meeting, and when asked for his opinion on the AAPS and BCEM, Dr. Michael Lusko simply reiterated the ACEP policy quoted in the timeline above. This neutral-sounding policy has been described by Dr. Timothy Geno, ACEP member and BCEM diplomate, as "... benign neglect, not supporting BCEM, but not condemning them either."⁸ Furthermore, two members of the Florida Board of Medicine were members of AAPS. One, Dr. Peter Lamelas, was a diplomate of BCEM as well as a member of ACEP. To his credit, he did disclose this during the meeting.

Once news of this event reached the Academy, AAEM and its Florida chapter, along with the Florida Medical Association, multiple specialty societies and their Florida chapters, and even ACEP and its Florida chapter, argued strongly to have the Board of Medicine reverse its decision, without success. It seems to me, after reading literally hundreds of pages of minutes and supporting documents, that the medical board believed that under Florida law it could only reverse itself if it first found that representatives of AAPS had deliberately misled the board. Ultimately, the Florida Board of Medicine did not think it had been intentionally deceived and did not reverse its decision.

The Academy sharply criticized ACEP for its behavior in this episode⁸, and as mentioned in the timeline above, ACEP has since changed its policy on BCEM. Both FCEP^{9,10} and ACEP have since issued several strong statements against the recognition of BCEM and in support of legitimate board certification requiring residency training in emergency medicine.

As you might expect, there is significant overlap in the memberships of AEP, AAPS and ACEP's Certification Section, especially at the leadership level. This becomes obvious when, after studying the websites of the three organizations, one then looks at the list of ACEP members who became fellows of the American College of Emergency Physicians from 2007-2009. During this window of opportunity, ACEP dropped board certification in emergency medicine as a requirement for fellowship. This decision was controversial, even though ACEP still has a large number of members who are not eligible to take the ABEM exams. In fact, it appears that less than 60% of ACEP's membership is board certified by ABEM.¹¹ Consistent with that is the fact that the Certification Section is just behind the Young Physicians Section as the biggest section in ACEP.¹²

After the unfortunate outcome in Florida, the Academy wrote to every state medical board in the country, asking that we be notified if AAPS or BCEM was on the agenda for any upcoming meeting. We sent representatives to several of these meetings and helped defeat attempts by AAPS in several states to have itself designated as equivalent to ABMS. However, late in 2009 Texas and Oklahoma temporarily recognized AAPS, and thus BCEM. In Oklahoma we did not have advance notice to attend the meeting. Under pressure from emergency physicians and the state legislature, though, the Oklahoma medical board has already reversed its decision.

In Texas, the medical board never reviewed the issue at all. AAPS simply wrote the Texas board asking if its members in the state could advertise themselves as board certified, and the executive director of the board answered in the affirmative despite a Texas Medical Board rule indicating that board certification requires "demonstrable satisfactory substantial training in the specialty."¹³ To any reasonable reader, "satisfactory substantial training in the specialty" means completing a residency in the specialty.

On February 5, 2010, Howard Blumstein, AAEM's current president, attended a hearing of the Texas Medical Board to present the AAEM position that BCEM did not comply with the rules and regulations of the Texas Medical Board. Several other organizations argued the same position, including Angela Gardner on behalf of ACEP. As a result, the issue was referred to a subcommittee for further study. AAEM has been allowed to provide only written testimony to that subcommittee. We continue to closely monitor the situation in Texas.

Why should this matter to you? First of all, when the public hears "board certified in emergency medicine" it naturally assumes that this means the completion of residency training in emergency medicine. When state medical boards allow physicians who are not residency trained in emergency medicine to advertise themselves as board certified, they are helping to mislead or confuse the public. Second, if emergency medicine is a legitimate specialty, it should abide by the same rules as every other specialty. That means that once the founders of the specialty are allowed to grandfather into eligibility for board certification via a practice track, the completion of residency training in emergency medicine becomes a prerequisite for board certification. If emergency medicine is not a legitimate specialty with its own unique body of knowledge, then we are guilty of misleading the public, and we should abolish the specialty and roll the clock back 40 years. When those practitioners of emergency medicine who are not board certified argue that they should be allowed to call themselves board certified without first completing an emergency medicine residency, they are really arguing that emergency medicine is not a legitimate specialty, should not be held to the same standards as a legitimate specialty, and should never have been given the status of an independent specialty.

What can you do? First, keep an eye on your state medical board. Check its website monthly. Often, the advance public notice of meetings is nothing more than a posting on a website just days before the meeting itself. Study the posted agenda carefully. If the issue of board certification or a mention of AAPS appears, notify the Academy immediately. You and your local colleagues may even need to attend the meeting to point out that AAPS is mainly BCEM, which still does not require residency training in emergency medicine for "board certification" in emergency medicine.

BCEM often argues that there aren't enough board certified emergency physicians to staff all the emergency departments (EDs) in the country, and there may not be for many years.¹⁴ They then claim that, if only their diplomates were allowed to call themselves board certified, this shortage would disappear. Of course, this is nonsense on several levels. Nobody, including the Academy, has ever claimed that only board certified emergency physicians should be allowed to work in EDs. Credentialing requirements are solely up to a hospital's medical staff and those who employ the physicians in the ED. Furthermore, if anyone can adequately learn a specialty while unsupervised on the job, why have residencies in any specialty? After all, there is also a shortage of board certified general surgeons. Should we alleviate that shortage by allowing everyone, regardless of training, to call themselves board certified general surgeons?

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train EM graduates in critical care have 20 to 24 slots specifically intended for emergency physicians. In addition, there are six more slots in programs that do not specifically intend emergency physician enrollment. These slots are not all in IM-sponsored critical care programs, so many graduates understand they will not be eligible for board certification. Of the CCM fellowship programs open to emergency physicians in 2008–2009, affiliations were as follows: 8 EM, 23 surgery, 14 medicine and 20 anesthesia.

Two other options are open to emergency physicians who have completed a critical care fellowship. The European Society of Intensive Care Medicine (www.esicm.org) allows American emergency physicians to sit for the European Diploma in Intensive Care Medicine in Europe, and the United Council of Neurologic Subspecialties (www.neurocriticalcare.org) allows fellowship-trained emergency physicians to sit for subspecialty certification in neurocritical care through either a fellowship or practice track. This practice track availability will be offered only through 2012.

Emergency medicine and critical care share a long and dynamic history in patient care as well as the pursuit of ABMS recognition.

Legitimate - continued from page 10

Finally, if you are a member of ACEP, I believe you should ask ACEP to discipline any of its members who are actively working to undermine legitimate board certification in our specialty. Surely all emergency physicians agree on a few issues: tort reform, federal funding for EMTALA-mandated care, fair treatment in the workplace for emergency physicians, and the need to preserve the academic integrity of our specialty. Don't we?

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Physicians interested in combining a career in emergency medicine and critical care medicine sit on the cusp of a monumental movement that is gaining interest as well as importance; as the population ages, U.S. legislators struggle to reform health care, and critically ill patients spend longer times in EDs. Emergency physicians interested in critical care medicine now have the opportunity to continue toward a goal that was set when the specialty of EM was founded.

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Current news and
updates

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www.aaem.org

Highlights of AAEM's Legal Advocacy for Emergency Physicians

Mark Reiter, MD MBA FAAEM, AAEM Vice-President

Robert McNamara, MD FAAEM, AAEM Past-President



Since the March/April 2013 issue, *Common Sense* has been celebrating AAEM's twentieth birthday. In bringing that celebration to an end, we now review some of the Academy's legal actions and related

efforts on behalf of individual emergency physicians and independent groups. AAEM is unique. It is the only emergency medicine (EM) professional society ever to take legal action against contract management groups (CMGs) in defense of emergency physicians. As you will see, the Academy's willingness to put the interests of individual emergency physicians over corporate interests has altered the course of EM.

Catholic Healthcare West (CHW) and Emergency Physician Medical Group (EPMG)

In November of 1997, one of the largest hospital chains in the country, CHW, announced the purchase of EPMG, a privately held emergency medicine group. For the first time, a large hospital system had taken over a large EM group, converting hundreds of private practice emergency physicians into hospital employees. Ominously, the \$36 million purchase price was to be recouped by CHW with revenue taken from the professional fees of those emergency physicians. EPMG's principal owners earned millions of dollars on the sale, and were then given jobs in the new CHW managed services organization, Meriten, which was essentially a contract management group. All current EPMG physicians — staffing eight of the 37 CHW hospitals — immediately became part of Meriten. Even more chilling, the independent emergency physician groups staffing the 29 CHW hospitals that were not part of EPMG were going to be forced under the control of Meriten, which planned to take a 28% fee from its emergency physicians for expenses and profit.

With 29 contracts at risk, the regional implications of this were profound. AAEM also recognized national implications, in that every large hospital system would see the opportunity to control and profit from their emergency physicians. After AAEM wrote letters of concern to the board of CHW, CHW in turn threatened AAEM. Undeterred and with AAEM's help, the practicing emergency physicians of CHW organized into the Affiliated Catholic Healthcare Physicians (ACHP). With the support of AAEM, ACHP — along with the California Chapter of AAEM and the California Medical Association — filed a lawsuit alleging violations of corporate practice of medicine (CPOM) and fee-splitting laws. The CMA recognized both the threat to emergency physician autonomy and the wider threat, as Meriten would also be positioned to control other hospital-based specialists. ACEP was asked to participate in these actions but declined, saying it was a private business matter.

The *amicus curiae* (friend of the court) brief filed by AAEM in this case can be found here: http://www.aaem.org/UserFiles/CAAmicusBriefCHWcase_2_.pdf.

Results: After initial court hearings seemed to go against it, CHW sold EPMG back to its original owners, who then reorganized EPMG into a fairer, independent, physician-owned group. If CHW had been successful in this endeavor it would have opened the door to other hospital chains taking over emergency physician groups large and small, dipping into emergency physicians' professional fees as a new source of revenue, and dramatically reducing the number of private emergency medicine groups. AAEM, at the time a fledgling organization, was the only EM society willing to stand with the ACHP physicians. This stand changed the course of EM in California. In the aftermath of this failed attempted takeover of EM, the chief medical officer (CMO) and chief executive officer (CEO) of CHW both resigned.

The links below are further readings on this matter:

- <http://www.aaem.org/em-resources/critical-em-and-practice-issues/corporate-practice/achp/epmg-purchase>
- <http://www.aaem.org/em-resources/critical-em-and-practice-issues/corporate-practice/achp/epmg-2>
- <http://www.aaem.org/em-resources/critical-em-and-practice-issues/corporate-practice/achp/epmg>
- <http://www.aaem.org/em-resources/critical-em-and-practice-issues/corporate-practice/achp/amici-curiae>
- <http://www.aaem.org/em-resources/critical-em-and-practice-issues/corporate-practice/resign>

Mount Diablo Hospital (MDH), California Emergency Physicians (CEP), and TeamHealth

In 2003, Quantum Health, a subsidiary of TeamHealth, the second largest EM contract management group (CMG) in the United States, lost its contract at Mount Diablo Hospital in Concord, California to CEP. Three of the emergency physicians there wanted to continue working at MDH, where they had each been on staff for years. One was even a former Medical Staff President. In response, Quantum Health filed suit against these doctors, seeking damages from them for their supposed role in the loss of the contract. The emergency physicians went to ACEP for help and were told, as in the CHW matter, that it was a private business matter. They then came to AAEM and were provided advice, support, and legal assistance. The doctors joined AAEM in a counter-suit against TeamHealth, alleging that TeamHealth was using corporate subsidiaries to hide its violation of California's prohibition on the corporate practice of medicine (CPOM). AAEM sought a declaratory judgment,

Continued on next page

requesting that all emergency department (ED) staffing contracts held by TeamHealth subsidiaries in California be voided, in light of California's CPOM laws. **This counter-suit was the first legal action ever taken against a CMG by an EM professional society.**

Results: All parties reached a settlement whereby TeamHealth dropped its lawsuits against the emergency physicians, who were able to continue working at MDH, and AAEM dropped its lawsuit against TeamHealth for violating California CPOM laws. In 2005, AAEM assisted in similar cases in Rhode Island and Indiana, also with favorable outcomes.

We encourage you to read more about this complicated, interesting, and important case. A copy of the AAEM counter-suit can be found here: http://www.aaem.org/UserFiles/AAEMTeamHealthComplaint-Intervention_2_.pdf.

Several of its elements are truly shocking. Read the full story from Emergency Medicine News here: http://journals.lww.com/em-news/Fulltext/2004/03000/AAEM_Sues_Team_Health_for_Corporate_Practice_of.1.aspx.

Emergency Physicians Professional Association (EPPA) and EmCare

In 2004, EmCare, the largest emergency medicine CMG, acquired the contract at Methodist Hospital in St. Louis Park, Minnesota. EPPA, a private democratic group serving the hospital since 1969, was not even told the contract was up for bid until after the contract was awarded to EmCare. No request for proposals was issued.

EPPA's physicians initially reached out to ACEP for support through its state chapter, but were told this was not allowed by national ACEP. EPPA then asked AAEM for help. AAEM Past-President Dr. Robert McNamara flew to Minnesota and met with nearly 100 emergency physicians. The Academy offered legal counsel, went to the hospital on EPPA's behalf, and filed complaints with the state attorney general and Board of Medicine. In December of 2004, AAEM and EPPA jointly filed suit against EmCare for violating CPOM and fee-splitting laws, and filed suit against the hospital for breach of contract. A copy of the suit can be found here: <http://www.aaem.org/UserFiles/MNEmCarecomplaint.pdf>.

Results: Three weeks later, Methodist Hospital terminated its relationship with EmCare and re-contracted with EPPA. EPPA continues to serve Methodist Hospital and several other local hospitals. AAEM then sent a letter to every hospital administrator in the state of Minnesota, informing them of this matter and sending the message that AAEM is watching what they do with their EDs. This action had a chilling effect on the desire of layperson-owned CMGs to move into Minnesota, and they have been unable to establish a significant foothold in that state.

Read more from EM News at: http://journals.lww.com/em-news/Fulltext/2005/04000/EPs_Rehired_After_Contract_Group_Ousted.2.aspx.

PhyAmerica Bankruptcy

In 2003, PhyAmerica, one of the largest CMGs, went bankrupt. In 2004, Sterling Healthcare, another large contract management group, purchased PhyAmerica's bankrupt assets, including its ED contracts.

PhyAmerica then told its emergency physicians that their self-insured medical malpractice/legal defense fund had been exhausted. Two hundred PhyAmerica emergency physicians who had already been sued were told they no longer had malpractice coverage, and must pay all attorney fees and legal judgments out of their own pockets. And of course, PhyAmerica emergency physicians had no malpractice coverage for future suits.

In response, AAEM organized a Working Group from among the affected emergency physicians, handled logistics, and offered free legal counsel. The Academy also filed an amicus curiae brief before the Baltimore Bankruptcy Court.

Results: In April of 2005 a court order guaranteeing the protection of the physicians' personal assets was handed down. AAEM also negotiated with Sterling Healthcare for partial reimbursement of the emergency physicians' legal costs.

Restrictive Covenants in Tennessee

In 2005, legislation was introduced to allow restrictive covenants in physician employment contracts in Tennessee. AAEM and its Tennessee chapter strongly opposed these efforts and made this issue a top legislative priority for the next two years. Drs. David Lawhorn and Andy Walker testified before the House committee reviewing the bill, and explained to committee members how such non-compete clauses harm both patients in general and emergency physicians in particular.

