



Tort Reform

Daniel G. Murphy, MD MBA FACEP, Chair, New York ACEP Government Affairs Committee; Director of Emergency Services and Senior Director of Patient Care Operations, Mercy Medical Center

Advocating on behalf of tort reform in New York State has always seemed to your Government Affairs Committee at New York ACEP a task worthy of the punished King Sisyphus.

With the New York State Assembly so firmly and efficiently controlled by Sheldon Silver, himself the product of a medical malpractice plaintiff’s attorney law firm, any tort reform legislation has been dead on arrival in Albany for a generation.

But Albany has been a rather dynamic place for over a year now with the arrival of Governor Andrew Cuomo. Huge decisions still get made by ‘Three men in a room,’ perhaps now more than ever, but Mr. Cuomo is certainly changing paradigms as he tries to generate an impressive list of accomplishments. His goal is undoubtedly a presidential campaign so fundamental, pragmatic, courageous, disruptive, centrist accomplishments are sought.

No matter what you know about Mr. Cuomo or how you align with his politics, most Albany watchers have been quite impressed with his first year in office. He knows how to get things done and he has not been shy about taking on well entrenched stakeholders.

Last year he used the state budget as a tool to introduce a proposed cap on ‘non-economic damages’ - malpractice awards in the very subjective category of ‘pain and suffering.’ The proposal was ultimately withdrawn, perhaps because Cuomo used it as a bargaining chip for something else he wanted more dearly, but the New York State ‘House of Medicine’ mobilized and was intrigued by this attempt (or gesture) by a democratic governor.

Contemporaneous to Mr. Cuomo’s arrival in Albany, the entire spectrum and canvas of healthcare finance is at a crucial and fundamental moment. Almost everything is on the table these days and tort reform is on the menu as a potential area of significant healthcare cost savings.

New York ACEP and the Government Affairs Committee are in communication though national ACEP with various state chapters that have had success in this realm. Technical goals such as changing the negligence standard from the normal preponderance of evidence to a clear and convincing preponderance of evidence and seeking special categories of immunity for emergency physicians based on their EMTALA mandated services are being developed.

As always, we work with our excellent lobbying firm, Weingarten, Reid & McNally, to build and maintain relationships with key legislators and our new governor.

Please find the time to donate to the New York State Emergency Medicine Political Action Committee (NYEMPAC).

Every \$20 or \$50 (or more) helps to wield influence and advocacy in Albany! You can go to our website home page (<http://www.nyacep.org>), click on the icon, and make a quick contribution anytime! ■

inside this ISSUE

president’s message2
 scientific assembly2. 25
 prehospital information technology3
 ultrasound sound rounds4
 online election5
 compensation evaluation6
 ads7, 9, 11, 12, 15, 17, 27, 30, 32, 33, 35, 36
 toxicology feature8
 albany update 10
 new york state of mind 13
 residents career day27
 emergencies in the pediatric patient28
 some thoughts ... from a busy guy31
 calendar34
 residents career day job fair34
 classified ads34
 Ilsa34



president's
MESSAGE



*Joel M. Bartfield,
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Education, Albany
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*We will be
represented at the
national ACEP
council meeting
by 22 New York
ACEP members
on the Council
floor.*

As I near the end of my two-year term as president of the New York American College of Emergency Physicians, I would like to thank you all for allowing me the privilege of serving you in this role. We have accomplished much in the last two years but certainly have more to achieve. In July, I will be turning the helm over to Dr. Daniel Murphy, who I am certain will lead New York ACEP to new heights.

New York ACEP continues to grow in membership. We are the second-largest chapter in the country, second only to California. We will be represented at the national ACEP Council meeting by 22 New York ACEP members on the Council floor. On a state level, we have had a number of successful legislative accomplishments. These include passing the "Source HIV Legislation" into law and the adoption of the "observation unit operating standards policy" which includes oversight by emergency physicians. Our educational programs continue to flourish. I hope to see many of you at the Scientific Assembly at the Sagamore in Lake George in July, which promises to be an outstanding educational event.

During my term as president, New York was distinguished to be front and center on a national front. One of our members, Dr. Sandra Schneider, served as national president in 2010-11 and another New York ACEP member, Dr. Andrew Sama is the current national ACEP president-elect. This obviously brings great distinction to New York ACEP and gives us a strong voice in Washington, DC and national ACEP. Last year, New York had the largest delegation at the ACEP Leadership and Advocacy Conference in Washington, DC. I am certain that we will have a strong voice at this year's conference as well.

I would like to thank those of you who serve on committees, represent New York ACEP on the ACEP Council floor, and actively participate in New York ACEP activities. I encourage all of you to become more involved in ACEP. It has been an honor and privilege to serve you. ■



New York American College of
Emergency Physicians

Scientific Assembly

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The Sagamore Resort on Lake George



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Prehospital Information Technology and the Emergency Physician

Paul Barbara, MD FACEP, Assistant Medical Director of
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I enjoy the satellite radio commercial for a 90s alternative/rock channel that reminds its listeners of their youth by playing an audio clip of a computer's modem making its dial-up connection.

"Eeeee-aaa, cccssshhhhhh, cccssssh-hhhh welcome!"

This experience reminds me that I am a fortunate member of a generation that grew up with personal computers, both at school and in the house. I took a desktop PC (and all its hardware accessories) back and forth to college and then a laptop to medical school. But during my four years of residency, I documented patient care on paper charts. Of course these charts were a non-carbon triplicate form so we had to press very hard with a ballpoint pen. I can still feel the DeQuervain's tenosynovitis at times.

The emergency department I worked in during fellowship was more advanced and had implemented a computerized tracking system. Paper charts were still used for documentation however. This tracker was useful for maintaining flow in a large, busy urban emergency department but seemed inefficient at times to both chart patients on paper and track my flow. I feared that the years I had spent holding multiple open instant messaging conversations while cataloging my CD collection into mp3 files would be for naught. After fellowship, and in my present position, I have been lucky enough to document on a fully integrated electronic medical record system. Paper charts of course never have a 'downtime,' but I have not looked in a paper chart to check for EKG changes in many years. My ability as a practitioner to rapidly learn clinically relevant items about a patient's prior history is presently at its pinnacle.

It is only logical that the care provided in the emergency department extends out to the prehospital setting. Many emergency medical services systems have

begun to likewise adopt practices involving Electronic Medical Records (EMR). These electronic systems hold the promise of improved response, information integration, improved interface with receipt and disposition facilities and efficient workflow.¹ Of course, poor EMS documentation has been associated with worse patient outcomes.² Initially, handwritten Prehospital Care Reports (PCRs) were scanned through character-recognition software to populate a database with information. This paradigm was simply the best alternative to the non-electronic system. Prehospital personnel routinely griped about the time it took to scan their PCRs after a shift. As an EMS fellow, I quickly found out that alphanumeric recognition is dependent on the penmanship of the writer. So this time-consuming work unfortunately often led to inaccurate sets of data. Many dedicated EMS professionals worldwide are working towards a system that allows integration of out-of-hospital information with both in-hospital and outpatient setting care without causing information overload.

In June 2011, our hospital-based EMS system and a section of the New York City 911 system piloted a program to implement electronic medical records in the prehospital setting. Tablet computers in various forms with EMS charting software have been in use for the past 10 months. It is tempting to describe the benefits and pitfalls of our systems' experience, but describing the overall capabilities of Prehospital Information Technology (PHIT) will be far more rewarding for a practicing emergency physician in New York.

A basic tenet of practicing emergency medicine is to absorb spontaneity. We truly never know what is going to come through the door next; and we as a group have volunteered to be the front-line physicians for our respective communities. Oftentimes what is happening "out there" can easily be corresponded to those working "in-house."

continued on page 26

ultrasound sound rounds

Practical point-of-care
ultrasound applications for the
emergency physician

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Assistant Professor, University of
Rochester Medical Center



Point-of-Care Ultrasound for Painless Vision Loss

Indications

- Vision loss
- Floaters
- Flashes
- Visual field abnormality

Technique

- Scan the unaffected (normal) eye then proceed to the affected eye.
- Use an individually packaged water soluble gel as an acoustic medium.
- Place a linear transducer in transverse plane over the patient's closed eyelid.
- Scan through the eye with the patient looking forward with eyes closed.
- Scan the eye also in the sagittal plane.

Normal eye:

- Identify the anechoic chambers, posterior lens and hypoechoic optic nerve posteriorly. *Figure 1.*

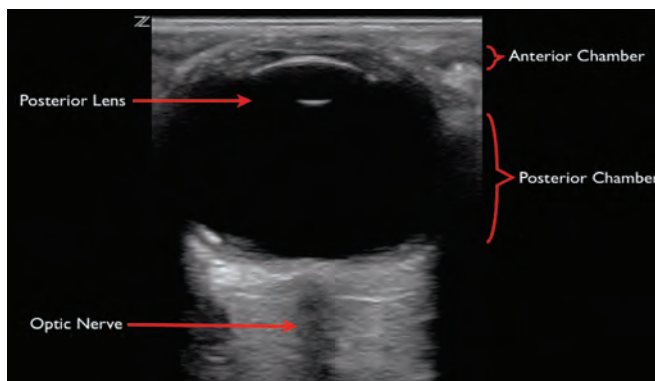


Figure 1. Ultrasound of the normal eye. Note: The anterior chamber is collapsed in this patient.

Retinal detachment:

- A membranous detachment originating from the optic nerve suggests the presence of a retinal detachment (RD). RDs attach to the ora serrata anteriorly.
- Retinal detachments are relatively immobile and thicker compared to vitreous detachments.
- RDs can be total or partial. *Figure 2 and Figure 3.*

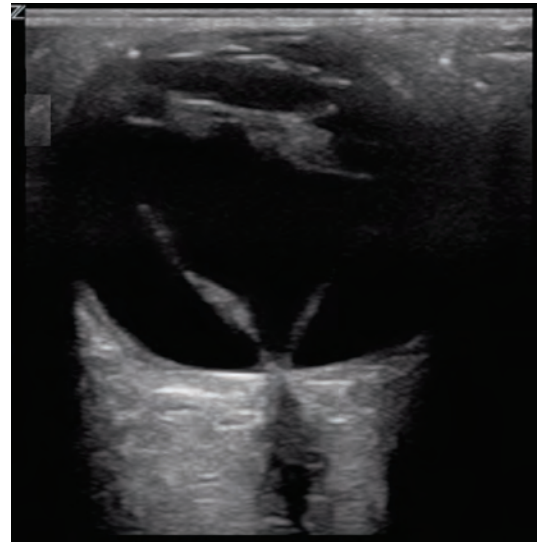


Figure 2. Total retinal detachment. The V-shaped retina appears to originate from the hypoechoic optic nerve posteriorly.

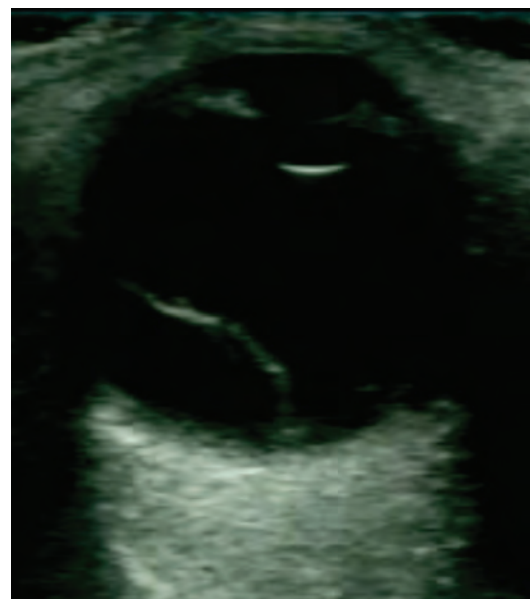


Figure 3. Partial retinal detachment.

