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The Official Voice of Emergency Medicine

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Planning for the Future

ACEP’s President-Elect looks ahead to the goals and challenges of his presidential year

Leading ACEP is a team effort, with emergency physicians and staff working together to represent and advocate for the specialty. Last month, we interviewed ACEP President Michael J. Gerardi, MD, FAAP, FACEP, about the challenges and opportunities ahead for emergency medicine. This month, Jay A. Kaplan, MD, FACEP, who was named ACEP President-Elect in October 2014, shares his views on the key issues facing emergency medicine with ACEP Now Medical Editor-in-Chief Kevin Klauer, DO, EJD, FACEP.

Dr. Kevin Klauer: So, Jay, I want to make sure that people understand what your vision is for your presidential year. It starts way in advance and probably not even with your President-Elect year, but the ground is laid for many programs from one president to the next.

Dr. Jay Kaplan: The President, the President-Elect, and the Past President, along with our Executive Director Dean Wilkerson, have weekly leadership calls where we go over issues affecting the college on a month-to-month, week-to-week, and sometimes a day-to-day basis. We talk about leadership, and we talk about the issues that are important to emergency physicians. The Past President, the President, and the President-Elect along with our executive leadership work very closely together in order to keep the ship on course.

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A quest for the Fountain of Youth may cost more years than it gains

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ILLUSTRATION/PAUL JUESTRICH; PHOTOS SHUTTERSTOCK.COM

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Face to Face with DISASTER

Almost 30 years later, Dr. Bradford Walters reflects on his experience as first responder to the Flight 255 crash

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ILLUSTRATION/PAUL JUESTRICH; PHOTOS SHUTTERSTOCK.COM
ACEP does proudly promote ACEP Now as ‘The Official Voice of Emergency Medicine’ and takes that responsibility seriously and in the most literal sense. Our vision is to offer the most appropriate, unbiased forum possible for the discussion, deliberation, and airing of any issues impacting our specialty, especially the most complex and controversial of those issues. In doing so, we must allow diversity of opinion to be heard on a specialty society perspective and journalistic perspective, it would be inappropriate to avoid difficult topics, and more important, it would be inappropriate, and even unethical, to censor valid opinions, whether or not they support ACEP policy or not.

Our belief is that ACEP cannot be a credible leader in our specialty or in the house of medicine without such integrity. Interestingly, and historically, ACEP and ACEP News were formally criticized for the perception of such censorship.

~Kevin M. Klauser, DO, EJD, FACEP

Medical Editor in Chief

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Freestanding Emergency Centers

A novel approach to increasing access to emergency care and decreasing physician burnout

by R. JOE YBARRA, MD, CHAIR OF ACEP’S FREESTANDING EMERGENCY CENTERS SECTION, AND JOHN R. DAYTON, MD, FACEP, SECRETARY OF THE SECTION

During ACEP’s Scientific Assembly in 2014, the Freestanding Emergency Centers (FEC) Section became an official ACEP section. The section was created to meet the needs of emergency physicians working in the more than 500 FECs operating throughout the United States. During the first FEC Section meeting, officers were elected, operational guidelines were created, and goals were set to conduct research on care provided in FECs and to educate both professional colleagues and patients on how FECs are benefiting communities and preventing emergency physician burnout.1

FECs currently operating represent a mix of emergency departments serving as satellite facilities for large health care corporations and academic institutions and also functioning as privately licensed facilities owned by the emergency physicians who work there. They have been created to meet a number of health care needs:

• Bring emergency care closer to patients in Accountable Care Organizations (ACOs)
• Alleviate crowding at nearby emergency departments
• Increase training sites for medical students and residents
• Present another free-market option for delivery of emergency care

Academic groups like Baylor Health Care System, the Cleveland Clinic, Akron General, and the University of Utah operate FECs. These emergency departments expand training options for medical students and residents, offer moonlighting options for fellows, and serve as centers for certificate training programs for advanced practice providers. Several other academic institutions are also planning to build FECs.

National corporations, like the Hospital Corporation of America, and regional groups, like North Carolina’s WakeMed and Colorado’s Swedish Medical Center, have also built FECs to meet the needs of patients in their ACO who do not live near one of their flagship facilities.

Independent FECs are currently operating in Texas, Colorado, Rhode Island, and Delaware. This model is also expanding to other states like Arizona, California and Georgia, where independent FECs had originally been banned, are now reevaluating this position. Recent legislation in Georgia has opened the door for independent FECs to take over failing rural critical access hospitals (CAHs). Similarly, the California state legislature is considering changing its licensing protocol to remove stringent requirements that had, basically, disabled independent FECs so that FECs could serve patients in communities where traditional hospital-based emergency departments have closed.

Emergency department overcrowding, failing grades for “access to care,” physician burnout, and a future physician shortage are all problems we face as emergency physicians. FECs may represent part of the solution.

In addition to the initial ACEP White Paper, there are many emerging opportunities to research FEC care. Jeremiah Schuur, MD, MHS, an assistant professor at Harvard Medical School, is currently working on a $50,000 Emergency Medicine Foundation grant to do a nationwide inventory on FEC care, services provided, staffing and administration, and physical facilities. Erin Simon, DO, FACEP, from Akron General Medical Center, a Cleveland Clinic Affiliate, is a pioneer in FEC research, and her recent articles have demonstrated that FECs can successfully meet the needs of emergency medicine patients.

References
As I was working my way through Virtual ACEP14, a wonderful resource, I was suddenly overcome with sadness. Since Jerry Franklin died, I am the only doctor I know among all the DOs and MDs who work with critical access hospital (CAH) emergency departments here in West Virginia who gets to be dazzled by rock star master teachers, such as Amal Mattu, and to see all the latest and greatest on the exhibitors’ floor. My colleagues are excluded from ACEP membership because they come from family practice backgrounds, which, as my twin and other research shows, is the reality of rural emergency medicine. These physicians are filling the need where no residency-trained emergency physicians want to work but are excluded from the best educational resource in the field. Not only is this sad, it is a betrayal of ACEP’s mission. This policy is sustained by those with no skin in the game. Back in the Cold War, ‘50s and ‘60s, when nuclear war was imminent, a social critic, Ping Ferry, proposed a reality check detergent stating that 200 of the elites’ children should be educated in the capital of opposing power, 100 American children in Moscow, 100 Russians in Washington, D.C. Before “pushing the button” that would incinerate millions of children and adults, the Soviet premier and American president would be required to personally slit the throat of each of the opposing camp’s children. This would remove the idea of nuclear carnage from the abstract. In a similar way, the terrible idea of excluding family practice–trained emergency physicians from ACEP only flourishes in the abstract. If the advocates of this policy actually spent some time visiting CAH EDs, spending some time in our shoes, many would better understand why exclusion from ACEP is clearly a move in the wrong direction if improved ED care in the United States is the goal.

Equally asinine is the sophistry used to rationalize this policy of exclusion. The faulty reasoning goes that since the disproportionately family practice–trained MDs and DOs who provide CAH ED care are not EM residency trained, they are not “real emergency physicians” and hence can be excluded from the ethical obligations of ACEP. Not only is this as irrational as declaring the person flying the airplane not to be the pilot, it is insulting to our life’s work. In denying the life of fellow physicians, this exclusionary policy has rejected and abandoned a vital part of the American EM workforce.

Single-coverage rural EDs with no or little specialty backup, sometimes also serving as hospitals because of physician shortages, is our life work. To insult us by declaring us not to be ED doctors just pisses us off and leads us not to care about ACEP. All this undermines the ACEP mission of “promoting the highest quality emergency care” and being “the leading advocate for emergency physicians, their patients, and the public.” The physicians who have created or advocate this policy should be tarred and feathered, at least metaphorically. Actually, this exclusionary policy has little to do with us in the sticks; it grew out of a spat over plum jobs in plum locations, with a view of creating a differentiated “residency-trained” brand that would exclude competitors from the “good jobs.” Just look in the back of this paper—the branding campaign has worked, but the unintended consequence was to exclude the emergency physicians of the 1,376 CAHs from ACEP. Our jobs are essential, but we have trouble finding staff.

These are easy fixes. Create an associate ACEP membership contingent upon completion of a program modeled after the two-year certificate in emergency medicine offered by the West Virginia University Department of Emergency Medicine. In the process rural EM would improve, my colleagues could marvel at how good Dr. Mattu and other master teachers are, and our political action committee would get a considerable increase in membership because our political interests are the same. So I, a grandfathered ACEP member who was at the Detroit Renaissance Center for my first College meeting in about 1982, obviously was at the Detroit Renaissance Center for my first College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982, obviously the best College meeting in about 1982.
COUNTERPOINT:
Naloxone Is Safe

40 years of evidence from the field

by ELIZABETH A. SAMUELS, MD, MPH, STEPHEN AKS, DO, FACMT, FACEP, EDWARD BERNESTEIN, MD, FACEP, ESTHER CHOO, MD, MPH, KRISTIN DWYER, MD, TRACI GREEN, PHD, MSC, JASON B. HACK, MD, FACEP, DAVID JIURLINK, BPHM, MD, PHD, FRPCP, MICHAEL J. MELLO, MD, MPH, FACEP, MEGAN RANNEY, MD, MPH, FACEP, ALEXANDER WALLEY, MD, MSC, AND LAUREN WHITESIDE, MD, MS

The Clinton Foundation negotiated a lower price for Evzio, the naloxone auto-injector, which is currently cost-prohibitive for most municipalities and organizations at $600 per kit. It remains to be seen what the new "low" price will be.

