What should I do? Ethical dilemmas in emergency medicine

Jay Brenner, MD FACEP, Assistant Professor, Department of Emergency Medicine, SUNY Upstate Medical University

Case #1

An 89 year-old woman presents to the emergency department intubated by the paramedic for management of impending respiratory failure. The son is at the bedside stating that his mother would not have wanted to be intubated and shows you her MOLST form which is signed by her to be DNR/DNI. The son says that the paramedics acted against her wishes when they intubated her, in spite of his protests. What ethical principle should guide you in your next action?

Respect for persons: protecting the autonomy of all people and treating them with courtesy and respect and allowing for informed consent.

You offer to extubate her according to her wishes out of respect for her autonomy. The son hesitates, saying that it would be nice for her husband to arrive prior to extubation. While it may be tempting to show compassion for his situation, you deny this request, and you proceed to extubate the woman in an action of withdrawal of care with agreement of her son. She quickly expires with her son at her bedside. Her elderly and infirm husband did not make it in time to see her die.

Case #2

An 85 year-old woman presents to the emergency department complaining of fever and altered mental status. There is no evidence of urinary tract infection on urinalysis, pneumonia on chest x-ray, or intracranial hemorrhage on CT of the head. The next logical step in her medical care is to perform a lumbar puncture. She is deemed not to have capacity to make this decision in your judgment. You approach her daughter at the bedside who states that she is her health care proxy. She is uncertain about whether to agree to the procedure or not. If she had said no, then perhaps the management decision would have been clearer, but in this case, what ethical principle should guide you in your next action?

Beneficence: The philosophy of "Do no harm" while maximizing benefits for the patient.

You choose to treat the patient empirically for bacterial meningitis and forgo the lumbar puncture. This approach benefits the patient by treating her for the likely illness. It also benefits those who might get exposed to her illness, while it does expose her to the minimal risk of potentially unnecessary antibiotics. By not performing a painful procedure, you will not do any harm.

Case #3

An 18 year-old woman presents to the emergency department complaining of acute onset of abdominal pain. An abdominal exam reveals diffuse tenderness. You recommend a pelvic examination to uncover a potential reproductive system etiology. The patient refuses a pelvic examination stating that sex before marriage is against her religious belief of Islam. She agrees to a urinalysis that is negative for pregnancy. She then requests to leave against medical advice, unless you agree to order an ultrasound to confirm that the pregnancy test is negative. Which ethical principle guides your next action?

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inside this ISSUE

president's MESSAGE

Joel M. Bartfield, MD FACEP, DIO and Associate Dean for Graduate Medical Education, Albany Medical Center

This was indeed a special year for New York ACEP.

I hope that many of you had an opportunity to attend this year's Scientific Assembly in San Francisco. Certainly the meeting was a resounding success in terms of the educational offerings and opportunities to network with fellow physicians from across the country.

Under the very capable leadership of Dr. Sandra Schneider, ACEP President for the previous year and a New York ACEP member, national ACEP has flourished. The College topped 30,000 members this year and continues to strongly advocate for our patients and our members.

This was indeed a special year for New York ACEP. In addition to having Dr. Schneider complete her term, and become immediate past-president, this year's council elected Dr. Andrew Sama as president-elect of ACEP. Dr. Sama, also a New York ACEP member, is a former president of New York ACEP. He has served on the ACEP Board of Directors since 2007 and as vice-president this past year.

Dr. Sama, Senior Vice President of Emergency Services for the North Shore-Long Island Jewish Health System, is also Chair of the Department of Emergency Medicine at Long Island Jewish Hospital and North Shore University Hospital at Manhasset. After serving as president-elect for this coming year, he will become ACEP's president at next year's Scientific Assembly in Denver. We should all be very proud of Drs. Sama and Schneider, and under their capable leadership have great confidence that our specialty will continue to thrive and our patients will continue to be served. ■

New York Member Reception San Francisco

New York ACEP members
~ Drs. Andrew Sama, Sandra Schneider and John McCabe ~
future, current and past national ACEP presidents

The New York ACEP reception provided a great venue for members

Drs. Fred Schiavone, Rahul Sharma and Mary Mulcare

The changing paradigm of hemorrhage control

Jeremy T. Cushman, MD MS EMT-P FACEP, Assistant Professor, Division of Prehospital Medicine, Department of Emergency Medicine, University of Rochester; Monroe County and City of Rochester EMS Medical Director, Monroe-Livingston Regional EMS Medical Director

Many of us at one point in our more formative years took a first aid or CPR class. We found out that all we needed to know about critical care medicine we learned in kindergarten (ABCs) and that if something bled, we needed to compress, elevate and then try to find these things called "pressure points" in order to try and stop the bleeding. We also learned to never, EVER, use a tourniquet. Boy have the times changed.

The New York State Basic Life Support protocols have finally caught up to the groundswell of change underlying the control of life-threatening hemorrhage and if you haven't already, you will soon see some of these devices coming in to your emergency department. Tourniquets and hemostatic gauze are increasingly common among EMS, and many emergency departments are realizing that they are not just for prehospital use.

Tourniquets are back, and are now carried by many first responders as well as law enforcement officers. General instructions for use are pretty straightforward: if life threatening hemorrhage is present (loosely defined by heavy bleeding or extremity [but not digit] amputation) then apply the tourniquet at least two inches above the area of bleeding, but never over a joint. Tighten the tourniquet until bleeding stops, and begin transport. In my area, we discourage removal of tourniquets except by emergency department staff; however removal is straightforward and cases of permanent damage caused by an appropriately-sized tourniquet being in place for less than three hours are rare.

There are dozens of tourniquets out there, each with their own sales pitch and gimmick, however one that I use most often (but unfortunately have no financial interest in) is the Combat Application Tourniquet (CAT) (Figure 1). This device has been used by our military for a number of years and has survived the test of battle. It resembles nearly all tourniquets by having a large, adjustable strap; a windlass to allow the mechanical advantage necessary to tighten; and a strap to keep the windlass secure once tightened. Although designed to be applied with just one hand, these are easy to place to either an arm or leg and can rapidly achieve life-saving hemorrhage control for that heavy bleeder, when you are the only one in your single-coverage emergency department on the overnight.

Figure 1: The Combat Application Tourniquet manufactured by Composite Resources and available through numerous vendors.

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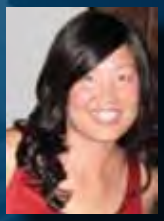
Penelope C. Lema, MD RDMS FACEP,
Associate Director, Emergency Ultrasound,
Assistant Professor, University of Rochester Medical Center



Lung ultrasound and evaluation for pneumothorax

Indications:

- Dyspnea
- Chest pain
- Trauma

Technique:

- Place a linear transducer in the sagittal plane at the 3rd intercostal space of the anterior chest wall. Patient should be in the supine position.
- Identify the ribs and pleural line. Figure 1.

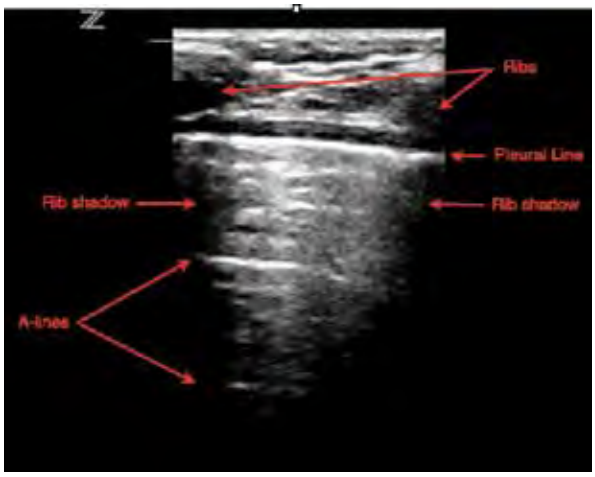


Figure 1. Normal Ultrasound of the Lung with A-lines

- Identify the reverberation artifacts produced by normal lung (A-lines).

