Recently, I was sitting in our admissions committee meeting, getting ready to discuss the applicants we had interviewed. One of the other members chuckled and said, “Wouldn’t it be funny if we all brought our own medical school applications one day to review?” As we all laughed and looked around at one another (a bit uneasily, I might add), the only thing that kept going through my head was, “Awww, hell no.” (If you could, try to hear that with a little Alabama Southern drawl—it makes it sound much sweeter.)

I graduated from medical school in 1996, and things have drastically changed during the past 25 years. There are different standards and different expectations.

Continued on page 5

Afraid of Getting Sued and Losing Everything? Well, Just Hide Your Money! Or Not!

Frugal Physicians Protect Their Nest Eggs by Douglas Segen, MD, JD

SEE PAGE 21

Sheltering Assets Is Overrated by Michael Frank, MD, JD, FACEP, FCLM

SEE PAGE 21

The grades are in! The most heavily weighted of the five categories in the 2014 ACEP Report Card on Emergency Care—Access to Emergency Care—was the one receiving the worst grades. Twenty-two states received an F, showing that policies and conditions that lead to lack of access aren’t improving. With fewer emergency departments and more patients in the ED, this category will remain a focus as ACEP urges lawmakers to act. Turn to pg. 4 for more results from the 2014 ACEP Report Card.
ACEP Council Speaks Out
Up for Reconsideration: Clinical Policy on IV tPA for Ischemic Stroke

In response to the 2013 Council- and ACEP Board–adopted Amended Resolution 32(13), which was passed by 75% of the Councilors, the "Clinical Policy: Use of Intravenous tPA for the Management of Acute Ischemic Stroke in the Emergency Department," published in 2013 in Annals of Emergency Medicine, will be reconsidered. The Clinical Policies Committee, as directed by the Board of Directors, will review the current literature with a fresh set of eyes. In order to benefit from the opinions of the membership, a 60-day ACEP comment period has been opened. Comments received, along with supporting evidence and any new evidence, will be carefully reviewed, and the evidence graded. References should accompany comments so that the evidence can be carefully considered and graded. Findings will be reported to the ACEP Board. Also, per the resolution, future clinical policies will include a 60-day comment period before finalization.

Go to www.acep.org/commentform/IVtPA-Stroke to comment. The comment period will be open until March 24.
Updates and Alerts from ACEP

NEWS FROM THE COLLEGE

Freestanding Emergency Centers Section Added

At its January meeting in Dallas, the ACEP Board of Directors approved the addition of a section for emergency physicians working in Freestanding Emergency Centers (FECs). Slated to become ACEP’s 33rd section, the Freestanding Emergency Centers Section was formed under the leadership of emergency physician Joe Yahr, MD, of Harlingen, Texas. Dr. Yahr expects the new section to begin with 119 members. The main objectives of the new FESC are to:

- Host a collaborative dialogue regarding pertinent FEC issues optimizing emergency-medicine values as espoused by ACEP
- Educate ACEP members, the medical community, and the public about what FECs are, what they do, and how they fit into the patient’s circle of health care providers
- Collaborate with ACEP leadership in establishing a national set of standards for FECs that could be referred to as a unified national resource for legislatures, physicians, and the medical community
- Keep ACEP membership relevant to those who don’t practice in hospital emergency departments and to keep ACEP as a voice for all ED physicians (whether they practice in hospital EDs or FECs).

For more information on this section or to join, go to: www.acep.org/freestanding section.

Award and ACEP Leadership Position Nominations Deadlines Coming This Month

- Nominations for ACEP’s Board of Directors are due Feb. 14.
- Nominations for 2014 Leadership Awards also are due Feb. 14.
- The deadline to nominate your colleague for Outstanding Emergency Department Director of the Year is Feb. 17.
- The ACEP Nominating Committee is accepting individual, chapter, and section recommendations for Board of Directors candidates. Nominations must be accompanied by a current curriculum vitae. To qualify for a Board position, a candidate must:
  - Be highly motivated to serve ACEP and be committed for three years for a Board position;
  - Be an ACEP member in good standing with no delinquent dues;
  - Be an ACEP member for at least five years;
  - Show evidence of ACEP involvement in both national and chapter activities (such as current or past chapter officer, current or past national committee leadership, current or past Council membership, or current or past section leadership); and
  - Show chapter and/or section support for candidacy.

Please submit nominations to: Kevin Klauer, DO, EJD, FACEP, Chair; ACEP Nominating Committee
PO Box 619911
Dallas, TX 75261-9911
Nominations may also be e-mailed to kklaauer@acep.org or faxed to 972-580-2816.

Leadership Awards

ACEP’s Award Program has been developed to recognize all members for significant professional contributions as well as service to the College. All members of ACEP are eligible to participate in one or more of the College’s award programs. Nominations for Leadership and Excellence Awards are due by Feb. 14. An article outlining each of the awards and the nominations process was published in the January issue of ACEP Now (www.acepnow.org). Members also can find information at www.acep.org/awards.

ED Director of the Year

For the fifth consecutive year, Blue Jay Consulting, the Emergency Medicine Foundation (EMF), and ACEP will recognize and celebrate exemplary collaborative skills in the emergency department with the Outstanding Emergency Department Director of the Year Award. Nominations are being accepted now through Feb. 17. The award nominee must be an active or life member of ACEP and be serving in a leadership position in an emergency department.

[The rest of the text is not visible in the image.]

EMythS DISCUSSPed

Get real topic and trivially spot on with each practice myth (“Myths in Emergency Medicine,” January ACEP Now, p. 29). I wanted to provide a few comments:

1) I could not agree more about transtulal. While you mention studies that go back a while, I heard about these “two-varieties” (according to marketing) way back in pharmacy school in the 70s. My only objection is that you did not mention penicillin (Tobul) and the bugs penicillin education many docs received (courtesy of Big Pharma).

2) I recall, in pharmacology, Tobul was a case study of bugs public relations is doing a better job (reeducation, better choice for patients...). You don’t have to wait until the 21st century to find this in the literature.

3) The second thing that frustrated me were comments about penicillin and cephalosporins. Again, spot on as an important myth, but the explanation provided did not fit the understanding I had. If there is another nomenclature about R position substitution that follows your line, it is different from what I learned. The primary differences and chemical substitution points are well summarized here: http://chemwiki.ucdavis.edu/Biological_Chemistry/Drug_Activity/Penicillin. “Cephalosporins are the second major group of beta-lactam antibiotics. They differ from penicillins by having the beta-lactam ring as a 6-member ring. The other difference, which is more significant from a medicinal chemistry standpoint, is the existence of a functional group (R) at position 3 of the fused ring system. This now allows for molecular variations to effect changes in properties by diversifying the groups at position 3.” If you are referring to some other aspect, please let me know as I try to stay up on this. Thank you for your work—great job.

Howard J. Swidler, MD, FACEP Emergency Medicine Department and Lauson Lehigh Valley

FROM THE EDITOR: Thank you for your kind words and support of ACEPN. I appreciate your taking the time to comment about my article. There are so many myths to wade through that it was difficult to choose among them. I agree with your concerns about Tobul and also support your comments reflecting that many examples exist over the years of such myth generation. Regarding the penicillin-cephalosporin myth, I’m glad we agree on the myth because diving into a discussion on stichodactyly, chemical structure, and organic chemistry, for me, would be like jumping into the deep end and without your foresight the first time in the pool.

Atena Agrees to Settlement Regarding Unfair Payments to Out-of-Network Providers

Atena has agreed to a settlement to pay claims that were reimbursed at less than usual and customary charges during a period from June 3, 2003, to Aug. 30, 2013, for out-of-network providers or provider groups. The settlement arises in part from Atena’s use of the Inghin database and Atena’s out-of-network reimbursement policies that improperly reduced reimbursements for covered services. The WhitleyKallas law firm has prepared a step-by-step guide to claiming funds from the $120 million settlement pool.

Important note: For those providers or groups filing a claim, the claim form must be postmarked by March 28, 2014. There are two options when filing a claim:

1. Submit the required claim form without additional documentation, which would entitle you to receive $40 per year with a maximum of $410 for the entire settlement period (Simplified Claim Form).
2. Submit the additional required documentation with your claim form to receive up to 5 percent of the allowed amount on each claim (Claim for Providers).

If you choose option 2, you release your right to balance-bill the patients involved in any of those claims. Also, you or your group should consider obtaining experienced healthcare legal counsel advice, particularly if you or your group could have other claims against Atena; by not opting out of the settlement class, you and/or your group could be releasing Atena of any and all legal claims from June 3, 2003, to Aug. 30, 2013.

Read the complete guide from WhitleyKallas at www.acepnow.org/ reimbursement. It includes detailed instructions and advice on which option is best for your situation. Act soon to be sure you don’t miss the filing deadline.

THE BREAK ROOM

The Official Voice of Emergency Medicine

FEBRUARY 2014 ACEPNOW.COM
EM Report Card Reveals Major Access-to-Care Deficit

Last month’s release of ACEP’s 2014 Report Card on Emergency Medicine was considered a wake-up call to the health-care system, revealing a lack of support for emergency patients and a deserving D+ overall grade. One category set off the fire alarm.

Access to Emergency Care, which accounted for 30 percent of the overall grade and was weighted more heavily than the other four (Quality and Patient Safety, Medical Liability Environment, Public Health and Injury Prevention, and Disaster Preparedness) and showed that very few states get the support they need in terms of conditions and policies under which emergency care is being delivered. It received a grade nationwide of D+, and 22 states received an F.

Overall, this category hasn’t improved since the last time ACEP released the Report Card in 2009. The Report Card measures conditions and policies under which emergency care is being delivered, not the quality of care provided by hospitals and emergency providers. Emergency physicians across the country, including ACEP President Alex M. Rosenau, DO, FACEP, say this category is crucial when it comes to improving the support for emergency department patients. ACEP is encouraging its members to talk with legislators and make them aware of deficiencies.

“Acess is one of the most important parts of providing care to any type of patient,” Dr. Rosenau said. “If a patient can’t get in to see a doctor but rather an evaluation of how well the system is driving research in public health.

ACEP points out in the report that access to emergency care is both fundamental and complex. The College is urging news outlets to recognize that emergency departments are a vital part of the health care system in each community and region. They deliver emergency care day in and day out, and they serve as the health care safety net for anyone, insured or not, who cannot otherwise obtain timely health care services when needed. Access to emergency care is complex because the demand for emergency services often is related to the capacity of the broader health care system to deliver services.

Thus, measures of Access to Emergency Care must include elements that comprise that broader system. This category measures the availability of emergency care resources, such as numbers of emergency physicians, emergency departments, registered nurses, and trauma centers per person, along with proximity to Level I or II trauma centers, and the median time from arrival to departure from the emergency department. Because emergency department capacity is also a function of the broader health care system, the access category includes key measures of that system’s capacity, such as the availability of primary care, mental health care, and substance abuse treatment.

It also includes the numbers of available inpatient hospital beds, psychiatric beds, and designated pediatric specialty centers because greater capacity in those areas can alleviate crowding and boarding within emergency departments. Because one of the most commonly cited concerns in emergency departments across the country is the lack of access to on-call specialists, this category also includes measures of the total supply of commonly requested specialists, including neurosurgeons; orthopedists; hand surgeons; plastic surgeons; and ear, nose, and throat specialists.

“America’s grade for Access to Emergency Care was a near-failing D+ because of declines in nearly every measure,” said Jon Mark Hirshon, MD, MPH, PhD, FACEP, the chair of the task force that directed development of the Report Card. “It reflects that hospitals are not getting the necessary support in order to provide effective and efficient emergency care. There were 19 more hospital closures in 2011, and psychiatric-care beds and hospital-inpatient beds have fallen significantly, despite increasing demand. People are increasingly reliant on emergency care, and primary care physicians are advising their patients to go to the emergency department after hours to receive complex diagnostic workups and to facilitate admissions for acutely ill patients.”