Cost and Sustainability
Costs associated with naloxone training are generally modest, as it is easily incorporated into EMS training curricula. Training for laypeople and nonmedical first responders lasts 10 to 60 minutes, depending on local reporting protocols and education credit requirements. Fluctuating medication cost is a problem hospital administrators regularly address through negotiation. Rising costs are becoming more challenging not only for naloxone but also doxycycline, topical steroids, and other essential medications. Despite current cost concerns, cost-modeling research has demonstrated that OENDs are, by all health care rules, extremely cost-effective. New formulations of naloxone are being developed and manufactured, which should increase supply and competition, thereby driving down cost. The Clinton Foundation negotiated a lower price for Evzio, the naloxone auto-injector, which is currently cost-prohibitive for most municipalities and organizations at $600 per kit. It remains to be seen what the new "low" price will be.

Stigma and Understanding of Opioid Overdose Epidemiology
Finally, and most important, we caution against demonizing populations vulnerable to opioid overdose. Public health experts have recognized that opioid overdose is not only an urban phenomenon limited to illicit opioid use among young men. Opioid overdose is seen increasingly among women, older patients in nonurban environments, and patients using prescription opioids for chronic medical conditions. Patients with severe liver disease, metastatic solid tumors, renal failure, bipolar disorder, depression, chronic obstructive pulmonary disease, posttraumatic stress disorder, and sleep apnea are also more likely to experience opioid-related overdose. Describing overdose patients as "inherently violent" implies population assumptions and insinuates that these patients may be "deserving" of overdose reversal. For people struggling with the chronic disease of addiction, only by surviving an overdose will they have the opportunity to seek treatment and recovery.

The ED is on the frontline of the overdose epidemic and offers tremendous opportunities for overdose rescue, opioid overdose prevention, and increased access and referral to addiction treatment. Cost, training, sustainability, access, and approach to potential ethical issues are basic challenges for all new and important public health measures, whether it is vaccination, use of child safety seats, or public-access defibrillation programs. Implementation obstacles do not determine the worth of programs with established benefits but demand thoughtful collaboration to find workable solutions.

We look forward to continuing to tackle issues of accessibility, cost, and liability to offer our patients the opportunities that come with survival.

References
Visit ACEPNOW.com to see the references for this article.

DR. SAMUELS is in the department of emergency medicine at the Alpert Medical School of Brown University in Providence, Rhode Island. DR. AKS is in the department of emergency medicine at Cook County Health & Hospitals System and the Toxikon Consortium in Chicago. DR. BERNESTEIN is in the department of emergency medicine at Brigham University School of Medicine’s Boston Medical Center and works at the Boston Medical Center Injury Prevention Center. DR. CHOO is in the department of emergency medicine at the Alpert Medical School of Brown University. DR. DWYER is in the department of emergency medicine at Brigham and Women’s Hospital in Boston. DR. GREEN is in the department of emergency medicine at the Alpert Medical School of Brown University and works at the Boston Medical Center Injury Prevention Center. DR. HACK is in the department of emergency medicine at the Alpert Medical School of Brown University. DR. JIURLINK is in the division of clinical pharmacology and toxicology at the University of Toronto. DR. MELLO is in the department of emergency medicine at the Alpert Medical School of Brown University. DR. RANNEY is in the department of emergency medicine at the Alpert Medical School of Brown University. DR. WALTERS is in the division of emergency medicine at the University of Washington in Seattle.

The Official Voice of Emergency Medicine
ACEP Board Member Robert E. O’Connor Receives EMS Achievement Award

ACEP Board Member Robert E. O’Connor, MD, FACEP, has been recognized by the National Association of EMS Physicians with the Ronald D. Stewart Award.

The award, named for one of the pioneers of emergency medicine and paramedic systems in the United States, is given each year to a person who has made a lasting, major contribution to the EMS community. Dr. O’Connor is professor and chair of emergency medicine and professor of public health sciences at the University of Virginia in Charlottesville. In addition to his service with ACEP, he has been an active volunteer with the American Heart Association/American Stroke Association Quality of EMS Physicians with the Ronald D. Stewart Award.

Dr. O’Connor has worked as an emergency physician for more than 25 years and has presented more than 400 research papers and lectures at local, national, and international meetings. He has authored more than 150 published manuscripts, coauthored six books, served as editor in chief of three textbooks, and been a peer reviewer for more than 20 journals.

The award is given in recognition of his lifetime contributions to the field of emergency medicine and paramedic systems in the United States, specifically for his work with the American Heart Association/American Stroke Association Quality of Care and Cardiac Care departments.

Robert E. O’Connor

ACEP Toxicology Antidote Mobile App Launched

The ACEP Toxicology Section has created and published the Antidote app, a succinct mobile resource designed for quick access to indications and dosing regimens for a variety of medications and antidotes used for common poisonings encountered by emergency care providers. The project was funded by an ACEP Section Grant. The app is equipped with a search function that allows you to find specific antidotes by entering a variety of keywords. For example, type in “bb,” and several possible antidotes for beta blocker poisoning will come up. Alternatively, you can search for individual antidotes or scroll through an alphabetized list. It also allows you to call a poison control center with the click of a button. Visit the Toxicology Section website at www.acep.org/toxicology-section/ for details and to download the app for free on your iOS and Android devices.
FDA Announces Drug Shortage App

In early March, the U.S. Food and Drug Administration (FDA) launched the agency’s first mobile app specifically designed to speed public access to valuable information about drug shortages. The app identifies current drug shortages, resolved shortages, and discontinuations of drug. Drugs in short supply can delay or deny needed care for patients. Drug shortages may also lead health care professionals to rely on alternative drug products, which may be less effective or associated with higher risks than the drug in shortage.

“The FDA understands that health care professionals and pharmacists need real-time information about drug shortages to make treatment decisions,” said Valerie Jensen, associate director of the Drug Shortage Staff in the FDA’s Center for Drug Evaluation and Research. “The new mobile app is an innovative tool that will offer easier and faster access to important drug shortage information.”

App users can search or browse by a drug’s generic name or active ingredient, as well as browse by therapeutic class. The app can also be used to report a suspected drug shortage or supply issue to the FDA.

What He Said

ACEP member offers a quick review of the Reimbursement and Coding Conference

“I got answers to questions I didn’t even know I had, and I found it was very helpful to work off the expertise that other people have. Other people have dealt with a lot of situations I had to deal with…how they improved it, how they solved it...it’s very nice to work off other people’s mistakes and be able to not remake them myself.”

—Hamilton Lempert, MD, FACEP, Cincinnati

2015 Research Forum Abstracts Due April 24

ACEP is now accepting abstracts for the 2015 Research Forum. The deadline is April 24, 2015. The Research Forum will be held Oct. 26–27 in conjunction with ACEP15 in Boston. Abstracts should represent original research that has not been published or presented at a national scientific meeting. Case reports or subject reviews are not considered original research. Abstracts presented at an international or regional meeting are eligible for submission. Get more information and link to the submission form at www.acep.org/af.

EMS Strong Launched to Celebrate the Men and Women of EMS

Are you EMS Strong? ACEP, in partnership with the National Association of Emergency Medical Technicians (NAEMT), is proud to announce EMS Strong, a new campaign designed to unite and inspire emergency medical ser-

vices personnel, strengthen the profession on a national level, and expand and amplify National EMS Week. Learn more about the campaign at www.emstrong.org.

Council Committee Selection Begins

Volunteer to serve on an ACEP Council committee and lend your experience and expertise. Members will be appointed to the following committees: 2016 Steering Committee; 2015 Tellers, Credentials, and Elections Committee; 2016 Council Awards Committee; and 2015 Reference Committees for the 2015 Council meeting in Boston. A brief description of each committee and access to the needed forms are available at www.acep.org/council.

An application form is needed for the Steering Committee, and a separate form is needed for the other Council committees. Once the link for the correct application form is clicked, it will direct you to the log in page where your ACEP login and password are required. Note that you must be a Councillor or Alternate Councillor to serve on a Council Committee.

Once you submit the form, you should see a message that confirms your submission. Please contact Mary Ellen Fletcher at mfletcher@acep.org if you have any questions. Reference Committee appointments will be finalized in August, and all other Council committee appointments will be finalized in October.

When moving beyond daily IV infusions to a once-a-week infusion for two weeks

1000 mg followed one week later by 500 mg

Dalvance® (dalbavancin) for injection

For more information, visit www.dalvance.com

INDICATION

DALVANCE® (dalbavancin) for injection is indicated for the treatment of adult patients with acute bacterial skin and skin structure infections (ABSSSI) caused by susceptible isolates of the following Gram-positive microorganisms: Staphylococcus aureus (including methicillin-susceptible and methicillin-resistant strains), Streptococcus pyogenes, Staphylococcus agalactiae, and Streptococcus anginosus group (including S. anginosus, S. intermedius, S. constellatus).