Normal lung:

- Identify the to-and-fro movement of visceral and parietal pleura at the pleural line (lung sliding).
- Use M-mode to view motion artifact along the pleural line. Visualize smooth, linear lines in the near field and a speckled pattern below the pleural line (seashore sign). Figure 2.

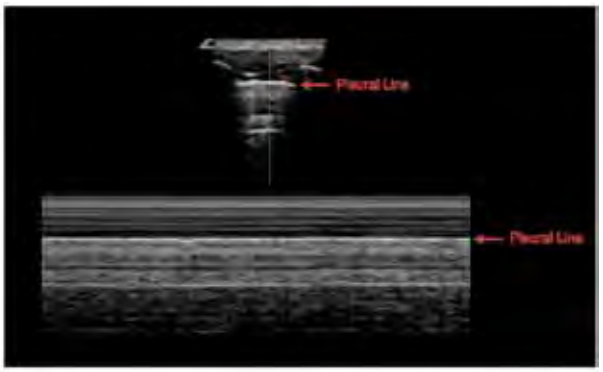


Figure 2. Seashore Sign. M-mode of Normal Lung.

- The presence of power doppler along the pleural line also verifies movement of the visceral and parietal pleura. Figure 3.

Figure 3. Normal Lung. Power Doppler to Detect Lung Sliding.

Pneumothorax:

- The absence of lung sliding along the pleural line is suggestive of a pneumothorax.

continued on next page

- M-mode of the pleural line will demonstrate the lack of motion artifact with parallel lines (stratosphere sign). Figure 4.

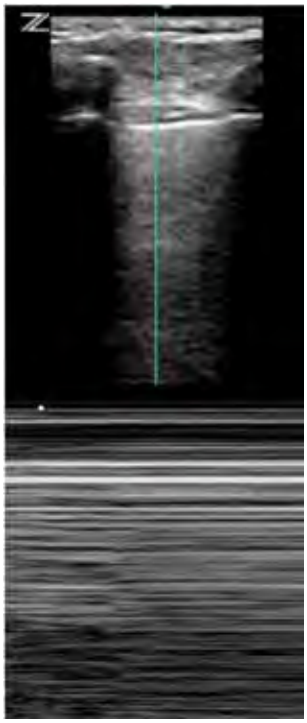


Figure 4. Stratosphere Sign. M-mode of Pneumothorax.

- Identification of the lung point, the transition point of a pneumothorax, is highly specific for pneumothorax.
- M-mode of the lung point reveals an alternating pattern of the seashore and stratosphere signs. Figure 5.

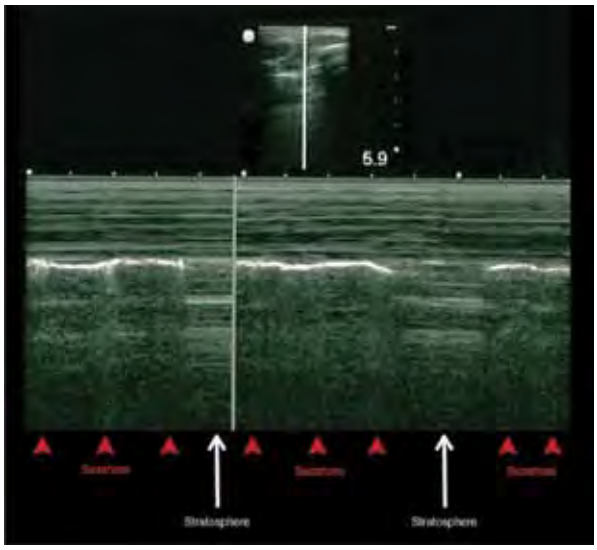


Figure 5. M-mode of the Lung Point. Alternating Pattern of Seashore and Stratosphere Signs.

Pitfalls:

- These techniques are not applicable in patients with subcutaneous emphysema of the chest wall.
- Apical pneumothoraces can be missed on lung ultrasound.
- Lung sliding may be absent (false negative) in patients with the following conditions:
  - Severe COPD or emphysema
  - ARDS
  - Lung scarring or previous surgery
  - High PEEP states in intubated patients
  - Mainstem bronchus intubations ■

The changing paradigm of hemorrhage control

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A second hemorrhage control device seeing increasing use is hemostatic gauze. Many of us first heard about these products nearly ten years ago but first generation materials were often powdered and associated with local burns due to the exothermic reaction of the product with blood, and ocular injuries from the powder flying everywhere. Fortunately, newer generations of materials have given us numerous products, including Celox, Combat Gauze, WoundStat, HemCon, QuickClot and others. Generally, they are gauze that is impregnated with a natural pro-coagulant. These materials are ideal for areas with life threatening hemorrhage but are not amenable to a tourniquet such as the groin, axilla, neck or in some cases, the scalp. An example of one product, Trauma Gauze (Figure 2), is most effective when it is packed deep into the wound, then placing bulky dressings over the packed wound and holding with direct pressure. The materials can be safely removed when appropriate, although I find that a little gentle irrigation helps minimize adherence.

Figure 2: Combat Gauze manufactured by Z-Medica and available through numerous vendors.

The paradigm of hemorrhage control has indeed changed, and the opportunities for minimizing blood loss and maximizing outcome have never been better. Whether it's a gunshot wound, a machinery accident with amputation, or a 76 year-old on Coumadin with a massive scalp laceration, each product has advantages and disadvantages but may help you minimize blood loss. Although becoming ubiquitous in the field, tourniquets and hemostatic gauze are finding their way into emergency departments big and small and I suspect will enhance your management of life-threatening hemorrhage. ■

Editors Note: Dr. Cushman has no conflicts of interest to declare in the writing of this article, and the depiction of specific products was to highlight their general features and not to endorse a specific product on behalf of New York ACEP.

What should I do? Ethical dilemmas in emergency medicine

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Justice: ensuring reasonable, non-exploitative and well-considered procedures are administered fairly — the fair distribution of costs and benefits to potential patients — and equally.

The principle of respect for autonomy guides you to choose to allow her to sign out against medical advice acknowledging that she has decision making capacity. You refuse to order an ultrasound unnecessarily, knowing that it is not an appropriate allocation of resources, and therefore unjust.

References

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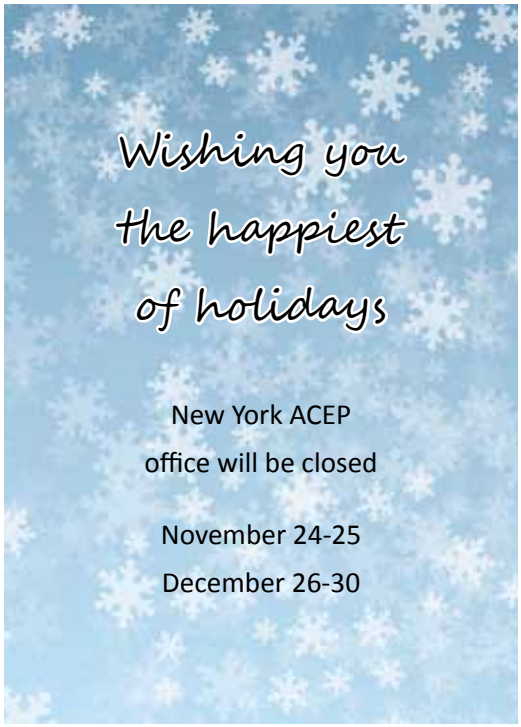

