Nine months ago, Wesly Heney, near collapse from viral pneumonia, was taken by ambulance to a large teaching hospital near his home in London, Ontario. Paramedics asked whether he took any medications, so Heney disclosed that as a transgender person (female-to-male, or FTM) he was taking injectable testosterone. While he was waiting in the hospital hallway on a gurney, a nurse came over to put on his patient ID bracelet. “She must have heard the paramedics’ report,” Heney surmises, “because she referred to me as ‘it.’” Later, Heney heard two nurses arguing about who would do his blood draw because “neither of them wanted to touch me.”

CONTINUED on page 12
ACEP Council Speaks Out

ACEP Councillors were surveyed about the College recently opening a comment period on the Clinical Policy: Use of Intravenous tPA to Manage Acute Ischemic Stroke in the ED. A total of 170 Council members responded about their expected results.

<table>
<thead>
<tr>
<th>Question</th>
<th>RESPONSE</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you want the clinical policy to be completely rescinded?</td>
<td>No</td>
<td>50.9%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>6.6%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>42.5%</td>
</tr>
<tr>
<td>If so, do you think that will happen?</td>
<td>No</td>
<td>76%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>5.8%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>18.2%</td>
</tr>
<tr>
<td>Are you comfortable with the same evidence being reviewed by the same process under which the policy was initially drafted and approved?</td>
<td>No</td>
<td>64.5%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>28.5%</td>
</tr>
<tr>
<td>If not, which changes would you like to see? (choose all that apply)</td>
<td>New evidence being considered</td>
<td>28.8%</td>
</tr>
<tr>
<td></td>
<td>New reviewers selected</td>
<td>27%</td>
</tr>
<tr>
<td></td>
<td>A different evidence grading system utilized</td>
<td>9.4%</td>
</tr>
<tr>
<td></td>
<td>Content experts (i.e., stroke researchers, etc.) to be consulted for their input but the final recommendations made by intellectually respected members without specific research or career interest in stroke management</td>
<td>34.9%</td>
</tr>
<tr>
<td>Do you want the clinical policy to remain unchanged?</td>
<td>No</td>
<td>70.1%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>72%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>22.8%</td>
</tr>
<tr>
<td>Would you like the current recommendations to remain in place, but the level of recommendations downgraded?</td>
<td>No</td>
<td>52.1%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>34.9%</td>
</tr>
<tr>
<td>If not, would you be comfortable with this as a compromise?</td>
<td>No</td>
<td>34.4%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>7.6%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>58%</td>
</tr>
<tr>
<td>Are you concerned that the policy may have negative medical legal implications?</td>
<td>No</td>
<td>19.6%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>1.8%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>78.6%</td>
</tr>
<tr>
<td>Do you feel the policy, as written, reflects the clinical practice of most emergency physicians?</td>
<td>No</td>
<td>58.7%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>32.3%</td>
</tr>
</tbody>
</table>

MARCH 2014
tPA Policy Reconsidered

This (“Up for Reconsideration: Clinical Policy on IV tPA for Ischemic Stroke,” February ACEP Now, p. 2) is actually, really, a very important issue. Revisiting the issue of the use of thrombolitics in ischemic stroke has the potential of setting the EM industry on its head as regards stroke networks.

The Joint Commission now requires that hospitals that are “stroke centers” treat 50% of eligible candidates with ischemic stroke within one hour of arrival! This is policy set in place across the nation.

How odd, then, will it be if, when we revisit this, we end up reversing a policy that is accepted nationally and drives a vast amount of commerce in this country and around the world? This is going to be a very hot topic, one that we will all be attuned to with bended ear.

Thus, this is a very important subject, and exceedingly timely. I respectfully suggest that you do an updated mail-out to the membership of ACEP which provides the link (http://tinyurl.com/aceptpa). There are thousands of us across the nation with the “need to know.”

Again, thank you for your time.

—Raymond L. Fowler, MD, FACEP, DABEMS
Dallas, Texas

EM and the ACA

Just read your first and last editor’s column (“At Your Service,” January ACEP Now, p. 5), and congratulations on taking this path. Your commentary has always been worthwhile, and I expect more of the same in whatever form you.

A comment on the ACA roundtable you led for ACEP Now (January, p. 1). The comments coming from EM MDs were very worthwhile. I understand the need to discuss what we have to deal with and how we can react. It strikes me that, to some, the ACA is not a reality as the actual practitioners of universal coverage as required and enforced by EMTALA-we (EM) are the safety net. We are universal coverage as required and enforced by EMTA—LA and those flatly stating that the ultimate question is accepted nationally and drives a vast industry on its head as regards stroke networks.

Thus, this is a very important subject, and exceedingly timely. I respectfully suggest that you do an updated mail-out to the membership of ACEP which provides the link (http://tinyurl.com/aceptpa). There are thousands of us across the nation with the “need to know.”

Again, thank you for your time.

—Raymond L. Fowler, MD, FACEP, DABEMS
Dallas, Texas

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EM and the ACA

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References:

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CEP will accept abstracts for the 2014 Research Forum until 4 p.m. (CST) on April 25. Abstracts will be peer-reviewed for presentation at the two-day event on October 27–28, held in conjunction with ACEP’s annual conference, ACEP14, in Chicago. Abstracts will be accepted that are judged scientifically valid and that yield important information that will ultimately affect patient care. Abstracts submitted or the resultant manuscripts must not appear in a referenced journal before publication of the meeting abstracts in the October 2014 issue of Annals of Emergency Medicine and must not have been presented at a national meeting.

This year, all abstracts will be presented electronically. The top 20 will be selected for oral presentation in plenary-type sessions. Other accepted abstracts will be presented in topic-specific small group sessions.

The Research Committee will review abstracts blinded to authors. Notification letters will be sent on or before July 1. The committee cannot give notification information by telephone.

The Emergency Medicine Foundation (EMF) will present an award at the Research Forum to the outstanding established researcher and a special award to an outstanding young investigator. An annual Excellence in Research Award (Best Paper) will be presented to an investigator based on the abstract, presentation, discussion, and subsequent of research manuscript. An annual Best Presentation by a Young Investigator Award will also be chosen. Investigators at the assistant professor level or below with fewer than five years of faculty appointment may request that their abstracts be chosen for review in the young investigator category. The Research Committee will also present awards for best medical student paper and best resident paper. The Best Medical Student Paper Award will be given to a medical student who is the primary investigator of an outstanding abstract presentation. The Best Resident Paper Award will be given to a resident who is the primary investigator of an outstanding abstract presentation. All four awards will be presented at the Research Forum. Note that presentation at an ACEP Scientific Assembly by EMF grant recipients does not constitute previous presentation at a national meeting.

Visit www.acep.org/rf for more information.

**Comment Period for tPA Clinical Policy Closing Soon**

The 60-day comment period for the clinical policy “Use of Intravenous tPA for the Management of Acute Ischemic Stroke in the Emergency Department” closes March 24.

Comments received, along with supporting evidence and any new evidence, will be carefully reviewed and the evidence graded. Recommendations should accompany comments so the evidence can be carefully considered and graded. Findings will be reported to the ACEP Board. Also, future clinical policy developments will include a 60-day comment period before finalization.

To read the policy and to comment, visit www.acep.org/ commentform/tPA-Stroke/

**Faculty Teaching Awards Deadline Coming in April**

Each year, ACEP sponsors a national Faculty Teaching Award and a national Junior Faculty Teaching Award to honor outstanding educators in emergency medicine. These awards are designed to support emergency medicine faculty in their efforts to achieve academic advancement as well as support the continued academic development of the specialty.

The deadline to submit a nomination form and required material is April 14.

The awards recognize superior teaching activities including didactic lectures, clinical instruction, the development of innovative educational programs, as well as the endorsement by faculty, residents, and students. While the documentation required is extensive, the process is designed to mimic the procedure used by university promotion and tenure committees in their tenure deliberations. Recipients receive national recognition that can be used to document their teaching excellence. Award winners will be recognized with a plaque during ACEP14 in Chicago and by publication of their names in ACEP Now or other College publications. Applications can be e-mailed to academicaffairs@acep.org.

To get details about submission deadlines and to see past winners, go to www.acep.org/teachingaward.
ICD-9 to ICD-10: The Coding Migration

You can’t understand where you’re going if you don’t know where you’ve been.

BY PAM BENSEN, MD, MS, FACEP

CD-9-CM and its related documentation have been around since 1979. It is the only subject that applies to every patient encounter, but the prevailing dogma in US medical schools, where this topic should be taught, is that the students “don’t need it.”

If I am successful educating emergency physicians, at least four physicians at every hospital in the nation will “get it.” But, I must admit, I will seriously miss the most satisfying part of face-to-face teaching, that of watching the sudden change in expression that accompanies the transition from unawareness to understanding as physicians realize why their diagnostic terminology is so important.

In order to appreciate ICD-10-CM, it is necessary to have a working knowledge of the system in which it plays such a crucial part. Unfortunately, every non-physician hospital administrator, office staff, and billing-service personnel functions under the misconception that medical-school curricula include Medical Finances 101. Non-physicians are incredulous when I explain that the 28,000 pages of medicine learned in four years of medical school do not include a single page of Current Procedural Training, ICD-9-CM, or the 110,000 pages of Centers for Medicare & Medicaid Services (CMS) regulations that physicians are supposed to master before seeing their first Medicare patient. Most people do not believe that the most common question I am asked by doctors is, “What is ICD-9?”

To those who know the history of ICD-9, please accept my apologies for this crash course. It’s for the majority of physicians who have never had the pleasure of learning it.

ICD-9 is the ninth version of the International Classification of Diseases (ICD) published by the World Health Organization (WHO) in 1977. This ICD dates back to a systematic classification of diseases causing death, the Nosología methodica, created in the 1700s by French physician François Bussier de Lacroix Sauvages to track epidemics and pandemics.

In the intervening 300 years, classification of death diseases enjoyed a continuous stream of proponents and “experts” who improved on the structure, nomenclature, and standardization of the system, sometimes creating competing classifications, sometimes combining their ideas. First cities, then states and nations adopted classifications to describe and track the cause of death within their borders.

In 1853, in recognition of the need for a uniform classification, the First International Statistical Congress asked William Farr of Scotland and Marc d’Espine of Geneva to prepare an internationally applicable, uniform classification of causes of death. Neither of the two classifications was ever universally accepted, and in 1893, the International Statistical Institute adopted the Bertillon Classification of Causes of Death developed by Jacques Bertillon, chief of statistical services of Paris. The classification, a distillation of English, German, and Swiss classifications, was based on Farr’s principle of distinguishing between general diseases and those localized to a particular organ or anatomical site.

In 1898, the American Public Health Association recommended the adoption of the Bertillon Classification of Causes of Death by registrars of Canada, Mexico, and the U.S. and that it be revised every 10 years. In 1899, the International Statistical Institute recommended the adoption of the system of nomenclature by all the statistical institutions of Europe. And, in 1900, this detailed classification of causes of death was adopted, with Bertillon as the guiding force promoting and supervising revisions of the International List of Causes of Death every 10 years until his death in 1922.

Parallel to the continued evolution of the International List of Causes of Death, a similar list of diseases dates back to Farr, who also recognized that it was desirable “to extend the same system of nomenclature to diseases which, though not fatal, cause disability in the population.” Even Florence Nightingale, in 1860, urged the adoption of Farr’s classification of diseases for the tabulation of hospital morbidity, but it wasn’t until 1900 that a classification of diseases for statistics of sickness was adopted.

The categories for nonfatal diseases were formed by subdivision of certain rubrics of the cause-of-death classification. Because this international classification of illnesses was a limited expansion of the causes of death, it failed to gain international acceptance. Absent a uniform classification of diseases of illness, many countries prepared their own lists. An English translation of the Second Decennial Revision of the International List of Causes of Death entitled International Classification of Causes of Sickness and Death was published by the US Department of Commerce and Labor in 1910.

In 1928, the Health Organization of the League of Nations Commission of Statistical Experts studied both the classification of diseases and the causes of death. Participant E. Roede, chief of the Medical Statistical Service of the German Health Bureau, expanded the rubrics of the 1920 International List of Causes of Death and detailed what would be required if the classification was to be used for morbidity as well as mortality statistics. To coordinate the work of the International Statistical Institute and the Health Organization of the League of Nations, an international commission was formed with representatives from both organizations. This commission...
EM IN THE WHITE HOUSE
CONTINUED FROM PAGE 1

RM: Dr. Hunt and I go back decades based on our common interest in emergency medicine and in EMS and injury prevention. It’s been a real joy to watch him not only grow as a professional but really contribute to how we practice today and—based on his latest appointment—how we’ll practice in the future. With that, Rick, tell us about your new job.