IMPORTANT SAFETY INFORMATION

Contraindications

DALVANCE is contraindicated in patients with known hypersensitivity to dalbavancin.

Warnings and Precautions

HYPERSENSITIVITY REACTIONS

Serious hypersensitivity (anaphylactic) and skin reactions have been reported with glycopeptide antibacterial agents, including DALVANCE. Exercise caution in patients with known hypersensitivity to glycopeptides due to the possibility of cross-sensitivity. If an anaphylactic reaction occurs, treatment with DALVANCE should be discontinued. INFUSION-RELATED REACTIONS

Rapid intravenous infusion of DALVANCE can cause reactions, including flushing of the upper body, urticaria, pruritus, and rash. HEPATIC EFFECTS

All elevations with DALVANCE treatment were reported in clinical trials. CLOSTRIDIUM DIFFICILE-ASSOCIATED DIARRHEA

Clostridium difficile-associated diarrhea (CDAD) has been reported with nearly all systemic antibacterial agents, including DALVANCE, with severity ranging from mild diarrhea to fatal colitis. Evaluate if diarrhea occurs.

DEVELOPMENT OF DRUG-RESISTANT BACTERIA

Prescribing DALVANCE in the absence of a proven or strongly suspected bacterial infection is unlikely to provide benefit to the patient and increases the risk of the development of drug-resistant bacteria.

Adverse Reactions

The most common adverse reactions in patients treated with DALVANCE were nausea (5.5%), headache (4.7%), and diarrhea (4.4%).

Use in Specific Populations

• There have been no adequate and well-controlled studies with DALVANCE in pregnant or nursing women.
• DALVANCE should only be used if the potential benefit justifies the potential risk in these populations.
• In patients with renal impairment whose known creatinine clearance is less than 30 mL/min and who are not receiving regularly scheduled hemodialysis, the recommended two-dose regimen for DALVANCE is 750 mg followed one week later by 375 mg. No dosage adjustment is recommended for patients receiving regularly scheduled hemodialysis, and DALVANCE can be administered without regard to the timing of hemodialysis.
• Caution should be exercised when prescribing DALVANCE to patients with moderate or severe hepatic impairment (Child Pugh Class B or C) as no data are available to determine the appropriate dosing in these patients.

Please see the DALVANCE Brief Summary of Full Prescribing Information on the adjacent page.

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The following selected adverse reactions were reported in DALVANCE-treated patients at a rate of 1% or more in clinical trials:

- Headache
- Rash

Other reactions that may occur in patients treated with DALVANCE include:

- Hypersensitivity (including anaphylaxis); serious reactions occurred in patients with a history of allergy to dalbavancin; fatalities have been reported
- Nausea
- Vomiting
- Diarrhea
- Hematochezia
- Mucositis
-口 It is recommended that patients given DALVANCE for the treatment of Methicillin-resistant Staphylococcus aureus (MRSA) infections be tested for antibiotic susceptibility
- Measles
- Meningococcal meningitis
- Meningococcal meningoembolic disease
- Meningococcal sepsis
- Meningocoele
- Meningitis
- Meningocele
- Meningoencephalitis
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Regional Anesthesia in the ED
An alternative to opioids

By James Ducharme, MD, CM, FRCP

As discussed in previous issues, the availability of options for severe pain control other than opioids has increased as our understanding of the mechanisms of pain neurobiology has grown. Another area that has come into the spotlight, since the advent of ultrasound, has been the use of regional anesthesia for pain control or for procedures.

Initial use of ultrasound focused on its diagnostic utility with the development of the focused assessment with sonography for trauma, or FAST, exam—aortic aneurysm, intraperitoneal fluid, etc. That use has continued to expand, and ultrasound now can be used to diagnose congestive heart failure and even intravascular volume depletion by assessing the inferior vena cava.

Procedural uses for ultrasound have been, for the most part, limited to vascular access, peripheral or central, with only a few centers using ultrasound for regional anesthesia. This latter application should probably be the greatest use of ultrasound in our departments, not the least. Ultrasound-guided regional anesthesia (UGRA) is not only extremely safe, but it guarantees block success.

Benefits of UGRA

Initial studies looking at regional anesthesia discussed femoral nerve blocks for hip fractures. Ultrasound was not used. Although the studies described success in pain relief, closer review described the onset of pain relief from the blocks taking hours. In other words, many of the reported blocks were, in fact, not successful; onset of pain relief should take five to seven minutes. For many nerves, use of anatomical landmarks (blind technique) can result in unacceptably high failure rates and possible complications. Use of ultrasound will markedly change that and provide proper regional anesthesia in most hands. Unfortunately, UGRA is not considered a priority. Even in a center where femoral nerve blocks were done, time to UGRA for femur fractures averaged two hours prior to the initiation of a specific protocol that targeted a time of 15 minutes after arrival.

In another study of patients with flail chest injuries requiring ventilatory support, where regional anesthesia (epidural) is supposed to be the standard of care, only 8 percent of patients received an epidural. UGRA allows not only visualization of the needle to the nerve, it also allows visualization of the anesthetic flowing around the nerve. It is also provides proof that the needle did not touch other structures (such as the lung, artery, etc.). The combination of success with a very high safety record is something we should always seek. UGRA can be an excellent alternative to procedural sedation in patients at risk (eg, an ASA 3 patient who may not tolerate sedation or a patient with altered mental status). In such patients, UGRA such as suprascapular brachial plexus blocks or sciatic nerve block in the popliteal fossa allows for painless reduction of distal dislocations or fractures without the risks of sedation or the need for complicated monitoring.

UGRA should not be limited to procedures but should also be used for effective pain control. However, its limitations need to be understood. In patients at risk for the development of compartment syndrome, UGRA will hide the first and most important symptom of increasing pain. Such patients are therefore not candidates for UGRA. Regional anesthesia has to be integrated into trauma protocols if they are to become a routine part of practice. Currently, pain management is not considered a priority in the resuscitation of unstable trauma patients. It is often not a priority even in patients with isolated extremity fractures. The latter are routinely sent for imaging and confirmation of fracture before any pain control is administered. Introducing UGRA as part of a trauma protocol could be straightforward. Almost every trauma patient receives a routine ultrasound assessment. The machine is already at the bedside. Since ultrasound can rapidly identify long bone extremity fractures, couldn’t the logical next step be to move the probe a few inches and perform UGRA?

There are advantages to providing regional anesthesia over systemic analgesics. It allows ongoing assessment of the rest of the patient without impediment from systemic medications. Long-acting anesthetics such as bupivacaine or ropivacaine used within the first four hours after the injury can successfully block windup and minimize pain later and the need for analgesics down the road. Note that short-acting agents such as lidocaine cannot have this effect nor can systemic medications such as opioids or ketamine. In a 2003 study by Morrison et al, failure to effectively control pain from hip fractures in elderly patients increased ninefold the risk of deterioration of their mental status. Most of us have difficulty titrating opioids to a safe and effective endpoint in patients who are cognitively impaired. Use of UGRA guarantees complete pain control for at least six to eight hours. Placement of an infusion catheter using ultrasound ensures ongoing pain relief until a patient gets to the operating room.

Training and Uses

Proper technique is essential, so training must be arranged. Many universities now offer cadaver-based regional anesthesia courses, often targeting anesthesiologists and pain physicians, but the training is equally valid for us. Regional anesthesia with and without ultrasound should be an integral part of our practice.

Consider:
- Facial nerve blocks for laceration repair
- Occipital nerve block for laceration in the posterior half of the scalp
- Median nerve blocks or ulnar nerve blocks for hand injuries
- Suprascapular nerve block for shoul der reduction
- Epidurals for flail chest injuries (working with anesthesiology)
- Brachial plexus blocks for upper extremity injuries (or localized severe burns)
- Femoral nerve blocks for hip and femur fractures (see Figures 1 and 2)
- Sciatic nerve blocks for ankle or foot injuries and reductions

I am certain that many readers could identify other blocks they have found effective. This should be an integral part of our patient care and part of our core education.

References

Dr. Ducharme is editor in chief of the Canadian Journal of Emergency Medicine and clinical professor of medicine at McMaster University in Hamilton, Ontario.
“I have concerns about how we’re going to be paid for the increased number of patients we expect to see. Value always relates to what you get for the dollars that are spent. If we want more dollars in our own pockets, which is what I want for my colleagues...we’re going to have to show our value.”

—Jay A. Kaplan, MD, FACEP

KK: On those weekly calls, can you give us a sense of what important issues you’ve dealt with recently?

JK: Recently, we’ve talked about quality issues, the value-based modifier, and the pay-for-performance issues that are affecting emergency physicians. We met recently in Washington, D.C., and one of the issues that came up was medical liability reform, in particular, safe harbors. We discussed how we can approach Congress with regard to that. We reviewed our Qualified Clinical Data Registry and getting that up and running so that emergency physicians do not take a hit in terms of their reimbursement as pay for performance becomes more challenging. We talked about fair payment because reimbursement is also a major issue for emergency physicians and the whole issue of the banning of balance billing and the “greatest of three” rule, which relates to how physicians are compensated by insurance companies.