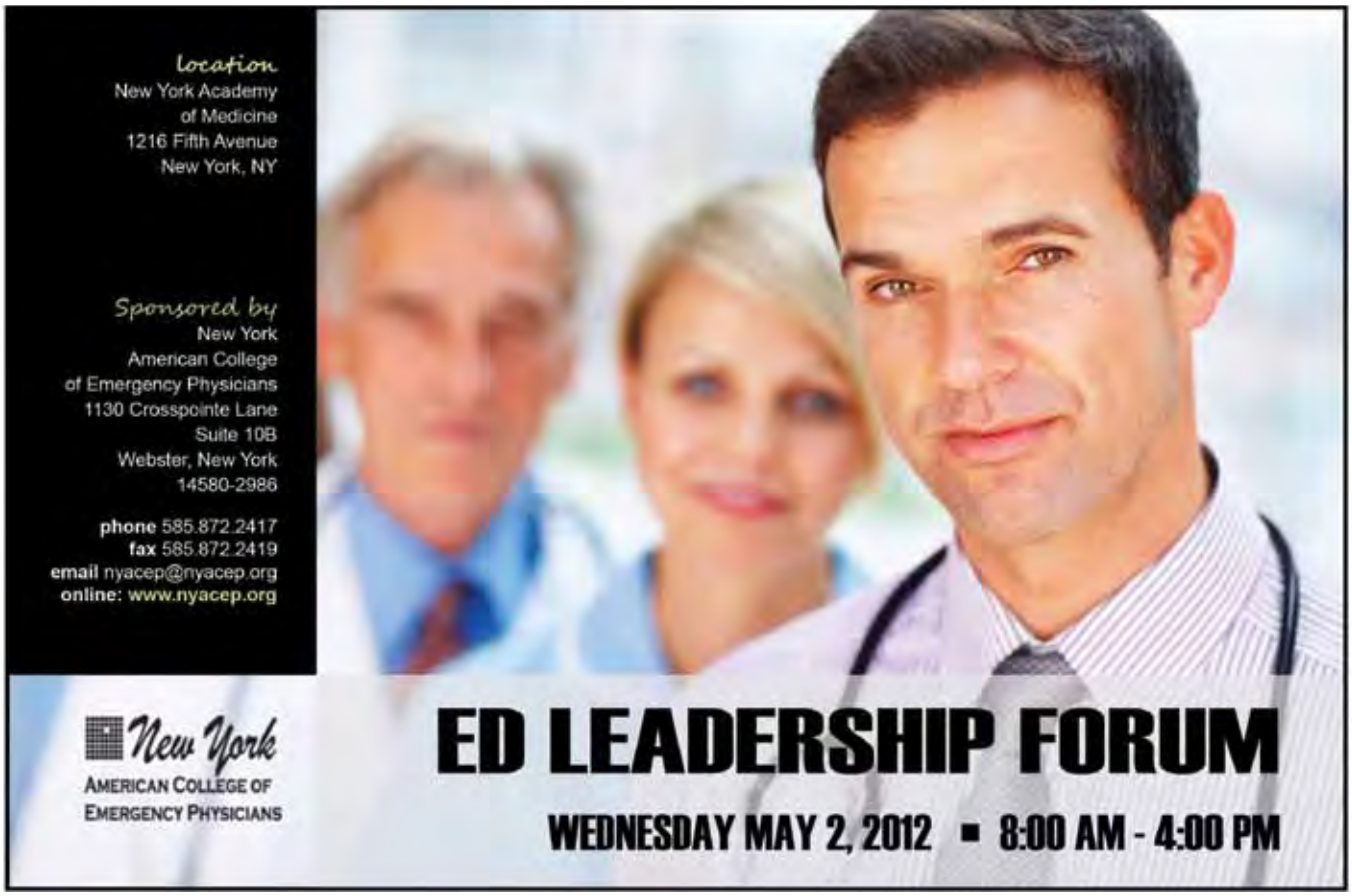

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Albany update

Weingarten, Reid & McNally, New York ACEP Legislative & Regulatory Representatives

As the *Empire State EPIC* goes to print, Governor Andrew Cuomo is predicting a 2012 State Budget deficit of at least $2.4 billion. The Governor said that next year's deficit is likely to grow even larger due to sagging Wall Street earnings which comprise 14% of the State's revenue. In addition, growth in revenues from the personal income tax, sales tax, and business tax are significantly less than original predictions. Planning for the 2012 State Budget begins in November with the annual "Quick Start" process where representatives of the Governor and the Legislature meet to review State finances and develop recommendations.

One piece of unfinished business from the 2011 Legislative Session is a bill to create a Health Benefit Exchange called for in the federal Affordable Care Act (ACA). In June, legislative leaders and the Governor came to agreement on a bill that passed the Assembly. However, the bill never came up for a vote in the Senate due to objections raised by Republicans who support efforts by their party in Washington to overturn ACA. The State stands to lose millions of dollars in federal funds if the bill is not enacted. To date, the Senate has not made plans to return to Albany to address this issue.

Medicaid Redesign Team (MRT)

The State is moving ahead with implementing the initiatives that were recommended by the MRT to reform the Medicaid system as enacted as part of the final 2011-12 State Budget, including requiring the vast majority of Medicaid patients to receive their prescription drugs through managed care plans rather than on a fee-for-service basis and requiring personal care services to be provided through managed care plans.

The MRT has now entered Phase II entitled Comprehensive Reform. A number of work groups have been established, including **the Medical Malpractice Reform Work Group**. The work groups have been charged with providing recommendations by early November to Governor Cuomo for the 2012-13 State Budget. Other work groups include:

- Behavioral Health Reform Work Group
- Basic Benefit Review Work Group
- Health Disparities Work Group
- Health Systems Redesign: Brooklyn Work Group
- Managed Long Term Care Implementation and Waiver Redesign
- Payment Reform and Quality Measurement Work Group
- Program Streamlining and State/Local Responsibilities
- Workforce Flexibility/Changes of Scope of Practice

Medical Malpractice Reform Work Group

In 2011, New York ACEP undertook an unprecedented grass roots effort to achieve passage of the Medical Reform Taskforce (MRT) proposal to cap non-economic damages at $250,000. Unfortunately, the cap was not included in the final budget deal. In a letter to Governor Cuomo earlier this year, New York ACEP expressed deep concerns about the failure to include the cap in this year's State Budget, and urged the Governor to re-engage the Legislature on the enactment of the cap this year.

The new Medical Malpractice Reform Work Group appointed by Governor Cuomo in October held its' first meeting October 17 and is scheduled to continue meeting until early to mid-November. The Co-Chairs of the Work Group are Joseph W. Belluck of Belluck & Fox and Kenneth Raske, President and CEO of Greater New York Hospital Association. New York ACEP and Weingarten, Reid & McNally will work aggressively in 2012 to enact meaningful medical malpractice reforms.

For more information on the Medical Malpractice Reform Work Group go to http://www.health.state.ny.us/health_care/medicaid/redesign/medical_malpractice_reform_workgroup.htm.

Special Elections

New York's 9th Congressional District

On September 13 (also New York's regularly scheduled primary day), a special election was held to elect a replacement for former Congressional Representative Anthony Weiner. In a major upset in a district that has a large democratic advantage Republican Bob Turner was elected to the seat beating out Democrat David Weprin for Weiner's seat. Weprin will remain in the State Assembly.

Assembly Elections

Also on September 13, special elections were held for the following Assembly seats:

- 23rd AD – Audrey Pheffer replaced by Democrat Phil Goldfeder
- 27th AD – Nettie Mayersohn replaced by Democrat Mike Simanowitz
- 54th AD – Darryl Towns replaced by Democrat Rafael Espinal Jr.
- 73rd AD – Jonathan Bing replaced by Democrat Dan Quart
- 116th AD – Roann Destito replaced by Democrat Anthony Brindisi
- 144th AD – Sam Hoyt replaced by Democrat Sean Ryan

In addition to the Presidential election, all 212 state legislators will be up for re-election in November of 2012.

Key Legislation Signed by Governor Cuomo

Governor Cuomo signed several bills in the 2011 Session that may be of interest to New York ACEP members. These new laws are summarized below.