The Report Card includes several national recommendations, including requests to:

- Fund the Workforce Commission, as called for by the Affordable Care Act (ACA), to investigate shortages of physicians, nurses, and other health care professionals.
- Pass the Health Care Safety Net Enhancement Act of 2013, H.R. 36, introduced by Rep. Charlie Dent (R-Pa) and the companion legislation, S. 961, introduced by Sen. Roy Blunt (R-Mo). This legislation would provide limited-liability protections to emergency physicians who perform the services mandated by the federal EMTALA law, which requires emergency patients be screened, diagnosed, and treated regardless of their insurance status or ability to pay.
- Fund pilot programs, provided for in the ACA, to design, implement, and evaluate innovative models of regionalized, comprehensive, and accountable emergency care and trauma systems.
- Support and fund the mission of the Emergency Care Coordination Center at Department of Health and Human Services to create an emergency-care system that is patient and community centered, integrated into the broader health-care system, high quality, and prepared to respond in times of public health emergencies.
- Withhold federal funds to states that do not support key safety legislation, such as motorcycle helmet laws and .08 blood alcohol content laws.
- Fund graduate medical education programs that support emergency care, especially those related to addressing physician shortages in disadvantaged and rural areas.
- Support efforts to fund emergency care research by the new Office of Emergency Care Research under the National Institutes of Health.
- Hold a hearing to examine whether additional strains are occurring in the emergency department safety net as a consequence of the ACA.

For a full list of recommendations, to see state grades, and to see how you can help, go to www.emreportcard.org.

Report Card Q&A
With Jon Mark Hirshon, MD, MPH, PhD, FACEP
Q: How often does ACEP release a report card?
JMH: ACEP has produced Report Cards in 2006 and 2009 to evaluate the overall emergency care environment both nationally and on a state-by-state basis. This is not a report on the emergency care delivered in any specific hospital or by any individual physician but rather an evaluation of how well the country supports emergency care.
Q: What does the report card measure?
JMH: The 2014 Report Card is based on 138 objective measures in five areas: Access to Emergency Care (30 percent), Quality & Patient Safety (20 percent), Medical Liability (20 percent), Public Health & Injury Prevention (15 percent), and Disaster Preparedness (15 percent).
Q: What do the data include?
JMH: Results reflect the most recent data available from sources such as the Centers for Disease Control and Prevention, National Highway Traffic Safety Administration, Centers for Medicare & Medicaid Services, and American Medical Association. Additionally, two surveys were sent to state health officials.
Q: How does ACEP use the data to improve health care?
JMH: Since 2006, ACEP chapters have used the Report Cards to help with the establishment of new emergency medicine residency programs, support the funding of a statewide trauma system, help with the enactment of liability protection for federally mandated EMTALA-related care, and increase awareness of emergency medicine issues among state and national lawmakers. The 2014 Report Card will be used to educate policymakers and the public about the pivotal role of emergency medicine, help change the conversation from preventing “expensive” emergency visits to protecting access to emergency care, and develop communications tools to achieve the national and state recommendations of the Report Card in order to improve the emergency-care environment.

Dr. Hirshon is board certified in both emergency medicine and preventive medicine and has authored approximately 75 articles and chapters on various topics, including the development of public health surveillance systems in emergency departments and placing emergency care on the global health agenda. He has a doctorate in epidemiology and is a federally funded researcher and teacher with specific interest in improving access to acute care and in developing emergency departments as sites for surveillance and hypothesis-driven research in public health.
The Other Medical Reform
Abraham Flexner was an American educator who studied at Johns Hopkins University. He was invited by the Carnegie Foundation to review medical schools in the United States and Canada and to make recommendations for improvement. Interestingly, he evaluated these institutions from the viewpoint of an educator, not a medical practitioner. Based on his evaluations, the schools were placed in one of three categories:
1. Those that compared favorably with Johns Hopkins (the gold standard)
2. Those considered substandard but salvageable by providing financial assistance
3. Those of such poor quality that they should be closed (sadly, the majority)

And many schools were closed. Of the 133 MD-granting medical schools open and reviewed in 1910, only 85 remained in 1920. Some of the findings from Flexner’s study changed the landscape of medical education with drastic improvements. It was Flexner’s report that first suggested that clinical exposure was as vital to medical education as “a laboratory of chemistry or pathology,” encouraging hospitals both private and public to open their wards to teaching. This was with the caveat that the universities have sufficient funds to employ teachers who were dedicated to clinical science, highlighting the underlying deficiencies of medical schools to keep up with the increasing costs of quality medical education. This report was the beginning of the end of medical education as a for-profit enterprise.

CONTINUED on page 6
Getting In
Fast forward 100 years. Gone are the days when two years of college (or less) could get you into medical school. Today, there are 129 fully accredited four-year U.S. medical schools, and in 2012 there were 45,266 applicants and 15,517 matriculants (66% of whom were female). Although admission requirements vary by institution, there are some universal standards. Most schools will have a minimum MCAT score and a certain number of undergraduate hours, including science, math, and English. GPAs are more flexible than MCAT scores, but special note is typically taken of the science GPA. Of note, the MCAT must be taken within three years of application, and there is a new MCAT that will launch in 2015 (after undergoing its fifth revision). Letters of recommendation are required, the most telling usually coming from the pre-health advisor at the undergraduate institution. Each institution has its own technical standards that need to be met, with reasonable accommodations, and include both physical and emotional components. And then there’s the other stuff.

Schools have struggled with the best way to interview medical student applicants, incorporating behavioral questions into the discussion to assess non-cognitive abilities. “Tell me about a time when you received some feedback that was difficult to hear.” These behavioral interviews are not the best way to identify students who may experience difficulties during medical school, particularly in the clinical years. Many schools have transitioned to Multiple Mini-Interviews (MMI). There are several stations (usually 10-12, each lasting 8-10 minutes). Domains assessed may include critical thinking, ethical decision-making, communication skills, and knowledge of the health care system, interspersed with more traditional interview questions. Studies have shown that the MMI is the most consistent predictor of success in the early years of medical school, as well as national licensing exams.4

And then there’s the “other stuff.” This has become an important part of application preparation, with the hopes that it gives a glimpse into the patient-doctor relationship. Leadership and extracurricular activities are important markers of a well-rounded student who will be up to the new challenges that medical school will present. Research experience is nice, at least a taste (although many of the students I interview have projects that result in presentations and publications). And then there are the service and volunteer experiences: Habitat for Humanity, volunteering at free local health clinics or shelters, mission trips, working with children or the elderly in the community. On a fairly regular basis, there is a student with absolutely remarkable achievements in this aspect. For example, I’ve interviewed students who have established orphanages abroad. I am humbled on a regular basis.

Times—and People—Have Changed
I am a Generation X-er who was raised by Traditionalists, with Baby Boomers as older siblings, trying to counsel and advise Millennials. It sounds complex, so let’s break it down with reference to the current physician workforce.

Many of the Traditionalists have retired clinically but, not surprisingly, are still around to teach and pass on their wisdom: the classic Professor Emeritus. They value loyalty, hard work, and formality, and aren’t known for challenging the system. They believe in delayed gratification and seniority. These were the people for whom the term “resident” was coined because they lived at the hospital. They paved the way for the largest of the recognized generations, the Baby Boomers. The Baby Boomers make up about 55 percent of the current physician workforce and hold most positions of authority. They associate hard work with self-worth, typically arriving early and leaving late. They are known for being competitive, and their personal lives often are casualties of professional success.5

Enter the Generation X-ers. Raised by Baby Boomers, they were characterized as “latch-key kids” and, possibly as a result, are more equally focused on their personal and professional lives. Their loyalty lies with themselves and with their families rather than with the institution. They

<table>
<thead>
<tr>
<th>Table 1: Medical School by the Numbers…Then and Now</th>
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<tbody>
<tr>
<td><strong># OF U.S. MEDICAL SCHOOL APPLICANTS</strong></td>
</tr>
<tr>
<td>2002: 33,624</td>
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<tr>
<td>2012: 45,266</td>
</tr>
<tr>
<td><strong># OF U.S. MEDICAL SCHOOL MATRICULANTS</strong></td>
</tr>
<tr>
<td>2002: 16,488</td>
</tr>
<tr>
<td>2012: 19,517</td>
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<tr>
<td><strong>% OF FEMALE MATRICULANTS</strong></td>
</tr>
<tr>
<td>2002: 50.6%</td>
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<tr>
<td>2012: 48.8%</td>
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<tr>
<td><strong>MOST COMMON AGE AT MATRICULATION</strong></td>
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<tr>
<td>2002: 20-22</td>
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<tr>
<td>2012: 23-25</td>
</tr>
<tr>
<td><strong>% OF UNMARRIED MATRICULANTS</strong></td>
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<tr>
<td>2002: 81.9%</td>
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<tr>
<td>2012: 90.2%</td>
</tr>
<tr>
<td><strong>% OF CAUCASIAN MATRICULANTS</strong></td>
</tr>
<tr>
<td>2002: 72.9%</td>
</tr>
<tr>
<td>2012: 63%</td>
</tr>
<tr>
<td><strong># OF U.S. MEDICAL SCHOOL GRADUATES</strong></td>
</tr>
<tr>
<td>2002: 15,531</td>
</tr>
<tr>
<td>2012: 17,341</td>
</tr>
<tr>
<td><strong>AVERAGE MCAT OF MATRICULANTS</strong></td>
</tr>
<tr>
<td>2002: 27</td>
</tr>
<tr>
<td>2012: 31</td>
</tr>
<tr>
<td><strong>AVERAGE GPA (TOTAL) OF MATRICULANTS</strong></td>
</tr>
<tr>
<td>2002: 3.47</td>
</tr>
<tr>
<td>2012: 3.68</td>
</tr>
<tr>
<td><strong>MEDICAL DEBT AND COST OF ATTENDANCE AT A PUBLIC MEDICAL SCHOOL</strong></td>
</tr>
<tr>
<td>2002: $110,000</td>
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<tr>
<td>2012: $170,000</td>
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<tr>
<th>Table 2: Generational Gap Overview</th>
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<tr>
<td><strong>GENERATION</strong></td>
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<tr>
<td>Traditionalists (born 1925-1946)</td>
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<tr>
<td>Baby Boomers (born 1945-1964)</td>
</tr>
<tr>
<td>Generation X (born 1964-1980)</td>
</tr>
<tr>
<td>Millennials (born 1980-1999)</td>
</tr>
<tr>
<td><strong>LIFE EVENTS</strong></td>
</tr>
<tr>
<td>Great depression, Cold War</td>
</tr>
<tr>
<td>Vietnam War, TV, civil rights, women’s movement</td>
</tr>
<tr>
<td>Political scandals, rise of computers, AIDS</td>
</tr>
<tr>
<td>Terrorism, 9/11, technology boom</td>
</tr>
<tr>
<td><strong>FAMILY CHARACTERISTICS</strong></td>
</tr>
<tr>
<td>Married young, divorce uncommon</td>
</tr>
<tr>
<td>“Traditional”, stay-at-home mom, working dad</td>
</tr>
<tr>
<td>Single parent homes, “latch-key” kids</td>
</tr>
<tr>
<td>“helicopter” parents, play dates, close family relationships</td>
</tr>
<tr>
<td><strong>PERSONAL CHARACTERISTICS</strong></td>
</tr>
<tr>
<td>Loyal, dedicated, patriotic, don’t challenge status quo</td>
</tr>
<tr>
<td>Optimistic, competitive, looking for personal gratification</td>
</tr>
<tr>
<td>Independent, self-directed, accepting of diversity, resilient</td>
</tr>
<tr>
<td>Optimistic, need for positive feedback, global outlook</td>
</tr>
<tr>
<td><strong>WORK CHARACTERISTICS</strong></td>
</tr>
<tr>
<td>Value hierarchy, “company man”</td>
</tr>
<tr>
<td>Live to work, competitive, mentors</td>
</tr>
<tr>
<td>Value work-life balance, question authority, work to live</td>
</tr>
<tr>
<td><strong>COMMUNICATION STYLE</strong></td>
</tr>
<tr>
<td>Formal</td>
</tr>
<tr>
<td>Diplomatic</td>
</tr>
<tr>
<td>Blunt</td>
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<tr>
<td>Polite</td>
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References
1. https://www.aamc.org/students/applying/  
2. 2003 Matriculating Student Questionnaire. AAMC 2003  
SCHOOLS HAVE STRUGGLED WITH THE BEST WAY TO INTERVIEW MEDICAL STUDENT APPLICANTS, INCORPORATING BEHAVIORAL QUESTIONS INTO THE DISCUSSION TO ASSESS NON-COGNITIVE ABILITIES. THESE BEHAVIORAL INTERVIEWS ARE NOT THE BEST WAY TO IDENTIFY STUDENTS WHO MAY EXPERIENCE DIFFICULTIES DURING MEDICAL SCHOOL.

are associated with the technological advances that developed at the same time. They are more likely to question authority and feel that evaluations should reflect accomplishments rather than time put in. They currently represent about 30 percent of the physician workforce.