Results: While TNAEM was not able to kill the bill entirely, emergency medicine was exempted. Emergency physicians in Tennessee remain free of restrictive covenants to this day.

Read more at EM News, http://journals.lww.com/em-news/Fulltext/2007/08000/EPs_Exempt_from_Tennessee_Law_Reinstating.2.aspx.

TeamHealth and the Memorial Hermann Hospital System (MHHS)

In 2007, MHHS, a large hospital network in Houston, awarded eight emergency department contracts to TeamHealth. Several emergency physicians contacted AAEM for assistance in this matter, including a private group with a 20-year history with MHHS, which was ousted in this move. AAEM and the private group — with AAEM's financial assistance — filed suit against TeamHealth and MHHS, citing violation of Texas CPOM laws. AAEM felt the case had substantial footing, as the Texas Medical Practice Act prohibits physicians from being employed by lay corporations for the practice of medicine. Additionally, previous Texas case law (*Flynn Brothers, Inc. v. First Medical Associates, Dallas 1986*) held that lay persons could not profit from an ED contract. AAEM's efforts were funded through donations to the AAEM Foundation.

Results: Unfortunately, a state district court held that it did not have jurisdiction to hear the case. Despite an amicus curiae brief filed in support of AAEM by the Texas Medical Association, a state appeals court affirmed the district court's decision. The court of appeals held that AAEM lacked standing to challenge the contract between MHHS

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and TeamHealth, as well as the contracts between TeamHealth and its emergency physicians. One of the plaintiff physicians actually signed a contract with the TeamHealth subsidiary, but even then the court would not grant a declaratory judgment enforcing the state CPOM laws, holding that private individuals could not enforce the Texas Medical Practice Act. The court did leave open the possibility that physicians could file suit to nullify their contracts with a lay-owned corporation, as such contracts may violate state CPOM laws.

AAEM then appealed to the Texas Supreme Court, which refused to hear the appeal. As a result, neither the Academy nor the plaintiff physicians ever got the chance to argue the merits of their case before a judge or jury, and no judgment on the merits of AAEM's corporate practice of medicine claim was rendered. AAEM still believes it could win in court on the issue of the corporate practice of emergency medicine in Texas. Note that Texas is the home state of EmCare, and has one of the biggest populations of emergency physicians of any state.

Read more from EM News at: http://journals.lww.com/emnews/Fulltext/2010/08000/Breaking_News__Texas_Court_Refuses_AAEM_Suit.2.aspx.

Dr. Genova versus Banner Health

In January of 2010, emergency physician Dr. Ronald Genova contacted the hospital administrator on-call, the hospital CEO, requesting to implement a "Code Purple" to divert patients to other hospitals, because he believed the emergency department at North Colorado Medical Center could no longer provide appropriate and timely screening to patients in the ED due to excessive crowding. According to the facts alleged in Dr. Genova's lawsuit, a patient with a GI bleed had already collapsed in the waiting room bathroom while awaiting evaluation and two heart attack patients had just presented to the ED. According to Dr. Genova, the hospital CEO refused the request. Two weeks later, in apparent retaliation, Dr. Genova was removed from emergency department duties.

Results: Dr. Genova filed a lawsuit noting that his removal from the schedule violated EMTALA whistle-blower protections and the covenant of good faith and fair dealing implied in contracts by Colorado law. The federal District Court dismissed Dr. Genova's suit, citing that Dr. Genova signed away his right to sue the hospital when his group contracted to provide physician coverage of the emergency department. Dr. Genova then asked for AAEM's assistance. In November of 2012, Dr. Genova appealed, and AAEM filed an *amicus curiae* brief asking the appellate court to overturn the dismissal and have the allegations in the complaint adjudicated on its merits. AAEM argued that the District Court imposed too narrow a reading of EMTALA's whistle-blower protections. AAEM also argued that a hospital should not be allowed to insist on a waiver of the covenant of good faith and fair dealing, as that implied covenant serves not only to protect the physician but also patients. While the 10th Circuit Court of Appeals favorably discussed the arguments made by AAEM, it ultimately upheld the dismissal. Although AAEM is disappointed with the outcome, this case demonstrates the Academy's willingness to come to a member's aid when their practice rights are threatened.

The AAEM *amicus curiae* brief can be accessed at: <http://www.aaem.org/UserFiles/Genovaamicuscuriae.pdf>.

Conclusion

As you can see, the Academy has been extremely active in protecting the practice rights and livelihoods of thousands of emergency physicians who have nowhere else to turn for support in such matters. Far from tilting at windmills, most of our legal actions have been both successful and substantial, with immense practical benefits to the emergency physicians involved — including saving their jobs. There is still much to do, however, especially in an environment where lay-owned, corporate, contract management groups — which often have a very poor track record regarding restrictive covenants, due process, and other practice rights — control such a large proportion of emergency medicine jobs. Your AAEM membership, your active support of its work, your recruitment of new Academy members, and your donations to the AAEM Foundation provide the resources the Academy needs to be a successful advocate for the practicing emergency physician.

Two key components of AAEM's mission statement are:

- The personal and professional welfare of the individual specialist in emergency medicine is a primary concern to the American Academy of Emergency Medicine.
- 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 has a duty to its membership to protect these ideals. On many occasions AAEM has fought for emergency physicians whose independent groups or practice rights were in jeopardy. As a result, several private emergency medicine groups have been saved — along with hundreds of jobs — and even more emergency physicians have had their practice rights protected. ■

Remarkable Testimony & Due Process Cases Requested

The Legal Committee is requesting your help! The AAEM Remarkable Testimony/Actions webpage highlights notable due process cases and testimony in malpractice cases that is "remarkable." The Legal Committee is seeking more cases to supplement this page. For more information and to submit a case for posting consideration, please see

<http://www.aaem.org/aaemtestimony/>.

AAEM: The Trusted Advocate of Fairness in Emergency Medicine™ — The *AAEM Practice Fairness Toolkit*™

John Christensen, MD FAAEM



At a time when emergency medical staffing companies are being traded on Wall Street and medical licensure and board certification are treated as commodities, emergency physicians need to understand valuation more than ever. Consider the following dialogue, and a *widely held perception*:

"Mike, is this credible or bull----?"

"There is tremendous debate in the appraiser community relative to practice valuations on purchases by hospitals and on compensation methodologies being employed after purchase. I'm not sure there is much value in listening to this or reading this because you would have to get involved in reading *all sides of the debate*. Based on the summary of what is being written I would also assume this individual spends his time on the hospital side because the approach he is talking about will result in less compensation to physicians. Of course, if this happens, then there is no reason why a physician would sell his practice and then join a hospital if there is no substantial upside."

— Mike M., CPA, in an email exchange advising one of his surgeon-clients on whether to listen to a webinar entitled *Physician Compensation Methodology*.

"Fifteen minutes could save you 15% or more on car insurance — *everybody knows that*."

— The Martin Agency's latest leveraging of the ubiquitous Geico tag-line, arguably the most famous in advertising history.

The email exchange above captures the issues in a fair market value (FMV) transaction — the essence of an equitable process. Every business valuation analyst understands that there are two sides to any assessment issue, and that negotiations may be corrupted when one party withholds information from the other¹ — "everybody knows that." AAEM's decision to become The Trusted Advocate of Fairness in Emergency Medicine™ and form the Practice Fairness Council™ (PFC) strengthens AAEM's commitment to support fairness in the complex workplace that characterizes our specialty. The Practice Fairness Toolkit™ (the Toolkit) will provide the foundation for the PFC to advance AAEM's mission to support fair and equitable practice environments in which emergency physicians can provide the best care for patients.

We necessarily begin by defining *value and valuation*. Webster's definitions of the word "value" include: 1) "the worth a thing in money or goods at a certain time;" 2) "that quality of a thing according to which it is thought of as being more or less desirable, useful, estimable, important, etc.;" and 3) "that which is desirable or worthy of esteem for its own sake; thing or quality having intrinsic worth." Webster's definitions of "valuation" include: 1) "the act of determining the value or price of anything; evaluation; appraisal;" and 2) "estimation of the worth, merit,

etc. of anything." Thus, *value and valuation* may include monetary and non-monetary dimensions.

We often overlook how deeply this is hard-wired into the human brain, into language centers and consciousness itself.² However, we can learn to understand how biased our perception of value can be, often to our detriment if we fail to consider all the ramifications of the countless decisions we face.^{3,4} We make value judgments, often unconsciously, every time we use the word *should*, a word that appears in our speech with striking frequency as we "negotiate our way" through each day. Webster's defines *should* as "used to express obligation, duty, propriety, or desirability." *Desirability* is the essence of value itself. *Business Valuation Resources'* marvelously direct tag-line, "What's it worth?"⁵ can inspire the Practice Fairness Council's investigation of the business entities, large and small, that are the organizational ground substance of our professional practice. *Desirable* (valuable) practice settings will be identified through the PFC's research and published for the benefit of AAEM members.

It is important to restate what a fair market value process is in the context of business, and to realize that any organization can be viewed as the sum of its parts — *each of which* can be examined in detail through the evaluator's lens. The Internal Revenue Service advises us that the FMV of an asset is:

"The price at which property [including intangibles] would change hands between a willing buyer and a willing seller when the former *is not under any compulsion to buy*, and the latter is not under any compulsion to sell, both parties having reasonable knowledge of the common facts."⁶

What has happened in the myriad negotiations that define emergency medicine's business history is the serial corruption of FMV processes.¹ Business agents⁷ have interposed themselves between emergency physicians, patients, and hospitals — gaining control of the cash flow and good will those physicians labor to produce. Through *agents'* incremental distortion of what *should* be a fair process, many working emergency physicians have been deprived of a seat at the negotiating table — and of the option of walking away until win-win terms are achieved. Other hospital-based specialists have also been victims of these win-lose outcomes. How emergency medicine is valued in the context of health care reform again requires an answer to the question, "*What's it worth?*" The PFC, applying the principles in the Toolkit, will address these vexing issues.

The indexed table of contents of the first edition of the Toolkit appears on page 21. Though it may seem daunting at first, there is a rigorously reasonable approach to the fair market assessment of *anything*.^{8,9} Achieving FMV involves strategy, which informs the Toolkit's extensive detail. Strategy can be complex, but is essential to master if we are to

Continued on next page

create *fair and equitable practice environments* in which to best serve our patients. Jack Covert and Todd Sattersten inspired the indexed table of contents concept: begin at the end, with the index.¹⁰ All key concepts in the *Toolkit* are easily recognized, and most are so common that they are the subject of a Wikipedia entry. So, read the table of contents and reflect on the key concepts. I believe you will find it all makes sense — and defines what fair is, what it is not, and why it matters.

The whole *practice fairness* concept will be domiciled on the AAEM website. The PFC invites any interested AAEM member to provide reasoned and referenced information to improve the *Toolkit*.

The goal of the *Practice Fairness Council and the Practice Fairness Toolkit* is to raise the awareness of AAEM's membership on what fair and equitable practice environments are, why they matter,¹¹ and how we can create them. Ultimately it's simple: people — especially those who work as tirelessly as emergency physicians — experience the greatest professional satisfaction and are most productive when they work in a setting that embraces a culture of fairness. As we build trust¹² and learn as an organization¹³ that fairness in the practice of emergency medicine truly adds meaning and purpose and is worth striving for,¹⁴ I believe we will reach the point where we can say, "Everybody knows that."

John B. Christensen, MD FAAEM

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AAEM: The Trusted Advocate of Fairness in the Practice of Emergency Medicine™ — The *AAEM Practice Fairness Toolkit*™ Table of Contents

John Christensen, MD FAAEM

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Cracking the Code: Fixing the Crowded Emergency Department, Part 3 — Implementing the Solution

Joseph Guarisco, MD FAAEM
Chair, Operations Management Committee



Finally, the answer you have been waiting for! In this submission, part three of a series dedicated to providing a solution to emergency department crowding, I would like to suggest a work-flow and staffing model that helps solve capacity issues in the emergency department. Part one, published in the Sep/Oct 2013 issue of *Common Sense*, was intended to create the burning platform for change, a sense of urgency. We established that

poor capacity management and long wait times negatively impact patient satisfaction, quality of care, financial performance, and patient risk. Most of the really important things we do in emergency medicine are time-critical, so solving problems related to crowding and throughput are fundamental to our goal of improving patient care. Part two, published in the Nov/Dec 2013 issue, explained the analytic approach that must be understood if one is to solve this problem. That approach is built on the premise that most of what happens in the emergency department is predictable. Equally important is the knowledge that predicting emergency department demand alone is not enough. One must also understand that failure to drill deeper, to tease apart demand and look at a more important element within the data set — variance — is an error in ED management. Understanding variance allows one to manage resources by creating a service delivery model that addresses the complexities of demand (complexity due to variance) with greater certainty at higher probabilities.

Assuming you have read and understand demand analytics as discussed in part two; that you recognize that staffing to average demand, as is commonly done, will lead to failure 50% of the time; and that you recognize the real solution is solving for variance at the 80th or 90th percentile rather than the median; then the next logical question to be asked is how does one do that without experiencing financial ruin? It's just math. Let me make it even simpler. If one takes demand data and deconstructs that data for variance, using any number of statistical tools including box plots, one can observe the peak demand that will occur at any given hour with 90% certainty or higher — or at any other cutoff you select — as noted in the box plot below (Figure 1).

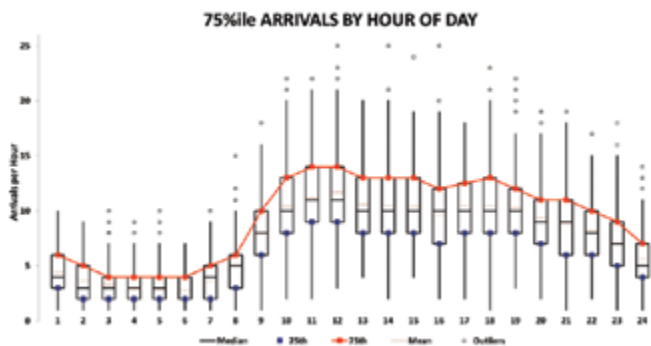


Figure 1

At the 80th percentile, just above the red line in Figure 1, there is 50% higher demand compared to the 50th percentile (black line) in Figure 2 below, if one looks across to the y-axis that represents pts/hr. The 90th percentile represents an approximate doubling of demand compared to the median, as you can see by looking at the associated pts/hr at the peak of the vertical black lines of the box plots. So, solving for the variances in demand with confidence at higher probabilities requires a significant leap in resources. The box plots allow one to solve capacity issues predictably 90% of the time instead of 50% of the time. Solving for capacity at the predicted median gets us nowhere. In fact, again, it is precisely the problem we are trying to solve.