Posterior vitreous detachment:

- A membranous detachment not originating from the optic nerve suggests the presence of a posterior vitreous detachment (PVD).
- PVDs are mobile and thin compared to retinal detachments. *Figure 4.*
- Occasionally, PVDs are present with vitreous hemorrhage. *Figure 5.*

Vitreous hemorrhage:

- Echogenic debris in the posterior chamber suggests a vitreous hemorrhage.
- Have the patient move their eye side-to-side with the eyelids closed during the ultrasound scan. Vitreous hemorrhages are mobile.

Tips

- Do not place too much pressure on the patient's eye during the ultrasound.
- Place your pinky on the patient's nasal bridge or temporal area during the ultrasound scan to prevent additional pressure on the eye.
- Do not perform an ultrasound scan when globe rupture is suspected.
- Ultrasound gel from bottles are not recommended on the eye due to potential bacterial contamination.
- Decrease the power output on the ultrasound machine to 25-50% (ALARA).
- Adjust the depth and gain to optimize your image.

Thanks to Gareth Mark Czamara Lema, MD PhD, University of Rochester Department of Ophthalmology for his contributions to this article. ■



Figure 4. Posterior vitreous detachment (arrows).

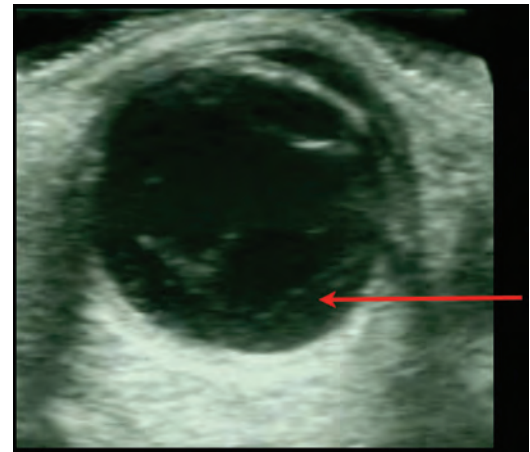
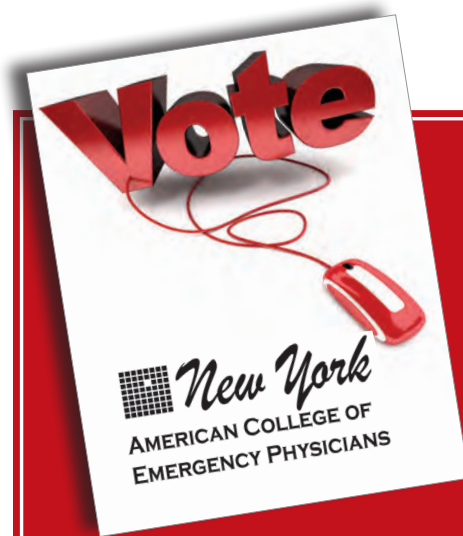


Figure 5. Vitreous hemorrhage with posterior vitreous detachment (arrow).



Online Board of Directors Election Coming Soon

This June, New York ACEP members will receive, via email, the **2012 Candidate Profile**. Through this proxy, New York ACEP members will elect four members to serve three-year terms on the New York ACEP Board of Directors. Members can cast their vote on board positions by their proxy no later than June 30, or members may cast a proxy in person at the New York ACEP Annual Meeting Tuesday, July 10 at 12:30 pm at The Sagamore Resort on Lake George in Bolton Landing.



Compensation Evaluation

*Jessica Wang, MD, Co-Director, Emergency Ultrasound Program,
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Assistant Professor, Albert Einstein College of Medicine*

So the end of residency is finally in sight and you are faced with the possibility of making some real money and making a dent in that mound of student loans. It is difficult not to be attracted to the large salary that some jobs are offering but it is really important to evaluate the entire compensation package and not just the salary alone because sometimes, the numbers alone, do not give you the full picture. It is much more complicated than merely comparing paycheck income especially considering the variation in cost of living, healthcare and local taxes.

Consider the entire compensation package ~ salary, benefits, perks, work environment, sick/maternity leave ~ not just your paycheck. Also consider the geographic location, the cost of living and lifestyle it affords.

A typical compensation package generally includes:

- Base salary
- Health benefits
- Retirement benefits (pension plans vs. 401k)
- Vacation time
- Paid sick leave/personal days/family leave
- Educational leave time
- CME reimbursement
- Relocation package
- Sign-on bonus
- Profit sharing
- Insurance-malpractice, life, disability

First, location

Cost of living can erode into your paycheck significantly. Depending on geographic location, cost of housing, food,

transportation and other living essentials can differ greatly. A large portion of your cost of living is your tax burden. Your paycheck will be so much smaller than you can imagine after Uncle Sam gets his hands on it. So, tax consideration is an important one. Consider the state income tax in the state that you are choosing to live. Obviously, there are other reasons to pick a location to live and not just merely monetary considerations but the cost of living, which includes the overall tax burden (state, local, real estate, school, sales, fuel, etc.) should be considered. There are seven states that do not have income tax: Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming. Tennessee and New Hampshire have limited individual income tax and tax-only interest and dividend incomes. Of course the income tax rate only gives you a partial picture of the tax burden. Most of these states did make the Tax Foundation's top ten list of states with the lowest overall tax burden. You can find a detailed tax rate on www.taxfoundation.org or www.taxadmin.org.

Salary

Money is not the only consideration but it is an important one. In determining how much you are being paid, make sure you know the structure of your salary. Is your salary guaranteed or based on productivity. Most systems have a part base salary and part based on productivity. When you are looking at a salary that is largely based on projected RVU (relative value unit), you should ask around and see if most people in the group agree with the projected income. Certain systems in which a large portion of your salary is based on RVU, your annual

volume will be important and you should find out the annual volume and if any nearby hospitals are expanding their emergency departments and urgent care centers.

If you are being paid a flat salary, you need to consider how many annual hours you are contracted to work for that salary. In addition to those hours, are there other non-clinical obligations expected? Often when a salary is significantly larger, the number of hours you are contracted to work is also more, so you need to take that into account when calculating an hourly rate. In addition, the type of hours that you are contracted to work is also important. For example, you might be contracted to work a certain percentage of overnight and weekend hours and those hours are generally worth more in dollar value.

In addition to calculating annual hours, also take into account the number of paid vacation days; personal/sick days and CME days since that all counts into the equation of an actual hourly rate.

Benefits

A good salary is more than just a paycheck. There are many benefits, monetary and non-monetary, that will expand the size of a compensation package.

The other monetary benefits that can make up a significant portion of the compensation package is the retirement benefit. The two most common forms of retirement benefits are: Define Benefits Contribution or pension and 401k/403b with or without employer contributions.

The Define Benefit Pension is very desirable but a rarity nowadays.

Pros: It requires no contribution of your own money and it defines how much you

will get after retirement with less risk of market volatility at the time of retirement (depending on the integrity of the pension).

Cons: 1. If the pension becomes unsustainable, they might turn it over to a pension insurance company which will reduce pension payments to a fraction of what was promised depending on the current allowance; 2. If the pension becomes unsustainable, it can be closed down and rolled into a 401k/403b; 3. You usually need to stay at a job for a defined period of time to become vested in the pension (this can be true of a 401k as well); 4. Defined benefit pension allows less mobility, that is, if you should decide to leave that job, the ability to take the pension benefits with you is limited depending on the rules of that plan.

401k/403b: This is the most common form of retirement benefit. The advantage is that your contribution is pre-taxed thereby decreasing your taxable income. The disadvantage is that it is exposed to market volatility like all investments and you are responsible for managing its performance. Many employers can require

a certain number of years of service before becoming eligible for participation.

Employer contribution/matching contribution to 401k/403b: The advantage of this is obvious. This is free money whether or not the employer requires your contribution, and is tax-deferred. This is one part that can significantly expand your compensation package and might make a lesser salary position more desirable if the employer contributes a significant amount to the retirement plan.

Other benefits

One of the most important benefits is medical and dental. The importance of this is obvious and the consideration here is the type of plan and your contribution for the benefits.

Other benefits we more often overlook are paid vacation/CME time. This all amounts to dollar value when a day off is paid, in addition to lifestyle importance. If one job is paying less but offers significantly more vacation/CME time,

it may turn out to be similar in terms of compensation/hour.

There are several other benefits such as life insurance and disability insurance that are difficult to put into absolute dollar values and are often overlooked. You would have to assess your priorities to see if these benefits are important to you.

In the end, the best job is obviously not just about the monetary compensation. There are many intangibles that cannot be measured in monetary value such as the type of job, work environment, flexibility of the job, location, job security and more. Everyone has a different set of personal circumstances, which will make one job more appealing to one person than another. And, it is much easier to turn down a job than to leave a job that you have already started. So, it is important to figure out your own set of priorities. Take the time to evaluate job offers thoroughly and ask questions. Following these guidelines will hopefully help you make the best possible choice. ■

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David C. Lee, MD FACEP, Research Director, Associate Professor, Department of Emergency Medicine, Hofstra North Shore-LIJ School of Medicine brings this new feature column to the Empire State EPIC.

guest author for this issue

Mae De La Calzada-Jeanlouie, DO, Toxicology Fellow, North Shore University Hospital-Manhasset

Have a toxicology question? Email it to Dr. Lee at nyacep@nyacep.org for possible inclusion in the next issue of the EPIC.

Is Nitroglycerin Safe After Cocaine Use?

Nitroglycerin for the treatment for acute coronary syndrome is generally accepted, with few exceptions. However, in the setting of cocaine-associated chest pain certain therapeutic agents are contraindicated, such as beta blockers.^{1,2}

According to the 2011 Focused Update to the ACC/AHA Guidelines for Patients with Unstable Angina/Non-STEMI,³ pharmacologic treatment of cocaine-associated chest pain includes the use of nitroglycerin and calcium channel blockers (Level C evidence). Despite the limited scientific evidence, nitroglycerin is a Level 1 recommendation. But is it safe?

In 1994, Hollander, et al. published a prospective, multi-center observational study (COCHPA trial)⁴ looking at cocaine-associated chest pain. The primary focus of this study was to determine the incidence of cocaine-associated myocardial infarction (MI) along with the accompanying clinical characteristics predictive of MI. The secondary focus was to evaluate the safety and efficacy of nitroglycerin. Adverse events were recorded and defined as hypotension (including transient), new or worsening tachycardia, or worsening chest pain (all comers with chest pain and cocaine use within seven days were included). Ultimately, 246 patients were enrolled, 83 of whom received nitroglycerin.

- 1/83 patients had an adverse event – transient hypotension (this patient had an inferior wall MI)
- Time of cocaine use didn't affect the safety of nitroglycerin
- Effective in 41/83 patients (resolution of pain, electrocardiographic changes, improvement in blood pressure, and congestive heart failure)

A study published in 2003 by Honderick, et al. compared the use of nitroglycerin versus lorazepam plus nitroglycerin to alleviate cocaine-associated chest pain.⁵ This single blinded, controlled trial was designed to look at the safety of lorazepam. Unlike the preceding study, only subjects identified as being low risk for coronary artery disease were enrolled. Thirty-six patients were randomized into the different treatment

groups, with nine individuals excluded from the final analysis.

- Patients treated with nitroglycerin alone (14/15) still complained of pain after treatment versus 7/12 in the lorazepam plus nitroglycerin group
- Pain scores were statistically lower in lorazepam group

Conclusion

Although, there is limited published data regarding the safety of nitroglycerin in the setting of cocaine-associated vasoconstrictive emergencies, its use appears to be safe.

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Albany Update

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

In the race towards the end of the 2012 New York Legislative Session, New York ACEP was at the starting gate with a mini-lobby day April 17. Drs. Daniel Murphy and Samuel Bosco accompanied Weingarten, Reid & McNally (WR&M) on visits to major policy makers in the Capitol. Similar in pace of their day (or night) jobs the doctors were treated to a harried schedule with back-to-back meetings throughout the day, in offices, in the halls and buttonholing many legislators and staff outside the Assembly and Senate chambers during the legislative sessions that day. These included meetings with top health and insurance staff to Senate Majority Leader Dean Skelos and Senate Health Chairman Kemp Hannon, Senate Finance Chairman John DeFrancisco, Speaker Sheldon Silver's Insurance and Health Advisors, Attorney General Eric Schneiderman's legislative staff, Assemblyman Michael Cusick (Sponsor of the Assembly I-Stop legislation), Chair of the Assembly Insurance Committee Joe Morelle and key staff at the New York State Department of Health.