The majority of current residents and students (and about 5 percent of the practicing physician population) are Millennials. There has been a lot of attention given to Millennials entering the workforce and the differences they bring to the table. They are characterized as the first native online population, widely connected, with a penchant for advocacy for the underserved. Growing up, they were included by their parents on many family decisions, so they are not afraid to express their opinions but may be less independent, requiring more structured learning styles. They expect schedule flexibility to maintain work-life balance but feel a connection with their work colleagues as well. And, at least in my limited experience at one medical school, more of these students are choosing emergency medicine than ever before. This year, emergency medicine was the third-most sought out residency spot at the University of Alabama School of Medicine, behind only internal medicine and pediatrics.

Millennials bring a lot to the workforce. They have high expectations of themselves and of their coworkers and employers. They like to multitask and rely more heavily on technology. In terms of motivations, they tend to weigh achievement and affiliation more than power. From an emergency medicine standpoint, that sounds like a win-win! But potential conflicts can arise as well. A Millennial employee questioning a Baby Boomer boss (because that’s what they were taught to do) can lead to a tense workplace. The “everyone wins” mentality comes up against the “second place is first loser” attitude, with a few “live to work” people thrown in.

When I look at my own division, I see a little of each generation, and although this will continue to evolve, there are still issues that face all of us as we try to maneuver being a successful physician in 204. It also gives us a glimpse into what the future holds.

By 2025, Millennials will comprise almost 75 percent of the workforce. As that transition occurs, I would like to offer some insight into what makes them tick and what will drive their performance:

1. Give feedback and plenty of it. However, remember that many of these people grew up surrounded by people telling them they could be whatever they wanted, and everyone got a trophy for participating. You might have to ease them into some of the constructive portions, but when they are given that, they respond very well.

2. Be ready to negotiate. That’s what Millennials have been taught to do.

3. Give them feedback in groups. Millennials are more likely to question authority and feel that evaluations should reflect accomplishments rather than time put in. They currently represent about 30 percent of the physician workforce.

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Potential complications may include local or systemic infection, hematoma, extravasations or other complications associated with percutaneous insertion of sterile devices.

References:
2. Yankin A, Yankin S, Yankin M. Safety and efficacy of intraosseous access (IO) for resuscitation: An evaluation of IO access in an emergency department setting. [Resuscitation 2010;81(11):1452-1455]
3. Cooper BS, Matlow PF, Hodgkins IJ, Plebeck TE. Intraosseous access (IO) for resuscitation: A quality improvement project. [Resuscitation 2013;84(4):495-498]

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COULD I DO IT ALL AGAIN? | CONTINUED FROM PAGE 7

Table 3: Primary Undergraduate Major for 2012 Medical School Matriculants

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<th>UNDERGRADUATE MAJOR</th>
<th># OF MATRICULANTS</th>
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Source: AAMC 12/17/2012.

THE MAJORITY OF CURRENT RESIDENTS AND STUDENTS (AND ABOUT 5% OF THE PRACTICING PHYSICIAN POPULATION) ARE MILLENNIALS.

3. Allow work in teams with many small deadlines. Long-term time management may be an issue.
4. Don’t assume they are technologically savvy, but even if they aren’t, they are quick to master new things (unlike me and our ultrasound machine).
5. Be able to enforce the “work to live” attitude. Life outside the department is crucial to longevity in this profession, although this is something I think we all need to learn to take advantage of.

Dr. Sorrentino is associate professor of pediatric emergency medicine in the division of emergency medicine at the University of Alabama at Birmingham, assistant dean for Students at the University of Alabama School of Medicine, and on the Board of Directors of Alabama ACEP.

References

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Prepare for Payment Reforms and Quality-of-Care Improvements

As Hospital Value-Based Purchasing enters its second year, emergency departments nationwide are poised to influence hospital outcomes

AN INTERVIEW WITH REIMBURSEMENT AND CODING EXPERT MICHAEL GRANOFSKY, MD, FACEP
BY KELLY APRIL TYRELL

This year, more than 1,400 hospitals are seeing their Medicare reimbursements cut based on a new quality incentive program mandated by the Centers for Medicare and Medicaid Services (CMS). More than 1,200 hospitals are receiving a payment boost.

The CMS Quality Incentive Program is built on the Hospital Inpatient Quality Reporting (IQR) measure-reporting infrastructure, with the clinical process of care measures coming from the Hospital Inpatient Prospective Payment Systems final rule. Several of the measures under CMS’s Hospital Value-Based Purchasing program (HVBP) are emergency department–specific, uniquely positioning EDs to influence whether hospitals come out ahead or fall behind, said Michael Granovsky, MD, FACEP, president of coding for LogixHealth and chair of ACEP’s Coding and Nomenclature Committee.

For several years, CMS has had stiff penalties associated with not fully reporting on Hospital Outpatient Prospective Payment System quality measures. For 2016, CMS will apply a 2 percent penalty to hospitals not reporting outpatient quality measures, which directly reduces the hospital’s conversion factor. CMS, consistent with an escalating focus on quality, added penalties to the Value-Based Payment program as well. The mandatory program began last year, when diagnosis-related group (DRG) payments to all participating acute care hospitals were cut by 1 percent. For the 2016 reimbursement year, which began Oct. 1, 2013, and extends through Sept. 30, 2016, the cuts grew to 1.25 percent. By 2017, they will top out at 2 percent per Medicare patient.

The money goes into a pool intended to incentivize hospitals to perform better than the median or show significant improvement relative to their own baseline year, whichever score is higher. Hospitals demonstrating high performance or improvement either break even or receive more money than they put in, according to an adjusted payment calculation. Those that perform worse than the middle 50 percent of hospitals or fail to improve will sustain a net loss in revenue.

This year, reimbursement was based on hospital performance across more than a dozen clinical process of care measures; the results of patient-satisfaction surveys; and patient outcomes, such as inpatient mortality rates for heart attack, heart failure, and pneumonia.

Four of the 13 clinical process of care measures include ED-specific patient care performance: fibrinolytic therapy received within 30 minutes of patient arrival at the hospital (AMI-7a), primary percutaneous coronary intervention received within 90 minutes of hospital arrival (AMI-8a), blood culture testing before initial antibiotic received in the ED (which is being phased out), and initial antibiotic selection for community-acquired pneumonia in immunocompetent patients (PN-6).

In 2009, ACEP established a Value Based Emergency Care Task Force (VBEC) to focus on the issues being debated before the passage of the Affordable Care Act in order to move the needle forward on enhancing quality of care, measuring performance, and improving patient health and safety. To that end, the VBEC brought together diverse and previously disparate members of the emergency medicine community, including leaders from the ACEP Board of Directors; senior management; the Quality and Performance, Federal Government Affairs, Research, and Reimbursement committees; academia; practice management; rural health; and health information technology systems management. The VBEC identified four key areas to monitor and develop a strategic response plan regarding:

1. Care coordination (readmissions, medical home, transitions of care)
2. Episodes of care (the ED encounter as an episode)
3. Health Resources and Services Administration federally qualified health centers (exploring partnership with ACEP)
4. Emergency-medicine data registry (feasibility of a registry for quality improvement, reporting, maintenance of certification, benchmarking, etc.)

“High-functioning EDs are strategizing and partnering with their hospitals to ensure well-developed systems and resources...”

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are in place to minimize the time to thrombolysis or transfer to the cath lab and coordinating with nursing, laboratory, and pharmacy personnel to provide consistent treatment for pneumonia patients,” Dr. Granovsky said.

Prior to 2013, while many EDs were focused on other payment reforms—some of which include the four HVBP measures—the program had not been the target of specific efforts, according to the authors of a study early last year in the Annals of Emergency Medicine.1

The study evaluated ED performance based on hospital characteristics for these four measures using Hospital Compare data from 2008 through 2010 and the 2009 American Hospital Association Annual Survey. Of the 2,927 EDs examined, for-profit hospitals earned the highest performance scores, while public hospitals and those without Joint Commission accreditation scored lowest. However, public hospitals had the highest proportion of improvement scores, while for-profits had the lowest. The study could not conclusively account for these differences but recommended ED leaders monitor achievement and improvement across these measures.

The ED is now appropriately being perceived as the “front door of the hospital,” Dr. Granovsky said, stressing the relevance of efforts designed to improve overall patient experience and to focus on initiatives like HVBP.

“With Medicare as the dominant payer for hospital services, the 1.25% DRG withhold creates a strong incentive for hospitals to optimize their processes, improve outcomes, and increase patient satisfaction.”

—Michael Granovsky, MD, FACEP

On top of HVBP, many hospitals are also being hit with penalties for higher-than-expected readmission rates, and these fees will reach 3% by 2015. An additional program will penalize hospitals with high rates of hospital-acquired infections and patient injuries. And HVBP will include new measures as well, including hospital efficiency with respect to the cost of care...

“Many forward-thinking ED groups are leading the way and assisting the hospital with post-discharge clinics or even becoming involved in home healthcare visits to reduce the number of readmissions for vulnerable patients, such as those with congestive heart failure, as well as other complex medical conditions and comorbidities,” Dr. Granovsky said.

While more hospitals faced penalties than bonuses in 2013 under HVBP, fewer than 800 received a reimbursement cut larger than 0.2% and just more than 600 saw a payment increase larger than this. The average penalty was 0.26%, up from 0.2% in 2013, while the average bonus was 0.24%, a marginal increase from 2013.

Hospitals in the Midwest fared better than hospitals in the Northeast and West. Private, for-profit hospitals performed better than public and nonprofit hospitals. While there has been some debate about whether the financial incentives are strong enough to drive improvement, Dr. Granovsky said it’s something most hospital CEOs are taking very seriously, especially as these reforms lead to increased transparency.

“With Medicare as the dominant payer for hospital services, the 1.25% DRG withhold creates a strong incentive for hospitals to optimize their processes, improve outcomes, and increase patient satisfaction,” Dr. Granovsky said.

The idea behind CMS initiatives like HVBP is to move health care away from a fee-for-service system to one that pays for performance and quality. Whether these efforts can achieve this is unknown. A 2012 New England Journal of Medicine study of the Medicare Premier Hospital Quality Incentive Demonstration, the CMS pilot program that served as the basis for HVBP, showed performance incentives had no impact on clinical outcomes despite improvement in scores across performance measures.2

References

KELLY APRIL TYRRELL is a freelance journalist based in Wilmington, Del.

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ACEP NOW

The Official Voice of Emergency Medicine
The absence of government is chaos. So welcome to Washington, DC! While the U.S. Congress has previously demonstrated its unique ability to shirk its collective duty to lead our country, “Washington”—and I’ll include the president on this one—went above and beyond during the October 2013 shutdown of the federal government. Given that one of the fundamental responsibilities of Congress is to approve a budget by which the federal government is allowed to operate, it is not a stretch to say that Congress failed to earn its paycheck, which, of course, its members continued to collect, despite the furlough of thousands of other federal employees (who eventually got paid for not working). This shutdown was the third longest in the history of the country, after the 18-day shutdown in 1978 and the 21-day shutdown in 1995–1996. That tells you how truly dysfunctional things have to get for this to happen. Why the shutdown happened is, however, more about some of the fundamental challenge of politics in our nation, not just in Washington, and doesn't bode well for the future of our country.