KK: This sounds like a good segue into what you feel are the biggest challenges for emergency medicine now and in the future.

JK: Showing our value. Emergency medicine has been scapegoated. We are known as the most expensive place to receive care when that is not the case. We have tried to tell our legislators that we’re only 2 percent of the health care dollar, but they haven’t bought it. As we move into the era of Accountable Care Organizations and bundled payments and less reimbursement per patient, we’re going to have to show our value in terms of consistent practice, following practice guidelines, and decreasing cost. We can’t do anything about patients coming to us, but we can create programs for our ED superusers to improve appropriate utilization. As our population ages, I have concerns about how we’re going to be paid for the increased number of patients we expect to see. Value always relates to what you get for the dollars that are spent. If we want more dollars in our own pockets, which is what I want for my colleagues, we’re going to have to look at whether to admit patients or not and our choices regarding expensive advanced imaging. We need to show that by being more consistent in our utilization of admission and of imaging, we can save the “system” money, and therefore we deserve to be paid fairly.

Burnout is another big issue for emergency physicians. I’ve been very involved with wellness for many years. There have been articles published that have said that emergency physicians are second in terms of the percentage of physicians who report burnout. I want emergency physicians to have long, successful, and fulfilling careers, and we have to be active in making sure that our members have the resources that they need to give the kind of care they want to give their patients and not feel exhausted, burned out, and fatigued.

Reimbursement is another area. There is going to be a fight for every dollar, and again, we’ll have to show our value. Another issue is medical liability reform. Unfortunately, we’re in the midst of a number of do-nothing Congresses, so I’m not sure how successful we can be; however, we will continue to push for that. Congressman Charlie Dent (R-Pennsylvania) reintroduced the Health Care Safety Enhancement Act, which would classify emergency physicians (providing EMTALA-mandated care) as federal employees, receiving the same protection as public health service physicians. I am hopeful that we can push for EMTALA liability reform and even better safe harbors. Ensuring that we have an adequate workforce is critical. The number of graduate medical education slots that emergency medicine and other specialties have is currently based on a mid-1990s study. Clearly, we have more medical students who are graduating now. We have a huge need for emergency physicians, and we need to try to increase our residency positions so we can graduate the number of doctors that we need. The gold standard for delivering emergency
I would put that at around 50 percent. We have a greater opportunity for EMTALA reform that’s meaningful? either have a safe harbor act enacted or during your presidential year that we will

JK: What do you think the likelihood is physicians, and we will not have enough of those emergency physicians, as well as what’s coming soon, a Qualified Clinical Data Registry (QCDR). If you’re a member, you will get the QCDR at a very large discounted rate, and that will save emergency physicians several thousands of dollars per year and will be a no-brainer return on investment.

KK: Jay, what do you say to the nonmember who says, “All of the great work that ACEP is doing I benefit from anyway, so why do I need to write a check? Why can’t I just ride on the coattails of those who have already paid their dues?”

JK: Well, that’s one way you can look at it. I would like to think that there are people who contribute and that they have a certain integrity, which goes along with, “If I’m going to receive benefits, then I deserve to contribute to the organization that is providing those benefits.”

KK: What would you say if someone approached you and said, “I think ACEP favors contract management groups and is in bed with Big Pharma”? 

JK: I’d say that is what the perception was 15 to 20 years ago. While I’m a member of a large group, it is a democratic group, and every physician has a say. Every physician, after you’ve been in the group for five years, owns as much of our group as somebody who may have been in the group for 30 years. If you look at recent leaders of ACEP, they have included academic physicians. The leadership has not been representative of large contract groups. I think that ACEP as an organization needs to represent all different models of practice. I cannot say that there is one way better than another, and I do think that emergency physicians need to have a say in their practice and need to be fairly compensated. There are a number of ways that that can be done. I will say for myself, when I was in medical school, we were one of those medical school classes that chose not to take stethoscopes from a pharmaceutical company. It’s a fine balance, and ACEP has done extremely well with regard to that balance. I have been very careful, and the ACEP Board has been extraordinarily careful with regard to how ACEP, as an organization, has interacted with large insurance and big pharmaceutical companies.

KK: Am I hearing you say that you believe the membership criteria should be broadened a bit?

JK: Well, no, you didn’t hear me say that. I am a champion of the little guy and will always be. It is true that, as a professional organization, we need to stand for our patients, and we need to recognize that a large percentage of patients right now are currently seen in emergency departments that are not staffed by ACEP members. They’re not staffed by ACEP members because in order to be a member of ACEP right now, you need to be board certified in emergency medicine. The only way that that can happen is if you do an emergency medicine residency, and we still have a lot of physicians who are rendering care in emergency departments, particularly in smaller emergency departments, who are not trained in emergency medicine. The real question is, do we want to leave them outside of our organization or is there some way that we can find to bring them in? EMRA, the Emergency Medicine Residents’ Association, is the future of our specialty, and anything that ACEP decides to do needs to be done in partnership with and in close collaboration with EMRA. If we could somehow capture those people who might not currently be members but would like to be members, and we can do so in a way that does not put them at the same level of the gold standard of an emergency physician, then we should see if we can do that.

Right now, we’re an organization of just about 33,000 emergency physicians, and I want people to think about what kind of power we could have in terms of our advocacy and in terms of our patients if we had 50,000 members. What could we do in Washington to fight for reimbursement, to fight for medical liability reform? The larger you are, the more presence you have. The larger your voice, the more represented you are and the more you get what you want for yourself and for your patients. We need to work with our young physicians and have them understand that doing so would not constitute a threat to them, that they’ll always be the gold standard, and that if we could be more inclusive, it could actually be a win-win-win-win. It could be a win for those physicians, it could be a win for ACEP, it could be a win for our young physicians, and it could be a win for our patients.
CONTINUED FROM PAGE 1

KK: Tell us about the crash.

BW: This was the Northwest Airlines Flight 255 that, unfortunately, lost control upon takeoff on August 16, 1987, around 9 p.m. (Detroit). The plane lost control, banked to the left, and hit a parking structure at the edge of the airport, crashing on a four-lane, heavily traveled street.

KK: Do you remember what type of aircraft it was?

BW: This was a McDonnell Douglas MD-82 (an earlier version of today’s MD-88). It had 199 passengers and six crew. One 4-year-old young lady by the name of Cecilia, was the sole survivor. The captain was John Mauz and the first officer was David Dodd. I was one of the physicians who participated in the formal autopsy onsite of both the captain and the first officer.

KK: You were involved in the federal National Disaster Medical System (NDMS). Were you just happening by the accident, or were you notified and responding?

BW: Neither. I happened to be at home. I saw the news event. I said, “They might need help and, in addition, this might be a chance to learn from Wayne County’s NDMS or whoever’s responding to this mass disaster.” So, I identified myself to a police officer there. I expected he was going to say, “No, I understand what you’re saying, but the area is closed off and you can’t get through,” and I’d turn around and go home, saying “I’d tried my best.”

KK: Are you that guy who drives around with an EMS bag, a cric kit, rib spreaders, and a defibrillator in your trunk?

BW: Wait, wait, wait, you also have to say that now I also carry a glidescope. I am that guy, but at the same time, I’m an emergency physician. You know that famous line from 9/11. When everyone was running out, the first responders, the emergency medical teams were running in.

KK: Did you have a blue light on top of your car or on your dashboard?

BW: I did not. I draw the line there.

KK: Back to the story…

BW: The police had stopped traffic and I just walked up to the officer and identified myself as an emergency physician as part of the NDMS team. He said, “Come with me,” and put me in a car with a deputy. They drove me to the site and told me they would take care of my car.

KK: As you were approaching, what is the first sight at the crash that you really remember?

BW: It’s really a surreal thing, but my first impression was the smell. There was a combination of the kerosene smell of jet fuel; the plane burst into flames, so you smelled the smoke and char; and then there was that smell of burned and dead flesh.

KK: Did you consider not participating at that point, or pausing?

BW: No, never thought of pausing. I’m an emergency physician. We don’t hesitate. We don’t pause. We set those things aside, and we process them later.

KK: What was your first sight?

BW: It’s multi-sensorial because there were these huge klieg lights. There were these huge spotlights illuminating the scene, but also the red on-and-off lights of all the EMS vehicles and fire trucks. Quite a bit of smoke was in the air. They had just finished putting out the last of the fires, and there were all these objects. You could see the difference between the angular pieces of fuselage and softer shapes. I realized these were body parts. I was not prepared for the magnitude of that.

KK: Tell me about who you met on the scene. Who was your first contact that gave you a clinical assignment and what did you do then?

BW: The incident command center turned me over to one of the paramedics, and they got me into full bunker gear. We started going through some of the larger pieces of fuselage that could potentially house a survivor. We went through each of the large pieces of fuselage and then some of the bodies that were on the ground, and we assured ourselves that each one of them was, in fact, a non-survivor. One of the more surreal incidents was there was a relatively large piece of the middle fuselage that was still sort of intact and we climbed into it. We were walking down the aisle, stopping at each of the bodies again looking for a possible survivor, and I catch my air hose on a piece of debris. I feel my head and my air hose pull back, and I’m trying to reach back; I’m starting to panic. I’m inside the fuselage, I can see that there are a lot of gases around, a lot of smoke. It’s very eerie, and all of a sudden, I feel someone grab me from behind, and I think I screamed. I’m not sure, but the paramedic behind me saw that I had caught my hose. He grabbed me first and pulled me backwards to free my hose.