RH: The title that I currently have is director for medical preparedness policy for the National Security Council Staff at the White House. The National Security Council Staff supports the National Security Council. In this domain, I work with a team of people that spans the whole spectrum of preparedness and response, addressing all hazards, both manmade and natural. We have an opportunity to interact with all federal departments and agencies as well as organizations and individuals outside of government. It’s really humbling when you walk down the steps of the Eisenhower Executive Office Building where I work and you’re 30 steps away from the West Wing.

RM: It’s important that there’s been recognition that emergency physicians should be involved in this process—and, in fact, leading parts of it. Are you finding that there’s a cadre of emergency physicians that you can work with to develop policy, identify problems, and find workable solutions?

RH: One thing our specialty should be proud of is that the chair I sit in is the same seat that two other emergency physicians have sat in: Drs. Kathy Brinsfield and David Marcozzi. Dr. Marcozzi was here for four years. Beyond that, we have extraordinary leadership, both past and present, in the federal government, such as Drs. Martinez, Jeff Runge, and John Krohmer, and Past Presidents of ACEP who have held federal roles, as well. There are also leaders in emergency medicine who hold positions on the state and community level. It’s a magical thing for any of us to call any emergency department in the nation at 3 in the morning and say, “I’m an emergency physician from X, and I need your help with this.” People in our discipline really take care of each other. The ability to reach back and have thoughtful problem solvers thinking through hard things with you—every day I’m grateful to be an emergency physician to be able to do that.

RM: How does emergency medicine, both training and experience, help prepare you for this role? Being in emergency medicine residency training is different than some of the past experiences you’ve had, so how does that come to bear for you?

RH: The irony is that it’s some of the stuff you actually taught me, like the ability to triage, that is really important. Figuring out what’s important and what’s not important—we do that really well. Our interface with multiple disciplines is a huge training ground for people who want to expand their horizons beyond emergency medicine. Trying to bring three different specialties together at the bedside and being able to come up with a solution to a difficult patient problem is a very useful skill set. Those skills have served anyone in our discipline well when they’ve gone outside the walls of a hospital. The other one is multitasking. It feels like we’re the founding fathers of multitasking, in some respects. We were doing it a long time before people were talking about it in the news every day. If you don’t gain it quickly, you’re not going to make it taking care of people in emergency departments. There’s also the ability to know when to act. It’s not something you learn in medical school; it’s a skill gained over time. My emergency medicine experience has also taught me a foundational principle that I bring to this job: our emergency-care system has to work well every day to be able to respond well when disaster strikes.

RM: You make great points because that is one of the outcomes of experience in high-stress and critical settings. You learn how to prioritize, you learn how to look at the system, and you know how to tell sick from not sick without having to order a bunch of tests because something’s "gotta be done."

RH: Absolutely. It’s as if it’s a constant iterative process when you’re practicing emergency medicine. Outside the discipline, that skill set is a pretty rare thing to find. Another thing that I bring to this job is that we have, in emergency medicine, an amazing snapshot of society. In bed eight, there might be the mayor of the city, and in bed 12, there might be somebody who’s been out of work for 20 months, and everything in between. That really helps us have a snapshot of the world in profound ways. The skill that is probably the most paramount is the commitment to a singular mission: to save lives and decrease suffering. Almost anybody in our career has said, on multiple occasions, “Well, let’s do what’s in the best interest of the patient here.” That has carried me personally and professionally.

RM: Over time, we find that emergency medicine really prepares you for a lot of different journeys. What advice do you give to emergency physicians out there who are looking to expand their horizons? What sorts of experiences do you think they should have, or in which areas do you see great need for their talents?

RH: One area that I certainly think about is mentorship. The word “mentor” is tossed around in academic medicine and in other disciplines, too. I’ve never found that to be extraordinarily useful unless there is an absolutely strong bond created by a give-and-take with someone who has vast experience beyond what you have.
mission drafted proposals for the Fourth (1929) and the Fifth (1938) Revisions of the International List of Causes of Death.

In 1936, the Dominion Council of Health of Canada published a Standard Morbidity Code with 18 chapters of the 1929 Revision of the International List of Causes of Death subdivided into 380 specific disease categories. A modification of this list was introduced at the Fifth International Conference in 1938 as the basis for an international list of causes of illness, but no action was taken.

Although neither the Fourth nor Fifth Revision contained many changes, the Fifth International Revision Conference did recognize the increasing need for a list of diseases to meet the statistical requirements of widely differing organizations. The conference recommended a second joint committee of the two organizations to prepare an international list of diseases.

In 1946 (the year I came on the scene to give you some perspective), the United Kingdom and the U.S. published their own classifications of diseases and injuries for tabulation of morbidity statistics. More extensive than the Canadian list, both lists followed the general format of the International Classification of Causes of Death. The 1946 International Health Conference entrusted the Interim Commission of the World Health Organization with the responsibility of the Sixth Revision and with the establishment of International Lists of Causes of Morbidity. Taking into account prevailing opinion concerning morbidity and mortality classification, WHO revised the classification prepared by the United States, combined it with the revised International Lists of Causes of Death, and published the resulting classification as the Sixth Revision of the International Classification of Diseases, Injuries, and Causes of Death.

In 1948 (the year I made my first diagnosis, “pneumonia,” and declared to my family that I would become a doctor), the First World Health Assembly adopted the WHO International Form of Medical Certificate of Cause of Death and the special lists for tabulation of morbidity and mortality data. This Sixth Revision, shortened to the International Classification of Diseases (ICD-6), heralded a new era in international vital and health statistics. The conference approved a comprehensive list for both mortality and morbidity, agreed on international rules for selecting the underlying cause of death, recommended a comprehensive program of international cooperation in the field of vital and health statistics, and suggested that governments establish national committees on vital and health statistics to coordinate statistical activities and serve as a link between the national statistical institutions and WHO to study statistical problems of public-health importance.

ICD Revisions Seven (1955) and Eight (1965) during which time I was busy applying to medical school made only limited, essential changes and amendments to correct errors and inconsistencies in the ICD. During these years, many countries made national adaptations to the ICD to provide additional detail for indexing hospital medical records. Then, in 1975, after 20 years of EM practice, the WHO International Conference for the Ninth Revision of ICD determined that areas of the classification were inappropriately arranged, more detail was needed, and it should be redesigned to be used for evaluating medical care. The conference retained the basic structure of the ICD; added significant detail; and incorporated an alternative method of classifying diagnostic statements, including information about both the etiology “marked with a dagger” [†] and manifestations (marked with an “asterisk” [*]) of a disease, which is the system used in ICD-10. ICD-9 innovations were included to extend its flexibility, coding rules were amended, and rules for the selection of a single cause of morbidity were introduced.

Next, prior to the Ninth Revision Conference, WHO was preparing for the 10th Revision. Increasing uses of ICD highlighted the need for a stable and flexible structure to eliminate frequent revision. The WHO Collaborating Centres for Classification of Diseases experimented with alternative structures for ICD-10 and determined that the 10-year interval between revisions was too short to evaluate current use and identify needed revisions. So the 10th Revision Conference, scheduled for 1985, was delayed.

Beginning in October 2014, the migration must be completed, as ICD-9 fades to black and ICD-10 will be the required system to code and bill a chart. In the upcoming months, I’ll provide practical updates, making certain every emergency physician has a strong foundation for practicing in this new era.

References
1. www.who.int/classifications/icd/en/history0ICD2.pdf
2. www.cdc.gov/nchs/icd/icd10tm
3. www.ncbi.nlm.nih.gov/pmc/articles/PMC2016773/

Next: Practical ICD-10 Updates for Emergency Physicians

I’ve been blessed in that regard: Past Presidents of ACEP Dr. Jack Allison, Dr. John McCabe, and Dr. Dick Agababian; executive directors of ACEP Colin Rorrie and Dean Willerson; Dr. Bob Bass; Dr. John Krohmer; [Dr. Martinez]; Dr. Jeff Runge certainly with his roles with DOT and the Department of Homeland Security; and my predecessors in my current role. If you can have more than one mentor, all the better.

We pride ourselves on having short attention spans in order to multitask, but it’s important to stretch into some other important to stretch into some other disciplines but private, non-government, government positions—the whole spectrum. Engagement outside of the emergency department is not just leadership; it’s understanding how to be a good member of hospital committees, your local community organizations like the Red Cross, EMS, fire, police, schools, and nonprofits in your local community. It doesn’t even have to be medicine related. Getting to know your congressional staff. Providing a local-level perspective to congressional staffers is important for giving them a bigger picture of what’s going on in the universe, and that will help you fund projects for your primary discipline of emergency medicine. It is really important. You don’t build all those skill sets in a few years; it takes a while to get to some of them.

Over time, we find that emergency medicine really prepares you for a lot of different journeys. What advice do you give to emergency physicians out there who are looking to expand their horizons? –Ricardo Martinez, MD, FACEP

Dr. Martinez, you just wrote a great speech.

Dr. Martinez is chief medical officer and vice president of North Highland Worldwide Consulting in Atlanta.
Text Rx

A new system for follow up may improve outcomes

BY SANJAY ARORA, MD

Diabetes has grown into a public-health epidemic affecting just more than 11 percent of adults in the United States. Healthy eating, regular exercise, and medication adherence can improve glycemic control and health outcomes in patients with diabetes. Traditionally, diabetes teaching and support occurs in an inpatient setting; however, in systems where barriers to establishing a regular medical home exist, patients utilize emergency departments for both acute and chronic diabetes management. But emergency physicians do not have the time or training to provide these patients with the preventive care they so desperately need. Innovative approaches are needed to reach, engage, and activate at-risk populations to bridge the gap between urgent visits to the ED and follow-up care.

A Tech Solution

At the Los Angeles County Hospital (LAC + USC Medical Center, we recently conducted a randomized controlled trial using mobile health (mHealth) via a text message–based program. It demonstrated the potential for medical professionals to extend their support in a very personal, engaging, and cost-efficient way to patients exiting the ED, reducing their likelihood of returning. A multidisciplinary team at USC involving emergency physicians, endocrinologists, and certified diabetes educators developed a program called TEXT-MED (Trial to Examine Text Message–based mHealth in ED Patients with Diabetes) in Spanish and English. TEXT-MED was specifically designed to empower patients with diabetes by helping them successfully adapt to the changes in lifestyle and self-care behaviors required to establish a true personal foundation for glycemic control.

The program was developed in response to the mounting community-health issue created by insufficient diabetes care. Emergency physicians see many patients with diabetes cycling through the ED who are clearly challenged by their condition—physically and emotionally—but just haven’t been able to acquire the knowledge and skills to deal with the complex medical regimens, use of testing devices, frequent data assessment, and clinician interaction required to effectively care for themselves.

The TEXT-MED curriculum was based on National Diabetes Education Program (NDEP) content areas, including blood glucose control, blood pressure, cholesterol, controlling diabetes, foot care, healthy eating, heart disease, physical activity, recipes, and social support. Message types included education, motivations, medication reminders, healthy-living challenges, and diabetes trivia.

In our study, we conducted a six-month randomized controlled trial in the ED at LAC + USC, the flagship safety-net hospital of the public-care system in Los Angeles County, which serves more than 170,000 lower-income, resource-poor, and ethnically diverse patients annually. We enrolled 128 adult patients with poorly controlled diabetes who knew how to send and receive text messages in either English or Spanish. The average age of those in the intervention group was 50.3, and the average length of time diagnosed with diabetes was 10.5 years. The primary objective of the study was to produce a difference ≥0.9 in HbA1C reduction between the intervention and control group at six months. Other secondary measures included improvement in medication adherence and other relevant diabetes behaviors, including blood glucose monitoring, diet, and exercise, as well as overall quality of life as perceived by each study participant.