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The details are not pretty. The federal government shutdown that lasted for 16 days in October is estimated to have cost the U.S. economy between $2 billion and $6 billion in economic output, according to a report by the Office of Management and Budget (OMB) and independent financial analysts. Approximately 120,000 fewer private-sector jobs were created during the first two weeks of October because of the dual threats of the shutdown and the standoff over the debt ceiling. Federal employees were furloughed during the shutdown for a combined total of 6.6 million days, and they received $2 billion in back pay for work they never performed. This exceeds the comparable payroll costs of $340 million (about $60% million in today’s dollars) for the November 1995 shutdown and $630 million (about $1 billion in today’s dollars) for the December 1995–January 1996 shutdown. The country’s national parks lost roughly $500 million in visitor spending nationwide, while almost $4 billion in tax refunds was delayed because the Internal Revenue Service was closed for business.

So why did the shutdown happen? The easy answer is “politics,” but that really doesn’t tell the whole story. We all know that Republicans and Democrats have differing views of the role of the federal government. Republicans want smaller government and less spending on entitlement programs, while Democrats believe in a larger role for government with spending on programs to help individuals. There are philosophical differences between the two parties, not exactly earth-shattering news. While these differences may seem irreconcilable, the reality is that there have always been parties with philosophical differences running the country. Heck, short of a few years here and there when one party has held a majority in the U.S. House and Senate and had the president in the White House, this is the norm. And yet, the government doesn’t shut down every year. Historically, despite the division of authority granted by the people, the government has actually managed to get some things done. Can you imagine if the founders of this nation simply “took their ball” and went home every time they philosophically disagreed on the role of government? I’ll tell you what would have happened—notthing! Thomas Jefferson and the founders of the country would have just agreed to disagree, and you and I would be having tea and crumpets (whatever they are) and singing “God Save the Queen” at every sporting event we attend. Why is it that the functioning of the government has become more dysfunctional over the past few years?

Let’s review what happened politically to get to the shutdown. Essentially, the Republicans, led by Speaker of the House John Boehner, played a gigantic game of political chicken against the Democrats, led by Senate Majority Leader Harry Reid and President Barack Obama. This game (and I use the term very loosely here with full understanding that the shutdown had very real negative effects) was more like a schoolyard fight where two kids who don’t really want to fight get egged on by the crowd. The “crowd” for this event had many faces: the Tea Party, Sen. Ted Cruz and his 21-hour-19-minute quasi-filibuster (including reading Dr. Seuss’ Green Eggs and Ham), and maybe even the Koch brothers and all the conservative right-wing Super PACs they fund. End result: Speaker Boehner and the Republicans had their bluff called, and after 16 days, the House voted not only to fund the government but also raised the debt ceiling, all without defunding Obamacare. Kind of a lose-lose scenario for the Republicans.

How did the things get so bad? How did we get beyond partisanship in Washington to a new level of “hyperpartisanship” (an idiotic term that I am sure will be trumped by “supertyperpartisanship” by Wolf Blitzer on CNN any day now)? The answer is simple but surprisingly won’t be found in Washington or anywhere else inside the Beltway. The problem is actually in your hometown and every other town in America. It starts in the cornfields of Iowa and reaches out to every voting district in all corners of the nation. Why? Because that’s where our country is becoming more “blue” and “red” every day. In small towns, mediumsized suburbs, and big cities, the “moderate” is a dying breed, potentially doomed to extinction and perhaps an exhibit in the Smithsonian in the very near future. Doomed because the far right and far left are becoming “righter” and “leftier” every day. Doomed because our very own democratic process allows for individual members of Congress to prevent the government from doing business. Doomed because we have lost the voice of reason in the never-ending din of hyperbole and one-upmanship that drives our political process.

So whom should we blame for the mess? A) The Democrats, B) The Republicans, or C) The Tea Party? The correct answer, of course, is D) All of the Above. And while the media may not be the lead players in this circus, they sure run away with the “Best Supporting Role” award for the 24/7/365 mind-numbing “Shutdown Countdown Clocks” that we were subjected to leading up to the shutdown. Perhaps in response to this debacle and the whopping nine-percent approval rating that they had after the shutdown, Congress has actually passed an omnibus funding bill that keeps the government open for business through Sept. 30, 2014. The implementation
Pick the one issue that you are most passionate about and then do what we do best: be a leader on that issue. Make a call to an elected official, write a letter, testify on a bill, and, yes, maybe even run for office.

of this funding bill will end the automatic sequester cuts that were in place when Congress couldn’t pass a budget last year. Before you get too excited about the sequester cuts going away, note that the new budget keeps in place the two-percent Medicare cuts that were part of the sequester.

Upon further reflection, maybe the answer to the question “who’s to blame?” is really, E) You (and me). Winston Churchill once said, “The best argument against democracy is a five-minute conversation with the average voter,” a pretty harsh appraisal of the “best” form of government in the world. But ultimately, it is the sum of the whole body politic that is responsible for what we are, and aren’t, as a nation today—and, more important, what we will be in the future. We are not a nation of debt but a nation of debtors. We are not a nation of apathy but a nation of apathetic non-voters. In a world that is becoming more socially, economically, and logistically “flat” every day, our nation is losing its prominence. We are no longer the biggest, smartest, fastest kid on the block in many arenas, and our will to be better, especially in the political arena, will require us to re-embrace the qualities that made us a great nation at one time: hard work and personal responsibility. If we, as individuals, accept and embrace only the “right” or the “left” of our political leaders, then we are destined to be governed by those who are politically at two or three standard deviations out on the curve of the political spectrum. It’s time to identify and support some moderate candidates (or maybe even become one of them). Find, or be, someone who leads by listening to all sides of an argument and then finding a way to compromise and create a better good for the whole of the nation. The founders of the nation would expect nothing less.

So what can you do to make this all better? Do what we do best as emergency physicians: listen, reflect, and act. It’s what we do with all our patients. We listen to their history and gather the appropriate and necessary information in order to take the best action to fix a problem. Not all that complicated, really. But now you need to do that outside of the emergency department. Pick the one issue that you are most passionate about and then do what we do best: be a leader on that issue. Be informed and get involved, especially at the local and state levels. As an emergency physician, you carry instant “street cred” within the political arena. The general public greatly respects what we do and listens to us when we speak. Make a call to an elected official, write a letter, testify on a bill, and, yes, maybe even run for office. Your single voice and input can make a difference. Apathy and silence is what all elected officials (especially the bad ones) feed on. Commit this year to being involved on just one issue and to being the voice of moderation and reason in finding a solution to that issue. You will be amazed at what you can do to make the political system and the nation a whole lot better.

Dr. Cirillo is director of health policy and legislative advocacy for Emergency Medicine Physicians in Canton, Ohio.
Pregnancy and Clots: What’s True and What’s Not

With so much debate and controversy regarding the evaluation of venothromboembolic disease (VTE) and with much of the debate centering on methods of risk stratification to avoid the expense and risks associated with overtreatment, it is very easy to overlook patients who don’t belong in this discussion.

You like clinical decision rules (CDRs)? Great! You can cast your vote for which ones you like, when to apply them, to whom they should apply, what pre-test probabilities are acceptable for assigning low risk, and, of course, which have been adequately validated.

You’re a D-dimer fan? Fine! (For now.) Which D-dimer are you using, is your D-dimer “highly sensitive,” what is the post-test probability for a negative test, and what should you do with positive results?

There are many good questions and many good debates, which will eventually lead to even better answers.

Surprisingly, VTE in pregnancy has been conspicuously absent from the data that are guiding these discussions, and that absence of data, from my perspective, makes decision-making in this at-risk population pretty easy.

In short, if you have clinical suspicion, you should probably just study ‘em all. Heresy! Just irradiate all of those expectant mothers?! No, not exactly. In an attempt to do the right thing, physicians may feel that the lack of evidence in this population seems to point to evaluation in favor of cost reduction, reduced radiation exposure, etc. The lesser of two evils is diagnostic evaluation when the alternative is missed or delayed diagnoses. Remember, the short answer on risk stratification is that these patients are not low-risk patients and should not be classified as such.

Let’s examine four essential areas of the VTE debate, but in the specific context of pregnancy: risk, CDRs, D-dimers, and ultrasound evaluation.

The data are clear; VTE is pregnancy is more common than many think. Marik and Plante published an excellent review in 2008 that highlighted some important statistics about VTE in pregnancy.1 The incidence of VTE in pregnancy is estimated to be 0.76–1.72 per 1,000 pregnancies, indicating four times the risk compared to nonpregnant patients. Two-thirds of DVTs occur prior to delivery (antenatally) and are equally distributed among all three trimesters, and 43–60 percent of pregnancy-related pulmonary emboli (PE) occur in the puerperium (roughly the six-week time period extending from delivery). Greer reported similar findings in his review: “The relative risk of antenatal VTE is approximately fivefold higher in pregnant women than in nonpregnant women of the same age.”2 He also reported the absolute risk to be 1 in 1,000 pregnancies. Most interesting is that 50 percent of VTE cases occur in the first 20 weeks of pregnancy (early pregnancy); many clinicians are under the misconception that this is a relatively low-risk gestational period. Puerperium was similarly reported as the period with the highest risk, with a relative risk of 20-fold. This article also provides some insight as to risk factors: previous VTE (odds ratio 26.8), immobilization (7.7), BMI >30 (5.3), BMI >25 combined with immobilization (62), smoking (2.7), preeclampsia (3.1), and C-section (3.6).

In a more recent cross-sectional study, the incidence of VTE was quoted as 2.5 per 1,000 natural pregnancies and 4.2 per 1,000 pregnancies from in vitro fertilization.3 CDRs will lead clinicians to one place in pregnant patients: the wrong answer. Wells is the most validated CDR for deep venous thrombosis but has not been validated in pregnancy. Furthermore, neither has the Wells PE rule.4 Physiologic changes that occur in pregnancy alter the physiologic parameters that are often incorporated into VTE CDRs. Edema and leg pain are common in pregnancy. In addition, dyspnea is a common complaint in pregnancy.4 Respiratory rates are also known to increase during pregnancy.

If CDRs can’t put patients in a low-risk category (low pre-test probability), then discussion about D-dimer use in pregnancy should

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BY KEVIN M. KLAUER, DO, EJD, FACEP

Pregnancy changes everything but is largely absent from the data that guide our management

ne of the more controversial and confusing changes the Centers for Medicare and Medicaid Services (CMS) made in its Fiscal Year 2014 Inpatient Prospective Payment System (IPPS) is called the “two-midnight” rule. This rule changes the standard for determining whether patients are brought into the hospital as inpatients or kept under observation status, and of course, whether or not such decisions will impact reimbursement. The new rule states that physicians “admitting” patients into the hospital should make a determination at that time whether patients are more or less likely to spend two midnights in the hospital. If patients are likely to spend fewer than two midnights in the hospital, they will be considered outpatients (under observation status). If they are more likely to spend more than two midnights in the hospital, they will be considered inpatients. To make things a little more confusing, the clock begins when patients start receiving hospital services.

What Does All This Mean?

Just like nearly every rule in health care these days, there are significant financial considerations. Many emergency physicians, admitting physicians, and even patients are not aware of the financial implications of whether patients are brought into the hospital under inpatient or observation status. The effect on patients can be profound, with Medicare (under Part A) picking up almost all of the costs of hospital inpatient stays, but shifting the cost of co-pays for tests and medications to patients brought in under observation status (and paid by Medicare under Part B). It is important to note that outpatient stays also do not count toward the three-day inpatient requirement for skilled nursing facility (SNF) coverage. Because Medicare patients may not be able to return home after their hospitalization, the cost of a SNF can be another significant expense Medicare patients might have to bear. Therefore, patients brought into the hospital under observation status are responsible for significantly more of the costs than they would have if they were officially admitted to the hospital as inpatients.

Hospitals also are subject to significant financial implications from the two-midnight rule. Hospitals are under the watchful eyes of Medicare Administrative Contractors (MACs) and Recovery Audit Contractors (RACs), which have been denying short inpatient stays and demanding hospitals repay Medicare. In an effort to reduce RAC denials of short stays, CMS attempted to establish a clear rule to determine which short stays are appropriate for inpatient (Medicare Part A) payment and which should be relegated to outpatient (Medicare Part B). This rule is estimated to increase the number of patients officially admitted to the hospital under inpatient status and decrease the number placed in observation status.