“I’m an emergency physician. We don’t hesitate. We don’t pause. We set those things aside, and we process them later.”

—Bradford L. Walters, MD

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In this Aug. 16, 2012, file photo, flowers and pictures are shown at the memorial in Romulus, Michigan, to mark the 25th anniversary of the crash of Northwest Airlines Flight 255 near Detroit Metropolitan Airport. The aircraft crashed in the Detroit suburb of Romulus, killing all 154 people aboard except for a 4-year-old girl. Two people also died on the ground. In the new documentary, “Sole Survivor,” Cecelia Cichan, whose married name is Crocker, breaks her silence, discussing how the crash of the Phoenix-bound jetliner has affected her.
KK: What did you take away from this experience that you use in daily practice now?

BW: We had to revamp what we were doing at that scene over and over again as the situation changed, as we realized that there were no survivors and now we had to collect all the bodies and try to identify them. By the way, I learned how to do a disaster identification autopsy.

KK: It’s interesting that they would put you into this role without previous forensic experience. What exactly did they have you do?

BW: Actually, they had collected the bodies. They cleared out their hangar, collected all the bodies, and brought them there. Another company brought in two refrigerated trucks so that the bodies could be placed in a refrigerated environment. When I got back to that facility, they said, “We need physicians to help us with identification,” and it was on-the-job training. It’s not that difficult. A lot of it is cataloguing the body parts, the victims’ clothing, determining sex, trying to get an idea of age, looking for any pieces of jewelry, rings, necklaces, and things like that. You try to get eye color. The FBI identification team came in and I learned how they do the fingerprints. Do you want to know how they do the fingerprints?

KK: Did you sign death certificates? What authority or accountability did you have for what you were doing?

BW: Actually Warner Spitz signed the death certificate, but it was on our say-so.

KK: Did you have any assistance with a critical incident stress debriefing?

BW: It didn’t exist then. I had to process this all myself. One of the other things I learned is that I would’ve done much better had I been able to talk about this, even with my colleagues.

KK: Why didn’t you?

BW: I don’t know why. I talked about it with a couple of close friends. Of course, my wife was really instrumental in being the person who listened to it. I was brought up in the era of, basically, you just sucked it up and you moved on.

KK: The crash was 30 years ago. Can you tell me how many times you’ve had this type of a detailed conversation about this?

BW: This may be among the most detailed conversations I’ve ever had about this.
A Deadly Case of MANOPAUSE

A quest for the Fountain of Youth may cost more years than it gains

BY JAMES LIM, MD, ANJALI HULBANNI, MD, AND EDWARD CHEW, MD

The Case
“I told him he never should have started that medication,” said the patient’s worried wife.

Several hours earlier, her husband had presented to the emergency department for chest pain and shortness of breath. He first noticed it over the past week when doing routine chores such as cleaning and moving furniture. “It didn’t stop him, even though it was bothering him. He never had any serious health problems,” she said.

Other than diabetes and sleep apnea, her 62-year-old husband was healthy. His primary doctor sent him to the ED for further evaluation after a concerning EKG was obtained in his office. He was tachycardic but seemed relatively stable. We proceeded with a chest pain and dyspnea work-up, which included cardiac enzymes, chest X-ray, and a d-dimer. He waited patiently, charming the staff with his small talk and affable personality.

Enzymes were negative, and d-dimer was positive. I took him for his CT angiogram. As soon as it was done, the tech and I immediately noticed the large bilateral pulmonary emboli on the screen in front of us (see Figure 1). I was preparing to take him back to the ED when he asked, “Is there a bathroom over here?”

He was awake but seemed distant and tired. We helped him walk back to his stretcher. I rushed him back to the ED. IV, O2, monitor—he was still tachycardic and hypertensive. He didn’t meet criteria for lysis, so heparin was started.

“I told him he never should have started that medication,” his wife said. “What do you mean?” I asked. He hadn’t told us about any medications.

“He doctor started him on something to improve his energy,” she said, explaining that a month ago he had started taking testosterone as an energy and sexual supplement.

“arly death? Or, even worse, result in a severe and incapacitating disability? Patients often have a difficult time making the best choice for themselves, even when possessing adequate knowledge of the risks. In the postnatalistic age, we must sometimes, unfortunately, stand aside and let patients make their own choices once they have been presented with the risks and benefits as best we know them. As a cirrhotic patient with a large hydrothorax and uncomfortable scrotal edema said to me so aptly, “Stop talking about my lung. The lung can wait. Take care of my stuff already.”

References

DR. LIM is a resident in the department of emergency medicine at The Brooklyn Hospital Center in New York. DR. HULBANNI and DR. CHEW are emergency physicians at The Brooklyn Hospital Center.
Ethical issues in terminating ED resuscitations

BY ELIZABETH M. PHILLIPS, MD, MA, CATHERINE MARCO, MD, FACEP, JOHN JESUS, MD, DAVID H. WANG, MD, AND GREGORY LUKE LARKIN, MD, MS, MSPH, FACEP

The Case
A frantic call comes in on the box: “CPR in progress—three minutes out!” Emergency medical services (EMS) abruptly rolls in with a 41-year-old female schoolteacher who became unresponsive at work. The school personnel provided immediate bystander CPR, and EMS arrived on scene five minutes after the patient lost pulses. EMS continued CPR but had neither established IV access nor given any medications. You immediately dichotomize her prognostic profile. You note that she is young and had a witnessed arrest, immediate CPR, and a potentially reversible cause of cardiac arrest. In the back of your mind, however, you are also assessing the negative prognostic variables: resuscitative efforts have been under way for at least 15 minutes with no IV access, no code medications were given, and she was not intubated in the field.

In the emergency department, you establish access, intubate, and attempt defibrillation for what appears to be ventricular fibrillation. Attempted resuscitation continues with multiple rounds of advanced cardiovascular life support (ACLS) medications. By the fourth shock, 30 minutes after the arrest, her pupils are fixed and dilated. The patient’s family arrives and is obviously distraught, urging you to save her life. The pressure of knowing her prognosis, the urgency of her family’s pleas to continue resuscitative efforts, and a sense of professional failure now weigh on your mind as you approach the decision to terminate resuscitation. Your team turns to you expectantly, waiting for direction.

Discussion
A particularly challenging situation occurs when the family of a patient in cardiac arrest desires protracted attempts to save a loved one. Although clinicians may be tempted to honor family member requests in order to avoid confrontation or save time, interventions should only be considered when there exists at least a possibility of medical benefit for the patient. Respect for patient autonomy and family wishes is sometimes used to justify providing non-beneficial resuscitative treatment. Such action, however, ignores family member bias and the limitations of surrogate decision making, and it also violates clinicians’ dual professional responsibility to protect both patients’ health interests and scarce health care resources.3,4

Despite the development of CPR more than half a century ago, the prognosis for patients with cardiopulmonary arrest (CPA) remains grim. The prehospital survival rate to neurologically intact hospital discharge for victims of out-of-hospital cardiac arrests is approximately 3 percent, and rates of survival in ED patients who arrest are in the range of 20 percent.1 For patients who arrest in the field, studies from prehospital systems in many countries have validated a basic life support (BLS) rule for termination. This rule highlights three criteria that characterize physiologic futility with a 99.8 percent predictive value: 1) EMS did not witness the arrest, 2) no shock was delivered prior to transport, and 3) there was a failure to obtain return of spontaneous circulation (ROSC) prior to transport. Similar studies evaluating ED arrest patients reveal that recurrent arrests are less likely to result in ROSC and, ultimately, survival to hospital discharge.2 Current evidence supports early termination of ED resuscitative efforts in CPA patients who meet established criteria for physiologic futility. These criteria include the prehospital BLS rule, cardiac standstill on bedside echo, and/or an end-tidal CO2 <10–15 mm Hg after 20 minutes of standard ACLS. Several ED CPA studies have shown that cardiac standstill on ED echocardiography is 100 percent predictive of failure to leave the ED alive regardless of both downtime and initial presenting rhythm.6

End-of-life care is a complex task for emergency physicians and should include careful consideration of patients’ wishes, family input, scientific evidence regarding prognosis, and physician judgment. Several organizations have provided guidance for such complex decisions. Current ACEP policy states that “physicians are under no ethical obligation to render treatments that they judge have no realistic likelihood of medical benefit to the patient.” This policy also states that emergency physicians’ judgments should be unbiased, based on available scientific evidence and societal and professional standards, and sensitive to differences of opinion regarding the value of medical intervention in various situations. The American Medical Association has also stated in policy that “physicians are not ethically obligated to deliver care that, in their best professional judgment, will not have a reasonable chance of benefiting their patients.”