The Results

While the study failed to produce the targeted HbA1C outcome with statistical significance, it did demonstrate a significant improvement in medication adherence as measured by the Morisky Medication Adherence Scale, increasing from 4.5 to 5.4 in the intervention group compared with a net decrease of 0.1 in the control group (a difference [D] of 1.1 [95 percent confidence interval (CI) 0.1 to 2.1], [p=0.032]). Also, the outcomes at six months for HbA1C reduction (3.05 percent in the intervention group) and for improving blood glucose monitoring, diet, exercise, and quality of life were very promising in terms of magnitude, direction, and differential when compared to the control group, as well as their trend toward statistical significance. The study did produce a statistically significant reduction in HbA1C in the Spanish-speaking cohort (-1.2 percent in the intervention group compared with -0.4 percent in the control group, D of 0.8 percent, [p=0.025]). The Spanish cohort also maintained the significant differences in medication adherence and improvements to other secondary outcomes observed in the overall population. Additionally, the participants in the intervention group were 30.3 percent less likely to return to the ED than those in the control group (35.9 percent versus 51.6 percent, D of 15.7 percent [95 percent CI 9.4 percent to 22 percent], [p=0.0073]). Overall, 91.6 percent of the participants interviewed in follow-up enjoyed the TEXT-MED program, and 100 percent would recommend it to family and friends. Notable quotes from patients include:

• “I am living well with this program. It has helped me enormously, enormously … I come because it’s worked for me. It has worked for me. A lot.” (translated from Spanish)

• “They remind us not to forget to take the medicine and talk to the doctor. Be on time with your medicines. Do not wait to the last minute until we run out. We see all of this in those … in the messages.”

• “It has been a very good program for all the people with diabetes, and with this program we are better controlling our lives, our way of living.” (translated from Spanish)

The next generation of the program is now available from Agile Health, which acquired commercial rights for TEXT-MED from USC. The enhanced program, called MyAgileLife, has been expanded to include three messages per day. With a larger library of motivational and behavioral mastery messages, quizzes, and challenges, the messaging helps encourage and empower individuals to establish and maintain a productive primary-care relationship and to rationally utilize the broader health-care system to avoid the debilitating and costly complications that accompany poor glycemic control. New in this version is interactive, keyword-driven functionality, allowing participants to request and receive additional support 24/7 to help with mood or motivation, deal with slipups, or provide healthy tips when dining out or shopping for groceries. Program participants can specify the times of day they want to receive the messages and add personal daily reminders to take specific medications, check blood glucose, eat, and/or exercise at certain times of the day—or just walk the dog. TEXT-MED adds to the growing body of literature supporting mHealth as an innovative public-health solution for EDs that is effective, pragmatic, highly scalable, low cost, and widely accessible as well as may reduce ED visits while improving community health.

DR. ARORA is associate professor of clinical emergency medicine at the Keck School of Medicine at the University of Southern California in Los Angeles.

Reference

The boyfriend insists upon accompanying the patient into the room. The patient is guarded during history and gives short, abrupt answers. She avoids eye contact with the examiner and keeps looking at her boyfriend. He interjects that he just wants her to get some antibiotics so they can get out of there. Chart review reveals the patient was seen in the ED about two months ago for an arm injury. Today’s history is brief and focuses on the patient’s URI symptoms. No questions relating to social history and very few questions relating to past medical history are asked. The physical exam is performed quickly and is unrevealing. The provider is pulled away to address another patient’s needs. The patient is given ibuprofen. Her boyfriend becomes agitated and tells the nurse they need to leave. The patient is discharged with a prescription for ibuprofen and for guaifenesin. She is instructed to call the referral line for PCP follow-up.

Four days later, the patient returns to the ED with severe abdominal pain and is pale, hypotensive, and tachycardic. She is septic. A girl claiming to be her cousin brought her in. The patient disrobes, and a thorough examination reveals several scars from cutting. The boyfriend insists upon accompanying the patient into the room. The patient is guarded during history and gives short, abrupt answers. She avoids eye contact with the examiner and keeps looking at her boyfriend. He interjects that he just wants her to get some antibiotics so they can get out of there. Chart review reveals the patient was seen in the ED about two months ago for an arm injury. Today’s history is brief and focuses on the patient’s URI symptoms. No questions relating to social history and very few questions relating to past medical history are asked. The physical exam is performed quickly and is unrevealing. The provider is pulled away to address another patient’s needs. The patient is given ibuprofen. Her boyfriend becomes agitated and tells the nurse they need to leave. The patient is discharged with a prescription for ibuprofen and for guaifenesin. She is instructed to call the referral line for PCP follow-up.

A 19-year-old female presents to the ED with complaints of cough; rhinorrhea; sinus pressure; nausea; body aches; and mild, intermittent cramping abdominal pain. Her vital signs: T 100.1, HR 99, RR 18. She appears tired and thin and has a blunted affect. She is wearing open-toed pumps, leggings, and a tank top. It is winter and very cold outside. Accompanying her is a man who appears to be in his late 20s and is introduced by the patient as her boyfriend. He gives the registrar the patient’s identification.

The problem of sex trafficking

EDs must remain vigilant. Miss a clue, someone loses a daughter.

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Four days later, the patient returns to the ED with severe abdominal pain and is pale, hypotensive, and tachycardic. She is septic. A girl claiming to be her cousin brought her in. The patient disrobes, and a thorough examination reveals several scars from cutting...
THE PROBLEM OF SEX TRAFFICKING | CONTINUED FROM PAGE 9

on her forearms, cigarette burns around her breasts and upper thighs, and the name “King Daddy” tattooed on her lower back. The patient has several healing bruises on her chest and abdomen. The pelvic exam reveals a large volume of pus and a retained “baby wipe” in the vagina. The patient is diagnosed with pelvic inflammatory disease and sepsis.

**Case Commentary**

The patient was actually a 15-year-old girl with counterfeit identification. The boyfriend was her “pimp,” or sex trafficker. The girl was reported as a runaway six months earlier. She left home because of abuse by her stepfather, a businessman in the community who was also having his “friends” come over to have sex with her for money. She was approached after school by a young man who told her he could get her away from her situation and help her become a model.

Two weeks later, the girl’s image was in a back-page online ad, and she was being sold for sex from an apartment complex while being abused into submission by the young man who was now her pimp. Three days before her last visit to the ED, the patient was brutally raped by three clients, or “johns.” Some of the bruises and burn marks were from this assault. The baby wipe found in the girl’s vagina had been inserted to hide the patient’s copious vaginal discharge to allow her to continue working.

Had a more detailed history been taken of this patient’s background, social history, and home situation, and a more thorough exam performed, some of the signs of abuse may have been noted.

**A Crime We Must Learn to Recognize**

Sadly, this case is an all-too-common occurrence in EDs just like yours. Domestic minor sex trafficking (DMST) is the commercial sexual exploitation of American children within US borders. Sex trafficking is also called sex slavery or often mislabeled as prostitution. An estimated 100,000 children under age 18 become entrapped in the sex-slave market every year in the US. The average age of entry into the sex-trade industry in the US is 12-14, according to a 2009 report by the National Center for Missing and Exploited Children.

Victims come from all socioeconomic and racial backgrounds and may be male, female, or transender. This article focuses on underage female victims, but there is no doubt that women, boys, and men experience this scourge in significant numbers as well.

Despite being well-educated about child abuse, elder abuse, and domestic violence, most providers lack the training and ability to recognize victims of the sex-slave industry. Most victims of sexual exploitation never report “sexual assault.” DMST victims frequently present to EDs, but are rarely detected as such.

**Supply and Demand**

Children who experience violence and/or lack of support at home are at increased risk of becoming victims of sex slavery. Once indoctrinated, victims may be forced into strip clubs, 24-hour massage parlors, and escort services. They may be walking the street (“track”) but including food, shelter, and clothing, are withheld from victims for not reaching their quota (a minimum daily earnings expectation determined by pimps). Victims are threatened, beaten, and raped into staying with traffickers and often feel they have nowhere else to turn. Ironically, even when fearful, victims will appear to enjoy themselves during their transactions. The appearance of enjoyment by the victims helps Johns ignore that what they’re doing is a heinous crime.

DMST victims commonly have experience with authority figures who fail to protect them, including their parents, foster parents, teachers, and case managers. They are often purchased (i.e., raped for profit) by clergy members, physicians, police officers, and other professionals. They have been taught not to trust. This, along with the fact that victims often do not consider themselves victims or in need of rescue, makes it difficult to emancipate these girls. They may have Stockholm Syndrome and often feel they have nowhere else to turn.

**Recognition and Treatment**

Victims of sexual trafficking undergo immeasurable physical and emotional abuse. Traffickers (pimps) go to great lengths to ensure their victims continue to service as many buyers as possible. Pimps may use the “lover boy” approach of promising love, marriage, or a brighter future to victims—or may physically and psychologically coerce victims. Victims are given a false sense of “love” from professional con artists in one of the oldest con schemes in history. Basic human needs, including food, shelter, and clothing, are withheld from victims for not reaching their quota (a minimum daily earnings expectation determined by pimps). Victims are threatened, beaten, and raped into staying with traffickers and often feel they have nowhere else to turn. Ironically, even when fearful, victims will appear to enjoy themselves during their transactions. The appearance of enjoyment by the victims helps Johns ignore that what they’re doing is a heinous crime.

There are increased systemic responses in patients with more severe hepatic dysfunction. The clinical trials were limited to patients with MELD scores <25. Therefore, caution should be exercised when administering Xifaxan to patients with severe hepatic impairment Child-Pugh C. Based on animal data, Xifaxan may cause fetal harm. Discontinue in nursing mothers after taking into account the importance of the drug to the mother.

**Hepatic Encephalopathy:**

**ARE YOUR PATIENTS LIVING ON THIN ICE?**

Overt hepatic encephalopathy (HE) should be considered in any patient with cirrhosis. Once a cirrhotic patient has developed HE, experts in hepatology recommend maintenance drug therapy to reduce the risk of unpredictable recurrences. Treat continuously with a Xifaxan 550 mg pill twice daily.

The most common adverse reactions occurring ≥12% in the clinical trial with Xifaxan 550 mg were peripheral edema, nausea, diziness, and fatigue.

**XIFAXAN®** (rifaximin) 550 mg tablets are contraindicated in patients with a 

**≥**

**XIFAXAN®** (rifaximin) 550 mg is indicated for reduction in risk of overt hepatic encephalopathy (HE) recurrence in patients ≥35 years of age. Important Safety Information About XIFAXAN: Patients with active diverticulitis, celiac disease, or irritable bowel syndrome are at increased risk of developing severe complications from Xifaxan. Xifaxan also may increase the risk of antibiotic-associated diarrhea (AAD). Use Xifaxan only in patients who have responded to or tolerated previously prescribed antibiotics or who have been previously exposed to Xifaxan. The most common adverse reactions occurring ≥12% in the clinical trial with Xifaxan 550 mg were peripheral edema, nausea, diziness, and fatigue.

**Indication for XIFAXAN 550 mg**

XIFAXAN® (rifaximin) 550 mg is indicated for reduction in risk of overt hepatic encephalopathy (HE) recurrence in patients ≥35 years of age.

**Important Safety Information About XIFAXAN 550 mg**

XIFAXAN® (rifaximin) 550 mg tablets are contraindicated in patients with a history of sensitivity to rifaximin, any of the rifamycin antimicrobial agents, or any of the components in XIFAXAN. Hypersensitivity reactions have included exfoliative dermatitis, angioedema, edema, and anaphylaxis.

Clostridium difficile-associated diarrhea (CDAD) has been reported with use of nearly all antimicrobial agents, including XIFAXAN, and may range in severity from mild diarrhea to fatal colitis. Treatment with antibacterial agents alters the normal flora of the colon which may lead to overgrowth of C. difficile. If CDAD is suspected or confirmed, ongoing antibacterial use not directed against C. difficile may need to be discontinued.

There is increased systemic responses in patients with more severe hepatic dysfunction: The clinical trials were limited to patients with MELD scores <25.
A REALISTIC GOAL for a visit with a sex-trafficking victim is to convey that you are trustworthy and nonjudgmental and that your ED is a safe, accepting place for her. A major breakthrough/restore within one encounter is unusual but, nevertheless, worth the effort.

Providers may detect sex-trafficking victims by noticing inappropriate attire or the presence of a "branding" tattoo of a pimp’s name. Victims often use illicit drugs. Pimps will get their victims addicted to drugs to have more power over them, and trafficking victims may use drugs as a coping mechanism. Victims may have a history of many ED visits.

Victims may have a wide range of physical ailments including STIs/pelvic pain, traumatic injuries/bruses, malnutrition, and poor hygiene. They may appear hypervigilant or, alternatively, exhausted. They may answer many calls or texts during their visit. Callers to the Victims’ Aid Network are often trafficking victims at the start of the social-history interview and will help build rapport with a patient. Her response will depend on the your attitude toward her. Avoid questions starting with “Have you ever...” because the answer will be “no,” and you will have lost an opportunity. You may ask the patient where she lives and who takes care of her, how she met her “boyfriend,” or whether she must contribute money to her family. You may suggest, “Tell me about your tattoo.” Later in the interview, it may be appropriate to ask her if her body has been used for money, whether anyone has posted photos of her online, or if she is forced to have sex with men she doesn’t want to have sex with.