Why Might This Involve Emergency Physicians?

Hospital administrators often look to emergency physicians to guide whether patients should be admitted or kept in observation status. The CMS rule contains a provision that includes emergency physicians in the list of providers who can make admission decisions. Hospitals decide who can admit patients. ACEP has appealed to CMS with regard to emergency physicians “certifying” medical need for admission of patients for whom they do not provide inpatient care. The new rule does state that physicians making the decision should clearly indicate why patients require inpatient stays and support that decision by “medical factors,” including patient history, presence of comorbidities, signs and symptoms, current patient-care requirements, and the risk of adverse events during the hospital stay. The rule also implies that emergency physicians could write the orders and make the determination as long as admitting physicians or their designees authenticate that order prior to discharge. CMS has specifically directed MAC auditors not to count the time spent in the emergency-department (ED) waiting room or triage area. However, care delivered in the ED will count toward determining whether patients’ stays cross the two-midnight standard.

Leading up to March 31, 2014, MAC auditors will conduct a “probe and educate” program by doing a pre-payment review of a sample of stays fewer than two midnights and educating providers having difficulties with the new rule. However, because implications of the regulation mean potentially millions to each hospital and because a high percentage of hospital admissions come through the ED, emergency physicians will likely play a pivotal role in designating patients for inpatient versus outpatient status.
CMS Clarifies Who May Administer Sedation Drugs

Recently, after the issue of who may “push the plunger” had finally reared its ugly head again for many emergency physicians, I reached out to a friend, colleague, emergency physician, and CMS Medical Officer, Bill Rogers, MD, FACEP, to gain clarity on the issue. Per that inquiry, the following is quoted from David Eddinger, RN, MPH, who manages the Conditions of Participation. This should provide clarity regarding the current CMS position about who may push the plunger.

—Kevin Klauer, DO, EJD, FACEP

“Our anesthesia regulation in 482.52 directs who may administer anesthesia. RNs or LPNs can never administer anesthesia (CRNAs are allowed). Minimum and moderate sedation is not anesthesia, therefore a trained RN can be a sedation nurse. The professional who pushes the plunger on the syringe that contains a medication is the person who ‘administers’ that medication. If that medication is for analgesia (minimal or moderate sedation), the medication may be administered by a trained RN under the personal supervision of the physician. However, if the medication is anesthesia, that medication can only be administered by a person qualified to administer anesthesia in accordance with 482.52 (in hospitals). Note that deep sedation is anesthesia.”

—David Eddinger, RN, MPH

Emergency physicians are being forced by their hospitals to deliver substandard care when administering sedation to their patients. This in no way reflects a lack of training or experience on the part of emergency physicians but instead is the result of variable interpretation of rules and regulations. In the January issue of ACEP Now, ACEP Council respondents to a survey revealed that emergency physicians have been forced to provide substandard care 36.2 percent of the time due to limitations or restrictions placed on their ability to provide conscious or procedural sedation. These restrictions do not allow emergency physicians to practice as they would like 43.8 percent of the time and are promulgated by sources external to emergency medicine 53.9 percent of the time. For 85.5 percent of the respondents, limitations on nursing scope of practice prohibit emergency department (ED) nursing from “pushing the plunger” when certain sedation drugs are ordered, thus requiring physicians, who are less qualified than nursing, to administer (draw up and push) medications. Restrictions on medication administration are under the purview of the nursing scope of practice; however, these restrictions clearly impact our practice. Having to push medications diverts physicians’ attention away from performing procedures and distracts them from monitoring patients.

I have heard from colleagues who are not allowed to use specific agents even if the specific agent is judged to offer the best option for their patients. In the survey, 15.2 percent of respondents cannot use propofol and 5.7 percent cannot use ketamine. This restriction is in direct conflict with the ACEP Policy “Sedation in the Emergency Department,” which states, “the decision to provide sedation and the selection of the specific pharmacologic agents should be individualized for each patient by the emergency physician and should not be otherwise restricted.” In a 2014 paper, the ACEP Clinical Policies Committee recommended (Level A, the highest strength of evidence) that ketamine can be safely administered to children for procedural sedation and analgesia in the ED and that propofol can be safely administered to children and adults for procedural sedation and analgesia in the ED. Given the strength of evidence regarding safety, it makes no sense that limitations are being placed on these agents. Furthermore, not using these agents results in the use of outdated medications, promoting substandard practices.

In 2011, the Centers for Medicare & Medicaid Services (CMS) issued its revised Interpretive Guidelines (IGs) pertaining to the hospital Conditions of Participation. The IGs have been widely used by health care facilities to develop institutional and departmental guidelines related to the sedation of patients. The document attempts to distinguish analgesia from anesthesia but goes on to state, “anesthesia exists along a continuum. There is no bright line that distinguishes when their pharmacological properties bring about the physiologic transition from the analgesic to the anesthetic effects. Furthermore, each individual patient may respond differently to different types of medications.”

The CMS document goes on to state that hospitals “must establish policies and procedures, based on nationally recognized guidelines that address whether specific clinical situations involve anesthesia versus analgesia” and “address whether the sedation typically provided in the emergency department or procedure rooms involves anesthesia or analgesia.” Hospitals would be free to use ACEP guidelines and recognize them as authoritative. Furthermore, if sedation administered in the ED is termed “analgesia” (which it is), it would not fall under anesthesia services over sight. The CMS document allows for this carve out for emergency medicine by stating that “it is important to note that anesthesia services are usually an integral part of surgery.” ED sedation is unique, and the credentialing and verification of competency of providers, selection and preparation of patients, informed consent protocols, equipment and monitoring requirements, staff training and competency verification, criteria for discharge, and continuous quality improvement should be overseen by emergency medicine.

In 2011, ACEP formed the sedation task force to address procedural sedation in the ED by working with ED nursing colleagues, anesthesiologists, and other stakeholders. The sedation task force published its recommendations for physician credentialing, privileging, and practice related to procedural sedation and analgesia in the ED in 2011. This update is intended to be used to develop hospital policy for the administration of analgesia, sedation, and anesthesia by emergency physicians.

From the paper, it is clear that sedation and analgesia in the ED represents a unique skill set and that policies and procedures that define the various uses of analgesia and anesthesia require an interdisciplinary effort on the part of ED physicians and nursing.

Resolution of these limitations to our practice will allow us to provide sedation in a manner conducive to patient safety by tailoring treatment to the individual patient. Emergency physicians are uniquely qualified to provide all levels of analgesia/sedation and anesthesia (moderate to deep general) and should be allowed to practice unencumbered.

References


DR. O’CONNOR is professor, chair, and physician-in-chief of the department of emergency medicine at the University of Virginia Health System in Charlottesville, Va. He is also an emergency physician at the Cúpepe Regional Hospital in Cuba, and is vice president of the ACEP Board of Directors.
In November 2013, the Centers for Disease Control and Prevention (CDC) released a document announcing that 2011 was the year with the highest number of reported malaria cases in the United States since 1971. This article summarizes the essential elements of the CDC malaria surveillance in 2011.

Continued on page 18
IDENTIFYING AND TREATING MALARIA

It is not unusual for travelers who have returned to the United States to seek care in the emergency department for their illnesses. Malaria should be considered in a febrile individual who provides a history of travel to an area where malaria transmission is known. The signs and symptoms of malaria are variable and can include fever, chills, myalgia, malaise, headache, back pain, diarrhea, nausea, vomiting, and cough. These nonspecific manifestations can easily be confused with more commonly encountered viral and bacterial infections.

A common method for the diagnosis of malaria is microscopic examination of peripheral blood for parasites (thick and thin blood smear). This test not only permits a rapid determination of the presence or absence of parasites but also allows for identification of the parasite species and the percentage of infected red blood cells.

The choice of antimalarial agents is multifactorial. It is dependent on the severity of the infection; the ability to identify and quantify the density of the *Plasmodium* species; and the geographic origin of the parasite, which helps in predicting resistance patterns. Severe malaria is defined as a case in the presence of one or more of the following manifestations: neurologic symptoms (eg, altered mental status, seizures), renal failure, severe anemia, pulmonary edema, circulatory shock, disseminated intravascular coagulation, acidosis, jaundice, or greater than or equal to 5 percent parasitemia.

It is imperative to consult the CDC and an infectious-diseases specialist as soon as possible when encountering severe malaria. Severe malaria is treated intravenously with quinidine gluconate, plus one of the following: doxycycline, tetracycline, or clindamycin. A highly effective alternative to quinidine gluconate is intravenous artesunate, which is available as an investigational new drug through the CDC.

In situations when the *Plasmodium* species is not known, a presumptive treatment regimen for a *P. falciparum* infection should be initiated. Indications for hospitalization include the inability to exclude *P. falciparum* infection; severe illness (as outlined above); and infection in infants, pregnant women, and those with severe underlying chronic medical conditions.

**MALARIA STATISTICS**

In 2011, the CDC received 1,925 reported cases of malaria among persons in the United States and its territories. In comparison to 2010, there was a 14 percent increase in the number of reported cases in 2011, and it was the highest number of malaria cases reported since 1971 (N=3,180).1,2

The majority of cases occurred among U.S. residents (1,189 cases, 62 percent). The definition of U.S. residents included both civilian and US military personnel, regardless of legal citizenship. There was a significant increase in the number of reported malaria cases among U.S. military personnel in 2011 compared to 2010 (91 versus 65). For the remainder, 386 (20 percent) cases occurred among foreign residents, and 350 (18 percent) cases occurred among patients with unknown or unreported resident status. The definition of foreign residents included any individuals who held resident status in a country other than the United States.

The majority of cases (N=4,920) were classified as imported, defined as those acquired outside of the United States and its territories. The remaining five cases were categorized as laboratory-acquired (1), transfusion-related (1), congenital (2), and cryptic (1). Cryptic malaria was defined as a case for which epidemiologic investigations could not identify a plausible mode of acquisition. This term was applied primarily to cases found in countries where malaria was not endemic.

The infecting species of *Plasmodium* was identified in 1,490 (77 percent) of 1,925 reported cases. Almost all infections were due to a single species of *Plasmodium*. Only 21 cases (1 percent) were due to a mixed infection with two

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different species of *Plasmodium*. Overall, the majority of infections were due to *P. falciparum* (49 percent), followed by *P. vivax* (22 percent), *P. malariae* (3 percent), and *P. ovale* (1 percent).

Of the imported cases (N=4,920), data on the region of acquisition of infection were reported and available in 1,655 cases. Among these cases, 1,164 (69 percent) were acquired in Africa, 363 (22 percent) in Asia, 160 (8 percent) in the Americas, 7 (0.4 percent) in Oceania, and 1 in the Middle East. The majority (63 percent) of the cases acquired in Africa were from the countries in the western part of Africa, specifically including, but not limited to, Nigeria, Ghana, Sierra Leone, and Liberia.

Most cases from Asia, in the order of decreasing frequency, were acquired in India, Afghanistan, Pakistan, and Thailand. The number of cases acquired in Afghanistan was significantly higher compared to 2010 (96 versus 43), mainly due to an increased number of infections among US military personnel serving in Afghanistan. The majority of cases from Central America and the Caribbean were from Haiti and Honduras, while in South America most cases were from Guyana and Brazil. With the exception of one case, all cases from Oceania were from Papua New Guinea. There was only one case reported from the Middle East; however, the country of acquisition as well as the involved *Plasmodium* species were unknown.

In the United States, the top 10 states reporting malaria cases, in the order of decreasing frequency, were New York (421), California (126), Florida (120), Texas (109), New Jersey (104), Georgia (99), Virginia (86), Massachusetts (84), and Pennsylvania (70) (see Figure 1, p. 18). In comparison to the other states, Massachusetts reported the highest rate of increase in cases of malaria in 2011 (33 percent, 36 in 2010 versus 84 in 2011).

The purpose of travel at the time of malaria acquisition was reported by 871 (80 percent) of the 1,095 US civilians with imported malaria. The definition of US civilians excluded US military personnel. The most common reasons for travel among civilians included visiting friends or relatives (70 percent), missionary-related work (11 percent), and travelling for business (9 percent). Among foreign residents for whom the purpose of travel to the United States was known (303), 172 (57 percent) were recent immigrants or refugees and 80 (26 percent) were among those visiting friends or relatives.