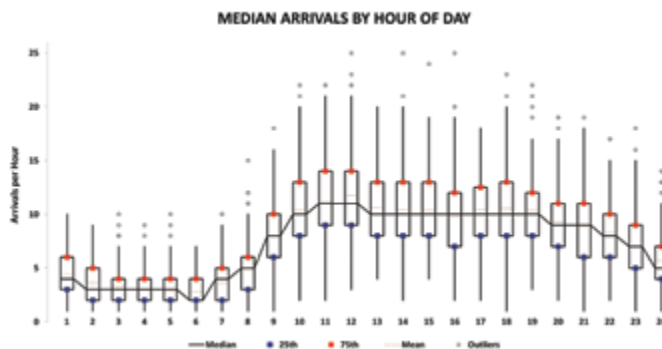


Figure 2

The obvious solution now is to allocate the necessary resources, both labor and bed capacity, to meet calculated predicted patient demand precisely. Easy solution, right? No! That solution won't work. It's too expensive.

The solution that I propose and will validate has three components: 1) a work-flow model that splits incoming patients into streams based on patient needs, 2) a staffing model that matches appropriate providers to each patient stream, and 3) optimized provider power in each patient stream using tools that are now available. The solution is to generate virtual bed capacity and increase provider productivity, while also reducing cost per visit, thus allowing management to add enough providers to service the 90th percentile probability of demand — thereby improving service performance.

Let's take each initiative one by one. Traditionally, emergency departments have one stream: patients arrive and are placed in a single queue for an emergency department bed. Patients remain in that bed until care is completed, consuming that bed for their entire visit, and then are discharged. The immediate solution seems obvious: a fast-track. A typical fast-track does achieve a second patient stream. However, as in the traditional emergency department, patients remain in that fast-track bed until care is completed, once again consuming that bed for their entire visit. The successful work-flow model must create two or three streams

Continued on next page

based on a patient's need for the most valuable resource in the department — a bed. This work-flow is shown below as a Microsoft® Visio image (Figure 3).

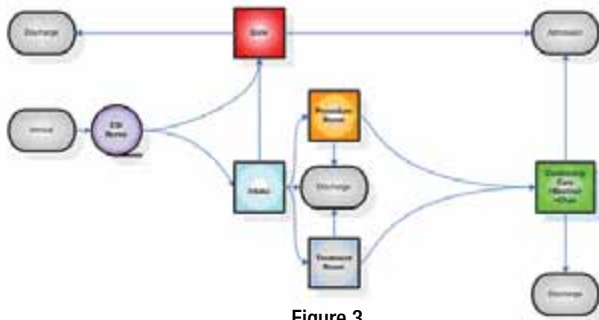


Figure 3

Patients in the second stream are managed very much in the outpatient model, in that they don't consume a bed for their entire visit, and possibly not at all. Evaluations are done, tests may be ordered and treatments administered, all in an ambulatory environment that preserves valuable beds. Our experience is that 65% of patients can be managed without using a bed. It's a simple approach but it creates valuable virtual capacity. This solution requires a functional change and sometimes an architectural change in how we stream patients through the emergency department. This is demonstrated in the work-flow design below (Figure 4).



Figure 4

Ochsner Hospital Split Flow Stream qTrack

Okay, we now have a functional work-flow that creates lots of virtual beds and saves real beds for patients who need them. Now for the second innovation, a staffing model that matches different types of providers to patients in each stream, according to skill-set and cost. Looking back again at the traditional ED, most are staffed primarily by emergency physicians, residency-trained and board-certified whenever possible. Step one, as explained above, creates capacity but doesn't guarantee staffing to demand variance at the 90th percentile. To say this another way, the traditional staffing model does not allow one to meet the service goal of short wait times 90% of the time. The assumption made in implementing step two of the solution is that patients in the newly created patient stream do not need a board-certified emergency physician. Patients in this stream are not acutely ill, though they may turn out to need comprehensive evaluation and even hospital admission.

Most of these patients, however, will be ESI (Emergency Severity Index) fours and fives. Providers other than physicians are perfectly appropriate to care for this group of patients. Advanced practice clinicians (APCs, or mid-level providers) do well in this environment. We need to make a second important assumption: that 80% of the work is basic or even nonclinical, involving such tasks as electronic charting, patient navigation and escort, simple procedures, patient bonding, discharge instructions or prescriptions, etc. The diagnostic work may be fairly simple, requiring little physician oversight to ensure clinical quality and appropriateness. Most of the less critical, non-diagnostic aspects of patient care in this environment can be performed by a mid-level provider as productively and efficiently as a physician, at much lower cost. The result of this model is productively close to that of a physician, at 25-35% of the cost of a typical staffing model that meets only average patient arrival demand. As we stated earlier, however, meeting average demand is not our goal.

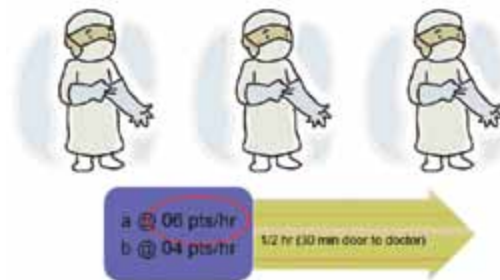


Figure 5

For demonstration purposes, using the classic queuing formula that wait time is defined roughly as $1/(a-b)$, where "a" is how many patients can be seen and "b" is how many patients will arrive; compared to the staffing mix above in Figure 5, the staffing mix below in Figure 6 shows that four APCs can replace one MD and achieve better service metrics at the same cost.



Figure 6

Again, our goal is to achieve service delivery targets such as "door to provider" at the 90th percentile of patient demand rather than the median. This staffing model allows one to increase provider "power" without adding additional cost when compared to traditional staffing. We now have both a work-flow model and a staffing model that allows us to get very close to our performance and financial goals, but we're not quite there yet. The cost advantage is demonstrated below. As you peel away physicians and add APCs, the cost per patient drops and productivity increases (Figure 7).

Continued on next page

Provider Cost Calculator							
MD	Net MD Production	MD Cost	Advanced Practice Clinician	APC Cost	Total Cost/Hr	Total Pt/Hr	Cost/Pt
2	2.0	\$400.00	0	\$0.00	\$400.00	4	\$100.00
1	0.8	\$200.00	1	\$50.00	\$250.00	1.6	\$69.44
1	0.6	\$200.00	2	\$100.00	\$300.00	5.2	\$57.69
1	0.4	\$200.00	3	\$150.00	\$350.00	6.8	\$51.47
1	0.2	\$200.00	4	\$200.00	\$400.00	8.4	\$47.62

Figure 7

Now this needs to be optimized. In other words, how many beds do you need, how many and what kinds of providers do you need, and finally, when and how do you deploy these resources? How does one make sure that the work-flow model provides for a staffing solution at the lowest possible cost per visit yet still achieves productivity and service delivery targets? How does one make sure that the mix and number of providers are yielding lower cost per visit while preserving quality of care? There are a number of expensive simulation tools that can be used for this; and there are free, tested tools in the public domain such as Banner Health Systems' Door-To-Door Toolkit, developed under a federal grant. At our facility, Ochsner in New Orleans, we use a commercially available staffing optimizer that clearly and elegantly allows one to generate a staffing model optimized for both cost and productivity, as you can see below in Figure 8.



Figure 8

Staffing Optimizer by Intrigma®

The optimizer allows one to create a provider mix (physicians, APCs, and scribes) matched to any level of demand probability. The blue line in Figure 8 is patient demand and the red line is provider power, mapped to a target of about two pts/hr in this demonstration, at a calculated cost shown in the upper left portion of the image. We have actively deployed this model and have recently added scribes to the provider mix, to further enhance physician productivity. The reduction in our costs from deploying the entire solution, when compared to the traditional emergency department management model that deploys only physicians in a single queue without optimization, is in the range of 25% — while preserving if not improving both quality and service.

In summation, in part one of this series I attempted to create the burning platform and a sense of urgency. In part two, I demonstrated an analytic model that generates a solution and avoids the pitfalls commonly made in emergency department management today, by understanding both the predictability and variability of patient demand. In this submission I propose a work-flow and a staffing model that addresses the front-end constraints that create crowding in America's emergency departments, and I propose optimization tools to solve that problem. With health care reform looming and the challenge of providing emergency care faster, better, and cheaper; this approach provides a solution for the typical ED. This solution does not diminish the need to address other throughput and output constraints, both equally important — but we will leave that for another time. I think the solution proposed in this submission is a game-changer, and goes a long way toward mitigating crowding in our emergency departments. ■

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The early registration deadline is January 20th, 2014. After this date, the cost of preconference courses will increase. Onsite registration for the general assembly is also available. Be sure to book your hotel room at the New York Hilton Midtown by January 20th, 2014, for the AAEM discounted rate. To make a reservations by phone, call 212-586-7000 (reference the group code "AAEM" to secure the group rates) or for online reservations visit www.aaem.org/AAEM14/attendees for more information.

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Continued on next page

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Career Connections Fair

AAEM/RSA Career Connections Fair!



Physicians attending the assembly will have new opportunities to make valuable connections, as AAEM/RSA will host a Career Connections Fair on February 12, 2014, 3:30-5:30pm. Employers and job seekers will now be able to connect face-to-face and open doors to a wealth of possibilities.

Physicians are invited to sign-up to attend the

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Passport to Prizes



All conference attendees will receive a passport book in their registration materials onsite. Visit all participating exhibitors in the exhibit hall February 12th-14th to fill your passport with verification stickers. After you've collected all stickers, drop off your completed passport book at the AAEM registration desk. Passport books turned in prior to the daily drawing will be eligible for a

series of prize drawings over the course of the assembly. Participants are eligible for all drawings, until their book is drawn; only one prize per participant. Winners will be directed to the designated exhibit booth to collect their prize.

Visit www.aaem.org/AAEM14/passport for more information.

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- **One Northwestern Seminar of your preference** — Courtesy of Northwest Seminars
- **\$100 Starbucks Gift Card** — Courtesy of PercuVision, LCC
- **Fitbit Flex Wireless Activity + Sleep Wristband** — Courtesy of PracticeLink.com
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- **Kindle Paperwhite** — Courtesy of Shift Administrators, LLC
- **Gift of the Season — choose from 39 gift clubs with a gift arriving every 3rd month** — Courtesy of SoutheastHEALTH
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Exhibitors

A Study on ED Dizziness Presentations

AAEM State Chapter

AHC Media, LLC

Airway CAM Technologies, Inc.

ArthroCare Corporation

Bassett Healthcare Network

Beckerman Institutional

Biodynamic Research Corporation (BRC)

CEP America

Cornerstone Therapeutics

CSL Behring

Elite Medical Scribes

Elsevier, Inc.

Emergency Groups' Office

Emergency Medicine

Emergency Medicine Associates, P.A., P.C.

Emergency Physicians Insurance Company

RRG

Emergency Service Partners, L.P.

EMrecruits

Eos Medical Group

EPOWERdoc, Inc.

First Choice Emergency Room

Hays Companies

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Indiana University Kelley School of Business

Infinity HealthCare

Intermedix

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SoutheastHEALTH

St. Jude Children's Research Hospital

TASER International

Texas Association of Freestanding

Emergency Centers

TIVA Healthcare, Inc.

Texas Tech Health Sciences Center at El

Paso

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Medical Liability and the Emergency Physician: A State by State Comparison — Part 2

Gregory Roslund, MD FAAEM
Legal Committee



When it comes to medical malpractice law, there is immense interstate variability. Some states have passed sweeping reforms that have decreased litigation and provided increased access to medical care. Other states have been reluctant to change, and as a result malpractice insurance premiums have skyrocketed and physicians have fled.

Which states are particularly favorable for emergency physicians and why? State by state information on medical liability has been compiled many times, but data specific to emergency medicine has been hard to come by — until now. On behalf of the AAEM Legal Committee, I have constructed a medical liability state by state comparison — hopefully the most accurate and comprehensive medical liability database yet for emergency physicians.

Each state's medical liability environment was given a rating (one to five stars) based primarily on the (1) the presence of damage caps, (2) malpractice premium costs, and (3) the presence of meaningful laws specifically protecting emergency physicians. In addition, I considered limits on attorney fees, expert witness reform, pretrial panels, and several other factors.

This is the second installment of this state by state review. The initial installment appeared in the July/August issue of *Common Sense* and analyzes the first ten states in alphabetical order, Alabama to Florida (available at www.aaem.org/publications/common-sense). It includes a "methods" section detailing how the ratings are calculated.

I welcome any and all feedback. Please direct your comments or questions to the editor of *Common Sense*, Andy Walker at cseditor@aaem.org.

Now, let's look closely at the next ten states, Georgia to Maine.

Georgia ★★★★★ 3.5 stars out of 5

Caps: None.³

Average 2012 premiums: \$30,000-\$50,000 for \$1 million/\$3 million coverage for EM.⁵

Liability environment for emergency physicians: Prior to its damage caps being overturned in 2010,⁴ Georgia was lauded as having the best medical liability environment for emergency physicians in the United States. In 2005, Senate Bill 3 was passed, which included a section detailing an enhanced burden of proof for cases arising out of emergency medical care. To recover in these cases, a claimant must prove gross negligence by clear and convincing evidence, a standard more rigorous than a mere preponderance of evidence.¹⁸ The Georgia Supreme Court rejected a constitutional challenge to this section in *Gliemmo v.*

Cousineau in 2010.¹⁹ However, this section is in the process of being challenged once again.²⁰ Additional strengths regarding the Georgia liability environment include: joint liability reform,³ a two year statute of limitations,⁸ and an extremely stringent expert witness reform package.⁸ Unfortunately, damage caps that were initially put into place in 2005 were declared unconstitutional in 2010.⁴ In 2013, legislation (Senate Bill 141) was introduced to transform the Georgia medical malpractice system into something similar to a no-fault workers compensation model, in an attempt to reduce health care costs and decrease defensive medicine. Not surprisingly, the bill received support from physicians, but it is unlikely to be voted on in this year's legislative session.²²

Assessment: Specific laws putting an increased burden of proof on plaintiffs and redefining malpractice as gross rather than ordinary negligence in the emergency setting have been upheld, and have been successful (anecdotally) in recruiting and retaining EM physicians. Caps were recently declared unconstitutional, but this has not made a significant impact (this comes from multiple conversations with practicing GA emergency physicians throughout 2012). Grade: 3.5 stars out of 5.

Hawaii ★★★★★ 3.75 stars out of 5

Caps: \$375,000 cap on non-economic damages (soft cap).³

Average 2012 premiums: \$10,000 for IM, \$37,000 for GS.¹

Liability environment for emergency physicians: All things considered, EPs in Hawaii enjoy a favorable medical liability environment. Hawaii is one of the few states to have implemented mandatory pretrial screening panels.⁸ Hawaii has a cap on non-economic damages,³ low premiums,¹ soft limits on attorney fees,³ joint and several liability reform,³ and relatively low average malpractice award payments.⁷ Hawaii does not have any expert witness reform whatsoever⁸ and the state lacks additional protections for physicians providing EMTALA-mandated emergency care — this has created problems retaining specialty call coverage throughout the state (personal communication, 2012).

Assessment: Mandatory panels, strong reforms, damage caps, and low premiums = terrific liability environment for EM physicians. Grade: 3.75 stars out of 5.