Equally important as deciding when to refuse a family member’s request for continued resuscitative efforts is how the family is approached about the decision. Shared decision making with clinicians, patients, and families can be a means of achieving consensus for the best approach to honor patients’ wishes. Clinicians should clearly explain their positions and invoke practice guidelines when appropriate. Furthermore, clinicians should identify and address why conflict exists when making these decisions in order to decrease possible feelings of abandonment and mistreatment.7

In the case presented, it would be ideal if the health care team and family under- stood and agreed with the decision to discontinue resuscitative efforts. However, it is ultimately up to the provider to make the best clinical decision with the information available. In this case, it would be appropriate to cease further resuscitative efforts and to focus on family support, including communication and spiritual counseling if desired. The emergency physician should explain to the family that their loved one received the best and most appropriate care that modern medicine can provide.

References

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Feel Like a Criminal?
Compact to the Rescue

Applying for a license in a new state can feel like punishment, but new FSMB compact may simplify the process

BY KELLY APRIL TYRELL

D

ean Wilkerson, JD, MBA, CAE, tells of a physician who recently moved from New York to Texas and sought a medical license in her new home state.

The physician, also licensed in Pennsylvania, had been sued twice, but the suits were dropped each time, said Wilkerson, Executive Director of ACEP and a former corporate attorney in Texas. Yet in the process of applying for her third medical license, she was required to track down original documentation to prove she was fit to practice and dredge up her medical education records from the 1970s. For now, she is on a six-month waiting period. “They’re putting her through hell,” said Wilkerson. “She has a license in New York and Pennsylvania, and Texas is acting like she just got out of prison.”

Practical Solution to a Multifaceted Problem

The anecdote highlights one of the numerous barriers physicians may face when seeking medical licensure in a new state. A new interstate licensure compact created by the Federation of State Medical Boards (FSMB) aims to simplify the process, reducing the hurdles physicians must surmount while improving access to care for patients and maintaining their safety. Several states are now considering draft legislation to adopt it, while others remain wary.

“Medical boards want to protect the public from unethical practitioners, but it seems very burdensome, time-consuming, and expensive to get a license in a new state,” Wilkerson said. “It creates barriers to accessing physicians’ service and access to care for patients.”

If adopted, the compact would allow states to access background and credential checks, disciplinary histories, investigative actions, and more from the state in which a physician holds a principal license rather than putting the onus of primary documentation on the individual physician. All compact states in which a physician applies would get access to that data, expediting the approval process.

Telemedicine is also a driving force behind a push to make medical licensure across state lines easier, particularly in rural and underserved areas.

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Ocular Irrigation: As easy as 1-2-3.

For the many steps you take in the ED, we like making this one of your easiest:

**Step 1**
Attach Morgan Lens
Delivery Set to the Morgan Lens,
start minimal flow
using solution of choice
(MorTan recommends Lactated Ringer’s).

**Step 2**
Insert the Morgan Lens.

**Step 3**
Secure fluid collection with the Medi-Duct.
Continue flow.

And of course, your hands are now free to do other things, as you’ve come to expect when using the Morgan Lens system from MorTan.
The Nose Knows

The art of nasoendoscopy

by RICHARD M. LEVITAN, MD, FACEP

I n my airway education travels, I meet folks who claim no need for endoscopy skills. While it’s true you can be an emergency physician and not know how to do nasoendoscopy or long-scope intubation, the real question is, why would you? You can live without a dog, but why would you? You can be an emergency physician and not know ultrasound (coming up with ways to punt, work around, or make excuses), but let’s face it—the more you put in the “I don’t do that” column, the more uncomfortable you will be with the great challenge of being an emergency physician. Conversely, the less you fear, the easier it is to stand at the front door of your hospital, ready for anything, which is no easy task. It’s about making peace with the challenge you’ve accepted.

Until I felt really confident with an endoscope, I was particularly scared about trach changes, dislodged trachs, angioedema, Ludwig’s angina, and other airway challenges that I felt I needed otolaryngology/anesthesia to address. I still respect all of these things and appreciate the expertise our consultants can provide, if they’re available. Let’s not fool ourselves; patients are ours, and we are responsible for them. In some venues, like where I now work in rural New England, we are all they have.

I learned endoscopic skills through nasoendoscopy. Compared to a long scope (60 cm), nasoendoscopy (30 cm length) is far simpler. It can also be done frequently in the course of caring for our patients. Long-scope intubation, especially now with the widespread use of video laryngoscopy, is usually done only when the mouth is the problem (angioedema/Ludwig’s).

Nasoendoscopy is great for those severe sore throats. It is far faster and better than plain films or CT to assess for epiglottitis. I like looking for foreign bodies, fish bones, etc., but I appreciate that objects can be embedded beneath the mucosa and not be visible by endoscopy. I had a patient who unknowingly ingested a folded small staple in her Chinese food a few days earlier and presented with sore throat. Her mucosal appearance was normal but tender, and she had a low-grade fever. CT identified the foreign body and abscess.

Another great use of nasoendoscopy is for diagnosing laryngeal asthma or spasmoid vocal cord dysfunction (ie, parazygusal vocal cord motion). I, and most experienced emergency physicians, have mistakenly intubated patients who present with severe wheezing only to discover on induction that their airway abnormality corrects entirely when unconscious. If you make this diagnosis, you can prevent cycles of unnecessary intubation, steroids, etc. It requires observing vocal cord adduction during inspiration, which is opposite of what the larynx does normally. Treatment can be as simple as slow nasal inspiration and exhalation through the mouth via pursed lips. If the diagnosis is certain, benzozeazines help tremendously. To nail the diagnosis, cord adduction with inspiration must be observed. Diagnostic clues include severe distress (requesting intubation) but normal pulse oximetry and loud stridor audible over the neck. Of course, this requires excluding other causes, like foreign body (above, at, or below the cords), severe allergy (causing edema), asthma, gastroesophageal reflux disease, cold exposure, etc.

I think the most compelling reason emergency physicians should pick up nasoendoscopes is to do tracheoscopy. Gazing at the trachea is awesome for understanding airway anatomy. This is where our tracheal tubes interact with the rings. It is also so easy and so mission critical in trach patients with breathing problems. If a trach gets replaced, it should be verified by direct observation of tracheal rings, a chest X-ray, and documentation of exhaled CO₂ and good pulse oximetry. It is not uncommon that a trach is placed subcutaneously in a patient who, while awake, can breathe around it but then is brought back dead to the ED with the trach in a subcutaneous location. Inspecting the trachea, you can exclude bleeding and mucous plugging. It’s only 11 centimeters from the cords to the carina. Inserting a short scope into the tracheostomy tube (cannula removed) gives you an easy and direct view. No drugs are required, and if you don’t exit the Shiley or other tube, you will not trigger coughing or gagging.

I recently showed a patient his trachea through his trach tube. ...He greatly appreciated viewing his own trachea for the first time in his life! It convinced him the trach was in position.

endoscopic guidance is worth trying. Understand, however, when attempting to intubate these patients, the backup, immediate default plan is to cut the neck. Have them marked, have a tray open and ready, and discuss the possibility with patients and staff so if cutting is required, it’s no surprise, and you are cognitively and physically ready. These types of patients will likely be impossible to rescue by passive oxygenation, mask, or supraglottic ventilation.

There are two other factors changing the rules and enabling, or requiring, emergency physicians to pick up endoscopes. First, there’s no logistical or financial excuse not to have scopes in the ED. There are now single-use disposable endoscopes (AMBU aScope) and sterile endoscopic sheaths (Medtronic EndoSheath) to put over short and long scopes. These eliminate the need to have scopes sent out of the department for cleaning or repair. Some endoscopes also attach directly to our video laryngoscope monitors (Storz).

The second new reason to embrace endoscopy of the airway is that otolaryngology coverage is declining. More and more, we are at risk of having to manage these cases ourselves. We are becoming one of only a few specialties remaining that is made of “proceduralists,” like acute care surgeons in trauma or critical care physicians in some venues.

We cannot run from our fears in this job. It is better to run at them, expanding our skills set, to the do the best for our patients and make better decisions. In the long run, as you gain confidence and eliminate fear, you will last longer in the challenging environment of emergency medicine. The need for endoscopic skills may be infrequent; the benefit of knowing how to do it, priceless.

Editor’s note: Dr. Levitan actually learned nasoendoscopy on himself to better teach airway anatomy—it’s a party trick he has done on stage in numerous conference venues. He now shares this learning experience in some of his airway courses, where operators practice on one another and themselves using sterile sheaths.
PROPRR Ratio for Massive Transfusions

Pragmatic, Randomized Optimal Platelet and Plasma Ratios trial investigates transfusion mix for patients with major bleeding

by KEN MILNE, MD

Case
A 23-year-old male presents to the ED with multiple gunshot wounds to the chest and is hemodynamically unstable. Your clinical gestalt tells you he is going to need a massive transfusion.

Question
What is the effectiveness and safety of transfusing adult patients with severe trauma and major bleeding using plasma, platelets, and red blood cells (RBCs) in a 1:1:1 ratio versus a 1:1:2 ratio?

Background
Trauma is the leading cause of death in the United States among patients between the ages of 1 and 44. The U.S. Department of Defense developed damage-control resuscitation to try to prevent some of these deaths. It involves taking a balanced approach of providing blood products in a 1:1:1 ratio of plasma, platelets, and RBCs.