In the seasonality of malaria diagnosed in the United States during 2011, the reporting peaked in August for *P. falciparum* and *P. vivax* infections. This peak likely correlated with peak travel times during summer holidays. The majority of patients (86 percent) had their malarial symptoms on or after arrival to the United States. The remaining 14 percent had an onset of symptoms before arrival to the United States. Of those with the onset of symptoms after arrival to the United States, regardless of the involved *Plasmodium* species, most experienced their symptoms within one month after the date of arrival.

Among the individuals who reported taking a specific chemoprophylaxis agent, 83 percent took a CDC-recommended medication, while the remaining 17 percent took an agent that was not CDC-recommended for the area visited (18 percent). Among the CDC-recommended chemoprophylaxis and for whom adherence was known, almost 70 percent reported nonadherence to the proposed chemoprophylaxis regimen. Past history of malaria was known for 67 percent of the imported cases, of which 21 percent reported a history of infection within the past year. Based on the availability of data, 23 probable relapses were identified (22 due to *P. vivax* and one due to *P. ovale*). Relapsing malaria was defined as a recurrence of disease after its apparent cure. Relapses are caused by reactivation of dormant liver-stage parasites (hypnozoites) of *P. vivax* and *P. ovale*.

Eighty percent of infections were reported in individuals 18–64 years of age, 15 percent in those younger than age 18, and 5 percent in those age 65 or older. At the time of malaria acquisition among the pediatric subjects, 51 percent were US civilians, 34 percent had foreign-resident status, and 16 percent had unknown resident status. Of the U.S. civilian children, 6 percent were younger than 24 months, 18 percent were 2–4 years, 24 percent were 5–12 years, and 34 percent were 13–17 years of age. A majority of the infections in these patients were attributed to travel to Africa for the purpose of visiting friends or relatives. Of the children with known chemoprophylaxis information, 49 percent reported having taken some type of malaria chemoprophylaxis. However, only 90 percent of these patients took the appropriate regimen, and the majority (60 percent) reported nonadherence to the recommended chemoprophylaxis regimen.

Thirty-seven cases of malaria were reported among pregnant women, of whom 30 percent were considered severe infections. In the absence of fulfilling the specific clinical criteria for severe infection, patients who were treated with antimalarials, quinidine, or an exchange blood transfusion were also considered as having severe infections. Of note, exchange blood transfusion for the treatment of severe malaria is no longer recommended. Most (79 percent) infections in pregnant women were due to *P. falciparum*, followed by *P. vivax* (18 percent). Among the 1,956 cases for which the disposition information was available, 1,047 (66 percent) were hospitalized. The majority (61 percent) of admissions were due to *P. falciparum*, followed by *P. vivax* (38 percent) infections.

Of the 1,920 cases of imported malaria, 1,645 (86 percent) were categorized as uncomplicated infections. Most of these patients (72 percent) were treated appropriately, according to the CDC guidelines, when treatment information was available; however, almost 30 percent received inappropriate treatment. There was a noteworthy decrease in patients with uncomplicated disease being treated appropriately compared to the previous year (72 percent in 2011 versus 87 percent in 2010).

Fourteen percent of all cases were classified as severe malaria, with almost 75 percent due to *P. falciparum*. Five patients died. In comparison to the previous year, there was a significant increase in the number of severe cases (16 percent in 2011 versus 11 percent in 2010). A majority of the infections (84 percent) occurred in patients older than age 12. Among children, those younger than age 5 were more likely to have severe disease than those who were older. There was no association found between severe disease and age greater than 64 years. Of those with known prophylaxis information, 26 percent reported taking a recommended malaria chemoprophylaxis; however, only 23 percent reported compliance with the suggested regimen. Most patients experienced severe anemia (19 percent) or renal failure (16 percent). With respect to the treatment, inappropriate treatment was more commonly observed in patients with severe disease than in those with uncomplicated infections.

The CDC provides numerous resources, including teleadvice, for clinicians for malaria prophylaxis, diagnosis, and treatment recommendations. Malaria-treatment recommendations can be obtained online at http://www.cdc.gov/malaria/diagnosis_treatment or by calling the Malaria Hotline at 770-488-7788 or toll-free at 855-856-4713 during regular business hours or the CDC’s Emergency Operations Center at 770-688-7100 during evenings, weekends, and holidays.

A common method for the diagnosis of malaria is microscopic examination of peripheral blood for parasites. This test not only permits a rapid determination of the presence or absence of parasites but also allows for identification of the parasite species and the percentage of infected red blood cells.

**References**


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Afraid of Getting Sued and Losing Everything? Well, Just Hide Your Money! Or Not!

Pro–con debate about asset protection from professional liability
A Tale of Two Doctors

New Year’s Eve, Dec. 31, 2013

Two emergency physicians walk into a bar to attend their department’s New Year’s Eve party. Dr. Birkenstock (Dr. B) and Dr. Stiletto (Dr. S.) are both nearing retirement after working together “in the pit” for 35 years. They have both lived frugally and invested wisely. They have each built up a very nice retirement nest egg of $2 million. They both feel financially set for life.

The lawsuit concerns a woman who was a “frequent flyer” in their emergency department three years ago. She was pregnant with twins, and she would present on a weekly basis with “pseudoseizures.” At six months of gestation, she had a “real” seizure with a prolonged period of hypoxia. She barely survived and was left with severe hypoxic encephalopathy. The twins were born with profound neurological deficits. As a result, the mother and twins will require a lifetime of expensive medical care. Experts for the plaintiffs allege that the patient was incorrectly diagnosed with “pseudoseizures,” and that this misdiagnosis led to the injuries and was a breach of the standard of care. But for the misdiagnosis, the mother and twins would have been fine.

The AlIsT, July 2014

All the other defendants (the obstetricians, neurologists, residents in various disciplines, nurses, physician assistants, nurse practitioners, neonatologists, and the hospital) have settled and

Asset Protection for the Frugal Physician—A Tale of Two Doctors

by Douglas Segan, MD, JD

Asset-protection planning can be the determinative factor in whether you and your family will live in the best or worst of times financially. If you doubt the importance of navigating this area where law, insurance, investing, and medicine intersect, please consider the following tale.

The Official Voice of Emergency Medicine

Sheltering Personal Assets from Med-Mal Liability Is Overrated

by Michael Frank, MD, JD, FACEP, FCLM

There is a great scene in the movie RED (Retired, Extremely Dangerous) in which John Malkovich invites Bruce Willis and Mary-Louise Parker “in to see the place.” Instead of heading toward the house, which is in plain view, Malkovich lifts the hood of a junked car, revealing a stairway down into the bunker that is his real abode. Parker, befuddled, asks, “What’s the house for?” Malkovich, intent on protecting himself from assassins and scornful of Parker’s ignorance, scoffs, “Decoy, of course.”

Not all of us have been advised to live in a hidden bunker, leaving our house vacant in order to protect against black-op hit teams, but if you’re a physician, it’s almost a certainty that you’ve heard that you should dig a figurative bunker for your assets (ie, take steps to shelter your assets from being taken away in the event of an excess-limits verdict in a medical malpractice case). Not only have all physicians heard this bit of unchallenged wisdom, but for those who want to heed such advice, there are plenty of financial and legal advisors who are only too happy to take some of that money you’re trying to protect. The only problem is that the chances of your suffering an excess-limits verdict and having your personal assets attached are exceedingly small. It’s certainly more likely than the chance of a black-op hit team visiting you in the dead of night but far less than the chance you’ll one day wish you hadn’t “protected” your assets.
“Many doctors recognize the benefits of protecting their assets but are under the mistaken belief that the process is both costly and time-consuming. While some high net-worth physicians need the expertise of specialist lawyers to set up sophisticated plans such as offshore trusts, most physicians do not require this. If you are starting out in your career, or you do not have a large nest egg, there are simple and inexpensive steps that you can take.”

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“And we’ve all heard of those multi-million dollar plaintiff verdicts that just happen to be in excess of the defendant doc’s insurance coverage. But even though you’ve heard all this advice, do you actually know of many cases—or even a single case—where physicians have had their personal assets taken away? Probably not. Although such cases can theoretically occur, in reality, they are exceedingly rare.”

—MICHAEL FRANK, MD, JD, FACEP, FCLM
Cricothyrotomy 2.0
Rethinking indications, anatomy, and procedural technique

Crics should be considered a first-line approach in situations of the “surgically inevitable airway.” These are cases in which mask ventilation, supraglottic airways (LMA/King LT), and passive oxygenation will not work.

Part one of a two-part series

Thirty years ago, when airway management options only included direct laryngoscopy and mask ventilation, cricothyrotomy was used routinely if laryngoscopy and mask ventilation failed. Now, the laryngeal mask airway (LMA) and other supraglottic airways allow us to rescue ventilate in 95 percent of mask-ventilation failures. Video laryngoscopes (and fiber optics via LMA) now allow intubation in many instances of difficult or impossible direct laryngoscopy. New techniques of pre-oxygenation, positioning, and apneic oxygenation (ie, nasal oxygen during efforts securing a tube, or NO DESAT) can markedly prolong safe apnea. Better ventilation strategies (low volume, low pressure, positive end-expiratory pressure [PEEP] valves, nasal cannula with bag-valve-mask [BVM] use) improve oxygenation and also reduce the risk of regurgitation. We are no longer bound to one attempt at intubation before hypoxemia leads to desperate bagging and a surgical airway.

What is the role for cricothyrotomy in this era of many devices and better oxygenation and ventilation techniques? Crics should be considered a first-line approach in situations of the “surgically inevitable airway.” These are cases in which mask ventilation, supraglottic airways (LMA/King LT), and passive oxygenation will not work. Surgically inevitable airways are trauma cases in which a surgical airway will be required as part of the patient’s near-term management. The prototypical example is a severe blast injury to the lower face. Distorted anatomy coupled with blood/vomit is a serious problem—it is bad for laryngoscopy, mask ventilation, LMA, and King LT use, as well as passive oxygenation via mouth or nose. Rapid sequence intubation (RSI) must be avoided in these cases; an awake surgical airway (with or without ketamine) is the safest option. Not all instances of distorted anatomy require an immediate surgical airway; without bleeding or vomit, an awake, fiber-optic, or other non-RSI technique may be worth trying in angioedema and other oral-pa-thology circumstances. Because there is no guarantee of being able to rescue ventilate, a surgical ap-
approach may be emergently needed if the pa-
tient deteriorates. Instances involving massive
fluids (blood/vomit) even without distorted
anatomy may trigger a surgical airway when
epiglottoscopy and other landmark identifi-
cation are impossible along with the inability
to oxygenate and/or ventilate. If intubation
fails in cases with intrinsic laryngeal pathol-
yogy (eg, laryngeal tumor, high-grade laryngeal
fracture), a surgical airway is necessary below
the level of the pathology (ie, tracheotomy in-
stead of a cricothyrotomy).

Once the operator has crossed the deci-
nion point, a surgical airway is inevitable;
patient outcome hinges on speed. To ensure
success, one must be able to reliably identify
landmarks and have a methodical, step-by-
step approach.

Instead of using the tip of the
index finger to feel for land-
marks, palpate the laryngeal
framework using the whole hand
with what I call the “laryngeal
handshake.”

The Technique
The traditional method of finding the crico-
throid membrane relies on palpation of the
thyroid prominence (Adam’s apple) and the
gap between the lower thyroid cartilage and
the cricoid ring. This works well in thin males
but not when there is significant neck fat and
musculature. In women, the thyroid lamina
is smaller and has a shallower angle; there is
no thyroid prominence (see Figure 1, p. 26).
Instead of using the tip of the index finger
to feel for landmarks, palpate the laryngeal
framework using the whole hand with what I
call the “laryngeal handshake” (see Figure 2,
p. 26). The hyoid, thyroid, and cricoid form a
rhomboid structure and move as a unit from
side to side (see Figure 3, above). Instead of
feeling for the thyroid prominence, palpate
the broad thyroid lamina. When the front of
the neck does not give certainty of location, I
have found that palpating the firm lamina of
the thyroid and moving the whole laryngeal
framework from side to side will consistently
confirm the landmarks.