When it comes to offering services to the patient, having a plan/protocol in place specific to the needs and safety of this population within your ED is essential. A multidisciplinary approach employing law enforcement, social work, nursing, and hospital administration is needed. Identifying best practices and developing educational programs are necessary. Comprehensive aftercare options are desperately needed.

MS. MUNOZ is a practicing lead nurse practitioner with EMP on Oahu. She has spent the past five years working in the area of human trafficking. She is currently the volunteer director for the Courage House Hawaii project, whose goal is to build a long-term residential home for underage victims of sex trafficking in Hawaii. Contact Ms. Munoz at jmunoz@couragehouseworldwide.org.

References

Experiences like these illustrate why Heney and many other trans people are often reluctant to access health care. A survey of emergency department use, avoidance, and experiences conducted by Trans PULSE, a community-based research project investigating the impact of social exclusion and discrimination on the health of trans people, was recently published in *Annals of Emergency Medicine.* The analysis of the respondent-driven sampling survey of 433 transgender participants found that 21 percent had avoided going to the ED because they feared negative experiences. Greta R. Bauer, PhD, MPH, associate professor in the department of epidemiology and biostatistics at Schulich School of Medicine & Dentistry at Western University in London, Canada, is coprincipal investigator of Trans PULSE and was lead author on the paper. The survey documents that there are unmet needs for emergency care among transgender persons. Heney believes that the numbers in the Trans PULSE project are low and that avoidance of care is under-reported. By his own account, Heney often encounters a wide range of inappropriate and biased reactions from health care providers. As a result, “nine times out of 10, I delay going to the doctor,” he says.

Emergency physician Madeline B. Deutsch, MD, clinical assistant professor in the department of family and community medicine at the University of California, San Francisco, and clinical lead at the Center of Excellence for Transgender Health, was a coauthor of the survey analysis. Despite differences in health care delivery systems between Canada and the United States, Dr. Deutsch says the take-home messages from the Ontario survey are very relevant to her US colleagues. And, Dr. Bauer points out, in a country with universal access to primary care, the finding that 21 percent of transgender people avoid going to the ED is even more significant.

**ASK THE PATIENT**

Providers who have not treated transgender patients may be uncomfortable about the following.

**Transgender Health Issues Worth Special Consideration**

**Cardiovascular:** Most data demonstrate negligible impact of both estrogen and testosterone therapy on cardiovascular risk. Depending on the route and type of estrogen being used, risk of venous thromboembolism in patients receiving estrogen therapy may or may not be increased. When risk is increased (smoking, use of oral estrogens, use of oral contraceptives as estrogen source), it is minimal and reduced after the first year.

**Cross-sex hormone use:** Cancer, cardiovascular, and diabetes mellitus screening protocols for trans women (male-to-female) currently taking estrogen and trans men (female-to-male) currently taking testosterone are available at www.transhealth.ucsf.edu/transex_adjusted_hormones_and_screening.

**Postoperative (male-to-female):** Transgender women may present with postoperative wound complaints. Vaginoplasty involves the use of penile, scrotal, and urethral tissue to create a vulva and neovagina. Complaints may include bleeding, infection, or graft/flap necrosis, as well as urinary issues. ED care should be supportive, and attempts should be made to refer patients back to the performing surgeon or another local surgeon with expertise in this area. Wound care centers may also be of value. Examination of the neovagina is best performed using an anoscope, inserting and then slowly withdrawing while looking for fistulae or lesions. Granulation tissue and retained lubricant are more common sources of discharge than bacterial vaginosis, and true vaginal candidiasis is very uncommon.

**Gynecologic (female-to-male):** Transgender men who retain their uterus and ovaries may experience pain or bleeding similar to that experienced by women. ED management of such complaints is similar to that of women, with a beta-human chorionic gonadotropin test followed by examination and/or imaging as indicated. Patients may be especially sensitive about examination and may have an atrophic vagina that requires a smaller speculum. In some cases, a pelvic exam or endovaginal ultrasound may not be possible.

**Sexual health:** As with any patient who discloses engaging in potentially risky sex practices, some transgender patients may be at risk of HIV/STDs and may be vulnerable to abuse and/or exploitation. Avoid making assumptions about sexual behaviors or partners; regardless of their gender identity, transgender people may be sexually active with men, women, or both and may use their natal genitals during sexual activity.

**Mental health:** Rates of attempting suicide in LGBT youth are two to three times that of the general population. Substance abuse, including tobacco, alcohol, and other drugs, may also be a concern. All are fueled by the increased stress experienced by LGBT persons due to discrimination.

**Social factors:** Homelessness, lack of health insurance, and poor social support can affect transgender patients’ access to health care as they can for the general population.
Learn More: Resources on Transgender Health

The majority of trans ED patients in the Annals of Emergency Medicine survey noted that they often were the ones providing education to their physicians about trans issues. Dr. Deutsch advises emergency physicians to acquire more education and to “choose resources wisely.” Trans people are very diverse, and it is not appropriate to base one’s perception on the reality-show model, she says.

The following sites offer validated, evidence-based guidelines for transgender health:

- Educational publications, learning modules, and on-demand webinars from The Fenway Institute: www.lgbthealtheducation.org/
- The Joint Commission Field Guide for the LGBT Community: www.jointcommission.org/lgbt/
- Fact sheets, reports, and recommendations on transgender health at the Center of Excellence for Transgender Health: transhealth.ucsf.edu
- Standards of care, resources, and FAQs from the World Professional Association for Transgender Health: www.wpath.org

References

“It’s important for physicians to be aware that when trans patients do come in, they may have had negative experiences.”

—Greta R. Bauer, PhD, MPH

GRETCHEN HENKEL is a medical journalist based in California.
ENHANCING NEW STANDARDS FOR OLD PATIENTS

Introducing the Geriatric Emergency Department Guidelines

BY CHRISTOPHER R. CARPENTER, MD, MSC, FACEP; ULA HWANG, MD, MPH, FACEP; & MARK ROSENBERG, DO, MBA, FACEP

THE GERIATRIC EMERGENCY DEPARTMENT GUIDELINES (GED) (www.acep.org/geriEDguidelines) were the collaborative effort of members of ACEP, American Geriatrics Society (AGS), Emergency Nurses Association (ENA), and Society for Academic Emergency Medicine (SAEM). The strength of this document is evidenced by the approval of each organization’s Board of Directors and copyright of the material in 2013. ACEP states, “the purpose of the Geriatric Emergency Department Guidelines is to provide a standardized set of guidelines that can effectively improve the care of the geriatric population and are feasible to implement in the ED. The guidelines create a template for staffing, equipment, education, policies and procedures, follow-up care, and performance improvement measures.”

These guidelines represent recommendations for geriatric emergency care. They are not a mandate for every ED to develop a GED or a list of recommendations requiring 100 percent compliance.

The authors, practicing emergency physicians, as well as emergency nurses and geriatricians, wrote the document for local ED leaders to drive quality geriatric emergency care within their institutions. We anticipate many questions related to these recommendations. This introduction is meant to help ACEP Now readers understand these new recommendations. Specifically, we hope to inform readers about:

1) The historical context of geriatrics and emergency medicine
2) Why these GED Guidelines are being released now
3) How the GED Guidelines were derived
4) What constitutes the GED Guidelines
5) The present and future plans for the GED Guidelines
The geriatric ED patient represents the “canary in the coal mine” for our health care system. If we can successfully navigate the diagnostic, therapeutic, disposition, and financial challenges that this potentially vulnerable population presents, then all age groups will benefit.

HOW THE GED GUIDELINES WERE DERIVED

In 2011, Dr. Rosenberg then chair of the ACEP Geriatric Section, organized a Geriatric ED Steering Committee. The goal of the steering committee was to establish standards by which to develop and operate GEDs. The committee was comprised of members of the ACEP Geriatric Section and AEM. The committee also included representatives from AGS and ENA. Work on the guidelines progressed via a series of teleconferences during 2011 and 2012. The 34 GED Guidelines coauthors split into two working groups: “structural and staffing” and “clinical/operational.” Each group reviewed the literature and provided best-evidence recommendations for essential geriatric emergency care. The entire membership of AEGM and the ACEP Geriatric Section formally reviewed and approved the GED Guideline recommendations in October 2012. Between October 2013 and February 2014, Boards of Directors for ACEP, SAEM, AGS, and ENA officially approved the guidelines.

WHAT CONSTITUTES THE GED GUIDELINES? WHAT THEY ARE AND WHAT THEY ARE NOT

Most health care systems will lack the financial resources, staffing levels, or patient volumes for stand-alone GEDs to be feasible. Instead, these guidelines provide a basis from which EDs can consider ways to improve care for older adults. In 2007, when the first GED paper was published, there were few geriatric EDs. Today, in the United States, there are over 200 geriatric EDs, or “Senior ERs.” These guidelines represent a two-year effort from multiple organizations and individuals committed to optimizing the emergency care delivery system for geriatrics. We believe that the geriatric ED patient represents the “canary in the coal mine” for our health care system. If we can successfully navigate the diagnostic, therapeutic, disposition, and financial challenges that this potentially vulnerable population presents to 21st-century medicine, then all age groups will benefit from a reliable, available, compassionate, and efficient emergency care system. We fully recognize that the GED Guidelines are a beginning and not an end. The authors have defined a plan that includes dissemination, implementation, adaptation, and refinement. The explicit basis for the recommendations rests upon minimal research evidence. To move forward, geriatric emergency medicine needs sustained
able funding opportunities to: 1) enhance the evidentiary basis of these protocols; 2) determine if following these recommendations does, in fact, improve the process and quality of care delivered; and 3) determine if the recommendations improve health care outcomes for older adults and their caregivers; and 4) support the growth and evolution of future geriatric emergency medicine leaders. 

One immediate next step is to prioritize, in a systematic and transparent way, the 40 recommendations into essential and nonessential domains so hospital administrators, payers, and research funders can develop a systematic approach to local implementation. For example, routinely screening for delirium using validated instruments has profound implications on ED disposition and management decisions as opposed to infrastructural changes to lighting, floor material, and wall colors. The prioritization process will assess the relative potential benefits and potential harms associated with each recommendation in providing a weighted list from most to least important. Another step is to raise GED Guidelines awareness among emergency medicine clinicians, hospital administrators, patient advocacy leaders, and patients. The GED Guidelines group is also developing a “Geriatric Emergency Department Boot Camp” program, in which geriatric emergency medicine leaders will bring the recommendations to those interested, including a toolbox of resources, pragmatic examples from their own institutions, and mentorship. The benefit of the boot camp concept is that hospitals interested in “geriatricizing” their ED need not travel to learn more about these implementation recommendations, and essential interdisciplinary members (i.e., social

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### Objectives

1. Discuss the pathogenesis of toxicologic disorders.
2. Demonstrate understanding of common presentations, diagnostic strategies, and treatment options of toxicologic disorders.
3. List patient outcomes associated with toxicologic disorders.
5. Demonstrate understanding of best practices for evaluation of acute chest pain by means of cardiac biomarkers and electrocardiography.
6. Understand the role of the emergency physician in the evaluation and management of patients with dysrhythmias.
7. Demonstrate understanding of best practices for therapeutic interventions for acute myocardial ischemia.
8. Identify best practices in the evaluation and management of patients with acute decompensated heart failure.