There have been no large, multicenter, randomized clinical trials with survival as a primary end point. The Prospective, Observational, Multicenter, Major Trauma Transfusion (PROMMTT) was a large observational trial that demonstrated that many clinicians were transfusing patients with a ratio of 1:1 or 1:1:1 and that early transfusion of plasma and platelets was associated with improved six-hour survival after admission.

Relevant Article

Population: Patients ≥15 years of age requiring at least 1 U of any blood component within the first hour of arrival or during prehospital transport and/or predicted by the Assessment of Blood Factors responsible for the earlier hemostasis and fewer death due to exsanguination by 24 hours. Even though there was an increased transfusion mix for patients with major bleeding with Master Clinicians

Case Resolution
The patient was started on a 1:1:1 massive transfusion protocol and had a thoracotomy performed but ultimately did not survive.

Thank you to Salim Rezaie, MD, FACEP, who is a faculty member at the University of Texas, for his help with this review.

Remember to be skeptical of anything you learn, even if you learned it on The Skeptics’ Guide to Emergency Medicine.

Additional Resources

Not looking for a refresher? Register for a 3-day, hands-on, skill-based experimental training – don’t just observe the procedures, actually perform them.

Phase 2 – Procedures and Skills is a hands-on, skill-based experimental training – don’t just observe the procedures, actually perform them.

Phase 3 – Critical Decisions with Master Clinicians – learn the pearls and pitfalls of important diagnostic and treatment challenges through a series of cases.

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Five tips for forging positive relationships with consultants

by WOLFRAM SCHYNOLL, MD FACEP

In the course of every provider’s medical career, there is a certainty that we all have to face: the challenge of managing a relationship with a difficult consultant. This also begs a broader question: how do you forge a good working relationship with consultants in general? There are several proven methods to successfully accomplish this.

First, you need to better understand their world. Take every opportunity to learn and appreciate their workload, schedule, and career demands. The easiest way to do that is to simply round on them from time to time. Spending a few informal minutes “off the clock” talking with consultants about their lives, careers, or interests can facilitate the start of great professional relationships.

Ask them how their day or week is going. Ask them what makes their work challenging or difficult, and apply their answers to internally asking yourself what you can do to minimize these stated challenges. Ideally, do this when you aren’t asking anything from them.

Second, once you have a better understanding of them, use this knowledge to ask what mutual expectations both of you may have that will result in a good working relationship. Inquire what you can do to optimize the collaboration, efficiency, and transfer of care to them. It is as simple as inquiring, “As I consult you from time to time, what can I do to optimize our working relationship and to make it easier and more efficient for you to complete your consult? My goal is to always provide you with a high-quality handoff, and I would like to know, from your perspective, how I can consistently achieve that.”

This type of conversation inevitably promotes great mutual respect.

Third, take the time to thank consultants on a regular basis. By making them feel appreciated for their time, efforts, and contributions, you openly acknowledge their value and expertise. An example might be, “I want to take a moment to thank you for being a valued resource and colleague to me. I appreciate your expertise, passion for great patient care, and commitment to quality. I acknowledge how stressful and difficult your day can be, and I want to express my appreciation for the support and expertise that you provide to me.” Even the most cantankerous consultants will warm their demeanor when faced with persistent praise and appreciation.

Fourth, the medical environment can be demanding and stressful, which makes it all the harder to engage consultants in occasional casual and relaxed conversations in an attempt to earn their respect, trust, and even friendship. The best way to optimize relationships with consultants is to occasionally spend time with them at social functions or gatherings. There are usually plenty of opportunities throughout the year to attend a professional social function where you can engage your consultants in more casual and relaxed conversation. There is no better way to forge amicable relationships than sharing an occasional appetizer or glass of wine (perhaps two for the grumpier ones) with colleagues.

Finally, despite your best efforts to accomplish the above, there are times when consultants’ behavior, demeanor, and actions cross the line of professionalism and common courtesy. Rather than endure this type of abuse, it is necessary to appropriately confront it. This is a crucial conversation that requires good preparation, timely execution, and, above all, tactful discipline. These types of conversations are most successful if you avoid accusatory statements and rather construct the conversation around how you can work better together. The key to these conversations is to ensure that you have developed and exercise good emotional intelligence. This involves being self-aware and accurately perceiving your emotions in the moment and predictable tendencies, managing those emotions and impulses using self-control to be flexible and stay positive, being socially aware by accurately reading the other person’s emotions, and combining all to effectively influence, manage conflict, collaborate, and lead change. Of all the skills needed to forge good working relationships with consultants and staff, having and exercising good emotional intelligence is the most important to your success. There are many excellent references on emotional intelligence. One easy and informative read is Emotional Intelligence 2.0 by Travis Bradberry and Jean Greaves.

If you follow all of the above suggestions, there is a high probability that your medical career will be blessed with many solid and rewarding consultant relationships. We all know how satisfying that can be!
The ED Diagnostic Center

Know the usage data on diagnostic tests to manage utilization in your department

by JAMES J. AUGUSTINE, MD, FACEP, and ROBERT BROIDA, MD, FACEP

Diagnostic testing options available to emergency physicians continue to expand. The conflicts over the use and cost of testing have spilled over into the popular press and have generated questions from the radiologists who provide many of the interpretations of the images ordered in the emergency department. Managing expensive diagnostic testing in the ED is one element of the value that emergency physicians bring to the American health system. It is important that all ED physician leaders understand the data on imaging rates to adequately address resource utilization queries and better manage their departments.

The ED has a critical and growing role as the diagnostic center for the medical community. This role is particularly important for patients who are being evaluated for potential admission to the hospital due to an acute-onset injury or illness. Because 68 percent of inpatients are processed through the ED, emergency physicians are responsible for a disproportionate share of diagnostic testing and the patient-flow issues related to it.

Diagnostic testing has changed markedly over the last 20 years, with the advent of imaging technology using a broad range of modalities (ultrasound, ionizing radiation, magnetic resonance, positron emissions, etc.). These remarkable tools provide unprecedented ability to evaluate patients as they present with a wide range of clinical problems.

There are two sources of data related to the utilization of diagnostic imaging in the ED over the last decades. The Centers for Disease Control and Prevention (CDC) gathers and reports data through the National Hospital Ambulatory Medical Care Survey (NHAMCS). NHAMCS data from the CDC are available from 1992 through 2011, the last available year. The Emergency Department Benchmarking Alliance (EDBA) uses a voluntary data submission process from a large number of EDs and has collected and reported on data through 2013.

The NHAMCS data survey measures the percent of patients who receive an imaging study, not taking into account how many imaging procedures are done on any single patient. The NHAMCS report found that 44 percent of patients received a simple X-ray in 1992. In 2011, that number was only 34 percent. The NHAMCS report indicates that 2 percent of patients had CT scanning performed in 1992. This increased to 16 percent in 2007 and peaked at 22 percent in 2011.

The EDBA reports on ED utilization of diagnostic imaging as measured in the number of EDs and has collected and reported on data on imaging rates to adequately address resource utilization queries and better manage their departments.

Table 1. EDBA Data Survey 2013, Single-Year Cohort

<table>
<thead>
<tr>
<th>ED TYPE</th>
<th>ECGs DONE PER 100 PATIENTS</th>
<th>SIMPLE X-RAY PROCEDURES PER 100 PATIENTS</th>
<th>CT PROCEDURES PER 100 PATIENTS</th>
<th>MRI PROCEDURES PER 100 PATIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult</td>
<td>34</td>
<td>49</td>
<td>20</td>
<td>1.3</td>
</tr>
<tr>
<td>Pediatric</td>
<td>2</td>
<td>31</td>
<td>4</td>
<td>0.3</td>
</tr>
<tr>
<td>Over 100K volume</td>
<td>31</td>
<td>44</td>
<td>20</td>
<td>1.3</td>
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<tr>
<td>80–100K</td>
<td>27</td>
<td>49</td>
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<td>60–80K</td>
<td>31</td>
<td>50</td>
<td>23</td>
<td>1.9</td>
</tr>
<tr>
<td>40–60K</td>
<td>30</td>
<td>49</td>
<td>24</td>
<td>1.7</td>
</tr>
<tr>
<td>20–40K</td>
<td>24</td>
<td>46</td>
<td>19</td>
<td>1.2</td>
</tr>
<tr>
<td>Under 20K volume</td>
<td>20</td>
<td>41</td>
<td>16</td>
<td>0.5</td>
</tr>
<tr>
<td>Freestanding EDs, urgent care centers</td>
<td>19</td>
<td>18</td>
<td>12</td>
<td>0.3</td>
</tr>
<tr>
<td>ALL EDs COMBINED</td>
<td>26</td>
<td>46</td>
<td>20</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Table 2: EDBA Data Survey 2013, Trend Data