Idaho ★★★★★ 3.75 stars out of 5

Caps: \$250,000 on non-economic damages (soft cap).³

Average 2012 premiums: \$4,500-\$7,000 for IM, \$16,000-\$30,000 for GS.¹

Liability environment for emergency physicians: Idaho does have a cap on damages, but it is a soft cap that is adjusted for inflation.³ Also, it does not apply to cases involving subjective "willful or reckless conduct" or "felonious acts."³ Idaho EPs enjoy relatively low annual premiums¹

Continued on next page

and the state has enacted joint and several liability reform,³ and has a two year statute of limitations.³ Negative aspects regarding Idaho's liability climate include no limits on attorney fees,³ no expert witness reform whatsoever,⁸ and no specific provisions to protect physicians providing care in the emergency setting.

Assessment: Idaho's cap on non-economic damages is helpful. Additional reforms have been modest. Premiums remain low. Grade: 3.75 stars out of 5.

Illinois ★★★★★ 0.5 stars out of 5

Caps: None.³

Average 2012 premiums: \$13,000-40,000 for IM, \$45,000-\$127,000 for GS.¹

Liability environment for emergency physicians: Illinois has twice adopted tort reform legislation that included caps on non-economic damages for medical malpractice claims, but neither act remains in force. Most recently, caps were enacted in 2005, only to be found unconstitutional in 2010 (*Lebron v. Gottlieb*).⁴ Illinois is a litigious state with a remarkably high number of attorneys and malpractice claims filed per capita.^{7,15} There is immense variation within the state with multiple counties (Cook, Madison, St. Clair) identified by the American Tort Reform Association (ATRA) as "judicial hellholes."¹⁷ EM physicians in these counties will pay some of the highest premiums in the country — typically covered by one's employer, resulting in markedly reduced salary.¹ The average malpractice award payment (\$585,000+) is one of the highest in the nation.⁷ Illinois enacted a sliding scale limiting attorney fees, but this sliding scale was eliminated in January 2013. The law simply granted trial attorneys a significant pay raise, and they now collect 33.3 percent of the plaintiff's award.¹¹

Assessment: Illinois has been and probably always will be a highly litigious state. High premiums and the absence of caps (repeatedly overturned) create a challenging environment for EM physicians. Grade: 0.5 stars out of 5.

Indiana ★★★★★ 4.75 stars out of 5

Caps: \$1.25 million cap on TOTAL damages (hard cap).³

Average 2012 premiums: \$13,000-\$21,000 for EM. Approximately \$8,000 goes to the Patient Compensation Fund and \$5,000-\$13,000 for insurance premiums, for a full-time EP with standard \$250k/\$750k policy limits. This is based on my past experience and data from ProAssurance, my former insurance carrier (personal communication, 2012).

Liability environment for emergency physicians: Indiana has a long history of providing its physicians with a relatively safe and welcoming medical liability environment.²³ Due to a health care crisis in the state in the 1970's, Gov. Otis Bowen, a physician, pushed through the Indiana Medical Malpractice Act of 1975 in an effort to recruit and retain quality physicians. This reform package has several components which have stood the test of time: the mandatory implementation of medical review panels (before patients can sue, a complaint must be filed with the Indiana Department of Insurance and the case must be reviewed by a panel of three physicians), a hard cap on total damages, a two year

statute of limitations, and stringent limits on attorney fees.²⁴ Indiana is one of the only states to continually uphold a hard cap on total damages. Plaintiffs cannot recover more than \$1.25 million on any case regardless of the circumstances. Physicians are responsible for no more than \$250,000, resulting in low insurance premiums. Physicians typically do not carry policy limits beyond \$250k/\$750k. Any additional award is paid by the Indiana Patient Compensation Fund, up to a total of \$1.25 million.²⁴ Despite these reforms, the liability climate does have a few weaknesses: no joint and several liability reform,³ weak expert witness reform,⁸ and no specific reforms protecting emergency physicians and physicians providing EMTALA-mandated emergency care. Reforms passed as part of the Indiana Medical Malpractice Act have been repeatedly criticized. Regarding the Medical Review Panel, the process is time consuming, with an average of 32 months elapsing between filing a complaint and receiving a final panel opinion — and this is before a complaint can even be filed as a lawsuit. While the \$1.25 million cap on total damages is admirable, there is no cap on non-economic damages, resulting in plaintiffs repeatedly pushing for awards exceeding \$1 million for pain and suffering, loss of companionship, etc. The cap has been raised multiple times in the past and many still believe that it is not high enough in certain circumstances.²⁵ Its constitutionality has been challenged and successfully defended multiple times. In January 2013, the constitutionality of the cap was once again successfully defended in the Indiana Supreme Court (*Plank v. Community*).²⁶

Assessment: Unique reforms that have stood the test of time, including medical review panels and a hard damage cap, have successfully protected EM physicians for many years. Grade: 4.75 stars out of 5.

Iowa ★★★★★ 3.5 stars out of 5

Caps: None.³

Average 2012 premiums: \$8,000-\$10,000 per year for a full-time EP with standard policy limits (personal communication with a colleague who practices there, 2012).

Liability environment for emergency physicians: Iowa is known for being a very non-litigious state, with a low number of practicing attorneys per capita,¹⁵ low numbers of cases filed,⁷ and low average malpractice awards.⁷ The absolute lack of reform opens the door to potential disaster, but many residents believe that caps and reforms are unnecessary because people in the state are "unlikely to sue," according to multiple colleagues who now practice there (personal communications, 2012). Iowa lacks a cap on damages³ and the state has enacted no reform whatsoever in regard to expert witnesses.⁸ Iowa does have joint and several liability reform, a two year statute of limitations, and soft limits on attorney fees.^{3,8} Most notably, EPs enjoy remarkably low annual malpractice premiums.¹

Assessment: Overall, a non-litigious state. Very low premiums despite the absence of meaningful reform. Grade: 3.5 stars out of 5.

Kansas ★★★★★ 5 stars out of 5

Caps: \$250,000 on non-economic damages (hard cap).³

Average 2012 premiums: \$13,000-\$16,000 for EM (personal communication, 2013).

Continued on next page

Liability environment for emergency physicians: The Jayhawk state's exemplary liability environment has stood the test of time. Kansas enacted a law in 1988 capping non-economic damages at \$250,000.³ This hard cap (with no adjustments for inflation) has been successfully defended on multiple occasions, most recently in October 2012.³⁰ In an effort to keep frivolous cases out of the courts, Kansas offers voluntary pre-screening panels made up of three physicians and a non-voting lawyer. This panel can be requested by either side.⁸ Additional strengths include joint and several liability reform,³ a two year statute of limitations,⁸ and stellar expert witness reform.⁸ Kansas is one of the few states to require experts to have an active clinical practice in the same specialty as the defendant.⁸ And trial lawyers are hard to find in Kansas — the state has the fourth lowest concentration of attorneys of any state in the union.¹⁵ Minor weaknesses include the lack of collateral source reform,³ the absence of periodic payment reform,³ and no limits on attorney fees.³

Assessment: With a recently upheld cap on non-economic damages and consistently low premiums, Kansas EPs can celebrate and rest easy. Grade: 5 stars out of 5.

Kentucky ★★★★★ 2.5 stars out of 5

Caps: None.³

Average 2012 premiums: \$20,000-\$30,000 for EM (personal communication, 2013).

Liability environment for emergency physicians: Just like the race track at Churchill Downs, Kentucky's medical malpractice environment is dangerous and gritty. Most notably, Section 54 of the state's constitution specifically prohibits caps on damages.³ In addition, Kentucky has absolutely no expert witness reform. Experts are not required to practice clinically, nor do they need to be in the same state nor the same specialty as the defendant.⁸ Furthermore, the state does not require the plaintiff to attach an expert's affidavit to the complaint, opening wide the door to frivolous lawsuits.⁸ Kentucky has no collateral source reform,³ no limits on attorney fees,³ no periodic payment reform,³ and only partial joint and several liability reform.³ On a positive note, annual premiums for EPs are slightly below the national mean,¹ there is a relatively low concentration of attorneys — 10th lowest in the country,¹⁵ and Kentucky is one of the few states to uphold a one year statute of limitations as opposed to the customary two years.⁸

Assessment: Despite lacking meaningful reform of any kind, premiums in the Bluegrass state remain modest.¹ Grade: 2.5 stars out of 5.

Louisiana ★★★★★ 3.75 stars out of 5

Caps: \$500,000 on total damages, excluding damages recoverable for future medical care (hard cap).³

Average 2012 premiums: \$16,600-\$18,000 for IM, \$52,700-\$60,400 for GS.¹

Liability environment for emergency physicians: The Pelican State possesses a dynamite tort reform package, but premiums for EPs are curiously high¹ and the state has been chastised by ATRA for being overly litigious and plaintiff-friendly.²⁸ Louisiana has a \$500,000 cap

on total damages, excluding damages recoverable for future medical care.³ This cap has been successfully upheld numerous times,³ most recently in March of 2012.²⁹ Providers are responsible for no more than \$100,000 per decision — a state PCF (patient compensation fund) covers any excess amount awarded up to the cap.⁸ Like Kansas and Indiana, in an attempt to keep frivolous lawsuits out of the courts all cases are pre-screened by a panel consisting of three physicians and one non-voting lawyer.⁸ Additional favorable state laws include joint and several liability reform³ and a one year statute of limitations.⁸ On the negative side of things, Louisiana has no collateral source reform,³ no limits on attorney fees,³ and no expert witness reform.⁸ Experts are not required to be in clinical practice, nor do they need to be in the same specialty or state as the defendant.⁸

Assessment: Louisiana's reforms look spectacular on paper, yet premiums remain high¹ and the state is known to be plaintiff-friendly.²⁸ Grade: 3.75 stars out of 5.

Maine ★★★★★ 3.5 stars out of 5

Caps: \$500,000 on non-economic damages in wrongful death actions (hard cap).³

Average 2012 premiums: \$16,000 for EM with standard policy limits (personal communication, 2013).

Liability environment for emergency physicians: Reforms have been modest at best, but EPs in Maine pay the lowest premiums in the Northeast.¹ Maine has a \$500,000 cap on non-economic damages, but it is only applied in cases of wrongful death.³ Additional positives include collateral source reform,³ sliding scale limits on attorney fees,³ and periodic payment reform.³ Also, Maine is one of the few states to have enacted mandatory pre-trial screening panels.⁸ Unfortunately, expert witness reform is nonexistent.⁸ Additional negatives include the lack of joint and several liability reform³ and a three year statute of limitations.⁸

Assessment: Minimal tort reform, but with remarkably low premiums¹ the Pine Tree State is the east coast's superstar. Grade: 3.5 stars out of 5.

Look for this series to continue in future issues!

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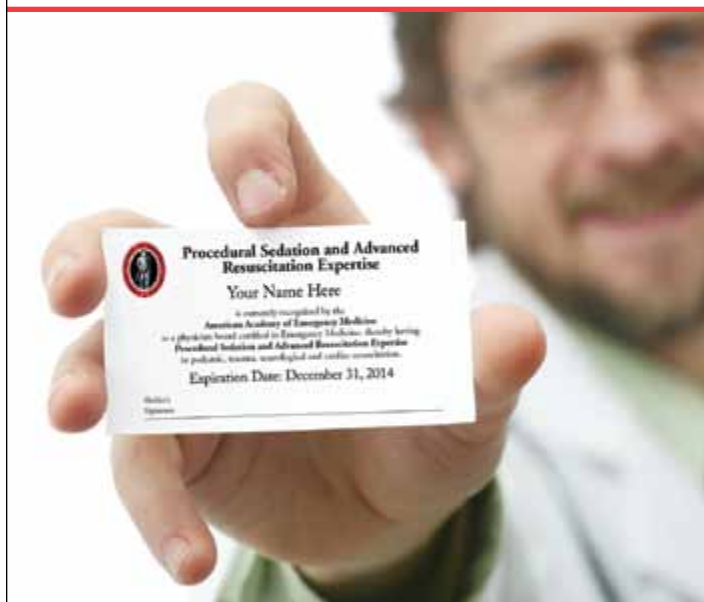
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Antibiotic Stewardship 101: An Intro for Emergency Physicians

Michael S. Pulia, MD FAAEM; Stephen Liang, MD; Larissa S. May, MD MSPH



Background

The emergence of antibiotic resistant bacteria began in the 1940s after the widespread introduction of penicillin into clinical practice. Acceleration in the magnitude of the problem was noticed in the 1990s, with antibiotic resistance genes detected in most pathogenic bacterial species and the first identification of pan-resistant bacterial strains. Increasing

commercial and clinical usage of newly developed broad-spectrum antibiotics was cited as the most significant factor driving this foreboding trend. Today the threat from resistant bacteria looms larger than ever. On September 16, 2013, the Centers for Disease Control (CDC) released its first comprehensive report on all antibiotic resistant bacteria that pose large-scale public health threats. This report highlights the burden of bacterial resistance, with 2 million patients infected annually in the United States alone and at least 23,000 deaths tied directly to infection with these organisms. This does not account for the many additional deaths in which drug resistant bacterial infections are contributing factors.

Antibiotic Stewardship Defined

The public has entrusted the responsible use of antibiotics to health care providers. While antibiotics offer immense benefits for individual patients suffering from bacterial infections, if not applied judiciously they can also breed organisms that pose a threat to all of humanity. Practically speaking, antibiotic stewardship refers to any strategy that aims to optimize antibiotic usage (selection, dose, and duration). The ultimate goal of these efforts is to produce an optimal clinical response while reducing health care costs, mitigating adverse outcomes, and preventing the further development of resistant organisms.

Stewardship not only refers to restricting antibiotic use but also to improving the timely delivery of broad-spectrum antibiotics when clinically indicated, such as in severe sepsis. The emergency department (ED) remains a relatively untouched frontier for antibiotic stewardship efforts, which has prompted a recent call for improved practices and new research initiatives. Successful integration of established antibiotic stewardship programs in the unique ED setting could yield substantial benefits, including reduced antibiotic utilization, medication costs, medication errors, adverse drug reactions, and antibiotic-associated infections such as *Clostridium difficile*.

CDC Partners with AAEM

In 1995, the CDC launched the National Campaign for Appropriate Antibiotic Use in the Community. This national initiative, renamed in 2003 as *Get Smart: Know When Antibiotics Work*, involves media campaigns, development of guidelines and educational materials, and support for local appropriate antibiotic use programs. The program utilizes a

three-part strategy to stem the tide of antibiotic resistance:

- Promoting adherence to appropriate prescribing guidelines among providers.
- Decreasing demand for antibiotics for viral upper respiratory infections among healthy adults and parents of young children.
- Increasing adherence to prescribed antibiotics for upper respiratory infections.

The first *Get Smart about Antibiotics Week*, a promotional effort to raise awareness about antibiotic resistance and stewardship, was held in 2008. Each year the CDC selects a different group of health care providers as a target for spreading the word about antibiotic stewardship. For 2013, the CDC decided to focus on emergency care providers, acknowledging the ED as an increasingly important setting for antibiotic usage. The ED straddles the inpatient and outpatient settings and the decisions we make with regard to antibiotics have massive downstream implications. In order to reach its target audience, the CDC partnered with the American Academy of Emergency Medicine (AAEM) to promote *Get Smart about Antibiotics Week 2013*, which took place November 18-24. During this week AAEM posted this article and links to the CDC's *Get Smart* activities on its web page, in addition to spreading the word by social media.

Top 10 Ways to Improve Stewardship in Your ED

We have compiled a list of ten ways to enhance antibiotic stewardship in your ED.