The meetings dealt principally with three issues:

- Emergency Department (ED) Triage
- I-STOP legislation to control the prescribing to Controlled Substances
- Out-of-Network Providers

TRIAGE

An Emergency Department Triage proposal was included in the 2012-13 FY State Budget as a last minute edition. The proposal (bottom right), directs the Commissioner of Health to develop a program to facilitate a Triage system of care in emergency rooms of hospitals across the state. As was relayed to us, one of the many origins of the proposal was based on discussions held by State Medicaid Director Jason Helgerson with Senate Finance Chairman John DeFrancisco. In those discussions, Mr. Helgerson provided information to the Senator about a demon-

stration proposal attempted in Wisconsin during Mr. Helgerson's tenure as the State of Wisconsin's Medicaid Director.

In meetings, both Senator DeFrancisco and the staff of the Department of Health, welcomed information and background on emergency department management and our concerns with the financial, logistical and patient impacts of such a program. While largely informational for all parties, the Department staff was particularly interested in New York ACEP's perspective regarding the lack of real or substantive cost-savings of any such program together with the complex logistical issues. For example, it was discussed that the evaluation and testing of a patient is part and parcel of any patient presenting in a hospital emergency department, which in non-admitted cases is a majority of any costs associated with the visit. One clearly stated goal by the Department staff was to ascertain the number of patients presenting who lacked a medical home or primary care providers. The DOH asserted that identification of such patients could be used to prevent future visits for non-urgent primary care. New York ACEP offered to continue to be a resource to the Department as their work continues on any program development in this area.

I-STOP

The Internet System for Tracking Over-Prescribing Act or I-STOP first advanced by Attorney General (AG) Eric Schneiderman last year and currently the subject of intense debate and staff work in Albany was the subject of a number of vis-

its and discussions April 17. Ironically, the AG's staff was actively lobbying members of the Assembly on the issue during New York ACEP's visits to the Assembly Chamber. New York ACEP shared with legislators its support for the spirit and intent of the legislation and recognized the need to address the serious issues with drug abuse and diversion in the state but suggested a number of amendments. Amendments intended to prevent the disruption of emergency department operations or undermine the quality of patient care and increase patient waiting times. Specifically, New York ACEP continues to insist that any final bill should waive the reporting and monitoring requirements for emergency physicians. Current proposals would require all physicians to monitor in real time patient records of prescriptions and visits prior to prescribing any controlled substances and require electronic prescribing for all physicians in two years.

OUT-OF-NETWORK PROVIDERS

Prior to the end of State Budget negotiations, Cuomo's Superintendent of the Department of Financial Services (DFS), Benjamin Lawsky, issued a detailed report which he has stated shows that many New Yorkers are getting stuck with unexpected medical bills totaling as much as tens of thousands of dollars, because of loopholes in the out-of-network provider regulations. The report details over 2,000 complaints it received in 2011 regarding medical payment issues and among other findings stated that in "emergency situations, consumers typically do not demand or even expect advance disclosure by out-of-network providers. A relatively small but significant number of out-of-network specialists, however, appear to take advantage of the fact that emergency care must be delivered. These providers charge excessive fees, some that are many times larger than what private or public payors typically allow."

8-a. Notwithstanding any inconsistent provision of law to the contrary, the commissioner shall develop a program to facilitate the use of a triage system of care in emergency rooms of hospitals that are subject to the provisions of this article. In developing such program the commissioner shall consider the manner in which such a system would be coordinated, how such a system would provide greater efficiency, provide cost savings to public health programs and a higher quality of care. Within one year from the enactment of such program, the commissioner shall submit a report to the temporary president of the senate and the speaker of the assembly regarding: the impact of such a system on the cost of Medicaid covered services in the hospital setting; quality of care in facilities; along with any other data as may be appropriate.

New York ACEP advocated strongly that it shares the concerns put forward in the DFS report that health care consumers should not be charged excessive fees by health care providers and any solutions to the problems presented in the report should not undermine the financial viability of the emergency health care safety net and importantly, access to on-call specialists. As an example, during the afternoon of the 17th, Dr. Bosco provided Assembly Insurance Chair Joe Morelle with a detailed explanation of the problem physicians in the emergency department confront and the impact of any out-of-network billing limitations or restrictions on access to specialty care. The Assemblyman offered that until then he had not been adequately briefed on the possible impact of the various solutions being proposed in the out-of-network debate.

The above highlights just a few of the conversations New York ACEP had with State leaders in early April. However, just, if not more important is the advocacy New York ACEP members take on the local level to inform their Assembly Member and Senator of New York ACEP's positions on these and other state issues by email, letter or phone calls. While we at WR&M are on the ground working together with your leadership in Albany, we believe it is critical for all of the membership to participate in the advocacy efforts at home. In this regard, we urge you to visit the governmental advocacy section of the New York ACEP web site. ■

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MRSA Rates and Antibiotic Susceptibilities from Skin and Soft Tissue Cultures in a Suburban ED.

Wackett A, Nazdryn A, Spitzer E, Singer AJ, Department of Emergency Medicine, Stony Brook University, Stony Brook, NY; *J Emerg Med.* 2012 Apr 9.

BACKGROUND: Prior studies suggest that more than half of all skin and soft tissue infections (SSTIs) are caused by methicillin-resistant *Staphylococcus aureus* (MRSA). These data mainly represent inner-city urban centers.

OBJECTIVE: We determined the bacteriologic etiologies and antibiotic susceptibilities from wound cultures in the emergency department (ED). We hypothesized that in a suburban ED, MRSA would not represent the major pathogen.

METHODS: The study design was a retrospective, electronic medical record review in a suburban tertiary care ED with 80,000 annual visits. Subjects included ED patients of all ages who had skin or soft tissue cultures obtained in 2005-2008. Demographics and clinical data, including type of SSTI (MRSA or methicillin-sensitive *S. aureus* [MSSA]), culture results, and antibiotic susceptibility, were analyzed using descriptive statistics.

RESULTS: From the 1246 cultures obtained during the study period, 252 (20.2%) were MSSA and 270 (21.6%) were MRSA. The rates of MRSA infections over time increased from 13.5% to 25.7% during 2005-2008. The rates of MRSA in males and females were comparable at 23.3%

and 19.6%, respectively. In 2008, MRSA was 97-100% susceptible to vancomycin, linezolid, rifampin, nitrofurantoin, chloramphenicol, gentamycin, tetracycline, and trimethoprim-sulfamethoxazole (TMP-SMZ). To a lesser extent it was susceptible to clindamycin (75%), erythromycin (62%), and levofloxacin (50%).

CONCLUSIONS: There has been a significant increase in the rates of MRSA SSTIs in a suburban ED, yet only 1 in 4 SSTIs are caused by MRSA. Both MRSA and MSSA are completely susceptible to vancomycin, linezolid, rifampin, nitrofurantoin, and chloramphenicol. Gentamicin, tetracycline, and TMP-SMZ cover > 97% of both isolates.

Ultrasound-Guided Fascia Iliaca Compartment Block for Hip Fractures in the Emergency Department.

Haines L, Dickman E, Ayvazyan S, Pearl M, Wu S, Rosenblum D, Likourezos A, Department of Emergency Medicine, Maimonides Medical Center, Brooklyn, NY; *J Emerg Med.* 2012 Apr 9 [Epub ahead of print].

BACKGROUND: Hip fracture (HFx) is a painful injury that is commonly seen in the emergency department (ED). Patients who experience pain from HFx are often treated with intravenous opiates, which may cause deleterious side effects, particularly in elderly patients. An alternative to systemic opioid analgesia involves peripheral nerve blockade. This approach may be ideally suited for the ED environment, where one injection could control pain for many hours.

OBJECTIVES: We hypothesized that an ultrasound-guided fascia iliaca compartment block (UFIB) would provide analgesia for patients presenting to the ED with pain from HFx and that this procedure could be performed safely by emergency physicians (EP) after a brief training.

METHODS: In this prospective, observational, feasibility study, a convenience sample of 20 cognitively intact patients with isolated HFx had a UFIB performed. Numerical pain scores, vital signs, and side effects were recorded before and after administration of the UFIB at pre-determined time points for 8h.

RESULTS: All patients reported decreased pain after the nerve block, with a 76% reduction in mean pain score at 120 min. There were no procedural complications.

CONCLUSION: In this small group of ED patients, UFIB provided excellent analgesia without complications and may be a useful adjunct to systemic pain control for HFx.

Characteristics of Emergency Department Patients Who Receive a Palliative Care Consultation.

Grudzen CR, Hwang U, Cohen JA, Fischman M, Morrison RS, Department of Emergency Medicine, Mount Sinai School of Medicine, New York, NY; *J Palliat Med.* 2012 Apr;15(4):396-9. Epub 2012 Apr 2.

BACKGROUND: A large gap exists between the practice of emergency medicine and palliative care. Although hospice and palliative medicine has recently been recognized as a subspecialty of emergency medicine, few palliative care teams routinely interact with emergency providers, and primary palliative care skills among emergency providers are lacking.

OBJECTIVE: To identify the proportion and characteristics of patients who receive a palliative care consultation and arrive via the emergency department (ED).

METHODS: A descriptive study of adult ED patients from an urban, academic tertiary care hospital who received a palliative care consultation in January 2005 or January 2009.

RESULTS: In January 2005, 100 of the 161 consultations (62%) arrived via the ED versus 63 of 124 consultations (51%) in January 2009 ($p=0.06$). Mean days from admission to consultation in January 2005 were six



New York State of Mind

days (standard deviation 11), versus nine days (SD 26) in January 2009 ($p=0.35$). Three of the 100 consultations (3%) in January 2005 were initiated in the ED, versus 4 of the 64 (6%) in January 2009.

CONCLUSIONS: At an urban academic medical center with a well-developed palliative care service, the majority of palliative care consultations were for patients who arrive via the ED. Despite this, only a small minority of consultations originated from emergency providers and consultation was on average initiated days into a patient's hospital stay.

Diplopia From Subacute Bilateral Subdural Hematoma After Spinal Anesthesia.

Hassen GW, Kalantari H, New York Medical College, Metropolitan Hospital Center, Department of Emergency Medicine, New York, NY; *West J Emerg Med.* 2012 Feb;13(1):108-10.

Subdural hematoma (SDH) is a rare, but life-threatening complication of spinal anesthesia. Subdural hematoma resulting from this procedure could present with vague symptoms such as chronic headache and could easily be missed. Chronic headache is one of the symptoms of chronic SDH in postpartum women. Diplopia as the presenting complaint in SDH secondary to peripartum spinal anesthesia has not, to our knowledge, been previously reported. Here, we report a case of diplopia secondary to postpartum subacute bilateral SDHs with transtentorial herniation after spinal anesthesia in a healthy primagravid 25-year-old woman. SDH can expand gradually and the initial symptoms might be subtle as in our case, despite critically high intracranial pressure.

Right Flank Pain: A Case Report of an Interesting Sonographic Finding.

Daignault MC, Saul T, Lewiss RE, Department of Emergency Medicine, Emergency Ultrasound Division, St. Luke's-Roosevelt Hospital Center, New York; Department of Emergency Medicine Residency Program, Lincoln Medical & Mental Health Center, Bronx, NY; 5. *J Emerg Med.* 2012 Mar 27. [Epub ahead of print].

BACKGROUND: Focused bedside ultrasound is a screening tool frequently used by emergency physicians to evaluate hepatobiliary and renal pathology in patients presenting with abdominal complaints in the emergency department (ED).