ACA Compliance Bill (S5800 Seward/A8460 Stevenson, Chapter 219 of the Laws of 2011)

Legislation introduced at the request of the State Insurance Department to bring New York State law into compliance with the provisions of the federal ACA was signed by the Governor. The Affordable Care Act (ACA) does not preempt state laws that meet or exceed protections in the federal law. However, state laws that do not meet or exceed the ACA protections must be amended for compliance.

The ACA compliance law contains

provisions relating to patient cost-sharing imposed by health insurance plans in emergency departments for non-participating providers. The State Insurance Department advises that these provisions do not change the way that a "non-participating" doctor can bill a patient. ACA imposes separate rules for Health Maintenance Organizations (HMOs) and indemnity plans as described below.

Specifically, ACA provides that for HMOs that cover emergency services, the health plan must provide coverage regardless of the participating status of the provider at the in-network cost sharing level for patients. ACA does not permit the HMO to bill a patient for the excess amount of the non-participating providers' charges. Under current Department of Health rules, if the plan and the non-participating provider cannot agree on the charges, the HMO must make the non-participating provider whole.

For indemnity plans, ACA requires coverage regardless of the participating status of the provider at the in-network cost sharing level for patients just as it does for HMOs. However, the plan can bill the patient for the excess of the amount a non-participating provider charges which is the greater of:

- the amount the plan pays the participating provider;
- the amount the plan pays the non-participating providers (without a reduction for patient co-pays or other patient cost-sharing); or
- the amount paid under Medicare.

These ACA provisions are now part of New York Insurance Law.

Concussion Management Awareness (S3953-B Hannon/A8194 Nolan, Chapter 496 of the Laws of 2011)

This new law establishes the concussion management and awareness act. It requires the Commissioner of Education, in conjunction with the Commissioner of Health, to promulgate rules and regulations relating to students who suffer mild traumatic brain injuries in school sponsored or related activities. In developing such regulations, the Commissioner must consider comments from stakeholders including parents, teachers, students, school administrators, school athletic trainers, medical and health professionals and athletic associations.

Specifically, such regulations will: require that a course to recognize the symptoms of concussions and to monitor and seek proper medical treatment for injured students be completed on a biennial basis by all school coaches, physical education teachers, nurses and athletic trainers; require information about concussions to be posted on the websites of the State Education Department, the Department of Health and school districts as well as included on any parent permission or consent form; require the immediate removal from athletic activities of any student believed to have sustained a concussion; require authorization from a licensed physician for return to athletic activity; and authorize a school district, in its discretion, to establish a concussion management team.

911 Calls, Alcohol/Drug Use (S4454-B DeFransico/A2603-C Gottfried, Chapter 154 of the Laws of 2011)

Legislation was enacted into law to encourage a witness or a victim of a drug or alcohol overdose to call 911 or seek emergency assistance to save the life of the overdose victim. The new law protects the victim or witness from arrest, charge, prosecution and conviction for drug possession, drug paraphernalia possession, and certain alcohol related offenses. It does not provide protections for drug trafficking or interference with law enforcement protocols to secure the scene of an overdose.

State Emergency Medical Advisory Committee (S4621-A Young/ A7311-A Gabryszak, Chapter 567 of the Laws of 2011)

This new law increases the number of members on the state emergency medical advisory committee from twenty-nine to thirty-one members. It also specifies that twenty-three members shall be physicians appointed by the Commissioner of Health including one nominated by each regional emergency medical services council, an additional physician from the City of New York, one pediatrician, one trauma surgeon, one psychiatrist and a chairperson appointed by the Commissioner. ■

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Nausea, vomiting, and diarrhea in a 9 year-old girl.

Nacca NE, Asaly M, Mackey J, Cantor R., Department of Emergency Medicine and College of Medicine, State University of New York Upstate Medical University, Syracuse, NY; Pediatr Emerg Care. 2011 Oct;27(10):954-6.

Cryptosporidiosis is reported in an otherwise healthy child. Her history was significant for playing in natural waters during a camping trip 1-week prior.

Several days later, she began improving despite an incorrect diagnosis and inappropriate antibiotic therapy. Nitazoxanide was given once the diagnosis was established. Obtaining a thorough patient history, administering appropriate antibiotics, and counseling patients on preventive measures are critical steps in treating and managing the transmission of this parasite. The case emphasizes the value of stool ova and parasite examination for proper diagnosis of pediatric diarrheal illness in the emergency setting. In addition, the often overlooked diagnosis of cryptosporidiosis is reviewed as an important cause of diarrheal illness in the immunocompetent pediatric population.

The heart of the matter: an atypical presentation of takayasu arteritis in the pediatric emergency department.

Fein DM, Janow G, Avner JR, Fagan MJ, Divisions of Pediatric Emergency Medicine and Pediatric Rheumatology, Albert Einstein College of Medicine, Children's Hospital at Montefiore, New York, NY; Pediatr Emerg Care. 2011 Sep;27(9):857-9.

Takayasu arteritis (TA) is a rare chronic large-vessel vasculitis of unknown etiology. Although commonly thought of as an adult disease, initial manifestations frequently appear during adolescence. This is a case discussion of an 11 year-old boy with a recent history of fever who presented with shortness of breath, sore throat, chest pain, hypertension, and a new murmur. He had amarkedly elevated antistreptolysin O titer, had a prolonged PR interval, and was initially evaluated with acute rheumatic fever. After admission, he had persistent hypertension, proteinuria, and hemoptysis, which prompted a magnetic resonance angiography that revealed aortic enhancement and thickening, and he was evaluated with TA. To our knowledge, this is the first case reported in the pediatric literature of TA presenting with heart block. This case highlights the recondite nature of the systemic vasculitides and emphasizes the importance of keeping a broad differential diagnosis when seeing patients who present with common complaints.

Subtle vaginal evisceration resulting in small bowel evisceration: a case report.

Woo KM, Linden JA, Lowenstein RA, Varghese JC, Burch MA., Department of Emergency Medicine, Beth Israel Medical Center, New York, NY; J Emerg Med. 2011 Sep 7.

BACKGROUND: Evisceration of bowel contents through the vagina is a rare event that may be complicated by bowel obstruction.

OBJECTIVE: We report a case of vaginal evisceration with small bowel obstruction which, in contrast to previous, more dramatic case reports in the literature, is a more subtle and, in fact, characteristic clinical presentation for this unusual occurrence.

CASE REPORT: A 72 year-old woman with a previous history of pelvic surgery presented to the Emergency Department with lower abdominal discomfort and a prolapsing mass from her vagina. She was initially discharged home after bedside reduction of the mass, but returned 48 h later with worsening symptoms. A computed tomography scan on her repeat visit confirmed evisceration of bowel into the vaginal vault with obstruction of distal bowel loops. Surgical and gynecologic services were consulted and the patient underwent partial small bowel resection and vaginal cuff repair in the operating room.

CONCLUSION: Early recognition of subtle presentations of vaginal evisceration is crucial for preserving bowel viability and preventing morbidity from bowel ischemia or infarction. Risk factors for this rare condition include postmenopausal status, previous pelvic surgery, and presence of an enterocele.

Substituting whole blood for urine in a bedside pregnancy test.

Fromm C, Likourezos A, Haines L, Khan AN, Williams J, Berezow J, Department of Emergency Medicine, Maimonides Medical Center, Brooklyn, NY; J Emerg Med. 2011 Aug 27.

BACKGROUND: Point-of-care testing for rapid detection of pregnancy in women of reproductive age is common practice in the emergency department. Commercially available rapid human chorionic gonadotropin (hCG) immunoassays are validated for use with urine and serum, but not whole blood.

STUDY OBJECTIVES: We assessed the validity of using whole blood to detect pregnancy using a point-of-care hCG assay by comparing it to a laboratory quantitative serum hCG assay as the criterion standard.

New York State of Mind

METHODS: A convenience sample of female patients of reproductive age (18-51 years) submitted 5mL of whole blood, from which two drops were immediately applied to a point-of-care hCG kit, with results recorded at 10 min. The remainder of each whole blood specimen was sent to the hospital laboratory for the criterion-standard quantitative serum hCG assay. The criterion standard for a positive pregnancy test was defined as quantitative serum hCG >5 mIU/mL. Investigators performing the whole blood test and laboratory technicians performing the quantitative serum assay were blinded to one another's results.