10. **Post-prescription culture review.** Ensuring that antibiotic coverage is sufficient limits adverse outcomes related to treatment failure, while narrowing coverage based on culture results should enhance stewardship and reduce adverse medication reactions. Given the time-intensive nature of such a program, we recommend utilizing non-physician staff for all aspects except antibiotic selection decisions. An ED pharmacist can play an important role in this process.

9. Antibiotic order sets and clinical decision support systems.

Institutions have successfully implemented strategies using written forms and, in some cases, computerized physician order entry to streamline the selection of empirical antibiotics in the ED. While more research is needed, order sets can potentially reduce unnecessary antibiotic usage by limiting physician choices to evidence-based treatment guidelines coupled with local trends in antibiotic resistance. Ideally, such systems should be tailored to the patient based on data obtained during the evaluation (e.g., risk factors, comorbidities, drug allergies, and any available laboratory and microbiology results).

8. A multidisciplinary, antibiotic usage, quality improvement process.

Pharmacists and infection disease specialists can provide invaluable feedback and guidance on the optimal use and appropriate dosing of

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antibiotics in the ED. They also play an integral part in many hospital-based antibiotic stewardship programs and should be consulted as key players in ED-based initiatives to improve antibiotic prescribing and reduce unnecessary antibiotic utilization.

7. An Antibiotic Stewardship Champion. Emergency care providers often face immense pressure to prescribe antibiotics outside of clinical guidelines. This comes from patient requests and fear of patient complaints/low satisfaction scores, which can threaten both compensation and job security. Delegating a member of the group to serve as ED Antibiotic Stewardship Champion establishes this as something of value to the group. This individual could coordinate continuing education on antibiotic resistance/stewardship topics and serve as the lead contact with administration regarding disputes over decisions to appropriately withhold antibiotics. The presence of a formalized leadership role may empower individual clinicians to utilize evidence-based guidelines rather than prescribe under pressure.

6. **Determine local antimicrobial susceptibilities.** Hospital antibiograms provide a snapshot of the antimicrobial susceptibilities of common microorganisms isolated by the microbiology laboratory of your facility. They are most useful to emergency care providers when broken down by inpatient versus outpatient cultures, and are typically updated annually. In some cases antibiograms specific to your ED may be available. Antibiograms allow emergency providers to make informed choices about empiric antibiotic therapy based on local antibiotic resistance patterns, thereby increasing the likelihood of success in treating an infection. Limitations of antibiograms, however, include a bias towards more severe infections, which may not represent antimicrobial susceptibility in the general ED population.

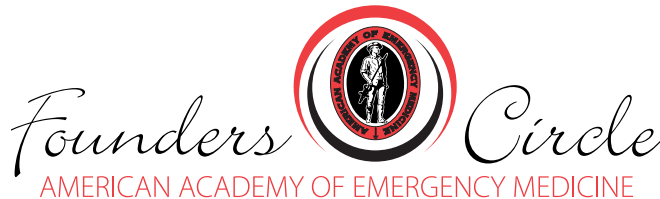
5. Consider cultures when initiating antibiotic therapy. While the results of cultures obtained from blood, urine, and other potential sites of infection are unlikely to come back in the course of an ED stay and rarely change therapy, they occasionally play an important part in confirming infection and assuring that the causative microorganism is susceptible to the empiric antibiotic regimen initiated in the ED. Based on these susceptibilities the antibiotic spectrum can be narrowed, minimizing the over-utilization of antibiotics and antibiotic-associated adverse events and complications.

4. Administer broad-spectrum antibiotics to patients with septic shock early. The most recent update of the Surviving Sepsis Campaign guidelines continues to recommend empiric antibiotic therapy targeting all likely pathogens based on the patient's clinical history within one hour of the recognition of septic shock and severe sepsis without septic shock. Both inappropriate and delayed antibiotic therapy have been linked to significantly increased mortality in septic shock. In most cases, empiric coverage of Gram-positive and Gram-negative bacteria, including resistant organisms such as methicillin-resistant *Staphylococcus aureus*, is warranted. In immunocompromised patients, antifungal therapy against *Candida* species should also be considered. Restriction of initial antibiotics in critically-ill patients is inappropriate and should only be addressed once the patient's clinical status has improved and additional microbiological data is available to guide de-escalation of therapy.

3. Avoid antibiotics for uncomplicated abscesses. Several studies conducted in the ED provide data to support withholding antibiotics after incision and drainage of uncomplicated abscesses, even in cases of suspected methicillin-resistant *Staphylococcus aureus*. However, it is important to understand the clinical scenarios in which the CDC and Infectious Disease Society of America recommend antibiotics in the treatment of acute skin and soft tissue infections, such as patients with comorbidities, and the recommendation to send a wound culture for patients receiving antibiotics.

2. **The modified Centor Score.** Sore throat is a common complaint among ED patients. Although concerns about Group A *Streptococcal pharyngitis* and resultant suppurative complications drive evaluation and treatment, the majority of cases are caused by viruses. Derived in the ED setting over 30 years ago, the Centor Score (range 0-4) aims to utilize clinical criteria to risk stratify patients and ultimately help differentiate bacterial from viral cases of pharyngitis. One point is assigned for each of the following criteria: fever, absence of cough, tonsillar exudates, and swollen/tender anterior cervical nodes. The McIsaac score modifies the original Centor criteria by adding one point for patients aged 3 to 14 years and subtracting one point from those over 45 years old. Current guidelines recommend no rapid testing and withholding antibiotics in patients with scores of zero and one, and treating only positive rapid test results for scores of two or greater. In addition to being supported by the CDC, the utility of these scoring systems when used in combination

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of with rapid testing has been validated in large cohorts and with meta-analysis.

1. **Withhold antibiotics for uncomplicated respiratory tract infections.**

Reducing the widespread, inappropriate use of antimicrobial agents for uncomplicated upper and lower respiratory tract infections, the majority of which are viral, is a core principle of the CDC's *Get Smart: Know When Antibiotics Work* program. Using a national data set, researchers identified respiratory conditions as responsible for over 40% of all antibiotic use in outpatient settings. The majority of these prescriptions were for broad spectrum antibiotics, a trend that was increased among ED patients. On a positive note, educating patients about the nature of their illness rather than giving antibiotics for upper respiratory infection may lead to greater patient satisfaction. As part of the Get Smart program, the CDC has developed a viral illness prescription pad as a novel patient education tool. It contains information about why antibiotics are not indicated and 'prescribes' supportive care.

Antibiotic resistance represents an increasing threat to public health and makes treating patients with infectious diseases more difficult. Although much work remains to be done in identifying optimal approaches to antibiotic stewardship in the ED, it is our hope that everyone will strive to implement the highlighted strategies. AAEM is proud to partner with the CDC for *Get Smart About Antibiotics Week 2013*, and looks forward to future collaboration on efforts specifically designed to improve antibiotic stewardship in the ED.

Michael S. Pulia, MD FAAEM

Assistant Professor

Division of Emergency Medicine

University of Wisconsin School of Medicine and Public Health

American Academy of Emergency Medicine

Board of Directors-Young Physician Section Director

Stephen Liang, MD

Instructor of Medicine

Divisions of Emergency Medicine & Infectious Diseases

Washington University School of Medicine

Larissa S. May, MD MSPH

Associate Professor and Associate Director of Clinical Research

Department of Emergency Medicine

The George Washington University

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AAEM 100% ED Groups

■ AAEM 100% ED Group Membership

AAEM instituted group memberships to allow hospitals/groups to pay for the memberships of all their EM board certified and board eligible physicians. Each hospital/group that participates in the group program will now have the option of two ED Group Memberships.

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For these group memberships, we will invoice the group directly. If you are interested in learning more about the benefits of belonging to an AAEM ED group, please visit us at www.aaem.org or contact our membership manager at info@aaem.org or (800) 884-2236.

For a complete listing of 2013 100% ED Group members, go to www.aaem.org/membership/aaem-ed-group-membership.

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The ACCME Subcommittee, a branch of the Education Committee that maintains AAEM's CME Program, is actively recruiting members.

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- Ensuring that each educational activity meets the criteria set forth by the Accreditation Council for Continuing Medical Education (ACCME)
- Reviewing applications, faculty disclosures, presentations, and content for all the direct and jointly sponsored activities to ensure all ACCME guidelines are met and the appropriate number of CME credits are determined

To learn more about the responsibilities of all of our committees and to complete an application, visit:
www.aaem.org/about-aaem/leadership/committees

AAEM Members Sought to Assist Argentine Emergency Medicine Society to Develop Evidence-Based Care Guidelines for Low to Moderate Resource Environments

Gary Gaddis, MD PhD FAAEM

Preparations are well underway for the Fifth Inter-American Emergency Medicine Congress (IAEMC), to be held in Buenos Aires, Argentina. AAEM is cooperating with the Sociedad Argentina de Emergencias (SAE) to produce this congress at an exciting venue. The congress will take place May 14-16, 2014, at the Palais Rouge, in the fashionable "Palermo" area of Buenos Aires. The IAEMC will be bilingual, with a Spanish language track organized by SAE, and simultaneous translation provided for the English language track organized by AAEM. As the AAEM member serving as the Academy's Scientific Chair for the IAEMC, I hope you consider attending.

I also hope to interest you in making a larger commitment to our specialty. The leaders of SAE have asked for AAEM volunteers willing to adapt emergency medicine guidelines and clinical decision rules to the low and moderate resource environments that are so common in Latin America. Although some hospital emergency departments south of the

Rio Grande are equipped much like those in the United States, many more are much less well-resourced.

This project will require a long-term commitment from those who become involved, but is an opportunity to become involved in international emergency medicine. To organize our efforts, a meeting has been arranged at the upcoming Scientific Assembly to form a committee to begin our outreach. The meeting time and location will be announced onsite. Please consider becoming involved in international emergency medicine by offering your help and expertise for this initiative. Feel free to email me in advance of the Scientific Assembly if you have questions about this opportunity.

Gary Gaddis, MD PhD FAAEM
Scientific Chair for AAEM to 5th IAEMC
ggaddis@saint-lukes.org



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Missouri Lawmakers Relax Volunteers' Medical Malpractice Liability

John K. Ross

Missouri Watchdog Contributor

Most states, in fact probably all, have "Good Samaritan" laws to protect those trying to render aid to people in need. In general, these laws protect the Good Samaritan from lawsuits for anything short of gross negligence, which according to The People's Law Dictionary, means "Carelessness which is in reckless disregard for the safety or lives of others, and is so great it appears to be a conscious violation of other people's rights to safety. It is more than simple inadvertence, but it is just shy of being intentionally evil." Several states, including my state of Tennessee, have similar laws to protect physicians and others rendering post-disaster medical care and those giving medical care in charity clinics. Missouri has now passed such a law, but had to do so over its governor's veto. I hope those of you who live in Missouri will thank your state legislators who voted to pass this law and override the governor's veto (<http://www.mo.gov/government/legislative-branch/>), and let the governor know how you feel about his actions too (<http://governor.mo.gov/contact/>). Join your AAEM Missouri state chapter and get politically active!

I believe people who are donating huge amounts of their time, talent, and services at reduced or no cost should be protected from unreasonable lawsuits. Other than tort lawyers, who could possibly disagree? But doesn't that describe what every emergency physician in America does every day, laboring under EMTALA? That is why AAEM supports redefining malpractice as gross negligence rather than ordinary negligence for those who are providing EMTALA-mandated care, whether emergency physician or on-call specialist (http://www.aaem.org/UserFiles/file/EMTALA_Mandated_Emergency_Care_Position_Statement.pdf).

— The Editor

Missouri lawmakers voted Wednesday to override Gov. Jay Nixon's veto of SB 129, the Volunteer Health Services Act, which relaxes medical malpractice liability for volunteers.

"This is going to increase access to health care for thousands of Missourians at no cost to the taxpayer," Sen. David Sater, R-Cassville, who sponsored the bill, told Watchdog.

The measure waives civil penalties against volunteers unless there is a "gross deviation from the ordinary standard of care or willful misconduct." The change means health professionals can donate their services without fear of lawsuits.

The cost of liability insurance kept many retired physicians and other health workers from volunteering in their communities, Sater told Watchdog last month.

"We just want them to work within the scope of their practice and if they do that and follow the standard of care, which we have in the bill, then they won't have to fear being sued for some frivolous stuff," said Sater, a pharmacist by training.

The new law also allows health professionals licensed in other states to practice in Missouri as long as they are providing free care.

Charitable groups like the Tennessee-based Remote Area Medical (RAM) rely on out-of-state physicians and nurses to staff their events. The organization holds weekend-long events across the country to provide free dental, eye and general medical care to thousands of underserved patients. People often drive for hours and camp out in their cars overnight to make sure they will get a spot in line.

Without out-of-state volunteers, RAM can't see everybody who shows up.

"It's a mathematical problem," RAM founder Stan Brock said.

About 60 percent of the doctors and nurses who are volunteering at an event in Clinton, TN, next week are licensed outside of Tennessee, Brock said.

"To have this restriction that a doctor duly qualified in New Jersey is not allowed to cross state lines to provide free care in Missouri makes no sense whatsoever."

In 2011, RAM sent its mobile eyeglass clinic to Joplin to assist in the tornado recovery effort, but couldn't do any work because the group's optometrist and opticians weren't licensed in Missouri.

In his July veto message, Nixon wrote that Missouri already has a system of free clinics and that any gaps in coverage "should be addressed within the system."

Missouri becomes at least the eighth state to ease restrictions on volunteer health workers. In other states, similar legislation "has been extremely successful and thousands of patients have been served that otherwise would not have gotten the care that they need," Brock said.

After passing the Missouri Senate 25-9, the override initially fell one vote short in the House. But around midnight the measure squeaked through on reconsideration, obtaining the necessary 109 votes.

The law takes effect in 30 days.

"I'm looking forward to the opportunity to fulfill some of the many requests that we've had over the years to bring an event to St. Louis itself or other areas of need in the state of Missouri," Brock said.

Reprinted with permission from www.missouriwatchdog.org. Published September 13, 2013. ■

COMMITTEE UPDATE: Membership

The 2013 membership numbers reflect a 7.4% increase in our overall membership and a 7.1% increase on Full Voting members. In addition, we acquired five new ED group memberships in 2013, bringing our 100% ED group total to 25 and our 2/3 group total to three.

The 2014 AAEM membership mailing was distributed the first week of November. The mailing included an updated membership brochure and letter highlighting member benefits and recent accomplishments, personalized dues invoices, and a special insert featuring the new Founders Circle and highlights of the 20th Annual Scientific Assembly in New York City. We will continue to reach out to past AAEM members during membership recruitment, as well as target New York area prospects while simultaneously promoting the Scientific Assembly.

We are actively collecting dues for 2014. Beginning this year, all members will have an additional option to donate to the Founders Circle. Founders Circle contributions are earmarked for sponsoring residency program group memberships, thereby introducing those residents to AAEM's mission and core values. To date we have introduced three new residency programs to AAEM, including the Medical University South Carolina, Emory University, and Metropolitan Hospital — totaling just over 100 new residents.