OBJECTIVE: This case report describes a sonographic finding that was interpreted as free fluid in the right upper quadrant. Computed tomography (CT) was used to confirm the diagnosis.

CASE REPORT: A 44-year-old man presented to the ED with the sudden onset of right-sided abdominal pain and exhibited right costovertebral angle tenderness on physical examination. Focused bedside ultrasound of the right upper quadrant revealed severe hydronephrosis of the right kidney and free fluid of either subcapsular, perinephric, or peritoneal location represented by an anechoic stripe in Morison's pouch. On CT evaluation, this patient was found to have perinephric fluid accumulation from a presumed ruptured renal calyx in the setting of chronic ureteropelvic junction obstruction with severe hydronephrosis.

CONCLUSION: The exact location of anechoic fluid in the abdomen is not always apparent on bedside ultrasound. To minimize misinterpreting focused bedside ultrasound examination findings, we recommend a number of sonographic techniques to identify possible mimics of free fluid. Suspected free fluid findings on bedside ultrasound should always be evaluated within the clinical context of the patient's presentation.

Prevalence of Occult Anemia in an Urban Pediatric Emergency Department: What is Our Response?

Kristinsson G, Shtivelman S, Hom J, Tunik MG, Departments of Pediatrics and Emergency Medicine, New York University School of Medicine, New York, NY; and Department of Pediatrics, Children's Hospital Oakland, Oakland, CA; *Pediatr Emerg Care.* 2012 Apr;28(4):313-5.

OBJECTIVE: Treating or referring patients who are found to be anemic during pediatric emergency department (ED) encounters should lead to improved health in children and young adults. Before establishing guidelines how to approach the anemic in the pediatric ED, it is essential to determine the prevalence of anemia in the ED and our response to the presence of anemia.

METHODS: We performed a retrospective cross-sectional study on hemoglobin levels from patients 1 to 23 years evaluated in an inner-city public hospital pediatric ED during a 12-month period. The primary outcome measure was the prevalence of prior unknown or "occult" anemia, stratified by age, sex, and insurance status. The secondary outcome was the proportion of patients with "occult" anemia who had their condition diagnosed during their ED encounter. Descriptive data analysis was performed.

RESULTS: Our study population consisted of 2,131 patients who had a complete blood count drawn in the ED. Prevalence of "occult" anemia was 13.9% (95% confidence interval [CI], 12.5%-15.4%). Proportions among the subpopulations were 14.8% (95% CI, 10.0%-19.5%) in preschool children, 16.3% (95% CI, 14.2%-18.3%) in females, 18.5% (95% CI, 15.4%-21.7%) in the uninsured, and 20.7% (95% CI, 16.5%-24.9%) in females of childbearing age without insurance. Only 24 patients (8%) with "occult" anemia had the condition identified on discharge.

CONCLUSIONS: Anemia has a high prevalence in this pediatric ED population, especially among females of childbearing age and the uninsured. Pediatric emergency medicine physicians are missing on an opportunity to address a common health problem that is easily corrected with appropriate therapy and outpatient follow-up.

The Impact of Wound Age on the Infection Rate of Simple Lacerations Repaired in the Emergency Department.

Zehtabchi S, Tan A, Yadav K, Badawy A, Lucchesi M, Departments of Emergency Medicine, State University of New York, Downstate Medical Center, Brooklyn, NY; *Injury.* 2012 Mar 14. [Epub ahead of print].

BACKGROUND: The influence of wound age on the risk of infection in simple lacerations repaired in the emergency

department (ED) has not been well studied. It has traditionally been taught that there is a “golden period” beyond which lacerations are at higher risk of infection and therefore should not be closed primarily. The proposed cutoff for this golden period has been highly variable (3-24h in surgical textbooks). Our objective is to answer the following research question: are wounds closed via primary repair after the golden period at increased risk for infection?

METHODS: We searched MEDLINE, EMBASE, and other databases as well as bibliographies of relevant articles. We included studies that enrolled ED patients with lacerations repaired by primary closure.

Exclusion: (1) delayed primary repair or secondary closure, (2) wounds requiring intra-operative repair, skin graft, drains, or extensive debridement, and (3) grossly contaminated or infected at presentation. We compared the outcome of wound infection in two groups of early versus delayed presentations (based on the cut-offs selected by the original articles). We used “Grading of Recommendations

Assessment, Development and Evaluation” (GRADE) criteria to assess the quality of the included trials.

RESULTS: 418 studies were identified. Four trials enrolling 3,724 patients in aggregate met our inclusion/exclusion criteria. The overall quality of evidence was low. The infection rate in the wounds that presented with delay ranged from 1.4% to 32%. One study with the smallest sample size (only 19 delayed wounds), which only enrolled lacerations to hand and forearm, showed higher rate of infection in patients with delayed (older than 12h) wounds (relative risk of infection: 4.8, 95% confidence interval, 1.9-12.0). The infection rate in delayed wound groups in the remaining three studies was not significantly different.

CONCLUSION: The existing evidence does not support the existence of a golden period nor does it support the role of wound age on infection rate in simple lacerations.

Cross-Sectional Survey of Malaria Prevalence in Tsunami-Affected Districts of Aceh Province, Indonesia.

Muriuki D, Hahn S, Hexom B, Allan R, Mount Sinai School of Medicine, Department of Emergency Medicine, New York, NY; Int J Emerg Med. 2012 Feb 21;5(1):11.

BACKGROUND: Malaria is endemic to Indonesia. However, there are few prevalence data available from Aceh Province because of the long-standing separatist conflict and decentralization of the public health system. The Mentor Initiative, which specializes in malaria control in humanitarian emergencies, was one of the non-governmental organizations to respond to the 2004 Indian Ocean tsunami in Aceh. Data on malaria prevalence were gathered to guide and evaluate programmatic efforts.

FINDINGS: The Mentor Initiative conducted community-based malaria prevalence surveys in 2005 and 2006 in five districts along the tsunami-affected western coastline. A total of 11,763 individuals in 3,771 households were tested. The overall slide positivity rate in 2005 and 2006 for all Plasmodium species was 2.1% (n = 252, 95% CI 1.9%-2.4%). Slide positivity rates ranged from 0 to 55% among villages. Overall, 57% of the 252 cases were infected

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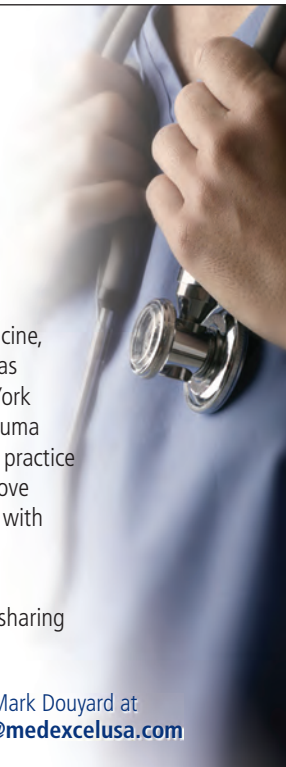
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with *P. falciparum* (n = 144, 95% CI 51.0%-63.3%), and 40.1% were infected with *P. vivax* (n = 101, 95% CI 34.0%-46.1%), with 0.03% (n = 7, 95% CI 0.8%-4.8%) being mixed infections. Males were significantly more likely to be affected than females (2.8% vs 1.5%, p < 0.01). Infection was more common in those over the age of 5 (2.3% vs. 0.6%, p < 0.01).

CONCLUSIONS: Local prevalence data are needed to design effective community-based malaria control programs, as endemicity varies greatly within districts. Certain villages were found to be hyperendemic, with slide positivity rates far higher than average in Indonesia. There is a need for ongoing malaria surveillance in Aceh Province to monitor prevention and treatment efforts.

Effect of Gender on Prehospital Refusal of Medical Aid.

Waldron R, Finalle C, Tsang J, Lesser M, Mogelof D, Department of Emergency Medicine, New York Hospital Queens, Flushing, NY; *J Emerg Med.* 2012 Feb 9. [Epub ahead of print].

BACKGROUND: “Refusal of medical aid” (RMA) is the term commonly used by emergency medical technicians (EMTs) when someone calls 911 for care (usually the patient or a family member) but, after the initial encounter with the EMTs, the patient refuses emergency medical services transport to the hospital. Some intervention may have been performed, such as taking vital signs or an electrocardiogram, before the RMA. Although there have been multiple studies of the characteristics and outcomes of patients who RMA, little analysis has been done of the role of EMTs in these cases.

OBJECTIVE: To analyze the association between EMT gender and the patient’s decision to refuse medical aid in the pre-hospital setting.

METHODS: The study was performed using data from one hospital-based ambulance service in an urban setting that

participates in the 911 system. This was a case control study that examined the data from consecutive patients who refused medical aid for a 1-year period compared to a control group of non-RMA patients.

RESULTS: There was a significantly higher representation of all-male EMT teams in the RMA group (p<0.0001). Using propensity score-matching methodology to control for other factors, all-male EMT teams were 4.75 times more likely to generate an RMA as compared to all-female and mixed-gender EMT teams (95% confidence interval 1.63-13.96, p=0.0046).

CONCLUSION: We found that the gender of the EMTs was one of the most important factors associated with RMA, with a much higher frequency of RMAs occurring when both members of the team were male.

Clinical Pathologic Conference: A 65-Year-Old Male with Left-Sided Chest Pain. A Case of an Unexpected Occupational Hazard.

Egan DJ, Pare JR, Department of Emergency Medicine, St. Luke’s Roosevelt Hospital Center, Columbia University College of Physicians and Surgeons, New York, NY; *Acad Emerg Med.* 2012 Feb;19(2):e1-6. doi: 10.1111/j.1553-2712.2011.01269.x.

The authors present a case of a 65-year-old male who presented four times to the emergency department (ED) with left-sided chest pain. On the first three visits, the patient was admitted with a different diagnosis related to his chest pain. On the final visit, an abnormality on an imaging study performed in the ED led to the ultimate diagnostic test revealing the cause of the patient’s symptoms. The patient’s clinical presentation and ultimate clinical course are summarized, and a discussion of the differential diagnoses of his condition is presented.

Physicians’ Ability To Predict Hospital Length of Stay for Patients Admitted to The Hospital From The Emergency Department.

Mak G, Grant WD, McKenzie JC, McCabe JB, Department of Emergency Medicine, State University of New York Upstate Medical University, Syracuse, NY; *Emerg Med Int.* 2012;2012:824674. Epub 2012 Jan 26.

Accurate predictions of patient length of stay (LOS) in the hospital can effectively manage hospital resources and increase efficiency of patient care. A study was done to assess emergency medicine physicians’ ability of predicting the LOS of patients who enter the hospital through the ER. Results indicate that EM physicians are relatively accurate with their pediatric patients than any other age groups. In addition, as actual hospital LOS increases, the prediction accuracy decreases. Possible reasons may be due to increasing medical complications associated with increasing age and this may lead to overall longer stays. Other variables such as the admitted service of the patient are not statistically significant in predicting LOS in this study. Future studies should be done in order to determine other variables that may affect LOS predictions.

Evidence-Based Guidelines for Evaluation and Antimicrobial Therapy for Common Emergency Department Infections.

Nassisi D, Oishi ML, Department of Emergency Medicine, Mount Sinai School of Medicine, New York, NY; *Emerg Med Pract.* 2012 Jan;14(1):1-28; quiz 28-9.

Infections are among the most common diagnoses in the emergency department (ED), and antibiotics are among the most frequently prescribed drugs. Community-acquired pneumonia (CAP) and health-care-associated pneumonia (HCAP) are frequently encountered in the ED, and pneumonia is the seventh leading cause of death in the United States. Cystitis, pyelonephritis, and complicated urinary tract infection (UTI) are often treated in the ED, with UTI being one of the most common reasons for healthy young women to require antimicrobial treatment. Intra-abdominal infections have an incidence of 3.5 million cases per year in the United States, and emergency clinicians must make complex decisions regarding appropriate evaluation and management. Skin and soft-tissue infections (SSTIs) are common, their incidence in the ED has been rising,

and the emergence of methicillin-resistant *Staphylococcus aureus* (MRSA) infection has altered their management. Timely diagnosis and management of infectious disease, including proper antimicrobial treatment, is an important goal of emergency care. This issue of *Emergency Medicine Practice* reviews the available evidence and consensus guidelines for the management of common infectious diseases presenting to the ED and presents recommendations for treatment.