RESULTS: There were 633 patients enrolled, with a mean age of 30 years (± 7.7 years); 34% of the patients were pregnant. Overall, the whole blood pregnancy test was 95.8% sensitive (negative predictive value 97.9%), whereas the urine test was 95.3% sensitive (negative predictive value 97.6%); the specificity and positive predictive value of both tests was 100%.

CONCLUSION: Using a standard point-of-care qualitative hCG immunoassay kit, whole blood may be used for rapid detection of pregnancy with similar, or greater, accuracy than urine.

Ambulance diversion and emergency department offload delay: resource document for the National Association of EMS Physicians position statement.

Cooney DR, Millin MG, Carter A, Lawner BJ, Nable JV, Wallus HJ, Department of Emergency Medicine, SUNY Upstate Medical University, Syracuse, NY; Prehosp Emerg Care. 2011 Oct-Dec;15(4):555-61.

The emergency medical services (EMS) system is a component of a larger health care safety net and a key component of an integrated emergency health care system. EMS systems, and their patients, are significantly impacted by emergency department (ED) crowding. While protocols designed to limit ambulance diversion may be effective at limiting time on divert status, without correcting overall hospital throughput these protocols may have a negative effect on ED crowding and the EMS system. Ambulance offload delay, the time it takes to transfer a patient to an ED stretcher and for the ED staff to assume the responsibility of the care of the patient, may have more impact on ambulance turnaround time than ambulance diversion. EMS administrators and medical directors should work with hospital administrators, ED staff, and ED administrators to improve the overall efficiency of the system, focusing on the time it takes to get ambulances back into service, and therefore must monitor and address both ambulance diversions and ambulance offload delay. This paper is the resource document for the National Association of EMS Physicians position statement on ambulance diversion and ED offload time.

Self-reported financial conflicts of interest during scientific presentations in emergency medicine.

Birkhahn RH, Fromm C, Larabee T, Diercks DB, Department of Emergency Medicine, New York Methodist Hospital (RHB), Brooklyn, NY; Department of Emergency Medicine, Maimonides Medical Center (CF), Brooklyn, NY; Division of Emergency Medicine, University of Colorado Denver School of Medicine (TL), Aurora, CO; and Department of Emergency Medicine, University of California, Davis Medical Center (DBD), Sacramento, CA; Acad Emerg Med. 2011 Sep;18(9):977-80.

ABSTRACT: This study was a review of the scientific abstracts presented at a national conference for the required conflict of interest (COI) disclosure both before the meeting and during presentation.

METHODS: All presenters were given specific instructions regarding COI reporting at the time of abstract acceptance. All poster presentations were required to have a COI statement. Three physicians using standardized data abstraction forms reviewed abstracts accepted for poster presentation at the 2010 annual meeting of the Society for Academic Emergency Medicine (SAEM). Posters were reviewed for the presence of a required COI disclosure statement, and these results were compared to the mandatory continuing medical education (CME) disclosure form that was sent by the presenters to the SAEM central office before the meeting.

RESULTS: There were 412 posters accepted for presentation at the 2010 SAEM annual meeting. The reviewers observed 382 (93%) of the total posters for the conference. Sixty-nine abstracts (18%) reported a COI. Only 26 (38%) of these were actually reported to the SAEM office on the CME disclosure form before the meeting; the remaining 62% were found on the poster alone. COI that were reported on the CME disclosure form were found on the poster 46% of the time. The remaining posters without a COI actually displayed the mandatory disclosure statement only 14% of the time.

CONCLUSIONS: This review of presentations at a national meeting found a lack of compliance with printed guidelines for COI disclosure during scientific presentation. Efforts to increase uniformity and clarity may result in increased compliance.

Post-disaster recovery: a case study of human resource deployment in the health sector in post-conflict Kosovo.

O'Hanlon KP, Budosan B, Department of Emergency Medicine, University of Rochester Medical Center, Rochester, NY; Prehosp Disaster Med. 2011 Feb;26(1):7-14.

INTRODUCTION: A professional understanding of disasters, paired with the need for health service development, can provide opportunities for the recovery and improvement of the health sector. Investment in training capacity ranks among the top priorities of a recovering health sector. The recovery and development of primary healthcare delivery systems has been implemented by various international and local health players in the aftermath of conflicts around the world. However, human resource development in the post-conflict environment has not been evaluated and/or published appropriately in the medical literature.

OBJECTIVE: In this retrospective, descriptive study, the authors describe the strategy and evaluate the effectiveness of a

field-based training program for primary healthcare doctors implemented by the US-based international non-governmental organization, the International Medical Corps, after the conflict in Kosovo in 1999.

METHODS: A six-month, comprehensive education and training program on primary healthcare issues was delivered to 134 Kosovar primary healthcare physicians in 10 Kosovo municipalities in 1999 and 2000. Qualitative and quantitative data were collected. The qualitative methods included open-ended, semi-structured, key informant interviews, structured focus groups, and unstructured participant observations. The quantitative method was multiple-choice knowledge tests.

RESULTS: The education and training program proved to be culturally appropriate and well-accepted by local communities. The program met its overall objective to refresh the knowledge of primary care doctors on various primary healthcare issues and set the stage for further strengthening and development of primary health services and their required human resources in Kosovo.

CONCLUSIONS: The comprehensive education and training of primary healthcare doctors in Kosovo was a feasible, much appreciated, and effective intervention implemented in a difficult post-conflict environment. This training was one of the early steps in the modernization of primary healthcare services in Kosovo.

Later, primary health care was strengthened by the introduction of a Department of Family Medicine at the university, which includes a residency program. The intervention described in this study has the potential to be reproduced in other post-disaster environments, especially in resource-poor settings with long-time troubled health sectors in developing countries.

Meningeal carcinomatosis diagnosed during stroke evaluation in the emergency department.

Cooney DR, Cooney NL, Department of Emergency Medicine and Undersea and Hyperbaric Medicine, SUNY Upstate Medical University, Syracuse; Int J Emerg Med. 2011 Aug 9;4:52.

ABSTRACT: A 70 year-old female presented to the emergency department with a 3-day history of intermittent dysphasia and right facial droop. Computed tomography (CT) and magnetic resonance imaging (MRI) were obtained, and the patient was found to have meningeal carcinomatosis, also known as leptomeningeal metastases.

Meningeal carcinomatosis is a rare metastatic complication of some solid tumors and hematopoietic neoplasms, and has a median survival rate of 2.4 months. The role of the emergency physician is to appropriately diagnose this condition, treat emergent side effects, provide symptomatic relief, and ensure multi-disciplinary management.

Infected urachal cyst initially misdiagnosed as an incarcerated umbilical hernia.

Ash A, Gujral R, Raio C, Department of Emergency Medicine, North Shore University Hospital, Manhasset, NY; J Emerg Med. 2011 Aug 3.

BACKGROUND: Urachal abnormalities are a rare cause of lower abdominal pain. They are often initially mistaken for more common causes of lower abdominal pain, and the diagnosis is usually made during evaluation for one of these more common conditions.

CASE REPORT: We report a case of a painful periumbilical mass ultimately diagnosed as an infected urachal cyst. Although the cyst was evident sonographically, it was misidentified as an umbilical hernia, and the correct diagnosis was not made until the patient underwent computed tomography of the abdomen and pelvis before surgery.

CONCLUSION: Emergency physicians should consider urachal disease in patients presenting with lower abdominal pain and should also be familiar with both the clinical and radiologic findings characteristic of this disease.

Cervical ectopic pregnancy diagnosed by point-of-care emergency department ultrasound.

Modayil V, Ash A, Raio C., Department of Emergency Medicine, North Shore University Hospital, Manhasset, New York; J Emerg Med. 2011 Aug 3.