### Lesson 1

**Toxicologic Disorders**

1. **Identifying Clinical Presentations**
2. **Diagnosing Toxicologic Disorders**
3. **Management of Toxicologic Disorders**

### Lesson 2

**Disturbances of Cardiac Rhythm**

1. **Recognizing Clinical Presentations**
2. **Diagnosing Disturbances of Cardiac Rhythm**
3. **Management of Disturbances of Cardiac Rhythm**

### Lesson 3

**Technologies in Emergency Cardiology**

1. **Automated Internal Defibrillator (AICD)**
2. **Hypertensive Emergencies**
3. **Cocaine-Associated Chest Pain**
4. **New Oral Anticoagulants**
5. **Highly Sensitive Troponin Assays**

### Lesson 4

**Emergency Cardiac Arrest**

1. **Recognizing Clinical Presentations**
2. **Diagnosing Emergency Cardiac Arrest**
3. **Management of Emergency Cardiac Arrest**

### Lesson 5

**Emergency Treatment of Acute Myocardial Infarction**

1. **Recognizing Clinical Presentations**
2. **Diagnosing Emergency Treatment of Acute Myocardial Infarction**
3. **Management of Emergency Treatment of Acute Myocardial Infarction**

### Lesson 6

**Emergency Treatment of Acute Decompensated Heart Failure**

1. **Recognizing Clinical Presentations**
2. **Diagnosing Emergency Treatment of Acute Decompensated Heart Failure**
3. **Management of Emergency Treatment of Acute Decompensated Heart Failure**

### Lesson 7

**Acute Dysrhythmias**

1. **Recognizing Clinical Presentations**
2. **Diagnosing Acute Dysrhythmias**
3. **Management of Acute Dysrhythmias**
MYTHS IN EMERGENCY MEDICINE: PART 2
Rooted in culture, based on tradition
by KEVIN M. KLAUER, DO, EJD, FACEP

1. CONTRAST ALLERGIES: STOP THE CRUSTACEAN BASHING

The short message is, “Iodine is not an allergen!”

There are many theories about what causes “allergic-like” reactions from contrast media. However, we can stop asking about shellfish and strawberry allergies as iodine content has nothing to do with these reactions. As a matter of fact, if we are worried about iodine, we’re asking the wrong questions. The iodine content of shrimp is 1,000 mg/kg, but chicken contains a whopping 1,248 mg/kg. Perhaps we should have been asking about chicken allergies instead of shellfish.

The fact is that those with seafood allergies are at the same low risk for contrast reactions as those with other food allergies and asthma. In addition, only 7 to 17 percent of those with prior contrast reactions are at a risk of recurrence.1 That’s likely much less than most of us would have thought.

A much more plausible explanation for contrast reactions seems obvious when reviewing the evolution of intravenous contrast materials. Data collected from 1985 to 1999 reflected an adverse reaction rate of 6 to 8 percent with ionic (high-osmolar) contrast use, compared with 0.2 percent with exclusive nonionic (low-osmolar) contrast use.2 It stands to reason that most patients reporting a contrast reaction in the distant past experienced a reaction due to ionic contrast.

2. LACK OF BACKING FOR ANTIBIOTICS AND NASAL PACKING

It’s socially unacceptable to pick your nose, and it’s medically unnecessary to use antibiotics when packing one.

Although it’s a small study, we probably don’t need large numbers to disprove something that never had proof to begin with.

Nasal packing for spontaneous epistaxis, most with Merocel and some with zinc paste and Foley catheters, was utilized. In this prospective observational series, 78 were treated with amoxicillin/clavulanate and 76 without. In this prospective observational series, 78 were treated with amoxicillin/clavulanate and 76 without antibiotics. All patients were observed for otitis media, sinusitis, toxic shock syndrome, and any other infectious complication.3

No patients in either group developed an infectious complication. Particularly with close follow-up, antibiotics appear to be unnecessary.

3. WOUNDS: THE MAGIC CLEANSE

Tap water—and lots of it—is likely the best irrigation solution. In this meta-analysis of 11 studies, tap water, distilled water, cooled boiled water, and normal saline were evaluated. The studies included wounds in pediatrics and adults. Here is the breakdown:

- open fractures: one trial
- surgical wounds: four trials
- chronic wounds: one trial
- lacerations: five trials

In the laceration trials, tap water was compared to saline, and the relative risk of infection was 0.63.4 Thus, if tap water was utilized, infection was less likely than with saline irrigation.

With respect to irrigation additives, such as Betadine, the available data show that 1% solutions probably don’t impede wound healing in lacerations but certainly don’t reduce infections either. However, 10% (standard) Betadine is tissue toxic.5

4. CT BEFORE LP: CONTRARY TO POPULAR TEACHING, HEADS WILL NOT EXPLODE

This is an outdated concept without foundation to begin with. “Pathological arguments are made for supporting this practice, but no evidence exists to support these concerns.”6 First, herniation following lumbar puncture is very rare. The issue has never been about increased intracranial pressure; the issue is “brain shift” or “elevated CSF pressure.”7 To drive this point home, just consider the number-one treatment for idiopathic intracranial hypertension (pseudotumor cerebri). Not only is it safe to LP these patients without risk of herniation, it’s recommended. If you still believe a CT is necessary prior to LP, Joffe further reported that in patients at risk for herniation, the CT is frequently normal, and a normal CT does not ensure the safety of LP.8

All of this hysteria began in 1969 when Dr. Duffy was managing 30 patients with end-stage brain tumors and decided to tap them all. One hundred percent herniated, 50 percent immediately and the rest within 12 hours. All of the patients had progressive headache, an altered mental status, and localizing neurological findings.9 Even on a bad day, I don’t see any of us performing LPs on patients like that. With respect to irrigation additives, such as Betadine, the available data show that 1% solutions probably don’t impede wound healing in lacerations but certainly don’t reduce infections either. However, 10% (standard) Betadine is tissue toxic.5

REFERENCES


There’s no need to routinely obtain a CT before lumbar puncture.
OBAMACARE UPDATES

Brief news on the implementation of the Affordable Care Act

BY BRYN NELSON, PHD

A Mixed Bag for Ongoing ACA Legal Battles

If you thought the legal wrangling over the Affordable Care Act (ACA) might finally slow down in 2014, think again. In January alone, several major court cases yielded victories for supporters and opponents alike. In one closely watched case, a federal judge blocked a Missouri law that would have required navigators or others providing information about the ACA’s health care plans to be licensed by the state.

Meanwhile, a District of Columbia federal judge dismissed a lawsuit brought by a group of business owners and individuals in six Southern states who had sued to prevent IRS tax credits to low- and moderate-income people buying insurance through the federal exchange. The Obama administration successfully argued that a bit of sloppy language left in the law that seemingly applied subsidies only to plans in state exchanges was meant to apply to both state and federal exchanges. The case, Halbig v. Sebelius, had been viewed as a significant threat to the ACA, though it’s not quite over: The plaintiffs are appealing the decision, and similar lawsuits are pending.

The administration received a setback of its own when the Supreme Court extended an injunction for a Denver-based Catholic charity, Little Sisters of the Poor Home for the Aged. The court decision temporarily exempts the nonprofit organization from several requirements of the ACA, including birth-control coverage mandates.

More States Considering Medicaid Expansion

Few provisions of the ACA have divided states more than the question of whether to expand Medicaid. By the end of 2013, the states were equally split: 25 (plus the District of Columbia) had agreed to expand coverage, while the other half were either undecided or actively opposed.

That dynamic is changing, according to the nonpartisan Pew Charitable Trusts. An additional nine states are now considering expansions of their own, including Utah, where Republican Gov. Gary Herbert announced his support in January. Officials in several other nonexpansion states have fretted over recent reports suggesting that they may lose out on billions of dollars in matching federal funds.

Another driving factor in the recent warming trend toward some form of expansion may be the growing use of waivers to craft state-specific versions of the federal program. Arkansas and Iowa have already used an alternative called the “private option” to enroll beneficiaries in private insurance plans. The Obama administration has given the Department of Health & Human Services leeway to grant these waivers to states wanting to experiment with health-care delivery methods as long as their Medicare modifications meet minimum standards and remain cost neutral.

With the private option now on the table, Kaiser Health News reported that Medicaid expansion is gaining more traction in Utah and other Republican-led states such as New Hampshire, Florida, and Pennsylvania. Arkansas, however, may be poised to go in the opposite direction: The state legislature is locked in a fight over whether to defund its own recent expansion.

Website Blunders Abating?

After the healthcare.gov website’s botched rollout last November, the federal government received dismal approval ratings on its performance in several public polls. But after a much-publicized scramble to fix the main health insurance portal, media reports suggested that its performance has improved markedly. Polling numbers are trending upward, and a security scare over potential hacking turned out to be a false alarm.

Will it be enough to make up for lost ground? Despite a recent surge, most analysts doubt whether the government can meet its initial goal of 7 million new enrollees by the end of March. On Feb. 25, President Obama announced that more than 4 million people have signed up for health care through ACA marketplaces. A recent “Avalere Health 2014 Industry Outlook” report, however, suggests that despite rapidly accelerating enrollment, the final tally may reach only about 5 million.

And after so much attention on the federal site, however, the spotlight is being trained more harshly on some of the 14 highly uneven state-run exchanges. States like California and Washington are posting encouraging enrollment numbers. Others have been far less fortunate. The state-run exchanges in Oregon and Maryland are so troubled that officials there are considering switching to the federal health care exchange next year.

Political Duel Continues over Health Care Reform

Both Democrats and Republicans are honing their health care reform talking points and tactics in the run-up to midterm elections later this year. In his defense of the ACA during January’s State of the Union address, President Obama said that it was the law of the land. Republican leaders, including House Speaker John Boehner, continue to express their opposition to the legislation. The Supreme Court is due to hear the case in late April, which could determine the fate of the health law.
address, President Barack Obama signaled his intent to more aggressively paint Republi- cans as obstructionists by challenging them to specify a viable alternative instead of repeat- edly calling for a full repeal. "I know that the American people are not interested in refight- ing old battles," he said.

Republicans have adapted, too. In Janu- ary, three Republican senators unveiled a “repeal and replace” alternative called the Patient Choice, Affordability, Responsibility and Empowerment (CARE) Act. The overhaul eliminates or reduces most government man- dates while offering tax credits to help lower-income people buy insurance. The proposal limits the tax exclusion for insurance offered by employers and permits insurers to charge people who do not maintain continuous coverage.

Most of the low-deductible plans (especially in the silver variety) have sizable co-pays, coinsurance, special fees, and the maximum allowable out-of- pocket costs ($6,350 for an individual).

EDs (and most other provid- ers) will find they now must get the majority of their payment directly from patients. So, even though patients are insured, EDs still have to track down payment from individuals—particularly before they’ve met their deductibles.

Most people who do not qualify for a government subsidy will now pay more for health insurance on average.

ACA makes health insurance available to everyone with taxpayer-funded subsidies, but due to high first-dollar coverage, the vulnerable group remains function- ally uninsured.

Patients who cannot find in-network care due to a lack of availability will likely come to the ED.

On-call physicians will likely send patients back to the ED when they show up for follow- up and are not in-network or cannot pay their deductible.

The Congressional Budget Office (CBO) estimates that 2.5 million people will leave the workforce over the next 10 years due to the ACA. They will reduce their work hours or quit altogether.

Insurers have been advised that they do not need to cancel policies in 2014.

As of Dec. 28, 2013, just 11 percent of people signing up didn’t have insurance previously.

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Push to Curb ED Visits by New Medicaid Beneficiaries

Backers of the ACA have argued that improved access to health care might decrease emergen- cy department visits by new Medicaid benefici- ciaries. Experts, however, have warned of an increase in ED visits—at least initially—and the Centers for Medicaid & Medicare Services recently released guidelines designed to miti- gate any uptick in unnecessary visits.

Among the agency’s three main strategies: focusing on “super-utilizers” through servic- es like health homes and on-site ambulatory clinics, increasing access to primary care, and using more targeted interventions for patients with behavioral health issues.

Several experts told Modern Healthcare they were unimpressed with the guidelines, citing a lack of new ideas and insufficient at- tention to mental health (Dickson V, Jan. 21, 2014). Meanwhile, a study in the journal Sci- ence added fuel to the fire by finding that new Medicaid beneficiaries in Oregon significant- ly increased their visits to the ED and to other care providers during their first 18 months of coverage (2014;343:263-268).

Why? Economists told The New York Times that patients may be accessing ED services more often as Medicaid reduces their upfront costs (Tavernise, Jan. 2, 2014). Experts have hotly de- bated whether this higher usage will persist and whether it also reflects a lack of primary care access. The heightened demand could put more strain on the nation’s emergency physi- cians, though the overall financial impact may be more limited. In 2010, a government report found, total ED visits represented only 4 percent of total U.S. health care spending.

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BY TODD TAYLOR, MD, FACEP, AND KEVIN KLAUER, DO, EJD, FACEP

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MARCH 2014 ACEP NOW 19
The Not-So-Sustainable Growth Rate

The only thing sustainable was the predictability of its failure

BY L. ANTHONY CIRILLO, MD, FACEP

The SGR formula uses 1996 spending levels as the basis for projected spending targets, which artificially links medical care today to what medical care spending was 18 years ago.