Headache Emergencies: Diagnosis and Management.

Friedman BW, Lipton RB, Department of Emergency Medicine, Albert Einstein College of Medicine, Montefiore Medical Center, Bronx, NY; *Neuro Clin.* 2012 Feb;30(1):43-59, vii.

Headaches are a common reason for visiting a health care provider. Headaches are at times symptomatic of an underlying process that requires prompt diagnosis and urgent treatment to reduce threats to life or limb. In this article, the authors review the 6 most common presentations for worrisome headache and discuss the differential diagnosis. Careful attention to patients' history and physical examination and a thoughtful approach to the differential diagnosis will guide diagnostic work-up and management. Although benign causes of headache are much more common than malignant secondary processes, thorough management of the acute headache requires excluding malignant secondary processes.

Paradoxical and Bidirectional Drug Effects.

Smith SW, Hauben M, Aronson JK, Department of Emergency Medicine, New York University School of Medicine, New York, NY; *Drug Saf.* 2012 Mar 1;35(3):173-89. doi: 10.2165/11597710-000000000-00000.

A paradoxical drug reaction constitutes an outcome that is opposite from the outcome that would be expected from the drug's known actions. There are three types: 1. A paradoxical response in a condition for which the drug is being explicitly prescribed. 2. Paradoxical precipitation of a condition for which the drug is indicated, when the drug is being used for an alternative indication. 3. Effects that are paradoxical in relation to an aspect of the pharmacology of the drug but unrelated to

the usual indication. In bidirectional drug reactions, a drug may produce opposite effects, either in the same or different individuals, the effects usually being different from the expected beneficial effect.

Paradoxical and bidirectional drug effects can sometimes be harnessed for benefit; some may be adverse. Such reactions arise in a wide variety of drug classes. Some are common; others are reported in single case reports. Paradoxical effects are often adverse, since they are opposite the direction of the expected effect. They may complicate the assessment of adverse drug reactions, pharmacovigilance, and clinical management. Bidirectional effects may be clinically useful or adverse. From a clinical toxicological perspective, altered pharmacokinetics or pharmacodynamics in overdose may exacerbate paradoxical and bidirectional effects. Certain antidotes have paradoxical attributes, complicating management. Apparent clinical paradoxical or bidirectional effects and reactions ensue when conflicts arise at different levels in self-regulating biological systems, as complexity increases from subcellular components, such as receptors, to cells, tissues, organs, and the whole individual. These may be incompletely understood. Mechanisms of such effects include different actions at the same receptor, owing to changes with time and downstream effects; stereochemical effects; multiple receptor targets with or without associated temporal effects; antibody-mediated reactions; three-dimensional architectural constraints; pharmacokinetic competing compartment effects; disrupt-

tion and non-linear effects in oscillating systems, systemic overcompensation, and other higher-level feedback mechanisms and feedback response loops at multiple levels.

Here we review and provide a compendium of multiple class effects and individual reactions, relevant mechanisms, and specific clinical toxicological considerations of antibiotics, immune modulators, antineoplastic drugs, and cardiovascular, CNS, dermal, endocrine, musculoskeletal, gastrointestinal, haematological, respiratory, and psychotropic agents.

Abnormal Urine Color.

Aycock RD, Kass DA, Department of Emergency Medicine, Staten Island University Hospital, Staten Island, NY; *South Med J.* 2012 Jan;105(1):43-7.

A change in urine color can be distressing for patients and physicians alike. Many of the causes of abnormal urine color are benign effects of medications and foods; however, a change in urine color may be a sign of an underlying pathological condi-

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tion. The good news is that in many cases the diagnosis can be determined from a thorough history and urinalysis. This article presents many of the conditions physicians may encounter and will help them form a narrow differential diagnosis and treatment plan.

Traumatic Hemorrhagic Shock: Advances in Fluid Management.

Cherkas D, Department of Emergency Medicine, Mount Sinai School of Medicine, Elmhurst Hospital Center, New York, NY; Emerg Med Pract. 2011 Nov;13(11):1-19; quiz 19-20.

A number of concerns have been raised regarding the advisability of the classic principles of aggressive crystalloid resuscitation in traumatic hemorrhagic shock. This issue reviews the advances that have led to a shift in the emergency department (ED) protocols in resuscitation from shock state, including recent literature regarding the new paradigm for the treatment of traumatic hemorrhagic shock, which is most generally known as damage control resuscitation (DCR). Goals and endpoints for resuscitation and a review of initial fluid choice are discussed, along with the coagulopathy of trauma and its management, how to address hemorrhagic shock in traumatic brain injury (TBI), and new pharmacologic treatment for hemorrhagic shock. The primary conclusions include the administration of tranexamic acid (TXA) for all patients with uncontrolled hemorrhage (Class I), the implementation of a massive transfusion protocol (MTP) with fixed blood product ratios (Class II), avoidance of large-volume crystalloid resuscitation (Class III), and appropriate usage of permissive hypotension (Class III). The choice of fluid for initial resuscitation has not been shown to affect outcomes in trauma (Class I).

Because it's There... The Education of George Mallory.

Madhok R, Lemery J, Rodway GW, Emergency Medicine, New York-

Presbyterian Hospital, New York, NY; Wilderness Environ Med. 2011 Dec;22(4):352-4.

Initiative, creativity, and resolve represent both the pillars of the Wilderness Medical Society (WMS) and the story of George Mallory. His journey from humble beginnings to his rise to become one of history's most legendary mountaineers is a testament to the impact of great mentors as well as the development of Mallory as a mentor himself. In this light, the path of George Mallory in mountaineering and the role of WMS in wilderness medicine share a common theme. This essay is not only a tribute to George Mallory but also a testament to the importance of mentorship and the role of WMS in inspiring mentorship and education to future pioneers.

L-Carnitine Increases Survival in a Murine Model of Severe Verapamil Toxicity.

Perez E, Chu J, Bania T, Medlej K, Department of Emergency Medicine, St Luke's/Roosevelt Hospital, New York, NY; Acad Emerg Med. 2011 Nov;18(11):1135-40. doi: 10.1111/j.1553-2712.2011.01217.x.

OBJECTIVES: L-carnitine is an essential compound involved in cellular energy production through free fatty acid metabolism. It has been theorized that severe verapamil toxicity "shifts" heart energy production away from free fatty acids and toward other sources, contributing to profound cardiogenic shock. The primary study objective was to determine whether intravenous (IV) L-carnitine affects survival in severe verapamil toxicity. Secondary objectives were to determine the effects on hemodynamic parameters. The authors hypothesized that IV L-carnitine would increase both survival and hemodynamic parameters in severe verapamil toxicity.

METHODS: This was a controlled, blinded animal investigation. Sixteen male rats were anesthetized, ventilated, and instrumented to record mean arterial pressure (MAP) and heart rate. Verapamil

toxicity was achieved by a constant infusion of 5 mg/kg/hr. After 5 minutes a bolus of 50 mg/kg of either L-carnitine or normal saline was given. The experiment concluded when either 10% of baseline MAP was achieved or 150 minutes had elapsed. The data were analyzed using Kaplan-Meier analysis, log rank test, and analysis of variance.

RESULTS: The median survival for the animals in the L-carnitine group was 140.75 minutes (interquartile range [IQR] = 98.6 to 150 minutes), and for those in the normal saline group it was 49.19 minutes (IQR = 39.02 to 70.97 minutes; $p = 0.0001$). At 15 minutes the MAP was 20.45 mm Hg greater in the animals in the L-carnitine group than in the animals in the normal saline group (95% confidence interval [CI] = 0.25 to 40.65; $p = 0.047$).

CONCLUSIONS: When compared with saline, IV L-carnitine increases survival and MAP in a murine model of severe verapamil toxicity.

The Low Rate of Bacterial Meningitis In Children, Ages 6 to 18 Months, with Simple Febrile Seizures.

Hom J, Medwid K, Department of Emergency Medicine, New York University School of Medicine, New York, NY; Acad Emerg Med. 2011 Nov;18(11):1114-20. doi: 10.1111/j.1553-2712.2011.01216.x.

OBJECTIVES: This evidence-based review examines the risk of bacterial meningitis as diagnosed by lumbar puncture (LP) in children presenting to the emergency department (ED) with a simple febrile seizure. The study population consists of fully immunized children between ages 6 and 18 months of age with an unremarkable history and normal physical examination.

METHODS: MEDLINE, EMBASE, and Cochrane Library databases were searched for studies that enrolled children who presented with simple febrile seizure to the ED and had LP performed to rule out meningitis. The primary outcome measure was the risk of bacterial meningitis based on findings of the LP. The secondary outcome was the rate of cerebrospinal fluid (CSF) pleocytosis in children who were pretreated with antibiotics.

RESULTS: Two studies enrolling a total of 150 children met the inclusion and exclusion criteria. The overall rate of meningitis

was 0% (95% confidence interval [CI] = 0.0% to 3.0%). The rate of CSF pleocytosis in children who were pretreated with antibiotics was 2.5% (95% CI = 0.0% to 14.0%).

CONCLUSIONS: The sample size of the studies included in this review is too small to draw any definitive conclusion. However, their findings suggest that the risk of bacterial meningitis in children presenting with simple febrile seizure is very low.

Factors Associated With Failure to Follow-Up at a Medical Clinic After an ED Visit.

Naderi S, Barnett B, Hoffman RS, Dalipi R, Houdek L, Alagappan K, Silverman R, Department of Emergency Medicine, NYU Bellevue, New York, NY; *Am J Emerg Med.* 2012 Feb;30(2):347-51. *Epub* 2011 Nov 12.

BACKGROUND: Although emergency department (ED) discharge is often based on the presumption of continued care, the reported compliance rate with follow-up appointments is low.

OBJECTIVES: The objectives of this study are to identify factors associated with missed follow-up appointments from the ED and to assess the ability of clinicians to predict which patients will follow-up.

METHODS: Patients without insurance or an outpatient primary care provider (PCP) were given a follow-up clinic appointment before discharge. Information identifying potential follow-up barriers was collected, and the physician's perception of the likelihood of follow-up was recorded. Patients who missed their appointment were contacted via telephone and were offered a questionnaire and a rescheduled clinic appointment.

RESULTS: A total of 125 patients with no PCP were enrolled. Sixty (48%; 95% confidence interval, 39-57) kept their scheduled appointment. Sex, distance from clinic, availability of transportation, or time since last nonemergent physician visit was associated with attendance to the follow-up visit. Clinicians were unable to predict which patients would follow-up. Contact by telephone was made in 48 (74%) of patients who failed to follow-up. Of the 14 patients willing to reschedule, none returned for follow-up.

CONCLUSION: Among ED patients who lack a PCP and are given a clinic appoint-

ment from the ED, less than half keep the appointment. Moreover, clinicians are unable to predict which patients will follow up. This study highlights the difficulty in maintaining continuity of care in populations who are self-pay or have Medicaid and lack regular providers. This may have implications on discharge planning from the ED.

Preoxygenation and Prevention of Desaturation During Emergency Airway Management.

Weingart SD, Levitan RM, Division of Emergency Critical Care, Department of Emergency Medicine, Mount Sinai School of Medicine, New York, NY; *Ann Emerg Med.* 2012 Mar;59(3):165-75.e1. *Epub* 2011 Nov 3.