BACKGROUND: Although rare, cervical ectopic pregnancy (EP) represents a potentially lethal variation of a common first-trimester disease entity.

CASE REPORT: We report a case of low abdominal pain and vaginal bleeding diagnosed as a cervical EP by point-of-care ultrasound.

CONCLUSION: Familiarity with cervical EP and its sonographic appearance is essential for emergency physicians because it can be easily mistaken for an intrauterine pregnancy or other obstetric/gynecologic pathology, such as an incomplete abortion or nabothian cyst. The management of each of these differs substantially, making accurate diagnosis crucial.

Adolescents and young adults presenting to the emergency department Intoxicated from a caffeinated alcoholic beverage: a case series.

Cleary K, Levine DA, Hoffman RS, Department of Pediatrics, New York University School of Medicine, New York, NY; Department of Emergency Medicine, New York University School of Medicine, New York, NY; Bellevue Hospital Center, New York, NY, and New York City Poison Control Center, New York, NY; Ann Emerg Med. 2011 Aug 3.

We describe a case series of emergency department (ED) visits for intoxication related to the use of the caffeinated alcoholic beverage Four Loko. Medical records from the 4-month period July to November 2010 were hand searched for key words such as "intoxicated," "caffeinated," "Four Loko," "alcohol," and "EtOH." Patients were included if they were younger than 25 years. Eleven cases were included. Eight (72.7%) patients presented during October 2010. The median age was 16.4 years; 90.9% were under the legal drinking age of 21 years. Seven (63.6%) were male patients. All arrived by emergency medical services (EMS). Four patients (36.3%) were found in high-risk settings, with altered mental status on subway tracks, in public buildings, or parks after dark. Two patients had blood alcohol concentrations greater than 200 mg/dL. Six patients (54.5%) had emesis. Two patients (18.2%) were admitted to the hospital, 1 each because of seizures and persistent tachycardia. Patients

continued on page 17

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continued from page 15

intoxicated with Four Loko were younger than the legal drinking age, found in high-risk situations, and often admitted to the hospital. Many of these patients used EMS and resources in the ED for alleviation of adverse effects of Four Loko.

Heavy metal chelation in neurotoxic exposures.

Jang DH, Hoffman RS, Department of Emergency Medicine, New York University School of Medicine, Bellevue Hospital Center, NY; Neurol Clin. 2011 Aug;29(3):607-22.

Metals such as iron and copper are critical to living organisms, whereas other metals such as lead and arsenic have no known biologic role. Any metals in large amounts may cause toxicity. Many metals cause pervasive systemic effects involving the nervous system, which can be subtle in some cases. Although challenging, the diagnosis and treatment of metal poisoning can be made based on history, physical examination, and the proper use of metal testing. This article focuses on the use, and misuse, of chelation in the diagnosis and management of metal intoxication.

Factors associated with delays to emergency care for bowel obstruction.

Hwang U, Aufses AH Jr, Bickell NA, Department of Emergency Medicine, Mount Sinai School of Medicine, New York, NY; Am J Surg. 2011 Jul;202(1):1-7.

BACKGROUND: Our objective was to determine factors associated with delays to first treatment for emergency department (ED) patients diagnosed with small-bowel obstruction (SBO).

METHODS: This was a retrospective study of ED patients with SBO. Data were collected from medical records, administrative databases, and staffing schedules at an urban, tertiary care medical center from June 1, 2001, to November 30, 2002. Patient-related characteristics and processes of ED and hospital care were evaluated. Outcomes studied were time to first treatment (nasogastric tube or surgery) and risk of surgical resection.

RESULTS: A total of 193 patients were diagnosed with confirmed intestinal obstruction. Patients with longer times to first treatment arrived during ED clinician hand-offs (adjusted hazard ratio, .40; 95% confidence interval, .17-.98). Patients with longer times to surgery consult (ref. first quartile) had greater odds of surgical resection (second quartile adjusted odds ratio, 6.91; 95% confidence interval, 1.85-24.80).

CONCLUSIONS: Remediable ED and hospital factors were associated with longer times to treatment for patients with bowel obstruction.

Prognostic utility of serum potassium in chronic digoxin toxicity: a case-control study.

Manini AF, Nelson LS, Hoffman RS, Division of Medical Toxicology, Department of Emergency Medicine, Mt Sinai School of Medicine, NY; Am J Cardiovasc Drugs. 2011 Jun 1;11(3):173-8.

OBJECTIVE: In contrast to patients with acute digoxin overdose, the prognostic utility of the serum potassium concentration for patients with chronic digoxin toxicity is unclear. In such patients, we aimed to evaluate the relationship between pre-treatment serum potassium and survival.

METHODS: This was a case-control study at an urban Poison Control Center affiliated with a large urban medical center. We compared the serum potassium concentration between patients with chronic digoxin toxicity resulting in fatality (cases) over a 7-year period (2000-2006) versus survivors (controls) over a 1-year period (2007-2008).

RESULTS: During the study period, there were 13 fatalities (cases) and 13 survivors (controls), of whom seven cases and five controls received appropriately dosed digoxin-specific antibody Fab fragments (Fab). There were no statistically significant differences between cases and controls with respect to serum digoxin concentration, creatinine, age, or sex. Serum potassium elevation pre-Fab was significantly associated with fatality both in mean difference ($p<0.03$) and using a dichotomous cutoff of 5.0 mEq/L ($p<0.001$), which performed with 92% sensitivity (95% CI 67, 99). In 86% of deaths despite appropriate Fab administration, the clinical presentation included the combination of bradycardia plus hyperkalemia.

CONCLUSION: In these patients with chronic digoxin toxicity, elevated serum potassium was associated with fatality. The combination of bradycardia and hyperkalemia strongly predicted fatality even in cases with appropriate Fab administration.

Measures of crowding in the emergency department: a systematic review.

Hwang U, McCarthy ML, Aronsky D, Asplin B, Crane PW, Craven CK, Epstein SK, Fee C, Handel DA, Pines JM, Rathlev NK, Schafermeyer RW, Zwemer FL Jr, Bernstein SL, Department of Emergency Medicine, Mount Sinai School of Medicine (UH), NY; Acad Emerg Med. 2011 May;18(5):527-38.

OBJECTIVES: Despite consensus regarding the conceptual foundation of crowding, and increasing research on factors and outcomes associated with crowding, there is no criterion standard measure of crowding. The objective was to conduct a systematic review of crowding measures and compare them in conceptual foundation and validity.

METHODS: This was a systematic, comprehensive review of four medical and health care citation databases to identify studies related to crowding in the emergency department (ED). Publications that "describe the theory, development, implementation, evaluation, or any other aspect of a 'crowding measurement/definition' instrument (qualitative or quantitative)" were included. A "measurement/definition" instrument is anything that assigns a value to the phenomenon of crowding in the ED. Data collected from papers meeting inclusion criteria were: study design, objective, crowding measure, and evidence of validity. All measures were categorized into five measure types (clinician opinion, input factors, throughput factors, output factors, and multidimensional scales). All

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measures were then indexed to six validation criteria (clinician opinion, ambulance diversion, left without being seen (LWBS), times to care, forecasting or predictions of future crowding, and other).

RESULTS: There were 2,660 papers identified by databases; 46 of these papers met inclusion criteria, were original research studies, and were abstracted by reviewers. A total of 71 unique crowding measures were identified. The least commonly used type of crowding measure was clinician opinion, and the most commonly used were numerical counts (number or percentage) of patients and process times associated with patient care. Many measures had moderate to good correlation with validation criteria.

CONCLUSIONS: Time intervals and patient counts are emerging as the most promising tools for measuring flow and nonflow (i.e., crowding), respectively. Standardized definitions of time intervals (flow) and numerical counts (nonflow) will assist with validation of these metrics across multiple sites and clarify which options emerge as the metrics of choice in this "crowded" field of measures.

Dextromethorphan abuse masquerading as a recurrent seizure disorder.