Andrew Mayer, MD FAAEM
Chair, Membership Committee ■



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CHAPTER UPDATE: **California AAEM**

CAL/AAEM hosted its 3rd Annual San Francisco Speakers Series on Thursday, November 21, 2013, at Paragon Restaurant in San Francisco. The event was organized by CAL/AAEM secretary, Jennifer Kanapicki Comer, MD FAAEM, and Brian Potts, MD FAAEM, a past president of CAL/AAEM. Over 20 people participated in the free event which included educational lectures and networking time for local community and academic emergency physicians as well as emergency medicine residents. Dr. Kanapicki Comer organized a collection of three local fantastic lecturers from Northern California. Attendees were able to enjoy an assortment of fine appetizers and local Northern California beers catered by the restaurant in this fun, casual setting. ■



CHAPTER REPORT: **Delaware Valley AAEM**

Over 170 residents gathered for a successful 2013 DVAAEM Residents' Day and Meeting held on Thursday, November 21, 2013, at Temple University in Philadelphia, PA. In the morning, educational sessions were lead by Sergey Motov, MD FAAEM; Haney Mallemat, MD FAAEM; Joseph R. Lex, MD MAAEM FAAEM; and David Farcy, MD FAAEM FCCM. The day concluded with 2013 LLSA Review/ConCert Prep lead by Richard Shih, MD FAAEM, and Michael Silverman, MD FAAEM. ■



CHAPTER REPORT: **Virginia AAEM**

The Virginia Chapter of AAEM continues to be an advocate for its members. Our latest efforts are focused on elimination of the PEND program, discussed below, creating CME for our members, and working with the Virginia Chapter of ACEP by establishing an official liaison.

For the last two years, we have been working with members from Chesapeake Emergency Physicians and Virginia ACEP to eliminate Virginia's PEND program. The PEND program reduces reimbursement to emergency physicians to a "triage payment" of \$22.06, based on review of the final diagnosis after services have been provided to Virginia Medicaid and Virginia Medicaid Managed Care Organization patients. Both VA-AAEM and VA-ACEP sent memos to the Governor of Virginia, Mr. Bob McDonnell, urging him to eliminate the PEND program. Both chapters also sent an email alert to their members urging them to contact the governor. Congressman Randy Forbes and State Delegate Chris Stolle, MD, have aided us greatly in these efforts, and a meeting

with CMS is planned to discuss the legality of the PEND program. After more than a year of work, we feel that we're making major progress toward the elimination of the PEND program.

We continue to look for the most efficient way to create low-cost or free CME for our members, and are working on many ideas to meet this goal. Finally, we have established an official liaison position with VA-ACEP, to be filled by our vice president, Bill Brady, MD FAAEM. Please contact me with any questions/concerns at jschofer@gmail.com.

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.

Joel M. Schofer, MD RDMS FAAEM FACEP
President, Virginia AAEM
Commander, Medical Corps, U.S. Navy ■

Continued on next page

CHAPTER REPORT: Virginia AAEM, cont.

Letter from VA-AAEM to Virginia Governor — Supporting Elimination of PEND Program

Virginia is far from the only state trying to save money by denying fair payment to emergency physicians after our services have already been rendered to Medicaid patients. Reducing payment to a next-to-nothing triage or medical screening fee because someone's chest pain turned out not to be an acute coronary syndrome is not only unfair — especially when we are required by law to see every patient who comes to the ED, regardless of their ability or willingness to pay for that care — it flagrantly violates the “prudent layperson” regulations that define a medical emergency for the purposes of reimbursement. If this is happening in your state, let your AAEM state chapter know about it or notify the Academy's national leadership.

— The Editor ■



VA-AAEM President Dr. Joel Schofer and Dr. Chris Stolle (Virginia House of Delegates, 83rd District) meeting on November 22nd, 2013, to discuss elimination of the PEND Program.

October 8, 2013

Dear Governor McDonnell,

The Virginia Chapter of the American Academy of Emergency Medicine (VA-AAEM) represents approximately 200 medical students, emergency medicine residents, and emergency physicians in the state of Virginia, and we strongly support the elimination of the Virginia DMAS PEND program.

Emergency physicians are required to evaluate any Medicaid patient who presents for care based on the Emergency Medical Treatment and Active Labor Act (EMTALA), a federal law which mandates a medical evaluation of all patients who present for care to a hospital emergency department, regardless of their ability to pay. The only way to determine whether a patient is safe for discharge or must be admitted to the hospital is for a medical provider to perform a medical screening exam, which includes an appropriate history, physical exam, and any testing that may be needed.

Virginia DMAS implemented the PEND Program in the 1990's with the goal of reducing visits to Virginia's emergency departments by reducing reimbursement to emergency physicians to a “triage payment” of \$22.06.

The decision to reduce payment to this level is based upon the final diagnosis. If the diagnosis is deemed “not severe enough” to warrant an emergency department visit, it implies that the patient should have scheduled an appointment with their primary physician instead of presenting to an emergency department. This conflicts with Virginia's Prudent Layperson Standard, which defines a medical emergency and mandates reimbursement based upon the perspective of a prudent layperson (i.e., non-medical professional) with respect to conditions such as trauma, abdominal pain, fever, chest pain, etc., independent of the eventual final diagnosis. Medicare, TRICARE, North Carolina Medicaid, and all of the private insurers utilize a single reimbursement rate for emergency medical care. Only Virginia Medicaid and Medicaid Managed Care Organizations downcode

reimbursement to a “triage fee” for work that that has been performed and is required under federal law.

While no other specialty has a tiered level of reimbursement based solely on the findings of the work performed, the equivalent practice would be to down-code payment for the roughly 40% of heart catheterizations that show no blockage or to pay police and fire fighters less for those 911 calls that end up being non-emergent. The services rendered to a 70 year old Medicaid patient who presents with a fever and cough and whose chest X-ray demonstrates pneumonia is reimbursed at the standard Medicaid rate. If the X-ray returns normal, the provider's reimbursement is reduced to \$22.06 for a result that neither the emergency physician nor the patient could have predicted.

Our chapter believes that reducing payment to emergency physicians for work they are required to perform neither bends the Medicaid ER cost-curve nor reduces non-emergent Medicaid ER visits. Washington state, Rhode Island, and other states have saved millions of dollars by collaborating with emergency care providers to help Medicaid patients access care more appropriately.

Elimination of the PEND Program would also save the administrative costs that are currently being spent on unnecessary case review of work and the manual claims submission for work that is being performed to rule out emergency medical conditions. Our chapter believes that penalizing physicians who are obligated by federal law to provide care to Medicaid patients is not reasonable or appropriate. We strongly support the elimination of the PEND program and would appreciate your support in this matter.

Very Respectfully,
Joel Schofer, MD RDMS FAAEM FACEP
President, Virginia AAEM
Chesapeake, Virginia ■



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Cooling Fever Phobia

Teresa Ross, MD FAAEM

Pediatrics

Classic emergency medicine textbooks don't dwell too much on the treatment of benign fever — for adults or kids. As ER docs our job is to seek out the dangerous, to nab bacterial infections, arrest sepsis, and prevent status epilepticus. However, when we find ourselves left with a non-toxic kid tolerating her viral syndrome just fine, we must address the parents' final concern. "But, she still has a fever. What do we do?"

Most disciplines define fever as 38°C or 100.4°F. This is a good starting point for the conversation with parents. Now they can stop worrying about all those bland readings of 99.9°F. When it comes to "real" fever, it's our job to educate and advise there too — and act by example.

Fever is not a disease in itself but a physiologic response of the immune system with beneficial effects in fighting infection. Recent guidelines by the American Academy of Pediatrics (AAP) seek to calm "fever-phobia" in parents and practitioners, reinforce its beneficial qualities, and encourage antipyretics for comfort rather than absolute temperature control. Even in the case of febrile seizures, fever control does little to prevent recurrence.¹

Fever is a natural increase in the hypothalamic "set point" in response to internal and external pyrogens. Specifically, "fever retards the growth and reproduction of bacteria and viruses, enhances neutrophil production and T-lymphocyte proliferation, and aids in the body's acute-phase reaction. The degree of fever does not always correlate with the severity of illness ... Risks of lowering fever include delayed identification of the underlying diagnosis and initiation of appropriate treatment and drug toxicity."¹

The AAP guidelines urge clinicians to spread the message that fever is not known to harm children and may even be of benefit. The goal of antipyretics is comfort, rather than to normalize temperature.

There is precedence in the adult literature that fever is a strong protective mechanism for the body against infection. One study was stopped early due to overwhelming evidence on preliminary review that tight fever control actually increased infection rates and mortality in Trauma ICU patients.²

After screening 572 patients over nine months, 82 ICU patients were enrolled in a University of Miami study and randomized into either an aggressive fever-control group (acetaminophen 650mg q6h for T>38.5°C, and cooling blanket added for T>39.5°C) or a permissive group (acetaminophen 650mg q6h and cooling blanket both for T>40°C). Patients required an ICU stay over three days, and were excluded for other hyperthermic conditions (heat stroke, malignant hyperthermia, neuroleptic malignant syndrome), previous history of traumatic brain injury, or any other potentially compromising neurocognitive condition (seizures, strokes, hepatic cirrhosis). Because acute brain injury is the only condition in which literature shows that fever worsens neurologic outcomes and antipyretics improve them, the authors hypothesized that aggressive fever control would actually compromise the immune competence of critically ill patients and make them more susceptible to infection.

Physician judgment determined the need for prophylactic and empiric antibiotics, and further treatment was culture-directed. The study was stopped on preliminary review, well before it reached the sample size of 672 subjects needed for statistical significance (for 95% CI, 90% power, to determine 25% increase rate of infection). The review showed rates of 4 ± 6 infections per patient in the aggressive-control group (131 amongst 44 patients) and only 3 ± 2 infections per patient in the permissive group (85 amongst 38 patients), $p=0.26$. There were seven deaths in the aggressive group (16%) and only one in the permissive group (3%), $p=0.06$.

While we should not act in a reactionary fashion to fever, neither should we disregard its significance as a marker of immune system response. It is our job to determine the disease etiology, benign or not. For most emergency physicians, this work up comes naturally. The appropriate exam and laboratory tests should help identify the source of infection, the presence of sepsis syndrome or immunocompromise; and any need for antibiotics, resuscitation, or admission. Because fever is so non-specific, workups can be simple or complex — as that proposed by a recent Chilean study that sought to validate a prediction model for severe sepsis in pediatric cancer patients within the first 24 hours of admission. All 447 subjects were ≥ 12 years old and had high risk neutropenic fever, prompting atypical decision points such as serum C-reactive protein (CRP) ≥ 90 mg/L and interleukin-8 (IL-8) ≥ 300 pg/ml.³

That said, once we determine and address the disease process causing the fever, guidelines tell us that fever management need only revolve around comfort. Importantly, we can maintain this same standard for children with a history of simple febrile seizures. The AAP guidelines note that "no long-term effects of simple febrile seizures have been identified," including degradation of patient IQ, risk of epilepsy, or death. The only increased risk is that of recurrent febrile seizure itself, an incidence that ranges from 30-50%.⁴

Studies have compared both antipyretics vs. placebo, and anti-epileptics combined with either antipyretics or placebo, and in neither case did strict fever control significantly decrease the incidence of febrile seizures. Ibuprofen was compared to placebo in a randomized, double-blinded study of 230 children with febrile seizures who were treated for any temperature over 38.5°C or 101.3°F. The outcome was insignificant, with 28% and 30% recurrent seizures, respectively.⁵

Despite our efforts to follow best practices, however, underlying personal discomforts play out in our daily patient encounters. In a survey of 118 Italian pediatricians, there remained deviations in practice compared to their national guidelines — which essentially mimic ours. While most pediatric hospitalists, community practitioners, and residents chose acetaminophen over ibuprofen as their first antipyretic, and chose 38.5-38.9°C as a typical starting point for treatment, many did not reconsider antipyretic use based on the patient's physical comfort (59%, 60%, and 45%, respectively), and the majority "often" lowered the treatment threshold for patients with a history of febrile seizures despite the lack of evidence for benefit (54%, 77%, and 100%, respectively). A number

in each group continued to recommend physical methods for cooling, also a non-evidence-based practice.⁶

Italian Pediatric Society guidelines, like American guidelines, recommend treating with antipyretics solely for comfort rather than absolute temperature. They promote oral acetaminophen or ibuprofen but note no value in using dual or alternating therapy, or in changing the threshold for treatment in patients with history of febrile seizures, or in adding physical or homeopathic methods for cooling.⁷

Across the border in Switzerland, another study of practicing pediatricians collected 322 replies from 922 original surveys. It too showed a gap between evidence-based guidelines and clinical practice, apparently more pronounced in the French and Italian speaking regions than in the German speaking regions. The former practitioners favored treatment based on absolute temperature and treated fever more aggressively.⁸

Should we ignore fever? No. But next time a mother asks you what to do about baby Betsy's fever, we should be coaching her on the natural value of fever and the use of antipyretics for comfort alone. We can start by trying our best to lead by example.

Dr. Ross is a former AAEM/RSA president and currently works in private practice in Virginia — a job she loves! As a young doc, she's learning to balance the thrill of attending life with the responsibilities of staying well-read, thoughtful, and efficient in the ED. She welcomes your feedback at tmrossmd@gmail.com.

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Empathy in the ED

Meaghan Mercer, DO
AAEM/RSA President



Over the last decade medicine has moved from an emphasis on pure intelligence to seeking medical providers that have a more empathetic touch and way of thinking. However, as we progress through our training, we are taught a different way of processing feelings. Emotions become something distant and we are trained to look at them objectively

and scientifically. This is not a new concept; Osler argued that by neutralizing our emotions to the point that we feel nothing in response to suffering, physicians can see into and hence study "the patient's inner life." But what is the cost of this emotional blunting?

Empathy has been redefined by some in the medical field as "the act of correctly acknowledging the emotional state of another without experiencing that state oneself." This is a skill that is evident in the emergency department; surrounded by death, disease, fear, and frustration we are taught to compartmentalize because there is a waiting room full of patients waiting to be seen. The busier the department gets, however, the more that skill becomes lost. We can become cynical, detached, and ignore the verbal and non-verbal cues that are so important in a patient interaction when trying to foster trust.

In the new age of health care, empathy is going to be a key skill. Patient satisfaction is already a part of our practice and will play a greater role in reimbursement in the near future. Further, evidence shows that empathy directly enhances therapeutic efficacy. Engaged communication decreases patient anxiety and fear, and fosters trust, which in turn can lead to better treatment adherence. For example, homeless people often use

the ED as their only source of medical care and have a higher tendency to be met with frustration and apathy. At a Toronto hospital, homeless patients were monitored over a five-year period. The patients were randomized to receive "usual care" or "compassionate care." In the group where volunteers address the personal comfort of the patients, monthly visits dropped to 43-65% of the baseline level.

This detached compassion impacts our personal lives as well. Multiple studies have shown that physicians who have difficulty controlling and processing negative emotions seem to be more prone to emotional exhaustion, compassion fatigue, and burn out. Residency is a time to learn both about medicine and how we fit in the medical environment. Sometimes we get so bogged down in the process of medical education that we forget that personal wellness is a component of that process.

We are still in the very early stages of our careers, and we need to remember and connect with why we went into this profession. Excitement and curiosity led us into the ED, and a raw fascination with human life and desire to help should be emphasized. In his TED talk, *The Mystery Box*, J.J. Abrams notes the importance of infinite possibility, hope, and potential and that mystery is the catalyst of imagination. That is where we are right now. Passion and empathy should drive our sense of purpose and gratification in the opportunity to provide care to patients while at their most vulnerable. Connect with your humanity and remember what it is like to be on the other side of the curtain.