Budget Act of 1997, Congress replaced the MVPs with the SGR. Rather than trying to control costs by reducing payment amounts for specific services, the SGR attempts to control spending by setting yearly and cumulative spending targets. If actual spending for a given year exceeds the spending target for that year, reimbursement rates for the following year are adjusted downward by decreasing the conversion factor (CF) for RBRVS relative value units (RVUs).

Under the SGR system from 1997 through 2001, the physician updates were positive and ranged from a modest 0.6 percent in 1997 to a high of 5.5 percent in 2000. However, payment rates were cut for the first time in 2002 by 4.8 percent. The uproar from the provider community was predictable, loud, and at least partially effective. Since 2002, Congress has prevented any further negative updates to physician payments by passing legislation that temporarily prevents the scheduled SGR reductions from going into effect. Although there haven’t been any more negative updates, the highest update has only been 1.7 percent, with a whopping 0 percent update in three of the past 10 years. Without any negative updates, the amount owed under these temporary delays continued to increase as long as Medicare expenditures exceeded targets.

Where are the warts? First, the SGR limits spending by setting a spending target linked to the nation’s GDP. Historically, spending on health care has had no direct correlation to the growth in the overall economy. Second, the SGR formula uses 1996 spending levels as the basis for projected spending targets, which artificially links medical care today to what medical care spending was 18 years ago. Lastly, by reducing or providing negligible positive updates, all the SGR did was encourage physicians to do more services and create more spending. Thus, the ironic paradox of the SGR: in order to make the same amount of total money, physicians provided more “services” because the payment per service was less.

Hopes for a Fix in 2014 ... And What About the IPAB?

As the proverbial can got kicked farther and farther down the road, the overall price tag on a permanent fix got bigger and bigger and has been more than $300 billion in recent years. However, due to a recent unexplained decrease in Medicare expenditures, the Congressional Budget Office (CBO) has estimated that the cost for a one-time permanent fix would now be only $120 billion over 10 years. This reduction has provided an impetus for Congress to act to create a permanent fix. At the end of 2013, Congress passed a budget agreement that included yet another temporary three-month patch, which will expire at the end of March 2014. Even before the passage of this last patch, three key committees in Congress, the House Energy & Commerce, House Ways and Means, and Senate Finance committees, all had voted to support proposals that would eliminate the SGR permanently and replace it with fixed annual updates and changes to quality-based incentive programs. On Feb. 6, Rep. Michael Burgess (R-TX) introduced H.R. 4015, and Sen. Max Baucus (D-MT) introduced S. 2000: The SGR Repeal and Medicare Provider Payment Modernization Act of 2016. These companion bills would provide 0.5 percent updates for 2014–2018 and 0 percent updates for 2019–2023 as well as create a new quality-incentive program titled the Merit-Based Incentive Payment System (MIPS). MIPS would be a roll-up of the three systems currently utilized to incentivize physician payment: Electronic Health Records (EHR) Meaningful Use, the Physician Quality Reporting System (PQRS), and Value-Based Modifier. These bills were actually crafted and overwhelmingly passed (at the committee level) with bipartisan support. There was agreement on the need to replace the SGR, create a more stable payment model, and incorporate quality incentives into Medicare reimbursement. This was the most comprehensive and most supported plan to replace the SGR since its creation in 1997. So will this bill ever become law? It probably won’t in 2016. The committees did great work on how to reimburse physicians under Medicare, but they failed to address how to pay for it. The bill contains no fiscal offsets or other new revenue to make up for the $120 billion that physicians still “owe” the federal government. The chief supporter of the bill in the Senate, Finance Committee Chairman Baucus, left the Senate to serve as US ambassador to China, making passage in 2014 much less likely.

So what happens to physician reimbursement and the SGR now? By the end of March, Congress will likely do what Congress seems to do best: push the problem off until next year. In the spirit of election-year politics, neither the Republicans and certainly not the Democrats want to be seen as giving doctors a “raise,” especially if it’s not paid for by some other budgeting gymnastics. When the three-month patch expires at the end of March, we’re likely to see another nine-month patch, with an extension of the current 0.5 percent update through the rest of 2014. Santayana will be shaking his head and smiling as this most recent exercise of futility will find history repeating once again.

DR. CIRILLO is director of health policy and legislative advocacy for Emergency Medicine Physicians in Canton, Ohio.
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A Rational Approach to the Opioid-Seeking Patient

by JIM DUCHARME, MD, CM, FRCP

Drug Diversion and Abuse Is a Major Societal Problem
In 2012, an estimated 23.9 million Americans age 12 or older—or 9.2 percent of the population—had used an illicit drug or abused a psychotherapeutic medication (such as a pain reliever, stimulant, or tranquilizer) in the past month (www.drugabuse.gov/publications/drug-facts/nationwide-trends). Marijuana is the gateway drug. Despite being declared by many to be a benign recreational drug, the odds of going on to addictive drugs such as opioids or methamphetamine are 160 times greater for those having used marijuana than having not used it. Despite the publicity of the rise in misuse of prescription opioids, the 25 percent increase in marijuana use since 2007 is the largest increase for any category of drugs of abuse. Nevertheless, prescription opioids are now fourth behind marijuana, alcohol, and cigarettes in prevalence of abuse among adolescents. They rank second behind marijuana in terms of rate of abuse in society. Given their much greater risk of morbidity and mortality, as well as the association with organized crime, the growing misuse of prescription opioids has created ever-increasing concern.

Chronic Non-Cancer Pain Management Is Failing Miserably
It is the complex disease state with the highest prevalence in society, has the highest economic impact on the workforce, and results in poverty-level existence for the average family that has someone suffering from it. Unable to pay for the multidisciplinary care required, more than 90 percent of patients with chronic non-cancer pain (CNCP) receive inadequate care for their pain. Lacking any other resource, many CNCP patients turn to the ED. This specific issue was addressed in the previous article, “Why Us? The Role of Emergency Physicians in the Care of Chronic Pain” (ACEP Now, January 2014, p. 9).

Emergency physicians believe we can identify people coming to the ED for addiction or diversion, but this is not true.

Oligoanalgesia Rampant Across Health Care
Education in medical schools about pain management is less than one-third of similar training in veterinary schools. There is even less education about addiction and how to interact with people suffering from personal disorder. The average physician enters practice undereducated and ill-equipped to deal with any of the very difficult situations described above. The natural reaction to this lack of preparation is to be defensive and overly suspicious and find encounters with patients seeking opioids to be emotional and stressful. It’s hoped this article can provide some suggestions about a rational approach to such patients to minimize that stress and avoid confrontations while meeting patient needs.

Distinguishing People in Pain Seeking Opioids from People Seeking Opioids for Addiction or Diversion
Patients with pain as their primary complaint represent up to 75–80 percent of emergency patients. After 7 p.m., up to 70 percent of motor vehicle collisions are related to alcohol use. Similarly, the prevalence of patients with addiction as a medical disorder rises in patients presenting to the ED after 7 p.m. Even in inner-city hospitals at night, the ratio of patients in pain to those with addiction or diversion issues remains greater than three-to-one. The age of the patient is not of value; people visiting the ED for opioid abuse come from all age groups, including young children (Center for Behavioral Health Statistics and Quality, SAMHSA, Drug Abuse Warning Network, 2009). Emergency physicians believe we can identify people coming to the ED for addiction or diversion, but this is not true. In a case-controlled study, 21 percent of patients requesting analgesia and 13 percent of controls tested positive for drug addiction using the DAST-20 survey (of those who agreed to participate). There was no correlation between the pain score and the DAST score. Almost one-half of patients scoring positive for addiction had a history of multiple ED visits and requests for specific opiates or “allergies” to opiates—but more than half did not. (California J Emerg. 2005;6:3-8). This inability to identify such patients usually results in labeling all patients seeking pain relief or requesting analgesics as “opioid seekers” for diversion rather than people suffering from inadequate pain management.

In my next column, I will discuss standardizing the ED approach to patients seeking opioids.
A High-Value Diagnostic Approach to Low-Back Pain

by Michelle Lin, MD, MPH, and Jeremiah Schuur, MD, MHS

As emergency physicians, we have two roles in evaluating back pain: to treat patients’ symptoms and to diagnose potentially life- or limb-threatening causes.

Halfway through a busy overnight shift, the healthy 45-year-old man you are seeing for low-back pain says, “Doc, my back is killing me—the pain is shooting down my leg! Can’t you do an X-ray or CAT scan to tell me what’s wrong with me?” You took a full history and examined him thoroughly, and you don’t think imaging will reveal anything emergent, but as you consider launching into a long explanation about the risks and benefits of imaging, you hear a new ambulance arrival. You worry that after counseling he will still want imaging, and you know that your patient-satisfaction scores are monitored closely, so you order an X-ray and analgesia and decide to reassess the patient later.

Back pain is one of the most common emergency department presenting complaints, accounting for more than 2.6 million visits in 2006.1 As emergency physicians, we have two roles in evaluating back pain: to treat patients’ symptoms and to diagnose potentially life- or limb-threatening causes. In 2006, more than 30 percent of ED patients with back pain underwent an X-ray, and nearly 10 percent underwent CT or MRI, an increase from 3.2 percent in 2002, despite the fact that imaging is not associated with improvement in clinical outcomes.1,2

A thorough clinical history and exam in patients with no history of major trauma can identify many patients for whom imaging can be avoided. Important high-risk findings (see Table 1) of bowel or bladder incontinence, significant or evolving motor and/or sensory deficit, IV drug abuse or unexplained fever, history of cancer, and advanced age (typically >70 years) are reasons to obtain imaging for low-back pain. Otherwise, imaging rarely alters management, and the emphasis should be on treatment, reassurance, and education. This is supported by guidelines from both the American College of Radiology and the American College of Physicians.3

Which patients can be safely evaluated without imaging?
• Patients with nonspecific back pain for less than six weeks and normal neurologic examination without high-risk findings can be safely discharged with reassurance and outpatient primary care follow-up. Patients who are able to identify acute inciting event without direct trauma are much more likely to have musculoskeletal causes of back pain.
• Patients with back pain and radiculopathy corresponding to L4–L5 or L5–S1 nerve roots (90 percent of disc herniations) are also candidates for outpatient follow-up without ED imaging. A positive straight leg raise is 91 percent sensitive and crossed straight leg raise is 88 percent specific for herniated discs. Patients with signs consistent with lumbar radiculopathy should not routinely undergo MRIs in the ED. While MRI is sensitive for the disc disease, identifying herniated discs doesn’t alter ED management. One study of asymptomatic patients demonstrated that 64 percent had abnormal discs, 52 percent had bulging discs, and 31 percent had disc protrusion!4 MRI is an outpatient preoperative test for patients with persistent symptoms less than six weeks who may be candidates for spinal injections or surgery. Indications for surgery include failure of conservative therapy after four to six weeks and neurologic deficit causing disability.
• The majority of patients in both groups will improve with conservative management within four to six weeks; emergent imaging does not alter clinical outcomes.

Table 1. High-Risk History and Physical Examination Findings Warranting Further Workup

<table>
<thead>
<tr>
<th>FINDING</th>
<th>CONSIDER...</th>
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<tbody>
<tr>
<td>Age &gt; 70 or &lt; 20 years</td>
<td>Infection, cancer, vascular disease</td>
</tr>
<tr>
<td>History of cancer or unexplained weight loss</td>
<td>Metastatic disease</td>
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<tr>
<td>Persistent fevers/night sweats</td>
<td>Epidural abscess, osteomyelitis, metastatic spine lesion, osteomyelitis (disclisis)</td>
</tr>
<tr>
<td>Prolonged steroid use</td>
<td>Intralesional drug use</td>
</tr>
<tr>
<td>Retroperitoneal rupture</td>
<td>Nerve root compression</td>
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<tr>
<td>Cauda equina syndrome</td>
<td>(0.04 percent of all back-pain patients)</td>
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CONTINUED on page 28
An alliance between quality and clinical practice

By JAMES J. AUGUSTINE, MD, FACEP

As emergency department leaders, it is critical that emergency physicians understand the national data sources available to improve the local emergency system and the functions of the department. This column will review the most important sources and applications of ED performance measures and how they should impact the practice of emergency medicine, including your personal practice. These critical data elements are important for all emergency physicians as discussions evolve regarding the value of emergency care with hospital leaders, community decision makers, and the designers of the future health system.