Majlesi N, Lee DC, Ali SS, Emergency Department, Staten Island University Hospital, Staten Island, NY; Pediatr Emerg Care. 2011 Mar;27(3):210-1.

Dextromethorphan (DXM) has unique toxicity that may be difficult to diagnose. We present a case of a young woman who presented to our emergency department (ED) initially diagnosed with recurrent seizures. Paramedics brought a 19 year-old woman to the ED. Witnesses noted "shaking," which the patient did not recall. The patient denied fever, antecedent trauma, or neurological complaint. She was recently administered lamotrigine for bipolar disorder. She was a former alcoholic with no history of developing withdrawal. She admitted to marijuana use but denied use of any other illicit substances. Her vital signs and physical examination were unremarkable. She had a normal brain computed tomography, electrocardiogram, and laboratory evaluation. There was no alcohol detected. Her urine drug screen was negative for opiates, benzodiazepines, cocaine, amphetamines, barbiturates, phencyclidine, and tricyclic antidepressants. She was diagnosed with new-onset seizure and discharged home. No abnormalities were seen in the brain magnetic resonance imaging scan and electroencephalogram. She was scheduled for a cardiac syncope workup, but never followed through. Two months later, she presented to the hospital again for a similar complaint. Coworkers reported witnessing sudden tonic-clonic movements and confusion. On ED presentation, the patient was tachycardic with a heart rate of 110 beats/min and had horizontal nystagmus. She was alert with a flat affect. She did not recall events but answered questions appropriately. Repeat radiographic and laboratory evaluations were normal including urine drug screen and computed tomography. Upon questioning, she admitted to abusing DXM for the past several months. A serum DXM level at this time was 988.3 ng/mL. She was admitted to the hospital for 24 hours without sequelae. All further diagnostic testing was cancelled, and she was referred to a drug rehabilitation program. Abuse of DXM is increasing in incidence. The serum level of our patient was almost 10-fold greater than the reported therapeutic level. The toxicity of DXM is unique, and abuse should be considered in all patients presenting to the ED with new-onset seizure. Dextromethorphan abuse should be considered in young adults who present with previously undiagnosed seizure activity.

An inexpensive and easy simulation model of ocular ultrasound that mimics normal anatomy as well as abnormal ophthalmologic conditions.

Jafri F, Runde D, Saul T, Lewiss RE, Department of Emergency Medicine, St Luke's-Roosevelt Hospital Center, New York, NY; J Ultrasound Med. 2011 Apr;30(4):569-73.

We have constructed a simple and inexpensive simulation model for the educational instruction of health care providers to detect normal and abnormal ocular conditions in the bedside emergency setting. Such a training model serves to increase the comfort level in performing ocular ultrasound examinations and can increase the accuracy of examination interpretation. Ophthalmologic examinations can be difficult in the emergency setting, and ultrasound has become a useful tool in the diagnosis of emergent ocular conditions.

Portable ultrasound for remote environments, part II: current indications.

Nelson BP, Melnick ER, Li J., Department of Emergency Medicine, Mount Sinai School of Medicine, New York, NY; J Emerg Med. 2011 Mar;40(3):313-21.

BACKGROUND: With recent advances in ultrasound technology, it is now possible to deploy lightweight portable imaging devices in the field. Techniques and studies initially developed for hospital use have been extrapolated out of the hospital setting in a wide variety of environments in an effort to increase diagnostic accuracy in austere or prehospital environments.

OBJECTIVES: This review summarizes current ultrasound applications used in out-of-hospital arenas and highlights existing evidence for such use. The diversity of applications and environments is organized by indication to better inform equipment selection as well as future directions for research and development.

DISCUSSION: Trauma evaluation, casualty triage, and assessment for pneumothorax, acute mountain sickness, and other applications have been studied by field medical teams. A wide range of outcomes have been reported, from alterations in patient care to determinations of accuracy compared to clinical judgment or other diagnostic modalities.

CONCLUSIONS: The use of lightweight portable ultrasound shows great promise in augmenting clinical assessment for field medical operations. Although some studies of diagnostic accuracy exist in this setting, further research focused on clinically relevant outcomes data is needed.

Adenomyomatosis of the gallbladder: the "good omen" comet.

Mariani PJ, Hsue A, Department of Emergency Medicine, State University of New York Upstate Medical University, Syracuse, NY; J Emerg Med. 2011 Apr;40(4):415-8.

BACKGROUND: As emergency physicians perform bedside ultrasound with greater frequency, greater numbers of incidental and potentially unfamiliar sonographic findings will be encountered.

OBJECTIVES: Illustrate, discuss, and briefly review literature regarding one such finding and diagnosis in right upper quadrant sonography.

CASE REPORT: A middle-aged woman was evaluated in the Emergency Department for abdominal pain. Limited bedside sonography of the gallbladder revealed mural thickening and comet-tailing. A diagnosis of adenomyomatosis was made.

CONCLUSION: Gallbladder adenomyomatosis can produce ultrasound findings similar to those of more serious and emergent gallbladder diseases. Cognizance of the sonographic details and typical clinical characteristics will allow the emergency physician to appropriately assess and disposition patients with this condition.

Spontaneous intrahepatic hemorrhage: a case report.

Arora H, Romero J, Rubach E, Silverman R, Department of Emergency Medicine, Long Island Jewish Medical Center, New Hyde Park, NY; J Emerg Med. 2011 Apr;40(4):385-7.

Etiology of the acute abdomen can be difficult to determine in the acute care setting, as both medical and surgical emergencies can present with a similar clinical presentation. Prompt work-up is essential to reveal the diagnosis and allow for successful treatment. We present a rare case of spontaneous intrahepatic hemorrhage in a patient with multiple comorbidities, including multiple myeloma and lung cancer. Although the underlying cause of hemorrhage remained unknown, appropriate recognition of the patient's presenting signs and symptoms allowed for immediate treatment and satisfactory outcome. ■

Members in the News

New York ACEP member, Andrew E. Sama, MD FACEP, was elected president-elect at the ACEP annual meeting October 14, 2011 in San Francisco. Dr. Sama served as president for New York ACEP from 2002 to 2004 and was named "Physician of the Year" in 2006.

Dr. Sama was elected by ACEP's Council to serve a one-year term and will assume ACEP's presidency at next year's meeting in Denver. This past year he served as vice president of the organization.

Dr. Sama is Senior Vice President of Emergency Services for the North Shore-Long Island Jewish Health System. In addition, he is Chairman of the Department of Emergency Medicine at North Shore University Hospital and Long Island Jewish Medical Center. Dr. Sama also is the recipient of the endowed Dorothy & Jack Kupferberg Professorship of Emergency Medicine at Hofstra-North Shore-LIJ School of Medicine.

A graduate of Columbia University, Dr. Sama earned his medical degree from Cornell University Medical College and completed his residency in internal medicine from North Shore University Hospital. He also is certified in pediatric emergency medicine. Congratulations from New York ACEP, Dr. Sama. ■

Oh, the weather outside is frightful

Joseph Habboushe, MD MBA, Beth Israel Medical Center, Albert Einstein College of Medicine

Kaushal H. Shah, MD FACEP, Associate Professor, Mt. Sinai School of Medicine

It is almost that time of year again. Time to start thinking about the winter wardrobe, shopping for the holidays, planning winter getaways, and of course . . . brushing up on the diagnosis and treatment of environmental hypothermia.

Environmental hypothermia is one of those just-rare-enough diseases (killing roughly 700 patients annually in the U.S.) that it can be overlooked, leading to significant morbidity and mortality. It can often slip under the radar as its presentation mimics other common chief complaints such as alcohol intoxication and altered mental status in the elderly. Surprisingly, indoor hypothermia has a higher rate of mortality than outdoor hypothermia, most likely related to delayed diagnoses and increased age.