I would love to hear your comments on my columns. Please email me at merc.mea@gmail.com! ■

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Predicting the Future — Two Months at a Time

Edward Siegel, MD MBA
AAEM/RSA Publications Committee Chair



Articles in *Common Sense* are submitted more than two months before they are actually printed, which raises the risk of writing about topics which will be dated or proven incorrect by the time of printing. It is currently early November, and all the talk is about the launch of healthcare.gov, or the lack thereof.

Let me start by stressing that I am non-partisan

and independent — I have voted for Democrats and Republicans and usually find myself voting for the candidate with whom I have the fewest disagreements; kind of a lesser-of-two evils approach. As a medical professional, and one who spent many years in business before medical school, I am frequently asked my opinion on the Affordable Care Act, healthcare.gov, etc. It is a fair question, and one that should be encouraged since we are the people who should be taking the lead in developing health care policy in this country, rather than politicians in Washington whose ranks consist of only two senators and 17 congressmen who are physicians — in comparison to 211 lawyers in the legislature, which is fodder for future articles.

I could go out on a limb and make predictions on whether healthcare.gov will be fixed or whether Kathleen Sebelius will still have a job by the time this article gets published, but I won't. Those questions are too difficult for me. Instead, I will offer a couple not-so-bold predictions that will likely be true in two months, and probably for much longer.

"Everything will be OK once I get health insurance." This is a common mantra that I hear in our emergency department, and one that would be amusing if it weren't so frightening. While having better access to primary care physicians and medications should help to control some pathology, I fear that many believe health insurance serves as a magic protective dome that will cover and guard them from getting ill. Many of the patients expecting miracles are those with chronic conditions: hypertension, HIV, diabetes, etc. Even with great medical care and perfect patient compliance, these types of illnesses don't go away. The best one can hope for is some control of the condition while staving off some of its downstream complications. My not-so-bold prediction #1: health insurance won't rid the country of disease.

Approximately ten years ago, when I was weighing the decision to apply to medical school, there was a flurry of conflicting reports coming out — half predicting a massive doctor shortage and half predicting a glut of physicians. Today the talk is decidedly one-sided, with recent reports stating there is a current shortage of 20,000 primary care physicians, with that figure exceeding 50,000 by 2025. Emergency physicians can expect to bear the brunt of this shortage, as more patients will use the emergency department as their primary care physician's office. When universal health insurance was introduced in Massachusetts, patients saw immediate increases in waiting times to see their primary care physicians, and all 11 emergency departments assessed in a Harvard study found their patient volume increased. This led some hospitals, including

Boston Medical Center, to sue the state over lack of sufficient reimbursement for the increased burden placed upon them. While some thought to addressing the shortage of primary care physicians is included in the Affordable Care Act, including bonuses and improved reimbursements for preventative treatments, the gaps in salary and status among different types of doctors remain. My not-so-bold predictions #2 and #3: there will be a shortage of primary care doctors for a long time to come, and the emergency departments will become increasingly busy as a result.

"I want everything done." Another common refrain heard in the emergency department. Often this comes after we deliver bad news to a loved one. Too often the patient is so sick that the best efforts of doctors and nurses serve only to delay the inevitable — at a huge cost. One cost is in the form of needless pain and suffering for the patient, which is why I am a strong advocate of palliative care services being available throughout the hospital, including in the emergency department. Another cost is in dollars-and-cents, and this is borne by everyone who pays taxes or is reliant on public services. When Medicare was first created, it was done without budget projections. That's right, no one bothered to put together a simple spreadsheet to estimate the cost of something that would eventually consume billions of dollars each year. I fear that history has repeated itself, in that the focus has been on making sure people obtain health care, without discussion of how much health care our country can afford. Currently 25% of annual Medicare expenditures are spent on the 5% of Medicare patients who die that year. The more people who have insurance, the more people who will be empowered to say "I want everything done," and the more the cost of health care will rise.

England employs a system to ration its health care dollars. The National Institute for Health and Care Excellence (NICE) was set up in 1999 with several tasks, one of which was to determine the cost-effectiveness of medical treatments. NICE uses a "quality-adjusted life year" (QALY) to objectively measure the value of treatments and procedures. QALY relies on calculations which are too detailed for this article, but essentially break down each month/year of life and assess a quantitative price to be paid for prolonging one's life. If a proposed treatment is too expensive based on the QALY, then NICE will decline to fund it. While estimates vary, it appears that each year of life based on QALY is valued at approximately £20,000 to £30,000 (\$32,000 to \$48,000). I have never practiced in England, and cannot say how these figures are put into practice, but I cannot imagine the typical American health care consumer accepting QALY-type limits placed on the treatment of their mother/father/grandparent/children/selves, especially after being told that having health insurance would be a panacea. This leads to my not-so-bold prediction #4: we will need a real discussion about health care rationing, but our politicians will be too timid to do so in any real fashion.

While we're talking about the Affordable Care Act and the doctor-to-lawyer ratio of 19-to-211 in our House and Senate, I would be remiss if I didn't bring up tort reform and its omission from this landmark

Continued on next page

legislation. Despite increasing the workload of doctors, no effort was made to remove the risk of litigation that accompanies each patient encounter. There are many reasons for this, not the least of which is the aforementioned doctor-lawyer composition of our lawmaking bodies. It is also evidence that no thought was given to managing health care costs, beyond ensuring people have insurance, despite the enormous costs that come with unnecessary testing and defensive medicine. One study found that defensive medicine contributed \$280 billion in physician costs and more than \$1 billion in hospital costs in 2008 in just one state (Massachusetts). While one would have hoped that any overhaul of our health care system would have included tort reform, my not-so-bold projection #5 is that addressing the litigious battlefield that doctors face everyday won't be undertaken in the near future.

So those are my predictions for the next two months and beyond. They don't offer any great clues as to how we will navigate the world of medicine once we've completed our residencies, nor are they breaking any new ground. Health insurance won't be manna from heaven that cures disease, we will face an increasing doctor shortage with more patients visiting the ED, increasingly expensive and intricate health care will be demanded without consideration for how to pay for it, and doctors will continue to live and work under the constant threat of litigation. The news is now dominated by the Affordable Care Act, which would be a wonderful justification to discuss some of the difficult issues expressed in this article. My last not-so-bold prediction is that in two months, none of the real problems that our health care system faces will be addressed, much less solved.

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Preparing for the Written Boards and Inservice Exam: A Review of the Evidence

Joel M. Schofer, MD RDMS FAAEM FACEP

Commander, Medical Corps, U.S. Navy

Senior Medical Officer, Emergency Department, Naval Medical Center Portsmouth

Editor-in-Chief, *Emergency Medicine: A Focused Review of the Core Curriculum*



As I was editing the 2nd edition of the AAEM/RSA Inservice and Written Board Review book, I wanted to take a look at the research about what predicts or improves performance on the Inservice Exam or American Board of Emergency Medicine Qualifying Examination, commonly called the "Written Boards."

Below is my summary of the current evidence.

In most cases the existing research is very limited in scope and this is an area that would be ripe for the picking for budding educational researchers.

Do Scores on the USMLE Step Examinations Predict Scores on the Inservice Exam?

A study published in 2010 compared USMLE Step 1 and Step 2 scores to scores on the Inservice Exam.¹ A retrospective analysis was conducted on 51 Step 1, 39 Step 2, and 153 Inservice Exam scores. The authors found a mild correlation between Step 1 scores and Inservice Exam scores, and a moderate correlation between Step 2 and the Inservice Exam. Residents who scored below 200 on either Step 1 or Step 2 had significantly lower Inservice Exam scores ($p < 0.05$). When compared to the group of residents that scored above 220 on Step 1 or 2, the residents who scored below 200 were 10 times as likely to score below the 70th percentile on their PGY-3 Inservice Exam.

Another study discussed in detail below found that residents' scores on the USMLE Step 1 were a strong predictor of their Inservice Exam scores (coefficient = 0.186, 95% CI = 0.155 to 0.217; $p < 0.001$).²

Does a Formal Residency Board Review Program Improve Scores on the Inservice Exam?

A study published in 1997 retrospectively examined EM resident Inservice Exam scores at one residency program before and after the institution of a formal residency board review curriculum.³ The curriculum consisted of monthly readings in Rosen's or Tintinalli's and a monthly multiple-choice test. Implementation of the board review program significantly increased the mean percentile score of EM-1 residents, from the 50.7th percentile to the 68.9th percentile. There was no significant change in EM-2 (66.8th to 65.4th percentile) or EM-3 resident scores (74.4th to 67.4th percentile). The author's conclusion was that a structured board review program improved EM-1 Inservice Exam performance, but not that of more senior residents.

Does Weekly Conference Attendance Improve Scores on the Inservice Exam?

A study published in 2009 reviewed conference attendance data and Inservice Exam scores for 386 residents from four residency programs, and found that conference attendance was not a significant predictor of performance on the Inservice Exam ($p = 0.87$).² It did find that residents' scores on the USMLE Step 1 examination were a strong predictor of their Inservice Exam scores ($p < 0.001$), as was female sex ($p < 0.001$).

Do the Scores on the Inservice Exam Predict Scores on the Written Boards?

An abstract published in 2008 and a follow-on manuscript published in 2011 surveyed residency graduates from an 11-year period at one residency program.^{4,5} Fifty-six graduates responded and self-reported their scores on the Written Boards. These scores were compared with their senior (PGY-3) Inservice Exam scores and showed a statistically significant ($p < 0.0001$) positive Pearson's correlation coefficient of 0.60. A higher Inservice Exam score does appear to predict a higher score on the Written Boards.

Is Residency Clinical Productivity Correlated with the Score on the Written Boards?

The 2011 survey of 56 residency graduates mentioned in the previous question found no significant correlation between resident clinical productivity and scores on the Written Boards.⁵

Summary

Your Step 1 and 2 scores predict your scores on the Inservice Exam. A formal board review curriculum appears to improve the score by EM-1 residents, but not more senior EM residents. Weekly conference attendance does not appear to correlate with increased Inservice Exam scores, and increased resident clinical productivity does not correlate with higher scores on the Written Boards. The score you receive on the Inservice Exam in your last year of residency does appear to strongly correlate with your score on the Written Boards.

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Resident Journal Review

Development in Clinical Toxicology: Use of Intralipid Emulsion and High-Dose Insulin Therapy

Authors: Allison Regan, MD; Eli Brown, MD; Jackie Shibata, MD; Kaycie Corburn, MD

Edited by: Jay Khadpe, MD FAAEM; Michael C. Bond, MD FAAEM

Introduction

There are few antidotes in clinical toxicology, especially with regards to some of the most commonly used medications including calcium channel blockers, beta-blockers, and peripheral anesthetics. Morbidity and mortality rates are high and supportive care is often ineffective. Intralipid and high-dose insulin therapy are two exciting developments in clinical toxicology. This review of the literature explores the evidence behind these new treatment options for beta-blocker and calcium channel blocker toxicity, as well as anesthetic overdoses.

Engebretsen, K, et al. High-dose insulin therapy in beta-blocker and calcium-channel-blocker poisoning. *Clinical Toxicology*. 2011;49,277-283.

Beta-blocker and calcium channel blockers are common medications that can result in both intentional, and unintentional, overdoses. The high morbidity and mortality associated with these overdoses is largely secondary to cardiovascular toxicity. Recent data suggests that early use of high dose insulin (HDI) may be an effective treatment strategy for beta-blocker and calcium channel blocker poisonings.

Historically, initial treatment for poisonings included gastric decontamination along with crystalloid fluids in an attempt to counteract hypotension, bradycardia, and cardiogenic shock. Glucagon is often recommended as an antidote to beta-blocker toxicity due to its inotropic effect. It can also; however, cause vomiting and with it a risk of aspiration. Pressor support, while increasing blood pressure, also increases myocardial demand in the setting of cardiogenic shock. Calcium supplementation only has variable efficacy, especially in severe intoxications. Finally, atropine can reverse bradycardia, but is a short-lived option.

Insulin has three main effects as an antidote to beta-blocker and calcium channel blocker toxicity. First, insulin causes vasodilation at the pre-capillary and capillary bed level, thereby decreasing systemic resistance and increasing cardiac output. Second, insulin enhances the intracellular transport of glucose, which is particularly beneficial to a stressed myocardium. And lastly, high concentrations of insulin increase coronary blood flow and inotropy without increasing cardiac oxygen demand (unlike pressors).

This particular review collated data from an online search for relevant articles from 1975-2010. In addition, they manually searched for relevant abstracts in *Clinical Toxicology* from 1996-2010. Seventy-two relevant articles were considered, none of which were clinical trials.

Several experimental studies that have demonstrated favorable outcomes with high dose insulin therapy were included. Kline et al., used dog models with verapamil poisoning. Dogs were treated with either

saline, epinephrine, glucagon, calcium chloride, or high dose insulin.

Survival rates were 0/6, 4/6, 3/6, 3/6, and 6/6, respectively. Krukenkamp et al., also used a canine model treating propranolol toxicity with insulin. The study showed insulin reversed myocardial depression to 80 +/-2% of baseline cardiac function. Kerns et al., compared insulin, glucagon, and epinephrine for propranolol poisoning in dogs over 240 minutes. Overall survival rates were 6/6, 4/6, and 1/6, which were significantly higher in the insulin treatment. Holger et al., compared high dose insulin to vasopressin and epinephrine. In this study, insulin decreased SVR while increasing cardiac output. Interestingly, vasopressin together with epinephrine increased MAP and SVR initially, followed by steady decline until death. Five of five insulin dogs survived while 0/5 of pressor dogs survived leading to early study termination. Multiple studies have demonstrated that pressors either have no effect or an antagonistic effect on clinic outcomes when used with insulin therapy for beta-blocker and calcium-channel-blockers intoxications.

The clinical protocol proposed in this review is dependent on an initial normal saline infusion. Prior to infusing insulin, serum glucose should be measured and supplemented if less than 200. Most clinicians recommend giving a 1U/Kg insulin bolus followed by a .5-1U/Kg/hour infusion. The infusion rate can be increased by 2U/Kg/hour every 10 minutes to a maximum of 10U/Kg/hour while monitoring for clinical improvement. This should be initiated early in therapy for the greatest results, not as salvage after other failed interventions. Patients should be monitored by clinical parameters of perfusion (skin color, warmth, urine output, mental status, and peripheral pulses). Since insulin increases capillary perfusion, effects may manifest beyond solely an increase in MAP or SBP.

Insulin is inexpensive and relatively easy to manage. Common adverse effects from high dose insulin therapy are hypoglycemia and electrolyte disturbances, mainly hypokalemia. In all reviewed case reports, no long-term sequelae from these aforementioned effects were documented. Dextrose infusion should be used to prevent hypoglycemia. Glucose should be checked every 10 minutes, and then every 30-60 minutes once stable. Potassium levels should initially be monitored hourly, and then every 6 hours once stable. Potassium supplementation is recommended for levels below 2.8-3.0. Magnesium and phosphorous should also be repleted as necessary. At this time, there are no recommendations on how to taper or stop insulin therapy once cardiac function has rebounded.