Patients requiring emergency airway management are at great risk of hypoxemic hypoxia because of primary lung pathology, high metabolic demands, anemia, insufficient respiratory drive, and inability to protect their airway against aspiration. Tracheal intubation is often required before the complete information needed to assess the risk of peri-procedural hypoxia is acquired, such as an arterial blood gas level, hemoglobin value, or even a chest radiograph. This article reviews preoxygenation and peri-intubation oxygenation techniques to minimize the risk of critical hypoxia and introduces a risk-stratification approach to emergency tracheal intubation. Techniques reviewed include positioning, preoxygenation and denitrogenation, positive end expiratory pressure devices, and passive apneic oxygenation.

Third-Year Medical Student Rotations In Emergency Medicine: A Survey of Current Practices.

Mulcare MR, Suh EH, Tews M, Swan-Sein A, Pandit K, Department of Emergency Medicine, New York-Presbyterian Hospital-University Hospitals of Columbia and Cornell, New York, NY; *Acad Emerg Med.* 2011 Oct;18 Suppl 2:S41-7. doi: 10.1111/j.1553-2712.2011.01187.x.

OBJECTIVES: Exposure to emergency medicine (EM) is a crucial aspect of medical student education, yet one that is historically absent from third-year medical student training. There are limited data describing the existing third-year rotations. The goal of this study is to identify the

content and structure of current EM rotations specific to third-year students.

METHODS: An institutional review board-approved survey of clerkship characteristics was designed by consensus opinion of clerkship directors (CDs). The survey was distributed to 32 CDs at institutions with known EM clerkships involving third-year students.

RESULTS: Twenty-three (72%) CDs responded to the survey. Sixty-five percent have rotations designed specifically for third-year students, of which 33% are required clerkships. Twenty-seven percent of rotations have prerequisite rotations; 37% of rotations include shifts in the pediatric ED. Clinical time averages four 8-hour shifts per week for 4 weeks; all rotations include weekly didactic time specific to third-year students. A wide variety of textbooks are used; some programs employ simulation labs. Two-thirds of the rotations have a required write-up or presentation; 53% include a final exam. Student evaluations are written and verbal. Most rotations receive more support from the EM departments than from the medical schools for physical space, administrative needs, and faculty time. Among those surveyed, students from institutions requiring a third-year EM rotation have a higher rate of application to EM residencies.

CONCLUSIONS: There is variability in the content and structure of existing third-year EM rotations, as well as in financial and administrative needs and support. These data can help to inform CDs and departments that are starting or modifying EM third-year rotations, as well as contribute to the development of curricula for such rotations.

Comparison of a Modified Longitudinal Simulation-Based Advanced Cardiovascular Life Support to a Traditional Advanced Cardiovascular Life Support Curriculum in Third-Year Medical Students.

Ko PY, Scott JM, Mihai A, Grant WD, Department of Emergency Medicine, Upstate Medical University, Syracuse, NY; *Teach Learn Med.* 2011 Oct;23(4):324-30.

BACKGROUND: Simulation is an effective tool for teaching medical students in cardiac arrest management.

PURPOSE: The purpose of this article is to compare the efficacy of a traditional



New York State of Mind

Advanced Cardiovascular Life Support (ACLS) course versus a modified longitudinal ACLS course using high-fidelity simulation in medical students.

METHODS: One group enrolled in a 2-day traditional ACLS course while another group participated in independent learning over 2 weeks and 2 simulation sessions using Laerdal Sim-Man. The modified curriculum also included environmental fidelity with simulation, access to materials electronically, smaller class sizes, and integration of real experiences in the Emergency Department into their learning. Student performance was measured with a scripted, videotaped mega code, followed by a survey.

RESULTS: We enrolled 21 students in a traditional ACLS program and 29 students in the simulation-based program (15 and 26 videos available for analysis). There was no difference in Time to Initiate CPR or Time to Shock between the groups, but the modified curriculum group demonstrated higher performance scores. They also felt better prepared to run the code during a simulation and in a hospital setting compared to students in the traditional ACLS curriculum.

CONCLUSIONS: Students in a modified longitudinal simulation-based ACLS curriculum demonstrated better proficiency in learning ACLS compared to a traditional curriculum.

An Intervention to Improve Care and Reduce Costs for High-Risk Patients With Frequent Hospital Admissions: A Pilot Study.

Raven MC, Doran KM, Kostrowski S, Gillespie CC, Elbel BD, Department of Emergency Medicine, NYU School of Medicine, New York, NY; BMC Health Serv Res. 2011 Oct 13;11:270.

BACKGROUND: A small percentage of high-risk patients accounts for a large proportion of Medicaid spending in the United States, which has become an urgent policy issue. Our objective was to pilot a novel patient-centered intervention for high-risk patients with frequent hospital admissions

to determine its potential to improve care and reduce costs.

METHODS: Community and hospital-based care management and coordination intervention with pre-post analysis of health care utilization. We enrolled Medicaid fee-for-service patients aged 18-64 who were admitted to an urban public hospital and identified as being at high risk for hospital readmission by a validated predictive algorithm. Enrolled patients were evaluated using qualitative and quantitative interview techniques to identify needs such as transportation to/advocacy during medical appointments, mental health/substance use treatment, and home visits. A community housing partner initiated housing applications in-hospital for homeless patients. Care managers facilitated appropriate discharge plans then worked closely with patients in the community using a harm reduction approach.

RESULTS: Nineteen patients were enrolled; all were male, 18/19 were substance users, and 17/19 were homeless. Patients had a total of 64 inpatient admissions in the 12 months before the intervention, versus 40 in the following 12 months, a 37.5% reduction. Most patients (73.3%) had fewer inpatient admissions in the year after the intervention compared to the prior year. Overall ED visits also decreased after study enrollment, while outpatient clinic visits increased. Yearly study hospital Medicaid reimbursements fell an average of \$16,383 per patient.

CONCLUSIONS: A pilot intervention for high-cost patients shows promising results for health services usage. We are currently expanding our model to serve more patients at additional hospitals to see if the pilot's success can be replicated.

Reepithelialization of Mid-Dermal Porcine Burns After Rapid Enzymatic Debridement With Debrase®.

Singer AJ, Taira BR, Anderson R, McClain SA, Rosenberg L, Department of Emergency Medicine at Stony Brook University, Stony Brook, NY; J Burn Care Res. 2011 Nov-Dec;32(6):647-53.

Reepithelialization of mid-dermal burns is delayed by the presence of a layer of necrotic eschar. The authors hypothesized that rapid selective debridement using an enzymatic bromelain-based preparation, Debrase®, would speed reepithelialization. Forty mid-dermal burns (2.5 × 2.5 cm) were created on the back and flanks of two anesthetized domestic pigs (25 kg) using an aluminum bar (150 g) preheated in hot water (80°C) and applied for 20 seconds. The burns were randomized to a 4-hour topical application of Debrase® (n = 20) or its vehicle (n = 20) followed by daily application of a petrolatum-based triple antibiotic.

Wounds were visualized and photographed daily for evidence of reepithelialization. Reepithelialization was considered complete when the entire wound was opaque and dry when blotted with tissue paper. 4-mm full-thickness biopsies were obtained for histological analysis using hematoxylin and eosin staining by a board-certified dermatopathologist masked to the burn therapy at 7, 9, 11, and 13 days after injury. The primary outcome was time to complete reepithelialization of the burns. Secondary outcomes were the percentage of burns that were reepithelialized at days 7, 11, and 13 and the mean percentage reepithelialization on microscopic analysis. A sample of 20 burns in each group had 80% power to detect a 2-day difference in the time to complete reepithelialization (two-tailed, P < .05). Application of Debrase®, but not the control vehicle, resulted in dissolution of the necrotic upper dermis in all treated burns. The mean time to complete reepithelialization was faster for Debrase®-treated (7.4 ± 0.8 days) than control-treated (9.1 ± 2.1 days) burns: difference, 1.7 days (95% confidence interval, 0.5-2.9). The percentage of completely reepithelialized Debrase®- and control-treated burns were day 7, 65.0 vs 25.0% (P = .02); day 9, 80.0 vs 40.0% (P = .02); and day 11, 100.0 vs 92.0% (P = .45). Treatment of mid-dermal porcine burns with a single topical application of Debrase® results in earlier wound reepithelialization.

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

Nacca NE, Asaly M, Mackey J, Cantor R, Department of Emergency 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.

Validation of a Vertical Progression Porcine Burn Model.

Singer AJ, Hirth D, McClain SA, Crawford L, Lin F, Clark RA, Department of Emergency Medicine, Stony Brook University, Stony Brook, NY; J Burn Care Res. 2011 Nov-Dec;32(6):638-46.

A major potential goal of burn therapy is to limit progression of partial- to full-thickness burns. To better test therapies, the authors developed and validated a vertical progression porcine burn model in which partial-thickness burns treated with an occlusive dressing convert to full-thickness burns that heal with scarring and wound contraction. Forty contact burns were created on the backs and flanks of two young swine using a 150 g aluminum bar preheated to 70°C, 80°C, or 90°C for 20 or 30 seconds. The necrotic epidermis was removed and the burns were covered with a polyurethane occlusive dressing. Burns were photographed at 1, 24, and 48 hours as well as at 7, 14, 21, and 28 days postinjury. Full-thickness biopsies were obtained at 1, 4, 24, and 48 hours as well as at 7 and 28 days. The primary outcomes were presence of deep contracted scars and wound area 28 days after injury. Secondary outcomes were depth of injury, reepithelialization, and depth of scars. Data were compared across burn conditions using analysis of variance and χ^2 tests. Eight replicate burns were created with the aluminum bar using the following temperature/contact-time combinations: 70/20, 70/30, 80/20,

80/30, and 90/20. The percentage of burns healing with contracted scars were 70/20, 0%; 70/30, 25%; 80/20, 50%; 80/30, 75%; and 90/20, 100% ($P = .05$). Wound areas at 28 days by injury conditions were 70/20, 8.1 cm(2); 70/30, 7.8 cm(2); 80/20, 6.6 cm(2); 80/30, 4.9 cm(2); and 90/20, 4.8 cm(2) ($P = .007$). Depth of injury judged by depth of endothelial damage for the 80/20 and 80/30 burns at 1 hour was 36% and 60% of the dermal thickness, respectively. The depth of injury to the endothelial cells 1 hour after injury was inversely correlated with the degree of scar area (Pearson's correlation $r = -.71$, $P < .001$). Exposure of porcine skin to an aluminum bar preheated to 80°C for 20 or 30 seconds results initially in a partial-thickness burn that when treated with an occlusive dressing progresses to a full-thickness injury and heals with significant scarring and wound contracture.

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. 2012 Feb;42(2):171-3. Epub 2011 Aug 4.

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, NY; J Emerg Med. 2011 Dec;41(6):655-7. Epub 2011 Aug 4.

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.

Nonconvulsive Seizures in Patients Presenting With Altered Mental Status: An Evidence-Based Review.

Zehtabchi S, Abdel Baki SG, Malhotra S, Grant AC, Department of Emergency Medicine, State University of New York, Downstate Medical Center, Brooklyn, NY; Epilepsy Behav. 2011 Oct;22(2):139-43. Epub 2011 Jul 23.

Definitive diagnosis of nonconvulsive seizures (NCS) can be made only by electroencephalography, and delay in diagnosis can increase morbidity, resource utilization, and length of hospitalization. We performed an evidence-based literature review to estimate the prevalence of NCS in patients with altered mental status (AMS) of unknown cause. PUBMED, EMBASE, the Cochrane Library, and other resources were searched for studies that included AMS and seizure as topics. The resulting 276 articles were screened for predetermined inclusion and exclusion criteria, leaving 5 studies enrolling 478 patients for review. The prevalence of NCS in patients with AMS ranged from 8 to 30% (overall prevalence of 21.5%, 95% CI: 18-25%), suggesting that the prevalence of NCS is sufficiently high to consider routine use of urgent electroencephalography in such patients. However, methodological weaknesses limit the generalizability of the results. A large, prospective study enrolling and screening for NCS in all patients who present with acute AMS is needed.



New York State of Mind

Yield of Head CT in The Alcohol-Intoxicated Patient in the Emergency Department.