The standard classification of environmental hypothermia is comprised of 3 categories: Mild (32 – 35°C), Moderate (28 – 32°C), and Severe (<28°C). These categories have some prognostic value with a mortality of 0% in the Mild category, 20% in the Moderate category, and over 40% in the Severe category.

Physiological changes during hypothermia are extensive (Table 1). The most feared are cardiovascular, with bradycardia, T-wave inversions and QT prolongation in the Mild phase; and Osborn waves, atrial fibrillation, and a drop in cardiac output in Moderate phase. Ventricular Fibrillation typically occurs in the Severe phase, and should be treated with aggressive re-warming in addition to electrocardioversion, as a normal rate may not resume until the patient is thawed. The anti-arrhythmic agent bretylium is often recommended during these cardiac arrests and for prophylaxis against V-Fib in any hypothermic patient demonstrating ventricular ectopy; however, it is often unavailable in many emergency departments and hospitals.

The other critically important physiologic change emergency physicians should be aware of is the development of coagulopathy, beginning in the Mild phase and becoming worse in other phases. Ironically, lab tests of PT/PTT/INR will usually come back normal because the standard lab machines sabotage your evaluation by warming up the blood to body temperature before analysis.

At first, during Mild hypothermia, oxygen demand increases up to 4x, secondary to catecholamine release and shivering. However, below 33-34°C shivering stops, and oxygen demand decreases, a likely reason for the benefit of therapeutic hypothermia after cardiac arrest. Of course, you will also notice the affect on the Central Nervous System, which manifests as confusion, retrograde amnesia and generalized delirium during the Mild to Moderate phases. During the Severe phase many of the reflexes physicians used to test for death are lost, including the pupillary reflex, leading to the adage that a patient is not dead until they are warm and dead.

Table 1: Physiologic changes of hypothermia. (vWF: von willibrand factor; TWIs: T-wave inversions; DTRs: deep tendon reflexes)

HYPOTHERMIA	Coagulopathy	Cardiovascular	CNS	Other
Mild (32°-35°)	PT, platelets	Bradycardia, TWIs, Long QT	Confusion, retrograde amnesia	Ileus, Insulin resistance
Moderate (28°-32°)	PTT, vWF	Osborn waves, Atrial Fib	Hyperreflexia	Ulcers, Pancreatitis
Severe (<28°)	All factors	Ventricular Fib	No DTRs or pupillary reflex	

The vast majority of your patients will be mildly hypothermic. Always begin your treatment of these patients with simple Passive External Re-warming techniques: remove wet clothes (they remove heat 32x that of dry clothes!), place warm blankets on the patient, and warm the ambient temperature of the room. These are somewhat obvious steps that can often be forgotten, especially when the hypothermia is mimicking other common presentations. You can also use Active External Re-warming techniques such as heated blankets and devices such as Bair Huggers and Radiation Warmers. Remembering these few tips is likely all that is needed for 90% of the hypothermia cases you'll encounter.

However, for patients who are in the Moderate Phase (< 32°C), externally re-warming may be virtually ineffective! As a patient's body gets colder, the natural response is to vasoconstrict peripherally, keeping the warm blood close to our core,

and creating a thick insulation of skin and soft tissue around this core to keep the cold out. However, as we attempt to externally rewarm, this same thick layer of insulation will work against us. Most of these patients will require Active Internal Re-warming methods – which are often a bit more difficult and invasive. Start with the minimally invasive, heated humidified oxygen and the infusion of warm intravenous fluids. However it can take up to six liters to raise the core temperature 1°C. More aggressive active internal methods include body cavity lavage with warm saline (through chest tubes, NG tube, and Foley catheter). The most effective but also most invasive are the extracorporeal bypass machines: arterio-venous and veno-venous re-warming, and hemodialysis is also sometimes used. See Figure 1 for a suggested environmental hypothermia algorithm.

There is one other novel method of rewarming that you might just overlook. Has your department recently purchased a machine to induce hypothermia for cardiac arrest patients? Well, that same device (if it utilizes specialized central line catheters) can be used for active internal rewarming, which is more controlled than most others. These are typically femoral or internal jugular triple lumen catheters with two extra ports which lead to small balloons around the part of the catheter that lies intravenously (the commercial companies call these "endovascular cooling/heating exchange catheters"). The extra ports attach to a specialized bedside machine, which runs cold water (or warm water, when used for environmental hypothermia) through these balloons, changing the temperature in a controlled manner. Many emergency physicians do not realize that this device can be used to rewarm patients.

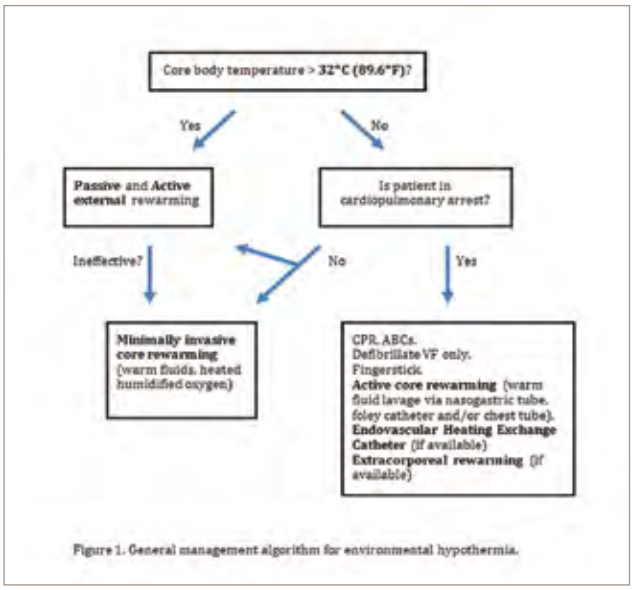

Figure 1. General management algorithm for environmental hypothermia.

Finally, keep in mind that in the setting of trauma, hypothermia is a much more serious and deadly state, with one study showing a mortality approaching 100% for patients arriving < 32°C, and other studies showing that patients often become more hypothermic in the trauma bay than at arrival (cold ambient temperature, cold clothes or increased skin exposure, and cold IV fluid). Traumatic hypothermia should be treated much more aggressively.

So enjoy your mistletoe and eggnog, but don't forget that when that elderly confused patient presents from triage with a slow heart rate, or the homeless patient labeled "alcohol intox" doesn't have a temperature reading, it may all just be a cause of that frightful cold weather outside. ■

december 2011

8 Practice Management Committee Conference Call, 1:00 pm
14 Education Committee Conference Call, 2:00 pm
14 Professional Development Conference Call, 3:00 pm
15 EMS Committee Conference Call, 2:30 pm
21 Government Affairs Conference Call, 11:00 am
21 Research Committee Conference Call, 3:00 pm

january 2012

11 Education Committee Conference Call, 2:00 pm
11 Professional Development Conference Call, 3:00 pm
12 Practice Management Committee Conference Call, 1:00 pm
18 Government Affairs Conference Call, 11:00 am
18 Research Committee Conference Call, 3:00 pm
19 EMS Committee Conference Call, 2:30 pm

february 2012

8 Education Committee Conference Call, 2:00 pm
8 Professional Development Conference Call, 3:00 pm
9 Practice Management Committee Conference Call, 1:00 pm
15 Government Affairs Conference Call, 11:00 am
15 Research Committee Conference Call, 3:00 pm
16 EMS Committee Conference Call, 2:30 pm
28 Lobby Day & Board of Directors Meeting, 9:00 am-4:30 pm, MSSNY Albany Headquarters, Albany, NY

march 2012

8 Practice Management Committee Conference Call, 1:00 pm
8 Medical Student Symposium, 5:30-9:30 pm, New York City
9 LLSA Review Course, 8:00 am-1:00 pm, SUNY Upstate Medical University
14 Education Committee Conference Call, 2:00 pm
14 Professional Development Conference Call, 3:00 pm
15 EMS Committee Conference Call, 2:30 pm
21 Government Affairs Conference Call, 11:00 am
21 Research Committee Conference Call, 3:00 pm

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