This study has a number of limitations. As evidenced by the fact that the authors were unable to identify any clinical trials using HDI for beta-blocker or calcium channel blocker toxicity, there is a need for higher quality research in this area in humans rather than animals. The authors

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also do not specify the inclusion or exclusion criteria they used, likely due to overall lack of quality studies.

Despite the limited evidence, the use of HDI for beta-blocker and calcium channel blocker poisoning demonstrates promising results in animal studies and case reports, and may represent a favorable alternative to conventional therapies.

Greene S, Gawarammana I, Wood DM, Jones AI, Dargan PI. Relative safety of hyperinsulinemia/euglycaemia therapy in the management of calcium channel blocker overdose: a prospective observational study. *Intensive care Medicine*. 2007;33:2019-2024.

This study was a prospective observational study to assess adverse reactions associated with hyperinsulinemia/euglycaemia (HIET) in calcium channel blocker (CCB) poisoning. CCB poisoning has significant cardiovascular toxicity. As mentioned previously, there are case reports and animal studies that suggest HIET may be an effective treatment for these ingestions, but human experimental trials are limited. Researchers note that clinicians may fear instituting HIET for fear of unknown clinical safety.

In this study, researchers prospectively collected data from seven patients considered to have severe CCB toxicity (SBP <90mmHg and requiring ICU) that were treated with HIET, as advised by the poisons center in the South of England from 2004-2006. Patients were also treated conventionally with IV fluids, inotropes, calcium, and glucagon. Glucose and potassium levels were monitored every 30 minutes, and then every one to two hours once stable. Supplemental IV potassium was administered to keep patients in low-normal range. Fifty percent dextrose was administered as needed, along with 5% or 10% IV dextrose infusions. Three of the seven patients were loaded with 1 unit/kg of an IV short acting insulin bolus. All were given maintenance insulin infusions of 0.5 units/kg/hour, titrated to a maximum of 2 units/kg/hour to maintain a SBP >100mmHg. All three patients that received the initial bolus experienced a significant sustained rise in BP >10mmHg within the first 60 minutes of HIET. HIET was given within seven hours of presentation and less than 12 hours from time of ingestion in the three bolus patients, but administration was delayed for some of those who did not receive an initial bolus. One patient died. Of note, there were no clinically significant episodes of hypokalemia, arrhythmias, or hypoglycemia recorded.

There were many limitations to this study including: small sample size, lack of randomization, and limited patient demographic data. Also, each patient ingested different medications (i.e., verapamil, diltiazem, beta blockers) and then were given various amounts of other standard treatments (i.e., Ca, glucagon, various inotropes). It is apparent that this study cannot be used to evaluate the overall efficacy of HIET, but it is interesting to note that there were no adverse effects from hypokalemia or hypoglycemia. However, HIET poses serious potential risks and should only be administered in an ICU setting with close monitoring. Incidentally, researchers comment that the three patients who received the initial insulin bolus were documented to have had a more significant


elevation of BP. They note that HIET failures in previous cases were related to late administration of insulin and argue that the maximal CCB-induced systemic insulin resistance occurs within the first 24 hours of ingestion. They therefore argue that HIET should be administered immediately (after glucose and potassium monitoring). More studies looking at efficacy and clinical outcomes with systematic design need to be performed to guide indications, dosing protocols, and special circumstances for the use of HIET in CCB toxicity.

Felice KL, Schumann HM. Intravenous lipid emulsion for local anesthetic toxicity: A review of the literature. *Journal of Medical Toxicology*. Sept 2008;4:3,184-191.

This is a review article of current evidence supporting the use of intravenous lipid emulsion (IVLE) as an antidote to local anesthetic (LA) toxicity. To date, literature on this topic is limited to animal studies and human case reports. However, this is a promising treatment option for cardiac arrest secondary to local anesthetic toxicity, which tend to be resistant to standard resuscitation protocols such as ACLS.

Local anesthetics are thought to function by reversibly binding sodium channels. They also deplete ATP by inhibiting complete oxidation of fatty acids. Peripheral nerve blocks have a relatively high frequency of systemic toxicity, with a rate of approximately 0.1%. Moderate signs

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of LA toxicity include CNS excitation, cardiac arrhythmias, contractile depression, and conduction block. Severe toxicity presents as seizures, hypotension, bradycardia, ventricular arrhythmias, and cardiac collapse. Severity of toxicity correlates with serum concentrations.

There are four proposed mechanisms of action in which IVLE can be used to reverse LA toxicity. First, IVLE functions as a “lipid sink” that extracts LAs from the plasma. Second, IVLE inhibits the mitochondrial metabolism of lipids, thus decreasing tissue acidosis and carbon dioxide production during myocardial ischemia. Thirdly, IVLE may reverse the LA-induced delivery of fatty acids to the mitochondria, thereby allowing for more ATP production. And lastly, fatty acids (in IVLE) activate calcium and potassium channels, which are blocked in LA-induced cardiotoxicity.

Formal dose-ranging studies have not been performed in humans. All of the human case studies below used IVLE 20%. Weinberg and colleagues developed a website using extrapolated information to make dosing recommendations. They recommend IVLE 20% as a bolus of 1.5mL/kg over one minute followed by infusion of 0.25mL/kg/min for 30-60 minutes (and increase to 0.5mL/kg/min if hypotension). They recommend re-bolus every three to five minutes with a total of 8mL/kg if necessary. (Lipidrescue.org).

Animal Studies

Study 1 bottom line: **Pretreatment with IVLE increases the median lethal dose and concentration of bupivacaine tolerated. Resuscitation with IVLE increases the lethal dose of bupivacaine.** Male rats were pretreated with saline, IVLE 10%, 20%, or 30%, followed by bupivacaine 0.75% administration until subjects had 10 seconds of asystole. The lethal dose was found to be higher in subjects pretreated with a higher concentration of IVLE (17.8, 27.6, 49.8, and 82mg/kg respectively with p value <0.0001). Differences in bupivacaine levels were also statistically significant (93.3µg/mL in the saline group vs. 212µg/mL in IVLE group). In the second arm of the study, subjects were given various bupivacaine doses and then resuscitated with either IVLE or saline. The lethal dose (LD50) was 18.5mg/kg in the IVLE group vs. 12.5mg/kg in the saline group.

Study 2 bottom line: **IVLE effectively resuscitated male hounds with cardiovascular collapse induced by bupivacaine administration.** Hounds were given bupivacaine to induce BP <30mmHg and HR <10bpm, followed by either a saline or IVLE 20% bolus and infusion. None from the saline group returned to NSR or maintained a mean BP >20 mmHg, meanwhile all of the IVLE subjects had a return to NSR within five minutes and after 30 minutes both a near-normal BP and EKG.

Study 3 bottom line: **After isolated rat hearts received bupivacaine, IVLE significantly hastened the dissociation of bupivacaine from myocardial tissue compared to buffer (control) solution when myocardial tissue samples were taken at interval times.**

Human case reports

Case 1: A 58 y/o man who received 40mL of LA (20mL mepivacaine 1.5% and 20mL bupivacaine 0.5%) afterwards developed seizures and asystole. The patient initially did not respond to ACLS, but had return of spontaneous circulation following a 100mL bolus of 20% IVLE followed by infusion. He had no neurologic deficits or signs/symptoms of IVLE adverse effects. Cardiac catheterization later showed total occlusion of the RCA and reduced LVEF. Authors postulated that his cardiac disease predisposed him to LA toxicity.

Case 2: An 84 y/o woman who underwent a brachial plexus block for Dupuytren's contracture repair inadvertently received ropivacaine 1% instead of 0.5% and proceeded to have a tonic-clonic seizure followed by asystole. After 10 minutes of ACLS without regaining a pulse, she received 10mL of IVLE 20% followed by 0.2mL/kg/min infusion and developed a wide complex tachycardia, and then regained a pulse. She was extubated after three hours with full recovery.

Case 3: A 75 y/o woman who underwent lumbar plexus block using 20mL of levobupivacaine 0.5% developed convulsions with EKG changes. She then received a 100mL bolus of IVLE 20% during resuscitation. After 10 minutes, her vital signs and EKG were within normal limits. Authors concluded that IVLE might be useful for management of even suspected LA toxicity.

Case 4: An 18 y/o 38-week pregnant woman presented for induction of labor and was given an epidural with lidocaine, bupivacaine, and fentanyl through the epidural catheter. The patient became unresponsive with twitching of her extremities and face. She was given two boluses of 50mL IVLE 20% followed by a 300mL infusion and returned to consciousness within 30 seconds. The patient and her neonate were both discharged four days later without complications.

Conclusion: These human case reports show successful use of IVLE for presumed LA toxicity involving bupivacaine, mepivacaine, ropivacaine, and levobupivacaine. There exists a recommended dosing regimen, but formal dose ranging studies still need to be performed.

Cave G, Harvey M. Intravenous lipid emulsion as antidote beyond local anesthetic toxicity: A systematic review. *Academic Emergency Medicine* 2009;16:815-824.

There has been a lot of attention focused on the potential benefit of IVLE in cardiac arrest secondary to lipophilic drugs. The objective of this systematic review was to determine the efficacy of IVLE in animal models of poisoning and describe the outcomes associated with IVLE therapy in poisoned humans.

A systematic review of the literature was carried out to answer the question, “Does the evidence support administration of IVLE as an antidote in lipophilic drug toxicity, beyond that of local anesthetics?” The electronic databases PubMed, OVID, and EMBASE identified 145 potentially relevant articles. Two reviewers selected and divided articles into animal and human studies. Ultimately, 14 relevant animal studies, one human study, and four human case reports were chosen to be included.

The animal studies demonstrated that IVLE improved hemodynamic

markers when administered in the setting of toxicity from lipophilic drugs such as cyclic antidepressants, verapamil, and propranolol. IVLE had no effect on atenolol toxicity, a hydrophilic drug. Most of these studies, however, were designed to show efficacy alone and were not compared to other established antidotal therapies.

The single controlled human study found a statistically non-significant 14% increase in plasma levels of amitriptyline and nortriptyline levels in patients receiving a five-hour infusion of lipid suspension when compared to a saline control. This was a small study, $n=4$, and subjects were in a pharmacologic steady state as opposed to an acute ingestion. The one controlled human study in this field is not generalizable to an acute tricyclic poisoning.

In the four human case reports, IVLE seemed to benefit patients toxic from bupropion/lamotrigine, verapamil/atenolol, atenolol alone, and sertraline/quetiapine. All four cases showed an initial improvement in hemodynamic markers within minutes of administering IVLE; however, they all had significant limitations.

In theory, basic science supports the use of IVLE in humans, but does not establish clinical efficacy. Based on limited animal and human data, the expected benefit of IVLE may range from limited to life preserving.

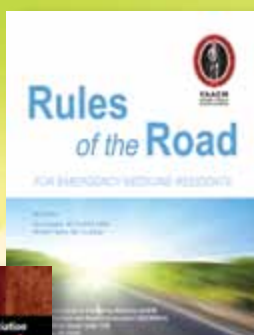
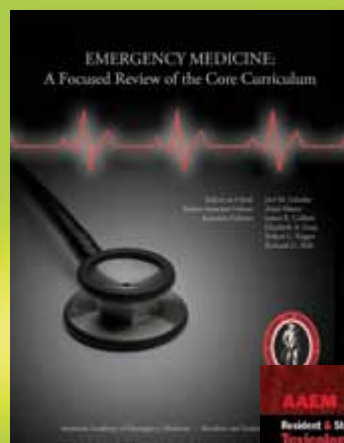
That said, IVLE has been associated with adverse effects such as allergic reactions, hyperthermia, thrombocytopenia, hypercoagulability, pancreatitis, and hepatitis when administered as a component of total parenteral nutrition. Human cases of lipophilic drug toxicity are rare, and therefore unlikely to be studied in a randomized prospective controlled fashion. Based on this systematic review, IVLE may be helpful in potentially lethal overdoses from highly lipophilic cardiotoxic medications. Administration of IVLE in such settings should therefore occur in accordance with established antidotal therapies and after early consultation of poison centers. Additional studies and systematic reporting of human case reports are necessary to confirm IVLE as an effective antidote.

Conclusion

Intravenous lipid emulsion and high-dose insulin euglycemic therapy are two exciting developments in the field of clinical toxicology. Like many studies in clinical toxicology, the limitations are abundant. With that in mind, many of the animal studies and published case reports have demonstrated quite dramatic results. The administration of these two promising therapies should be considered early on in conjunction with other established antidotal therapies, especially with guidance from local poison centers. ■

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Medical Student Council President's Message

"That's So Meta": Cognitive Bias

Mary Calderone, MS4

AAEM/RSA Medical Student Council President



Medical students get pretty familiar with taking multiple-choice exams. The one and only nice thing about them is that there is always a right answer. Reflecting back on my preclinical years as they relate to my clinical years, though, I've realized that real patient encounters don't always play out that way, especially when it comes to diagnostic thinking

in the emergency department. At the end of three emergency medicine rotations, one of the most important lessons I've learned is that there is often no clear answer. In fact, the final diagnosis entered in the ED discharge paperwork is frequently a restatement of the presenting symptom.

I recall several instances when a patient presented and subsequent blood work or imaging we ordered in the ED returned negative for an obvious life-threatening etiology. I still felt an urge to make sense of the patient's complaint and place it neatly into a diagnostic box. When this wasn't possible, I frequently attributed the symptom to anxiety. I later realized that wasn't quite fair or accurate. Another underlying medical etiology could exist despite a negative ED work-up, but would require more extensive outpatient follow-up to be elucidated.

If it's difficult for health care providers to accept that we just don't know the answer, it's all the more difficult for the patient. It may be reassuring to hear that the ED work-up has excluded immediately life-threatening etiologies, but often that's not enough to placate a scared, frustrated patient.

Managing patient expectations in the emergency department, where stress and anxiety levels are unparalleled, is critically important for achieving patient satisfaction. Several patient expectations are realistic — to be listened to, to receive a clear explanation and instructions, and to be treated with compassion and professionalism. Tension arises from unrealistic expectations, which stem from the different goals between patients and staff. Emergency providers approach each encounter with

the goal of stabilizing patients, excluding immediately life-threatening diagnoses, and securing an appropriate disposition. This may compete with patient goals of an immediate full work-up, definitive diagnosis, and total healing.

Identifying and managing patient expectations is important for several reasons. When expectations are not met, patients are more likely to return to the ED with the belief that they were not managed appropriately the first time, leading to increased costs and overcrowding. Patients with unmet expectations are also more likely to be noncompliant, and will quickly spread the word about their dissatisfaction with the offending provider or institution, thereby harming its reputation and ultimate financial security. Conversely, when patient expectations are appropriately managed, patient stress is reduced, trust increases, staff satisfaction and patient compliance improves, and the likelihood of malpractice lawsuits decreases.

The solution is communication. I've found it helpful to ask my patients up front about their expectations and goals regarding the visit. It may be difficult for patients to be forthcoming about some issues, in which case it's important to read between the lines. I've also found it critical to explain the rationale for tests, and how the results will change the course and outcome of the patient's stay. Most importantly, I've realized the necessity of communicating the goals of emergency department care, and clarifying with the patient that our work-up will aim to exclude life-threatening etiologies. If results return negative, we may not ultimately identify the actual diagnosis, but we can arrange the appropriate follow-up to do so and we can provide education on red flags that warrant return to the ED.

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