Godbout BJ, Lee J, Newman DH, Bodle EE, Shah K, Department of Emergency Medicine, St. Luke's Roosevelt Hospital Center, New York, NY; *Emerg Radiol.* 2011 Oct;18(5):381-4. Epub 2011 Jun 8.

We aimed to determine the yield of positive head computed tomography (CT) findings among suspected alcohol-intoxicated patients presenting to the emergency department (ED). Our secondary aim was to determine if elderly intoxicated patients were more likely to have an intracranial injury. We identified patients suspected of alcohol intoxication who underwent CT scanning in the ED over a 4-year period. Pre-determined data elements including demographics, diagnosis, and disposition were extracted using a pre-formatted data sheet by blinded abstractors. "Positive" CT was defined as evidence of any type of intracranial hemorrhage. A total of 2,671 subjects with suspected alcohol intoxication and a head CT were identified. Fifty out of the 2,671 (1.9%) had a positive CT. Among CT scans of elderly (≥ 60 years of age) subjects, 15/555 (2.7%, 95% CI=1.4-4.1%) were positive compared with 35/2,116 (1.7%, 95% CI=1.1-2.2%) among those < 60 years of age ($p=0.11$). The yield of positive head CT among alcohol-intoxicated patients was low, at 1.9%. An age cutoff of 60 years in this population did not predict a significantly higher positive rate.

Comparison of the Diagnostic Characteristics of Two B-Type Natriuretic Peptide Point-of-Care Devices.

Ro R, Thode HC Jr, Taylor M, Gulla J, Tetrault E, Singer AJ, Department of Emergency Medicine, Stony Brook University Medical Center, Stony Brook, NY; *J Emerg Med.* 2011 Dec;41(6):661-7. Epub 2011 May 26.

BACKGROUND: B-type natriuretic peptide (BNP) is used to diagnose heart failure (HF).

OBJECTIVE: To compare the accuracy of two commercially available point-of-

care (POC) devices for measuring B-type natriuretic peptide (BNP) in emergency department (ED) patients with suspected heart failure using the central laboratory testing results as the criterion standard.

METHODS: Venous blood samples were collected from adults with suspected heart failure and split into three samples for BNP analysis: central laboratory (Siemens ADIVA Centaur; Siemens, Deerfield, IL), Triage BNP POC device (Biosite, San Diego, CA), and i-STAT BNP POC device (Abbott, East Windsor, NJ). The criterion standard for BNP levels was the central laboratory.

RESULTS: Two hundred fifty patients were enrolled. Mean (SD) age was 70.7 (13.8) years; 200 (80%) were over age 55 years; 146 (58.4%) were male. A final hospital discharge diagnosis of heart failure was made in 108 (42%) patients. The i-STAT system yielded a result within a median of 9 min (interquartile range [IQR] 9-10 min). The Triage device yielded a result within a median of 19 min (IQR 15-22 min); $p < 0.001$. The device failure rate for the central laboratory (8 failures, 3.2%) was significantly higher than that of the i-STAT device (1 failure, 0.4%, $p = 0.04$), but not statistically different than the Triage device (3 failures, 1.2%). Neither the Triage nor the i-STAT were statistically different than the central laboratory result in terms of sensitivity; the i-STAT was less specific than the Triage result ($p = 0.003$). The area under the curve for the Triage device was 0.95 (95% confidence interval [CI] 0.91-0.98), whereas the area under the curve for the i-STAT device was 0.98 (95% CI 0.96-0.99; $p < 0.01$).

CONCLUSIONS: Both POC devices tested were accurate and rarely failed; however, the i-STAT was faster with single use.

Hiccups as the Only Symptom of Non-ST-Segment Elevation Myocardial Infarction.

Davenport J, Duong M, Lanoix R, Department of Emergency Medicine, St Luke's-Roosevelt Hospital, New York, NY; *Am J Emerg Med.* 2012 Jan;30(1):266.e1-2. Epub 2011 Jan 28.

Hiccups, which are usually benign and self-limited, occasionally serve as markers of a serious underlying pathology. We present this case report to inform emergency physicians about the potential for hiccups to serve as the only presenting symptom of a myocardial infarction. The patient, a 68-year-old man with a history of diabetes mellitus, hypertension, and current tobacco use, was first seen in the emergency department after 4 days of intractable hiccups with no other complaints or symptoms. After ineffective hiccup treatment on the first visit with 2 mg Ativan and 25 intramuscular (i.m.) thorazine and a normal chest x-ray, he was discharged. Two days later, the patient returned to the emergency department with the same complaint of hiccups without any additional complaints or symptoms. An electrocardiogram displayed several abnormalities including Q waves in II, III, and aVF and T-wave inversions in aVL and V6. Troponin I was highly elevated at 4.302 ng/mL. In the catheterization laboratory, the patient exhibited severe stenosis of the left circumflex artery and obtuse marginal 1. Stents were placed in these sites, and the patient recovered uneventfully. This is the first case in which hiccups were the single presenting symptom of a myocardial infarction in the last 50 years. Although extremely common and usually benign, hiccups can occasionally be a sole symptom of serious underlying pathology, which in this case, was a non-ST-segment elevation myocardial infarction.

Promoting Emergency Medical Care Systems in the Developing World: Weighing the Costs.

Anthony DR, Division of Emergency Medicine, New York Presbyterian Hospital, New York, NY; *Glob Public Health.* 2011;6(8):906-13. Epub 2011 May 24.

Despite the global health community's historical focus on providing basic, cost-effective primary health care delivered at the community level, recent trends in the developing world show increasing demand for the implementation of emergency care infrastructures, such as prehospital care systems and emergency departments, as well as specialised training programmes. However, the question remains whether, in a setting of limited global health care resources, it is logical to divert these already-sparse resources into the development of emergency care frameworks. The

existing literature overwhelmingly supports the idea that emergency care systems, both community-based and within medical institutions, improve important outcomes, including significant morbidity and mortality. Crucial to the success of any public health or policy intervention, emergency care systems also seem to be strongly desired at the community and governmental levels. Integrating emergency care into existing health care systems will ideally rely on modest, low-cost steps to augment current models of primary health care delivery, focusing on adapting the lessons learned in the developed world to the unique needs and local variability of the rest of the globe.

HIV-Positive Patient with Herpes Zoster: A Manifestation of the Immune Reconstitution Inflammatory Syndrome.

Lutwak N, Dill C., Department of Emergency Medicine, NYU School of Medicine, and VA New York Harbor Healthcare Center, New York, NY; *Am J Emerg Med.* 2012 Jan;30(1):254.e3-5. Epub 2010 Dec 3.

Herpes zoster is a common illness that can lead to serious morbidity. There is now evidence that HIV-infected patients who have been treated with antiretroviral therapy are at greater risk of developing herpes zoster not when they are severely immunocompromised but, paradoxically, when their immune system is recovering. This is a manifestation of the immune reconstitution inflammatory syndrome. The objectives of this report are to (1) inform health care providers that HIV-infected patients may develop multiple infectious, autoimmune, and oncological manifestations after treatment with antiretroviral medication, as they have immune system reconstitution, and (2) discuss herpes zoster, one of the possible manifestations. The patient is a 68-year-old HIV-positive man who presented with herpes zoster after being treated with highly active antiretroviral therapy (HAART) when his immune system was recovering, not when he was most immunosuppressed. Emergency department physicians should be aware that HIV-infected patients treated with HAART may have clinical deterioration despite immune system strengthening. This immune reconstitution inflammatory syndrome can present with infectious, autoimmune, or oncological manifestations. Our case patient, an HIV-positive man with

immune system recovery after treatment with HAART, presented with an infectious manifestation, herpes zoster.

Physical Fitness Cannot Be Used to Predict the Likelihood of Acute Coronary Syndromes in ED Patients with Chest Pain.

Taira T, Taira BR, Chohan J, Dickinson D, Troxell RM, Thode HC Jr, Singer AJ, Department of Emergency Medicine, Stony Brook University Medical Center, Stony Brook, NY; *Am J Emerg Med.* 2012 Jan;30(1):57-60. Epub 2010 Oct 23.

OBJECTIVE: The objective of the study was to explore the association between physical fitness and the likelihood of acute coronary syndrome (ACS) in patients presenting to the emergency department (ED) with chest pain (CP). We hypothesized that the likelihood of ACS would be lower in physically fit patients and higher in patients with exercise-induced CP.

METHODS: The study involved a prospective, descriptive cohort in an academic suburban ED. Subjects were ED patients with CP admitted for suspected ACS. Demographic and clinical data were collected by trained research assistants using standardized forms. Patients were surveyed on level of fitness and whether they had ever experienced anginal type symptoms during exercise. Acute coronary syndrome was considered present if the patient had electrocardiographic evidence of infarction or ischemia; elevated troponin I levels; greater than 70% stenosis of culprit coronary artery; or a positive nuclear, echocardiographic, or treadmill stress test result. Patients readmitted within 30 days for reinfarction, cardiogenic shock, or arrhythmias were also considered to have ACS. The association between physical fitness and ACS was determined using χ^2 tests and odds ratios (ORs).

RESULTS: One hundred patients were enrolled. Mean age was 55.8 (\pm 15.3) years; 36% were female; 85% were white. Thirteen (13%) patients had positive troponins, 22 of 36 catheterized patients had greater than 70% coronary artery stenosis, and 6 (6%) had abnormal stress test results. There were no deaths or reinfarctions within 30 days. The rate of ACS was similar in patients who were physically fit and those who were not (24% vs 37%; OR, 0.5 [95% confidence interval, 0.2-1.3]) and

in patients who had experienced exercise-induced CP and those who had not (32% vs 29%; OR, 1.2 [95% confidence interval, 0.4-3.2]). Neither the frequency nor the intensity of exercise was associated with ACS.

CONCLUSIONS: Physically fit patients with CP were as likely to have ACS as those not physically fit. A history of exercise-induced CP was not associated with an increased likelihood of ACS.

Hypotension is Uncommon in Patients Presenting to the Emergency Department with Non-Traumatic Cardiac Tamponade.

Kapoor T, Locurto M, Farina GA, Silverman R, Department of Emergency Medicine, Long Island Jewish Medical Center, New Hyde Park, NY; *J Emerg Med.* 2012 Feb;42(2):220-6. Epub 2010 Aug 30.

BACKGROUND: Cardiac tamponade is a life-threatening disease in which hypotension is believed to be a common finding. Prior inpatient studies have described normotensive or hypertensive cases of tamponade; however, because the data were not collected from the Emergency Department (ED), the hemodynamic spectrum may differ from those presenting to the ED.

OBJECTIVES: We hypothesized that hypotension is uncommon in patients presenting to the ED with non-traumatic tamponade.

METHODS: A retrospective chart review was conducted between January 2002 and December 2007 of patients presenting to our ED who were subsequently diagnosed with cardiac tamponade.

RESULTS: A total of 34 patients were identified with a diagnosis of tamponade. The mean blood pressure on ED arrival was 131/79mm Hg. Upon initial presentation to the ED, 35% (n=12) of patients were hypertensive, 50% (n=17) were normotensive, and 15% (n=5) were hypotensive. Of the 5 patients who were hypotensive on ED arrival, only 2 (6% of all patients) remained hypotensive upon admission to the hospital and before a pericardiocentesis. An average of 995mL of fluid was removed from the pericardium. The chief complaint for the majority of patients in tamponade was shortness of breath (70%); 59% were tachycardic in the ED, and 72% had cardiomegaly on chest X-ray study.



New York State of Mind

CONCLUSIONS: Hypotension is uncommon in patients presenting to the ED with non-traumatic cardiac tamponade. The majority of patients are normotensive or even hypertensive. Thus, the emergency physician should not exclude the diagnosis of tamponade even in light of normotension or hypertension.

The Pulmonary Embolism Rule-Out Criteria Rule in a Community Hospital ED: A Retrospective Study of its Potential Utility.