ED Performance Focused Data Sources

The Emergency Department Benchmarking Alliance (EDBA), founded in 1994, has 20 years of experience in defining ED performance measures, cohorts, and mechanisms for improving the management of EDs. The EDBA annual data survey produces a small number of well-defined performance measures and descriptive elements of the ED. The alliance now comprises 1,000 EDs from every state, and every volume and acuity, that see 60 million patients. Emergency physicians can find trends in performance measures related to ED size, flow, acuity, disposition, productivity, use of diagnostic tools, and space utilization. The Centers for Disease Control and Prevention (CDC) initiated a study in 1992 to investigate the types of patients being served in EDs, their medical characteristics, and the disposition of the patients at the end of the visit. The National Hospital Ambulatory Medical Care Survey (NHAMCS) is a wealth of information on emergency medicine in America. The CDC sampling and analysis process takes some time, so the latest available is the 2010 data report, which is based on a sampling of 34,936 ED patient-care reports from 357 EDs. National population census data are used to estimate utilization of ED services by populations. The survey has almost 20 years of annual data, which have been used to identify important trends for emergency physicians and regulatory leaders.

The surveys collectively report on the success of 50 years of prevention programs to which emergency physicians have made tremendous contributions. There has been little recognition of the success in preventing premature death related to trauma, burns, and cardiac arrest. The surveys make it apparent that prevention is working in the emergency population, with ED visits related to injuries continuing to shrink. These now represent about 29 percent of ED patient encounters. EDs are serving more high-acuity patients and more patients who are arriving in an ambulance. The combined effects of these trends are that ED visits have increased over 12 years from 369 visits per 1,000 population to 428 per 1,000. There is no indicator that points to decreased utilization of emergency services. The ED population is aging, which is in line with the demographics of the country. The ED visit rate for persons older than 65 is much higher than for those younger than 65. As this population group is going to boom for many years, emergency physicians must plan for higher ED volumes and design departments that are friendlier to the senior population.

A significant increase in ED utilization is also occurring for patients with mental health and chemical use presentations. The NHAMCS report is finding an increased number of patients seen for mental health reasons, and their disposition is often difficult and time consuming. An examination of the NHAMCS database reveals that about half of patient transfers from EDs are for mental health treatment. This is a significant burden on emergency physicians and the organizations that must move these patients safely between sites.

Matching the increase in acuity is the need for further hospital-based service at the end of ED visits. A growing percentage of hospital admissions are funneled through the ED. The EDBA data indicate that 68 percent of all hospital inpatients are processed through the ED. In many hospitals, especially those in community settings, the number is 80 percent or greater. Clearly, the ED is the front door to the hospital!

The growing volume of patients also reflects the position of the ED as the diagnostic center for the American medical community. The need for precision in defining patient needs has resulted in increased use of diagnostic tools in the ED, especially diagnostic imaging. The use of diagnostic testing has changed dramatically over the last 20 years, according to surveys on ED practice. Some diagnostic tests have almost completely disappeared. Arterial blood gases were used in many patients in 1992 and now have completely disappeared due to low utilization.

The use of other diagnostic tests has increased. CT scans increased in usage from about 2.4 percent of visits in 1992 to about 16 percent in 2010. The EDBA uses a different collection and reporting methodology and found that CT use, as measured by the number of CT procedures performed per 100 patients, plateaued in 2008 at about 23 procedures per 100 patients and has now decreased to about 20 CT procedures per 100 patients.

Plain diagnostic X-rays, of which about 50 percent are chest films, were performed on about 42 percent of patients in 1992 and have since decreased to about 35 percent in 2010.

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Sources

1. The Emergency Department Benchmarking Alliance. Information is available at: www.EDBenchmarking.org
2. The calendar year 2010 EDBA Summary Tables are available at: https://www.cdc.gov/nchs/data/nhsr/nhsr026.pdf. The CDC data tables are now published without an analysis. It is important to review the DOPT report for use as a reference when looking at all the data tables in later years. It is available at: http://www.cdc.gov/nchs/data/nhsr/nhsr026.pdf.
The Rent Is Too Damn High

by JAMES M. DAHALE, MD, FACEP

In 2010, a former postal worker, Jimmy McMillan, famously ran for Governor of New York on the slogan, “The rent is too damn high!” That slogan can also be applied to the price most physicians are paying for financial advice. When it comes to investing, unlike with most things in life, you get (to keep) what you don’t pay for. Advisory and management fees come directly out of your investment return. Therefore, your goal should be to pay the least amount possible for good financial planning advice and quality asset management.

Jack Bogle, the founder of Vanguard, has said, “The long-term investor must be aware of the portion of investment return that will be consumed by [investment] expenses. Cost lops the same number of percentage points off both nominal and real [after-inflation] returns, but given persistently higher inflation, it nearly always consumes a proportionally larger share of real returns. To state the obvious, the long-term investor who pays the least has the greatest opportunity to earn most of the real return provided by the stock market.”

Consider two investors who each contribute $50,000 in the same investment, which returns 9 percent per year—before expenses—over 30 years. The first pays 0.1 percent in annual expenses. The second pays 2 percent in annual expenses. After 30 years, the first has $6 million. The second ends up with $4.2 million—30 percent less. Bogle refers to the second investor as “a disinterested minority among those who call themselves financial advisers. The first order of business is to make sure the advice is good. There is no price too low for bad advice. Doing a little bit of self-education and getting a second opinion are two helpful techniques for identifying bad advice. It also helps to avoid advisers who are paid on commission. You want a fee-only adviser who gets paid the same no matter what you invest in or what insurance products you buy. However, even among high-quality fee-only advisers, there can be vast differences in pricing. One well-known physician-focused firm starts its asset-management fees at 1.75 percent of assets under management (AUM). Even with a portfolio of $3 million, it still charges 0.9 percent, or $27,000 per year.

It may seem that 1 percent of AUM is the going rate for asset-management services. Many asset managers even throw in financial planning for free when you pay the asset-management fees. However, once you become familiar with asset managers who charge far less, 1 percent may start to seem rather expensive, especially for a large portfolio and especially after you apply the tyranny of compounding to those fees.

I know of several asset-managers who charge far less than 1 percent. One charges a flat $1,000 per year, and another charges $1,800–$3,600. A third charges a minimum of $3,700 per year, plus 0.37 percent of all assets more than $1 million. A $3 million portfolio doesn’t take any more effort to manage than a $300,000 portfolio, much less 10 times the effort. So it is silly to pay for asset management at a percentage of assets, but that is unfortunately the way most of the industry works. If you choose to go with a manager who charges based on AUM, at least do the math (AUM fee multiplied by the portfolio size) to determine the equivalent flat annual fee. If you’re paying more than $5,000–$10,000 per year, it is probably worth your time to shop around.

Financial planning can also be done on an hourly or flat-fee basis. Most planners tell me it takes six to eight hours to do the process right, and hourly planners typically charge $100–$400 per hour. There is simply no reason to pay tens of thousands of dollars in ongoing fees for a task that can be done well for $1,000–$2,000, with lesser amounts in future years for minor tweaks to the plan.

When it comes to financial advisory fees, “the rent is too damn high.” Pay close attention to the fees you are paying for financial planning and asset management because every dollar you pay in fees comes directly out of your investment return.
The Intubation Checklist

by SCOTT D. WEINGART, MD, FCCM, and ANGELA HUA, MD

The Case
A 63-year-old male with severe sepsis from pneumonia is brought to the emergency department. The monitor shows blood pressure of 72/48 mm Hg and a blood oxygen saturation (SpO2) of 92 percent. The decision is made to intubate the patient for predicted worsening clinical course as well as poor mental status. What now? Just jump into rapid sequence intubation (RSI), right? But it’s pretty disappointing to realize that the patient’s blood pressure has dropped even lower after you push the meds, and he has turned out to be an unanticipated difficult airway. You yell for the necessary equipment and meds, but nobody seems to understand the seriousness of the situation. Wouldn’t it be better to make sure everything was prepared to give you optimal success every time whether the intubation is smooth or difficult?

Not Everyone Respects Checklists
From a doctor on a critical-care mailing list, regarding a checklist: “This is so over the top! Instead of using a checklist, I just intubate. Sorry for sounding gung ho. Many of the items on the checklist are required to be on standby 24-7 in every ED. No point to go through them. Briefing is clearly superfluous and a waste of time. The checklist obsession just got worse!”

You may think a checklist is unnecessary, but think again. In 2001, Peter Pronovost, MD, PhD, introduced an intensive-care checklist protocol for central venous catheter insertion.1 In the first three months of use after the launch of the Keystone ICU project, the median rate of infections at a typical ICU dropped from 2.7 per 1,000 patients to 0.2 An estimated 1,500 lives and $175 million were saved over the first 18-month period.2 Since this landmark study showing the efficacy of a checklist, medicine has begun to embrace the idea of integrating these cognitive aids into clinical practice. Most checklists have been adopted in elective procedures, where the controlled and stable setting allows for the time and patience to run through the list. However, we can likely gain similar safety and cognitive benefits from checklists for ED intubations.

Every time the decision is made to intubate, we are putting patients at risk. It is imperative to consider and prepare for predictable dangers, especially when intubating in an adrenaline-charged environment like the ED. The EMCrit call/response intubation checklist is designed for use in such a situation.

How to Use the EMCrit Call/Response Intubation Checklist
The checklist (Figure 1, below) is available at emcrit.org/podcasts/emcrit-intubation-checklist. Print the checklist double-sided on a single piece of paper. Fold it in half along the dotted line on the front page; only the top portion of the page is the actual checklist to be used while intubating. The bottom of the front page is an aid for commonly needed doses and reminders for the peri-intubation period. The back (inside the fold) includes instructions for the use of the checklist—these should only be used for review or to teach

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Figure 1: Actual Intubation Checklist for Clinical Use

EMCrit Call/Response Intubation Checklist

Plan

Patient Prep
Dentrogination Oxygenated (Consider CPAP) Look in Mouth - Dentures Positioning
(Corner, Horizontally, Seat, Sidely, Suction) Monitors (Pulse Ox Visible) Reliable Access Nasal Prongs for ApO2 
S Gastric Tube

Team
Roles Assigned for Each Stage of Failed Airway Plan Pulse Ox Watcher/Reoxygenation Role Assigned ELM/Head Elevation Assistant Briefed Team is all in PPE

Awake Intubation
○ Glycopyrrolate 0.5 mg & Ordinaustain 0.5 mg ○ Suction oropharynx and then push dry with gauze ○ Nebulized Lidocaine 4% 5 mL at 5 mL ○ Atropine 0.01 mg ○ 3rd spinal into posterior epinephrine ○ Muscle Relaxant bolus 2%, place on long intubator ○ Preoxygenation ○ Positioning ○ 1/2 2 mg/kg ○ Suction to nasal cavity at 3 L/min ○ Sedate with combination of Ketamine 2 mg/kg or 1 mg/kg Ketamine-Propofol Heavy Intubation (HIV positive, meningitis in the same area) ○ Atropine 8% 3rd spin to endotracheal ○ Intubate awake oral air passage using, then sidely/palate

Pretreatment
○ A 2-ounce, 6.5 mg/kg ○ Lidocaine 3 mg/kg for high larynx/voluntary ◦ Nebulized Adv. (15-30 mL) ○ Atropine 0.05 mg/kg ○ Scopolamine 0.01 mg/kg ○ A 5 mg/kg/kg bolus to 1 mg/kg/kg ○ 5 mg/kg/kg to 1 mg/kg/kg ○ Team away at end of well safely

Cric-Con
○ MIC: Adv. Intravenous (0.5%) ○ MIB: Tococal (0.5%) ○ O2: Neopentax (0.5%) ○ Pulse Oximeter (0.5%)

Push-Dose Epi
(15 mg/kg/kg BOLUS)
○ In 3 to 5 min, add 1 mL
○ Central Artery 1.25 mg/kg/kg ○ Skins Sirena Hard ○ Label "Thyroid dose 10 mg/kg/kg" ○ 4.5 mg/kg/kg BOLUS ○ 3.0 mg/kg/kg BOLUS ○ 3.0 mg/kg/kg BOLUS ○ 3.0 mg/kg/kg BOLUS ○ Team away at end of well safely

Painful Dose
○ Dose 0.5 mg/kg/kg to 1 mg/kg/kg ○ Team away at end of well safely

Information
○ intubation.org ○ intubation.org ○ intubation.org ○ intubation.org ○ intubation.org

Initial Post-Intubation Analgo-Sedation
○ Fentanyl 1 mg/kg/kg to 1 mg/kg/kg ○ Hydromorphone 0.5 mg/kg/kg to 1 mg/kg/kg ○ Team away at end of well safely

Equipment
Table
BVM (±PEEP Valve) on Oxygen Waveform Coughapaptors on BVM & Tested Video Laryngoscope Intubation Equipment F (Tube: Indwelled Tube, Sp, Scoring - 1, 2, 3 - Indwelled Tube ○ "Cage Scoring Device"
 Failed Airway Equipment at Bedside
(assume: Oxygen, IV, Suction, etc.)