It does not take a lot of force to appreciate
landmarks or rock the larynx side to side. Pal-
pation of the laryngeal framework has been
taught as a close combat technique (when
used with maximum force) to perform a “tra-
cheal choke” (see Figure 4, above).

I initiate the laryngeal handshake with my
dominant right hand (see Figure 5, above, for
sequence of steps). Ergonomically, I prefer to
stand on the patient’s right side (at the thorax)
so that when holding the scalpel, I can rest my
cutting hand on the sternum. (We will address
sternal stabilization in part two of this series.)

I started gently up high with the hyoid, us-
ing the thumb and index finger, under the an-
gle of the mandible. Staying lateral to midline,
slide down to the broad, firm, thyroid lamina.
At this point, use the index finger to come to
midline and palpate the thyroid prominence
in men. Lower down is the inferior cornu of
the thyroid, bilaterally overlapping the cricoid
cartilage. This is the bottom of the rhomboid,
below which are the softer tracheal rings. Us-
ing the firm lamina of the thyroid as a guide
(and especially if the thyroid prominence is not
felt) the index finger is brought midline to the
cricothyroid membrane at the inferior aspect

The larynx (on the thyroid lamina) with the index
finger over the cricothyroid. The dominant
hand holds the scalpel and is stabilized on
the sternum. Sternal stabilization is needed
to make a controlled incision. We will address
this in the April 2016 issue of ACEP Now in part
two of this series.

To learn more about joining our practice, please contact Erin Waggoner or
Jeff Mirelli at (888) 758-3999 or via email at EWaggoner@4Mdocs.com or
jmirelli@4mdocs.com
be moot. However, in a desire to reduce radiation exposure in pregnant patients, D-dimer tests are often ordered in this population. D-dimer levels increase throughout pregnancy, beginning in the first trimester, and by 35 weeks, all will be above the cut-off level of 500mcg/L. This normal physiologic phenomenon has prompted some investigators to increase the cut-off level for D-dimer in pregnancy. Although false positives clearly occur in pregnancy, it seems to be a flawed strategy to increase the cut-off to avoid false positives at the risk of increasing false negatives. Such changes are under investigation and should be adopted with caution.

If D-dimer is problematic in pregnancy, why not use the PERC rule? PERC is most likely the preferred CDR in current use. However, in the derivation study, six clinical variables were deemed “nonsignificant”: pleuritic chest pain, substernal chest pain, syncope, smoking status, malignancy, and pregnancy or immediate postpartum status. Kline and Slatery later reported three factors that were associated with PERC-negative PE. Interestingly, they were pleuritic chest pain, pregnancy, and postpartum status. Perhaps removal of these three should be called into question. If nothing else, this certainly limits the PERC rule’s application in pregnancy.

In order to reduce potential radiation exposure, many are recommending that compression ultrasonography be used first in pregnant patients as opposed to computed tomography pulmonary angiogram. This approach certainly has merit, particularly in pregnant patients with leg complaints. However, it also has some drawbacks. Venous flow velocity reduces approximately 50 percent in the legs by weeks 25-29 of pregnancy, possibly impacting image interpretation, and isolated iliac vein thrombosis is more common in pregnancy and is difficult to diagnose. Use caution with pregnant patients who may have VTE. Although our goal is to reduce radiation exposure to the fetus and mother, applying evidence from nonpregnant populations can be disastrous. We must be mindful to avoid unnecessary testing, but the use of CDRs and D-dimers, in particular, have little place—if any—in the risk stratification of pregnant patients.

DR. KL&AUER is director of the Center for Emergency Medical Education (CEME) and chief medical officer for Emergency Medicine Physicians, Ltd., Canton, Ohio; on the Board of Directors for Physicians Specialty Limited Risk Retention Group; assistant clinical professor at Michigan State University College of Osteopathic Medicine; and medical editor-in-chief of ACEP Now.

References
Whole-Life Insurance Is Not an Attractive Asset Class

by JAMES M. DAHLE, MD, FACEP

Question: My financial adviser thinks I should diversify my portfolio by adding whole-life insurance (WL) as an additional asset class. Do you think this would be a good move?

Answer: WL is difficult to sell. It is expensive and complicated and possesses a terrible reputation. It is rarely recommended except by those who benefit from its sale. Recognizing this, insurance companies offer substantial commissions to those who are able to successfully sell it. The typical commission for WL ranges from 50–110 percent of the first year’s premium. That means if you buy a WL policy with a premium of $30,000 per year, your “adviser” will receive a commission in the neighborhood of $15,000–$33,000. Given that insurance agents have a median income of $42,000 per year, that monstrous commission becomes an incredible conflict of interest.

Commissioned salespeople generally make for poor financial advisors. The worse the financial product, the higher the commission a company must offer in order to get it sold. The higher the commission, the more likely the salesperson is to recommend it to you. Even highly ethical people will struggle with this insanely huge financial conflict of interest. It kind of makes those pens and sandwiches that drug reps used to bring to the ED look pretty silly, no?

If you need financial planning advice, I suggest you pay for it with a straightforward hourly or flat fee. If you need asset-management services, I suggest you pay for it with a flat annual retainer or at least a reasonable fee based on assets under management. Using a commissioned “adviser” may seem like it saves you some money, but there is no price too low for bad financial advice.

All that said, it is best to evaluate any financial product on its own merits rather than on the sliminess of its industry. WL does have significant upsides. It provides a life-long, generally increasing death benefit. The life insurance aspect is paired with a savings account that grows slowly each year with dividends from the insurance company. In many states, the cash value enjoys significant asset protection from creditors. It can be useful in some unique estate- and business-planning transactions. You can also borrow money tax-free, but not interest-free, from the policy to purchase expensive stuff or to spend in retirement. Upon death of the insured, any loans not paid off are assessed against the death benefit and the remainder is paid out to heirs.

These unique aspects cause commission-hungry insurance agents to recommend WL as an additional retirement account or even as a unique asset class for your portfolio. The complex structure and many uses of WL give its proponents an endless number of angles from which to sell it. Unfortunately, for nearly every use of WL, there is a better product to meet that need. If you need to protect your family prior to retirement, term-life insurance works better. If you actually need a permanent death benefit, guaranteed no-lapse universal life works better. If you need your money to grow, investments like stocks and real estate are likely to provide a much higher return. 529s work better than WL to pay for your children’s college, and saving up for your next car works better than purchasing a life-insurance policy to pay for it. If you need a guaranteed income in retirement so you don’t run out of money before dying, you’re better off purchasing a single-premium immediate annuity (SPIA). Unlike life insurance, this product actually costs less as you get older and sicker.

Sometimes agents recommend you purchase WL to mix in with the other asset classes of your portfolio. They argue that because the projected long-term returns of WL are similar to those of bonds (especially in our current environment of historically low interest rates), you should include WL as an asset class in your portfolio. Keep in mind you can call anything, including horse manure or Beanie Babies, an asset class. The real question is, “Should I include this asset class in my portfolio?” With WL, the answer is usually no. If I offered you an asset class with the following characteristics, would you want to invest in it?

1. 50 percent front load the first year
2. Surrender penalties that last for years
3. Requires ongoing contributions for decades

It is best to evaluate any financial product on its own merits rather than on the sliminess of its industry.

Once you step back and think about the significant downsides of WL as an asset class, the right decision becomes obvious. Don’t mix investing and insurance. Complexity in financial products always benefits those who sell them more than those who buy them. According to joint reports from the Life Insurance Marketing and Research Association and the Society of Actuaries, 80–90 percent of WL policies are surrendered prior to death. This dire statistic suggests that the vast majority of WL purchase decisions eventually lead to serious regret.

However, surrendering a policy you have held for decades isn’t necessarily a good financial move either. The poor returns of WL are heavily concentrated in the early years, and life insurance of any type does become more expensive as you age and become more ill. Be sure your life-insurance needs, if any, are met with another policy prior to surrendering any insurance policy. Be sure to also calculate your expected return going forward prior to surrendering because the poor returns in the past are now water under the bridge.
Cool eTools, Ketamine, Evaluating Brain Death, and Tweeters Beware: Credibility of Online Sources

by JEREMY SAMUEL FAUST, MD, MS, MA

Not addicted to Twitter yet? Not a problem. Here are five recent tweets that’ll give you a sense of what’s going on in the emergency medicine Twitterverse.

1. Graham Walker, MD (@grahamwalker), an emergency physician in San Francisco, asked: “Any pearls/tricks on how people are using their smartphones in the ER?”

Dr. Walker is the perfect person to initiate this conversation; his MD-Calc website, soon to be an app, is a hugely popular smartphone tool for a variety of clinical uses, providing checklists for clinical decision tools and calculations you can’t quite remember. (Corrected calcium, anyone?) Replies covered a range of tricks that would have made MacGyver proud. Teresa Chan, MD (@TChanMD), an emergency physician with Hamilton Health Sciences in Ontario, replied that she has seen videos of pediatric seizures provided by parents. Seth Trueger, MD (@MBDataware), an emergency physician and health-policy fellow at George Washington University in Washington, DC, apparently gets a lot of use out of his smartphone for “Derm tele-consults; [Snellen] eye chart; Patients take pics of their own lesions, ECGs; [I] show parents PECARN algorithm; a metronome for CPR.” Others chimed in, saying they use their phones for keeping important papers handy. Personally, I use checklists and Siri reminders for following up on labs and the camera for taking photographs of medication lists (always with patient permission). And, of course, there is the indispensable flashlight: the ultimate smartphone “PERRL.”

2. From Reuben Strayer, MD (@emupdates), assistant clinical professor of emergency medicine at the Icahn School of Medicine at Mount Sinai in New York City: “Use ketamine fearlessly, even recklessly, by understanding the ketamine brain continuum. goo.gl/XGqXtJ #emupdates.” This tweet went viral, garnering more than 40 retweets to thousands of people. Dr. Strayer’s postings on his website, EMupdates.com, are always full of supporting resources, including links to high-quality research papers, flow charts, checklists, and screencasts that walk you through everything you need to know. Any fears you may have about ketamine’s safety profile and managing potential emergency reactions from ketamine for procedural sedation are soundly put to rest here, with ample evidence and crystal-clear rationale covering everything from physiology to practice-based guidance. Dr. Strayer’s website may be one of the best-kept secrets in the FOAM (Free Open Access Medicine) world. He doesn’t do a lot of self-promotion, but insiders know he’s a FOAMer’s FOAMite.

3. From St. Emlyn’s co-founder and Emergency Medicine Journal Editor Simon Carley, MD (@EMManchester), comes a great journal club entry: “Family presence for Brain Death Evaluation. Should families be present for brain stem testing? http://stemlynblog.org/jc-family-presence-brain-death-evaluation-st-emlyn.” The St. Emlyn’s blog is another terrific resource. All cases take place at the fictional and eponymously named hospital in the equally fictitious town of Vinchester in the United Kingdom. This tweet links to a post that discusses a new, randomized, controlled trial published in the December 2013 issue of Critical Care Medicine. In this study, families were randomized to either be present or not during brain-death evaluations. The take home: families who were present for brain-death evaluations better understood their loved one’s prognosis without any adverse effect on their psychological well-being.

4. From Australian emergency physician Andrew Tagg, BSC, MBBS, MRCSed (@AndrewTagg), tweeted: “Cheers to @RAGEpodcast for making my drive into work much more entertaining and educational and for inspiring me to be even better in 2014.” Others hopping on the bandwagon includes the podcast to date, critical care guru Jeremy Samuel Faust MD, MS, MA (@jeremyfaust), an emergency medicine resident at the University of Maryland in Baltimore, represents us with excellence. Grab it for free on iTunes.

5. From Brent Thoma, MD (@BrentThoma), an emergency medicine resident at the University of Saskatchewan, recently proposed another partial solution to the problem of gauging FOAM quality: a social media index. (See his post at http://academiclifeinem.com/social-media-index/) Both a strength and a flaw of Dr. Thoma’s index is that it hinges on popularity. Real-time feedback and popularity may seem to indicate quality on one hand; people vote over time with their repeat visits. On the other hand, a posting on an already-popular website can be both wrong and frequently viewed, a dangerous combination for the index.