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ECGs DONE PER 100 PATIENTS</th>
<th>SIMPLE X-RAY PROCEDURES PER 100 PATIENTS</th>
<th>CT PROCEDURES PER 100 PATIENTS</th>
<th>MRI PROCEDURES PER 100 PATIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>26</td>
<td>46</td>
<td>20</td>
<td>Not available</td>
</tr>
<tr>
<td>2012</td>
<td>26</td>
<td>48</td>
<td>20</td>
<td>Not available</td>
</tr>
<tr>
<td>2011</td>
<td>26</td>
<td>48</td>
<td>22</td>
<td>15.8%</td>
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<tr>
<td>2010</td>
<td>23</td>
<td>44</td>
<td>22</td>
<td>16.4%</td>
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<td>2009</td>
<td>23</td>
<td>43</td>
<td>21</td>
<td>14.3%</td>
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<td>2008</td>
<td>22</td>
<td>44</td>
<td>22</td>
<td>14.6%</td>
</tr>
<tr>
<td>2007</td>
<td>20</td>
<td>48</td>
<td>22</td>
<td>13.9%</td>
</tr>
<tr>
<td>2006</td>
<td>19</td>
<td>48</td>
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<td>11.8%</td>
</tr>
<tr>
<td>2005</td>
<td>18</td>
<td>48</td>
<td>18</td>
<td>10.7%</td>
</tr>
<tr>
<td>2004</td>
<td>17</td>
<td>49</td>
<td>NA</td>
<td>9.3%</td>
</tr>
<tr>
<td>1992 NHAMCS</td>
<td>13</td>
<td>42</td>
<td>2.4%</td>
<td>2.4%</td>
</tr>
<tr>
<td>2011 NHAMCS</td>
<td>19</td>
<td>34</td>
<td>15.8%</td>
<td>15.8%</td>
</tr>
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</table>

Table 3: EDBA Data Survey 2013, Comparison of Trauma and Nontrauma Centers

<table>
<thead>
<tr>
<th>LEVEL I AND II TRAUMA CENTERS, NOT PEDIATRIC</th>
<th>LEVEL III AND IV TRAUMA CENTERS</th>
<th>NO TRAUMA CENTER DESIGNATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of hospitals</td>
<td>182</td>
<td>241</td>
</tr>
<tr>
<td>High acuity %</td>
<td>68%</td>
<td>65</td>
</tr>
<tr>
<td>Admit %</td>
<td>23%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Transfers out %</td>
<td>1.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>EMS arrival %</td>
<td>22%</td>
<td>15%</td>
</tr>
<tr>
<td>Median length of stay (minutes)</td>
<td>223</td>
<td>156</td>
</tr>
<tr>
<td>Left before treatment complete %</td>
<td>3.1%</td>
<td>2.2%</td>
</tr>
<tr>
<td>ECGs per 100</td>
<td>31</td>
<td>23</td>
</tr>
<tr>
<td>X-rays per 100</td>
<td>49</td>
<td>43</td>
</tr>
<tr>
<td>CT per 100</td>
<td>26</td>
<td>18</td>
</tr>
<tr>
<td>MRI per 100</td>
<td>1.9</td>
<td>0.8</td>
</tr>
</tbody>
</table>
Y
ou have just finished resuscitating a gunshot victim who has a wound to his chest. The bullet remains in the patient. The detective comes and asks, “Doc, what caliber is the bullet? We have a suspect and need to match his weapon to the bullet.”

Can you tell the caliber of the bullet based on wound size or radiographs?

The simple answer is no. The size of any gunshot wound, entrance or exit, is primarily determined by five variables: the size, shape, configuration, and velocity of the bullet at the instant of its impact with the tissue, plus the physical characteristics of the impacted tissue itself. Importantly, because of the elasticity of skin, the size of the entrance wound will not coincide with the caliber of the bullet. The wound may be smaller, larger, or the same size as the bullet. When a bullet hits the skin surface, it causes indentation before perforation. Following perforation, elasticity causes the skin to recoil, and the resulting round, circular defect is not the same size as the diameter of the bullet.

With regard to radiographs, several factors affect the estimation of bullet caliber. Magnification while taking the radiographs can distort the size of the bullet on the radiograph. The bullet size on a radiograph will increase as the distance from the film to the X-ray source decreases. To be accurate, the radiograph must be taken exactly 73 inches from the X-ray source. The distance from the X-ray plate to the bullet increases, so does this magnification effect. There are two ways an X-ray can be used to directly estimate bullet caliber. One is to take two radiographs at 90 degrees to each other to estimate the depth of the bullet in the body. A number of bullets of different caliber are then placed alongside the body and at a suitable position and then imaged to compare the bullet caliber. This is rarely done in clinical practice. The other method is to use a micrometer to compare the size of the bullet’s shadow on the X-ray to several known bullets of caliber. Whatever bullet is closest in size to the radiographic image must be the largest caliber that the bullet in the body can be. Once again, this is only an estimate and can only exclude other bullets and not precisely determine caliber. There are other complex radiographic protocols and formulas that have been used, but none have been admitted into court.

By RALPH J. RIVIELLO, MD, MS, FACEP

KEY POINTS
1. Forensic accuracy is essential when taking care of gunshot victims.
2. Never estimate the size of a bullet based upon the wound size.
3. To properly analyze x-rays, it should not be used to accurately determine the caliber of a bullet retained in the body.

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Sports Medical Center (Van Buren) 15K/year.
**FLORIDA OPPORTUNITIES**
NEW: Memorial Emergency Care-Atlantic, East. 120K/year. Jacksonville FL. Based new freestanding ED affiliated with Memorial Hospital Jacksonville FL. 83K/year.
Memorial Hospital of Jacksonville Jacksonville FL. 83K/year.
Memorial Hospital of Jacksonville Jacksonville FL. 83K/year.
Lake City Medical Center (Lake City) 25K/year.
Fisherman’s Hospital (Marathon) 80K/year.
Bay Medical Emergency Care (Pensacola) 90K/year. Freestanding ED affiliated with Pensacola Regional Medical Center Pensacola Regional Medical Center Pensacola FL. 100K/year.
Peninsula Medical Center (Belleair) 35K/year.
Palm Beach Medical Center (West Palm Beach) 38K/year.
St Louis Medical Center (St. Louis) 100K/year. Based new freestanding ED in Everton Square.
Red Bear Hospital (Chickasha) 28K/year.
Medical Director-Staff.
Faucett Memorial Hospital (Carmelia) 28K/year.
Doctor’s Hospital of Sarasota (Sarasota) 23K/year.
FL Hospital Heartland System (Sebring and Sarasota AVE) 11K/year. 23K/year.
Crestview Memorial (Beverly) FL. 35K/year.
Bayfront Health Brookswood (Brookswood) 35K/year.
Mercy Hospital (Melbourne) 40K/year.
NEW: Citrus Park ER (Tampa Bay) 35K/year.
Opening Spring 2015
Orlando Regional Medical Center (Orlando) 80K/year. Medical Director, Associate Medical Director and Staff.
Bayfront Health Spring Hill (Epping FL) 35K/year.
Northside Hospital (St. Petersburg) FL. 35K/year. Associate Medical Director and Staff.
Brandon Regional (Tampa FL) 106K/year. Associate Medical Director and Staff.
Medical Center of Tampa (Tarpon Bay) 50K/year.
NEW: Tampa Community Hospital (Tampa FL) 18K/year. Staff.
West Palm Hospital (West Palm Beach) 25K/year.
Oaks/BH Hospital (Boca Raton) 35K/year. Staff.
Broward Health (Lauderdale) 35K/year. Hospital system, Adult & Pediatric. (Boca FL) 35K/year.
Leesburg Regional Medical Center (Leesburg FL) 35K/year.
The Villages Regional Hospital (The Villages FL) 35K/year.
Lake Regional Medical Center (Lake Haven) 44K/year.
Central Florida Regional Hospital (Kissimmee) 35K/year.
Broward Health (Lauderdale) FL. 120K/year. Staff.
St. Petersburg General Hospital (St. Petersburg) FL. Staff. 35K/year.
Brandon Regional Hospital (Brandon) FL. 15K/year. Medical Director for Pediatric/Emergency Dept.
GEORGIA OPPORTUNITIES
South Georgia Medical Center (Valdosta) Medical Director and Staff. 65K/year.
Smith Northside Hospital (Milledgeville) Medical Director and Staff. 65K/year.
Carroll Medical Center (Macon) 30K/year.
Fairview Park (Elkton) 16K/year.
Hahbour Medical Center (Sharpsville) 27K/year.
Hatchett Medical Center (P. C. Carlow) 30K/year.
Macy Clinic at Waycross (Waycross) 50K/year.

References
Dr. Pia Myers is the passionate medical director of a busy pediatric ED where it’s clear she loves her job. She values the support from TeamHealth that allows her to build a rewarding career without giving up important family time. TeamHealth’s resources help her thrive at her administrative position with the organization, while the scheduling flexibility gives her time to enjoy water sports with her family. With TeamHealth, there’s no reason for her to compromise in her career or her life.

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- **St. Anthony Hospital**
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- **Grand Strand Regional Medical Center**
  Myrtle Beach, SC
  22,000 volume

- **KershawHealth Medical Center**
  Camden, SC
  27,000 volume

- **Parkland Health Center**
  Farmington, MO
  25,000 volume
  Medical Director

- **Southern Tennessee Regional Health System**
  Lawrenceburg, TN
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- **St. Joseph’s Medical Center**
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- **Baptist Hospitals of Southeast Texas**
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