Intubation Meds

<table>
<thead>
<tr>
<th>Drug</th>
<th>Normal Dose Time</th>
<th>Normaximum Dose Time</th>
<th>Overdose Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ketamine</td>
<td>1 mg/kg/kg</td>
<td>1 mmol/kg</td>
<td>0.5 mg/kg/kg</td>
</tr>
<tr>
<td>Remifentanil</td>
<td>1 mg/kg/kg</td>
<td>1 mmol/kg</td>
<td>0.5 mg/kg/kg</td>
</tr>
<tr>
<td>Propofol</td>
<td>1.5 mg/kg/kg</td>
<td>15 mmol/kg</td>
<td>7 mg/kg/kg</td>
</tr>
<tr>
<td>Sevoflurane</td>
<td>1.2 mg/kg/kg</td>
<td>10 mmol/kg</td>
<td>2 mg/kg/kg</td>
</tr>
<tr>
<td>Remifentanil</td>
<td>1.5 mg/kg/kg</td>
<td>15 mmol/kg</td>
<td>7 mg/kg/kg</td>
</tr>
<tr>
<td>Midazolam</td>
<td>3.0 mg/kg/kg</td>
<td>15 mmol/kg</td>
<td>7 mg/kg/kg</td>
</tr>
<tr>
<td>Ketamine</td>
<td>3.0 mg/kg/kg</td>
<td>15 mmol/kg</td>
<td>7 mg/kg/kg</td>
</tr>
</tbody>
</table>

Low pH Tube
○ Place intubation nose, nasal, nasal ○ Place intravenous ○ Oxygen ○ CO2 ○ Airway ○ Suction ○ Oxygen ○ Suction ○ Airway

Low pH tube
○ Place intubation nose, nasal, nasal ○ Place intravenous ○ Oxygen ○ CO2 ○ Airway ○ Suction ○ Oxygen ○ Suction ○ Airway

Airway
○ F (Large, x1), 4L, LIve, 3L, LIve, 2L, LIve, 1L, LIve

Visit emcrit.org/podcasts/emcrit-intubation-checklist to download.

This checklist is for informational purposes only. All information must be verified with your clinical judgment, pharmacy, and hospital committees' expectations.
Every time the decision is made to intubate, we are putting patients at risk. It is imperative to consider and prepare for predictable dangers.

Patient Preparation
After the plan has been developed, you’re ready to move on to the “Patient Prep.” This is an important step, especially about denitrogenation and oxygenation separately. To denitrogenate, or replace the nitrogen in the lungs with oxygen, patients will need at least eight vital-capacity breaths or three minutes on a high FiO2 oxygen source. For oxygenation, the goal oxygen saturation is more than 95 percent. If that is difficult to achieve with a nasal cannula/non-rebreather mask (NC/ NR) combination, consider CPAP or allowing the patient to breathe spontaneously through a bag valve mask (BVM) with a PEEP valve and a nasal cannula underneath. Next, ensure proper patient positioning for a safe intubation: face plane parallel to ceiling, ear-to-sternal notch, head of bed 30 degrees up parallel to ceiling, ear-to-sternal notch, head of bed 30 degrees up parallel to ceiling.

Whenever possible, the patient’s head should be turned to the side to allow the airway to drain. Before a failed attempt, state, “We’ll try SGA, and if that fails, then we’ll move on to a cricothyroidotomy.” Lastly, have the post-intubation analgesics and sedatives prepared prior to the intubation to avoid having paralyzed patients in pain crying while they wait for the meds. There is a table of analgesia and sedation medications, with their dosages, on the bottom of the fold.

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When the patient has been intubated, the next step is to ensure that the airway is patent. The team should consider the presence of a HOP Killer is present. Test the waveform capnograph and place it between the bag and the mask of the BVM. Have the intubation supplies, including a backup standard laryngoscope, a video laryngoscope, and all of the failed-airway equipment, at the bedside to enact the previously verbalized plan if necessary. There should also be two syringes, an appropriately sized oropharyngeal airway, a stylet, a tube-seating device, and two functioning sources of suction.

The Team
Finally, brief the team. Assign roles for each stage of the failed-airway plan. Assign a pulse-oxy watcher to call out at 93 percent. Brief the assistance staff on what is expected. Ensure that all of the team is in personal protective equipment (PPE), which at a minimum should include eye protection and a surgical mask.

Conclusion
Every intubation means taking a patient’s life into your hands. Extensive planning and preparation is imperative. This checklist may help with the meticulous organization that is necessary to make certain the intubation will be as safe as possible. For more information or the podcast on this checklist, please refer to emcrit.org/podcasts/ emcrit-intubation-checklist.

References
ENHANCING NEW STANDARDS FOR OLD PATIENTS | CONTINUED FROM PAGE 16

Table 1: Recommendations from the GED Guidelines

<table>
<thead>
<tr>
<th>GENERAL CATEGORY</th>
<th>RECOMMENDATION</th>
<th>SPECIFIC EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAFFING</td>
<td>ED availability of geriatric-trained physician and nursing leadership, including GED medical director who completes ≥8 hours of geriatric CME every two years</td>
<td>GED medical director serves as liaison with hospital staff and outpatient care partners, identifies needs and resources for staff geriatric education, and reviews and approves all hospital geriatric policies and procedures</td>
</tr>
<tr>
<td>TRANSITIONS OF CARE</td>
<td>Transition-of-care protocols will facilitate timely communication of clinically relevant information appropriate for the level of geriatric syndrome (dementia, acute illness severity, frailty, sensory impairment) associated disability of the individual patient</td>
<td>Discharge instructions, available in large font, that provide HIPPA-compliant family/care provider, long-term care facilities, and surrogate decision makers</td>
</tr>
<tr>
<td>TRANSITIONS OF CARE</td>
<td>Establish and maintain relationships with key community resources to access as needed in transition from ED to outpatient care</td>
<td>Medical home, case managers, home safety assessment by occupational therapy or home care nursing, medical transportation services, meal assistance programs, and prescription assistance</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>Continuing medical education programs will increase physician and nursing staff awareness of unique geriatric emergency care needs, policies, and procedures</td>
<td>Multidisciplinary nature of effective geriatric health recovery and maintenance, evidence-based geriatric syndrome screening instruments and interventions, atypical disease presentations balanced against overutilization of resources and goals of care, and palliative-medicine opportunities</td>
</tr>
<tr>
<td>QUALITY IMPROVEMENT</td>
<td>Geriatric quality-improvement program will be developed and monitored by the GED medical director and nurse manager</td>
<td>Semiannual reviews targeting geriatric syndrome prevalence of injurious fall screening rates and sequelae as well as patient-centric outcomes, delirium screening and management, catheter-associated urinary tract infection prevention efforts, and inappropriate high-risk medication prescribing</td>
</tr>
<tr>
<td>EQUIPMENT AND SUPPLIES</td>
<td>Physical infrastructure shall accommodate patients with mobility, continence, sensory, or cognitive impairment</td>
<td>Reclining chairs rather than gurneys to enhance comfort and minimize pressure ulcers, walking-assist devices and hearing aids at the bedside, patient-controlled lighting, and enhanced signage</td>
</tr>
<tr>
<td>POLICIES, PROCEDURES, AND PROTOCOLS</td>
<td>Department policies for prevalent geriatric syndromes should be developed by and readily available for staff</td>
<td>Delirium screening protocol, elder-abuse assessment strategy, urinary catheter placement criteria, transition-of-care priorities, and palliative-care triggers</td>
</tr>
</tbody>
</table>

A HIGH-VALUE DIAGNOSTIC APPROACH TO LOW-BACK PAIN | CONTINUED FROM PAGE 23

The next time you see a patient with back pain with no high-risk findings, spend a few minutes discussing the diagnosis and plan with the patient.

What are the costs of different imaging modalities?

X-ray is neither sensitive nor specific to identify the etiology of acute low-back pain. It is moderately sensitive for traumatic and compression vertebral fractures. Among 20 to 50 year olds, only 1 in 2,500 X-rays leads to a clinically unsuspected diagnosis. The median cost of a lumbar-spine X-ray (two or three views) is $71 (range $15 to $371) based on Medicare reimbursement rates, a conservative estimate. CT is a more sensitive test for vertebral fractures but is neither sensitive nor specific for spinal-cord disorders, and it has no role in the management of nonspecific back pain or patients with lumbar radiculopathy. The median cost of noncontrast lumbar-spine CT is $174 (range $34 to $1,280) based on Medicare reimbursement rates. MRI is increasingly available in EDs nationwide, and its use has increased due to its lack of ionizing radiation and ability to image the spinal cord and nerve roots. However, it is time-intensive, limiting its applications in emergency care. In 2013, average Medicare costs for an MRI lumbar spine with and without contrast were $550 (range $166 to $2,022). MRI is the diagnostic modality of choice for patients in whom you suspect spinal-cord disorders such as cord compression, cauda equina, epidural abscess, or hematomy. For patients with a high clinical suspicion for these diagnoses, there is little utility to performing a preliminary X-ray or CT (if MRI is unavailable, you can substitute CT myelogram).

Patients may be seeking a fixable diagnosis when they request imaging, so a few minutes of education about the limited benefits and potential downsides of testing can improve both satisfaction and throughput. An example of how you might respond is shown in Table 2 (left).

So the next time you see a patient with back pain with no high-risk findings, spend a few minutes discussing the diagnosis and plan with the patient. Reassurance and an outpatient regimen of over-the-counter analgesia and supportive care can reduce cost and length of stay—and, more important, are clinically effective.

References

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Jenison, MI

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Medical Director

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San Francisco
The University of California San Francisco, Department of Emergency Medicine is recruiting for faculty beginning with the 2014-15 academic year. We have a particular interest in 1) individuals fellowship-trained in pediatric emergency medicine and 2) individuals who have a track record of successful research activities, as demonstrated by peer-review publications and funding. Rank and series will be commensurate with qualifications.

The Department of Emergency Medicine provides comprehensive emergency services to a large local and referral population with approximately 93,000 visits a year at UCSF Medical Center and San Francisco General Hospital. The new UCSF Benioff Children’s Hospital Emergency Department will open in February 2015. SFGH, a level 1 trauma center, paramedic base station and training center, is opening a new hospital in 2015, with a 60-bed emergency department, including an 8-bed pediatric ED. The Department of Emergency Medicine serves as the primary teaching site for a fully accredited 4-year Emergency Medicine residency program which currently has 48 residents and directs several fellowships. Research is a major priority, with over 68 ongoing studies and 102 peer-review publications in the past year. There are opportunities for leadership and growth within the Department and UCSF School of Medicine.

We are looking for outstanding pediatric emergency physicians with board certification in Emergency Medicine or Pediatric Emergency Medicine. For the research position, board certification in emergency medicine is required and the successful candidate will demonstrate outstanding and original research, a track record of funding, and a collaborative spirit. We will also consider emergency medicine faculty with outstanding and original contributions in education and training, and/or noteworthy innovation in clinical practice.

The University of California, San Francisco (UCSF) is one of the nation’s top five medical schools, and demonstrates excellence in basic science and clinical research, global health sciences, policy, advocacy, and medical education scholarship. The San Francisco Bay Area is well-known for its great food, mild climate, beautiful scenery, vibrant cultural environment and its outdoor recreational activities.

Send cover letter and curriculum vitae to:
Ellen Weber, MD, Vice Chair
c/o Natalya Khait
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UCSF seeks candidates whose experience, teaching, research, or community service has prepared them to contribute to our commitment to diversity and excellence. UCSF is an Equal Opportunity/Affirmative Action Employer. The University undertakes affirmative action to assure equal employment opportunity for underutilized minorities and women, for persons with disabilities, and for covered veterans. All qualified applicants are encouraged to apply, including minorities and women. For additional information, please visit our website at http://emergency.ucsf.edu/
Big fish.

Be one.

There’s no such thing as small fish at EMP. We’re all owners. Physicians who day in and day out, work out the “what ifs?” and “why nots?” Physicians who strive to provide preeminent patient care while living the lives they’ve always dreamed of. Swim with us and you’ll discover a group where leadership in our profession and fun coexist. You’ll revel and thrive in the freedom, camaraderie and support that come from being an owner of EMP. Live large. Call us.