DO YOU HAVE ANY FAVORITE TWEETS THAT ACEP NOW READERS SHOULD KNOW ABOUT VIA THE FEED?

TWEET AT ME @JEREMYFAUST OR E-MAIL TO JSFAUST@GMAIL.COM.
Point-of-care Ultrasound Identification of Shoulder Dislocation

by CHRISTINE RIGUZZI, MD; DANIEL MANTUANI, MD; AND ARUN NAGDEV, MD

POCUS allows for a dynamic evaluation of the glenohumeral joint, immediately informing the clinician of a successful reduction or the need for additional shoulder manipulation without having to rely on plain film radiography.

Clinical Case
A 28-year-old male presents to the ED with moderate to severe right shoulder pain. The patient states that he fell while playing football with his friends and has 10/10 pain in his right shoulder. He has no other injuries, and the neurovascular exam of the affected extremity is normal. You perform a point-of-care ultrasound examination of the affected shoulder and clearly see an anterior glenohumeral dislocation. Intravenous analgesia is administered, and the patient is moved to an appropriate bed for closed reduction.

Introduction
Shoulder (glenohumeral) dislocation is a common clinical presentation in the emergency department, comprising about 50% of all major joint dislocations. The large range of motion of the shoulder with minimal inferior tendinous support makes it prone to dislocation. Plain film radiography has been the imaging modality of choice for most clinicians when evaluating the ED patient with a suspected shoulder dislocation. Recent literature has demonstrated the superiority of point-of-care ultrasound (POCUS) in detecting both anterior and posterior shoulder dislocations, making it another rapidly evolving tool to improve accuracy, decrease error, and improve efficiency.

Also, real-time ultrasonography is commonly used to guide intra-articular injection. POCUS can be a useful tool for confirmation of a suspected shoulder dislocation, as well as determining the efficacy of reduction. Anterior and posterior dislocations can be easily distinguished by the relationship of the humeral head to the glenoid fossa on ultrasound. Recognition of these simple ultrasonographic anatomical relationships can facilitate acquisition of more advanced skills such as fracture identification and guided intra-articular injection.

POCUS allows for a dynamic evaluation of the glenohumeral joint, immediately informing the clinician of a successful reduction or the need for additional shoulder manipulation without having to rely on plain film radiography.

Anatomy
The shoulder is composed of the bony articulation between the humeral head and the flat glenoid fossa that arises from the scapula. Anterior shoulder dislocations commonly occur when a large external force pushes the humeral head inferiorly below the glenoid fossa. Secondary contractions of the more powerful pectoralis and biceps muscles then pull the humeral head anteriorly, placing the humeral head just below the glenoid fossa or coracoid. Posterior shoulder dislocations are less common, representing only 2–5% of all dislocations, and are often missed during the initial patient presentation. Posterior shoulder dislocations are caused by forcible internal rotation and adduction of the shoulder, and classic mechanisms include seizures, trauma, and electrical shock. The posterior aspect of the shoulder is more stable than the anterior, making it less prone to dislocation. POCUS is an appealing and superior imaging alternative for the detection of both anterior and posterior dislocations.

Ultrasound Evaluation of the Shoulder for Dislocation
We recommend the low-frequency (5–2 MHz) curvilinear transducer for this examination. While standing behind the affected shoulder, place the ultrasound system in front of the patient so that a clear view of the screen can be obtained (see Figure 1). If possible, ask the patient to adduct the humerus while supporting the elbow inferiorly for comfort. Palpate the scapular spine and follow it laterally toward the humerus (see also Figure 1). Place the probe parallel and just below the scapular spine with the probe indicator to the patient’s left, at the level of the glenoid. Adjust the depth until both the glenoid and humeral head are clearly seen (see Figure 2). The humeral head appears as a circular object located just lateral to the glenoid fossa. With the more common anterior dislocation, the humeral head will be deep on the screen (see Figure 3), while with a posterior dislocation, the humeral head will be closer to the probe and, therefore, more superficial on the screen (see Figure 4). If the shoulder is not dislocated, the patient should be able to internally and externally rotate the shoulder while adducted, and the rotational articulation between the humeral head and glenoid fossa will be seen clearly on the ultrasound screen.

Conclusion
POCUS can be a useful tool for confirmation of a suspected shoulder dislocation, as well as determining the efficacy of reduction. Anterior and posterior dislocations can be easily distinguished by the relationship of the humeral head to the glenoid fossa on ultrasound. Recognition of these simple ultrasonographic anatomical relationships can facilitate acquisition of more advanced skills such as fracture identification and guided intra-articular injection.

References
Death of the Physical Exam

by SHARI WELCH, MD, FACEP

As every emergency physician knows, the practical exam required to provide perfect care to patients is very different than that required to effectively bill a chart. The money depends on a well-rehearsed and complex labyrinthine system of paperwork and documentation. Following national guidelines and individual expertise, evidence-based care can be rendered to complex patients; the rate-limiting factor for reimbursement resides in the documentation of an exhaustive history and physical examination. For complex patients, a 10-item physical exam is required for full reimbursement. But does this really add value to the care of the individual patient? In the context of increasingly quality-minded health care reform, is this practice outdated and misaligned with contemporary goals?

There is currently an evolving and growing body of research to suggest that the death of the general physical exam might be afoot. If you forgot your stethoscope, could you make it through your shift? Many could. How often do the physical examination findings we document actually change management? Doesn’t a problem-focused history get us 99 percent of the way in 99 percent of the patients?

A recent meta-analysis by Cochrane Reviews looked at research correlating the comprehensive general physical exam with outcomes. General health checks were defined as screening examinations for multiple conditions, not just one particular disease state. (This is effectively what our existing documentation and coding guidelines require of the emergency physician for reimbursement.) A number of general findings are worth noting:

- The general health examination for adults (between 18 and 65 years of age) was not associated with improved overall mortality rates nor improved disease-specific mortality rates.
- General physical examinations did not improve the risk for major health events, such as myocardial infarctions.
- There were little data on whether...
Patients have expectations. They are seeking an intimate relationship with their health care providers and crave the “magical hands” that will find health care problems and restore health, which is in direct conflict.

References
Avoid the Foley to Improve Patient Comfort and Cost

by JEREMIAH SCHUUR, MD, MHS, AND MICHELLE LIN, MD, MPH

You’re about to evaluate a new patient when a veteran nurse says, “Hey Doc, I saw the orders for the delirious patient in room 8. I’m going to place a Foley for a urine sample, since she’s already wet the bed twice.” Your mind is already on the next patient, so you utter, “Sure,” without further thought.

Indwelling urinary catheters, a.k.a. Foleys, can be critical in managing urinary obstruction, fluid balance, and traumatic conditions. Yet potential harms and costs include the discomfort of insertion and the costs of the Foley equipment and placement, as well as the rare but serious complication of catheter-associated urinary tract infections (CAUTIs). CAUTI is the most common hospital-acquired infection, accounting for between 95,000 to 380,000 annual, preventable infections in the United States. Assuming Foleys stay in for roughly two days and the average infection rate per medical/surgical wards is 1.5 per 1,000 catheter days, one in 333 Foleys will cause an infection.

How often do we place Foleys in the emergency department (ED)? We place Foleys for medical reasons, patient and staff convenience, and out of habit. Catheter insertion is one of the most frequent procedures in US EDs. A national survey estimated that 2 percent of ED patients in 2010 had a Foley placed.1 Single center studies show that up to 23 percent of ED patients who are admitted have a Foley placed in the ED, and the percentage is even higher (30-36 percent) among elderly patients.2,3 Yet, between a third and a half of Foleys placed in hospitalized ED patients lack documented physician orders, and one study found that up to half are avoidable.4,5

Who needs a Foley catheter? In 2009, the Centers for Disease Control and Prevention (CDC) released a “Guideline for prevention of catheter-associated urinary tract infections,” including indications for Foley use (see Table 1).1 While not developed specifically for the ED and largely based on expert opinion, they are a useful starting point.

In what patient scenarios can Foley placement be avoided? • Patients with congestive heart failure exacerbations: Historically, Foley placement helped measure “ins and outs.” However, non-critical patients who make urine can have their output measured from a urinal or commode.
• Incontinence: A frequent reason for placing a Foley that should be avoided is solely for the convenience of the patient or staff.
• Difficulty obtaining a urine sample, since she’s already wet the bed. If you’re about to evaluate a new patient and a urine sample is needed, a nurse “starts a patient up” by placing an IV, sending labs, and maybe placing a Foley, speak with your nursing director to ensure all the orders for the delirious patient in room 8 are documented physician orders, and maybe placing a Foley, speak with your nursing director to ensure all Foleys are preceded by an order. Third, speak with your consultants. They are also trying to avoid CAUTIs, and may be open to changing traditional care patterns. Finally, speak with your patients. Some patients (eg, older men with congestive heart failure) request a Foley to assist with frequent urination during diuresis, yet most are agreeable to a bedside urinal if you explain the risk of infection.

Should you ever remove a Foley in the ED? There is no rule that Foley catheters can’t come out in the ED. If you place a Foley to monitor urine output during a resuscitation, it can be removed once you’re adequately resuscitated the patient. While the use of Foleys in trauma has decreased dramatically, their use has increased in patients with systemic inflammatory response syndrome or early sepsis. Once a patient leaves the ED, it may be days until the Foley is removed.

What is the cost of a Foley? The direct cost to Medicare of placing a urinary catheter in the ED is $24.28 for the catheter and insertion supplies, $64.78 for the ED facility charge, and $31.03 if placed by an MD, physician assistant, or nurse practitioner. For commercially insured patients and the uninsured, the prices are higher. The small but real risk of a CAUTI is associated with much higher costs. On your next shift, take a moment and think about each patient that gets a Foley. Can you avoid it? If it has served its purpose, can you take it out? The evidence to reduce Foley placement is strong enough that ACEP made it one of the five recommendations for emergency medicine in the Choosing Wisely campaign. If you want to learn more about how to reduce Foley use in the ED or want your ED to join a national quality improvement effort, check out the On the Cusp: STOP CAUTI collaborator (www.onthecusstopcauti.org/on-the-cusp-stop-cauti/emergency-department-improvement-intervention) for great resources on best practices to avoid Foleys and minimize CAUTI.

References

Table 1: Indications for Foley Catheter Use

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Based on CDC Healthcare Infection Control Practices Advisory Committee guidelines.3

COST-EFFECTIVE CARE

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The Official Voice of Emergency Medicine

Now

by Dr. Lin

Assuming Foleys stay in for roughly two days and the average infection rate for medical/surgical wards is 1.5 per 1,000 catheter days, one in 333 Foleys will cause an infection.

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Can You, With Forensic Certainty, Determine the Age of This Bruise Based on its Color?

by RALPH J. RIVIELLO, MD, MS, FACEP

Emergency physicians and forensic examiners are often asked to date bruises/contusions. This should not be done as it is too imprecise. The appearance of a bruise depends on three factors: the skin must be stretched/compressed enough to tear blood vessels without losing surface integrity, sufficient pressure must be present for blood to escape from the vessels into the tissues, and the escaped blood must be near the skin surface to be seen. Too many variables can affect the creation and resolution of a bruise. These include type of tissue injured (loose tissue bruises earlier), mechanism of injury, length, duration of force, depth of injury (superficial bruises appear earlier), skin color, health status of the patient, medications (anticoagulants, antiplatelet agents, steroids), and age. Bruises tend to show multiple colors as they age. Red and purple tend to be fresh. They then progress to blue, then to brown, yellow, or green. Color may help determine “early” or “late” bruising, but more precise timing on color alone is simply not accurate. Some studies do indicate that yellow will not appear in a bruise until at least 18–24 hours after an injury.

Key Facts:

- Many factors are involved in the appearance of a bruise.
- Bruise appearances can vary among and within people; color progression is not absolute or accurate for timing.
- Emergency physicians cannot and should not definitively age a bruise.
- Red and purple indicate a fresher bruise.

References

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