Dachs RJ, Kulkarni D, Higgins GL 3rd, Department of Emergency Medicine, Ellis Hospital, Schenectady, NY; Am J Emerg Med. 2011 Nov;29(9):1023-7. Epub 2010 Aug 13.

BACKGROUND: The Pulmonary Embolism Rule-Out Criteria (PERC) rule identifies patients who can be safely discharged from the emergency department (ED) without undergoing laboratory or radiologi-

cal investigation for possible pulmonary embolism (PE). It was shown to be 99% sensitive in a large validation series. Our objective was to assess the PERC rule's performance in a representative US community hospital.

METHODS: A chart review of ED patients receiving computed tomographic scans (CTS) for possible PE during a 4-month study period was performed. The PERC rule was applied to this cohort, and its sensitivity and negative predictive value were determined.

RESULTS: Two hundred thirteen patients underwent chest CTS to "rule out" PE. Forty-eight patients met PERC rule criteria, and all had negative CTS. Of the remaining 165 patients, 18 patients (11%) had scans positive for PE. The overall prevalence of PE was 8.45% (95% CI, 5.22-13.24%). The PERC rule's sensitivity was 100% (95% CI, 78.12-100%), with a negative predic-

tive value of 100% (95% CI, 90.80-100%). Application of the PERC rule at the point-of-care would have reduced CTS by 23%.

CONCLUSIONS: In our community hospital, the PERC rule successfully identified ED patients who did not require CTS evaluation for PE. Had the PERC rule been applied, nearly one-quarter of all CTS performed to "rule out PE" could have been avoided.



This column is compiled by Theodore J. Gaeta, DO MPH FACEP, Residency Program Director at New York Methodist Hospital; and Chair, New York ACEP Research Committee. ■

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- 11:00 am-12:30 pm Board of Directors Meeting
- 12:30-5:00 pm Registration
- 1:00-2:00 pm Poster Presentations
- 2:10-3:40 pm Oral Research
- 2:30-6:00 pm Exhibits Open
- 3:40-4:00 pm Break and Exhibits
- 4:00-5:00 pm **Pediatric Traumatic Brain Injury: Past, Present and Future**
Christopher King, MD FACEP
- 5:00-6:00 pm Exhibits and Networking Reception

- 10:30-11:30 am **Laryngoscope as a Murder Weapon**
Scott D. Weingart, MD RDMS FACEP
- 11:30 am-12:30 pm **Avoiding Malpractice Litigation in Pediatric Emergency Medicine: The Top 10 Things You Should Never Do**
Christopher King, MD FACEP
- 12:30-1:30 pm New York ACEP Annual Meeting Luncheon and Legislative Update
- 1:30-2:00 pm New York ACEP Committee Meetings
- 7:00 pm Open Reservation Networking Dinner

TUESDAY JULY 10

- 7:30 am-Noon Registration
- 7:30-8:00 am Exhibits and Continental Breakfast
- 7:30-11:00 am Exhibits
- 8:00-9:00 am **Just the Pearls: An Insane Number of Tips for Resuscitation and ED Intensive Care**
Scott D. Weingart, MD RDMS FACEP
- 9:00-10:00 am **Risk Stratification of Patients with Potential ACS**
Judd E. Hollander, MD FACEP
- 10:00-10:30 am Break and Exhibits

WEDNESDAY JULY 11

- 7:00-8:00 am Board of Directors Meeting
- 8:00-9:00 am **Wound & Laceration Management**
Judd E. Hollander, MD FACEP
- 9:00-10:00 am **Sick Heads Don't Take a Joke: Neurocritical Care in the ED**
Scott D. Weingart, MD RDMS FACEP
- 10:00-10:15 am Break
- 10:15-11:15 am **Cocaine and ACS**
Judd E. Hollander, MD FACEP
- 11:15 am-Noon **Radiographic "Fascinomas" From the Pediatric Emergency Department**
Christopher King, MD FACEP

New York ACEP Scientific Assembly July 9-11, 2012 Register online at www.nyacep.org

Prehospital Information Technology

continued from page 3

Telephone notifications and Online Medical Control calls are a routine practice to enhance communications between EMS and the emergency department. This verbal communication is important, but there are times when data transmission is imperative. For instance, the statement “the paramedic thinks it’s a STEMI” will rarely get an interventional cardiologist out of their comfortable house at 3 am. In this situation, successful transmission of an EKG for physician interpretation will improve patient outcome through improved E2B (EMS to balloon) time and decreasing over-reads. Working from that EKG/Cardiologist model, represented below are some of the other capacities of an advanced PHIT system and how they impact the emergency physician.

Computer-Aided Dispatch/Vehicle Telematics

- Electronic dispatch using GPS-localization of the closest appropriate unit has made an impact on many EMS systems. Crews will have information about the call which allows them to adapt their resources and concerns for the unseen patient. Response time for critical patients is improved with these systems.
- GPS devices also improve communication between differing agencies, such as those with a separate agency providing first response.
- Vehicle map systems can assist with call location and timely access to disposition facilities.
- Telematics can provide notification of a first response vehicle accident, as well as severity and vehicle dynamics.

Emergency Department

- The ideal situation would be to integrate the entire PCR into the emergency department/hospital chart. Unfortunately, this is not always possible given the variety of proprietary software, individual monitoring devices and disposition facilities. Security concerns and suspicion of HIPAA violations have impaired the ability to share information more freely.

- The most clinically relevant items to share with the emergency department: EKG, monitor, vitals, medications administered and response to interventions. Additional items such as ultrasound images or photos of the scene/patient are possible.
- Field access to prior patient information improves patient care. Criteria such as medication list, prior diagnoses, recent admissions, and others provide vital information to our prehospital providers.
- Telemedicine-style video calls for purposes of online medical oversight are being performed in some systems.
- Quality improvement initiatives are facilitated by the ability to rapidly perform information queries.

Incident Command/Emergency Operations Center (EOC)

- As emergency operations ensue during a mass casualty incident or other disaster, the normal scope of EMS practice widens to shoulder the surging needs. The EOC must be able to interface with State and Federal agencies, mutual aid units and the hospital systems.
- Conveyance of vital incident-specific instructions (presence of a chemical agent, etc.) can be quickly conveyed to multiple members using advanced information technology. Text message lists are similarly employed by many mass-gathering medical operations.

Regional Healthcare Information Organizations (RHIO)

- As this may be a new term to some readers, the emergence of RHIOs have changed the landscape of providing high-quality healthcare across multiple disciplines of patient care.
- RHIOs promote health information exchange while avoiding information overload. Clinically relevant patient data should be shared with multiple disciplines of healthcare providers, including EMS to provide timely, accurate, efficient patient care.
- Integration of EMS records with the RHIO will facilitate bidirectional flow of relevant information and improve patient care.

Local & Non-Local Regulatory Agencies

- Quality assurance programs exist for sentinel situations like AED or auto-injector use. PHIT can be used to automatically report these conditions for the crew, similar to the infectious precautions alerts many of us have become used to with our EMRs.
- Local Poison Control Centers and Health Departments (local, state or federal) can access and share incidence of specific reportable conditions or diseases to monitor for epidemics and public health concerns.
- The National EMS Information System (NEMSIS) project has established the standard information set for prehospital records. As such, commercial PHIT products have a model for adherence to maintain compliance.

It is likely worthwhile to take some time after your next shift to discuss PHIT with your local EMS crews. Emergency physicians have been shown to like working with EMRs, and this is just another form of EMR to make use of.³ Sharing the simple concepts of high-quality patient care between individuals is one key to bridging the gap in this age of information overload. By sharing critical information, EMS can assist the emergency physician in providing more efficient patient care. The hospital system (amongst other systems) can likewise improve out-of-hospital patient care and the EMS crew’s overall safety. The type, kind and scope of the PHIT is best decided by the EMS administration and medical directors as there are many pitfalls to avoid based on your individual system dynamics.

As a side note, regardless of what kind of PHIT devices the paramedics and EMTs are carrying, many of the transmitted EKGs are carried over the airwaves by modified fax software built to work in the EMS setting. The noise they make when transmitting may be foreign to the younger generation of providers, but if they listened to that 90s alternative/rock satellite radio channel commercial, they would know how that audio signal gained its pop culture fame. Now that noise does more than get our email; it can open a cardiac catheterization lab to save myocardium. With increased wireless internet capabilities and improved system interfacing, the emergency physician will soon be able to practice outside the walls of the hospital as well as from within.

continued on page 27

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New York ACEP is excited to bring this new column to the *Empire State EPIC* ~ featuring topics pertaining to pediatric emergency medicine ~ challenging cases, literature updates and interesting pediatric illnesses.



Denis R. Pauze, MD FACEP,
Vice Chair, Department of
Emergency Medicine,
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Medicine and Pediatrics,
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The Many Presentations of Coarctation of the Aorta

A five day old boy recently released from the hospital presents in shock. After feeding the baby, the parents saw him turn blue. Upon arrival, he is gray and mottled. Temperature of 38.5 C, HR 190, BP and O2 sats are unobtainable. The baby is immediately intubated. He is given a fluid bolus and antibiotics for presumed sepsis. Transfer to the Pediatric Tertiary Center is subsequently initiated. The accepting pediatric intensivist asks the EM doctor to start prostaglandins.

A 22 day old girl presents with difficulty feeding. Mom states the baby eats for a minute and then “becomes tired and breathes fast. Her feeds take almost an hour.” She seems to have some intermittent irritability. Exam reveals an afebrile neonate with a HR 160, BP 70/30, RR 40, and room air O2 sats 99% (in the right arm). There is no cyanosis. Her exam is significant for hepatomegaly and a S3 click. A systolic murmur is also appreciated. The infant is crying during the exam, and it is difficult to feel any femoral pulses. An echo is ordered.

A 6 year old boy presents to your emergency department with headaches. There are no associated fevers, photophobia, neck stiffness, sore throat, cough or vomiting. He states he hit his head playing on the jungle gym a couple of days ago. His physical exam is normal, except for a BP of 138/78 and a small scalp hematoma. He is discharged home with a diagnosis of mild concussion.

A 15 year old obese boy is seen in the emergency department for a laceration to his arm. He is found to have a BP of 160/80. He is advised to lose weight, eat healthier, exercise more, and return to his pediatrician in six months for a blood pressure recheck.

Introduction

Three different age groups, four different presentations – shock, difficulty feeding, headache, and elevated blood pressure – all with one common etiology: coarctation of

the aorta (CoA). CoA can present in any age group, from the neonate to the adult. Clinical presentations vary, and consequently, the diagnosis is often missed during routine primary care check-ups and emergency department (ED) visits. CoA is therefore considered a “sneaky” congenital heart anomaly. Although not a common ED presentation, it is seen in up to 8% of children born with a heart defect. A high index of suspicion is needed to make the diagnosis.

As a (very brief and basic!) circulatory review in the fetus, remember that after blood enters the right atrium, it must bypass the immature nonfunctioning lungs to get back to the systemic circulation. Two right-to-left shunts exist – the foramen ovale (FO) and the ductus arteriosus (DA). Blood exits the right atrium and may pass through the foramen ovale into the left atrium, or, a smaller amount may go into the right ventricle (RV). From the RV it travels out the pulmonary artery (PA) through the ductus arteriosus (DA) and into the aorta. At birth or shortly thereafter, the foramen ovale and DA begin to close, thus allowing for a ‘normal’ circulation. In patients with a critical coarctation, there is a severe aortic narrowing such that blood cannot bypass the stenosis, resulting in increased cardiac work, and potentially congestive heart failure (CHF) and shock. These patients are “ductal dependent,” meaning blood can only bypass the aortic coarctation through the DA. When there is a critical coarctation, once the DA closes, circulatory disaster follows.

The Many Presentations of CoA

Our examples above show the many presentations of CoA. The clinical presentation will depend upon the patient’s age and the degree of aortic narrowing. Neonates deserve special mention, as they can present to the emergency department in a variety of ways. Our first patient was in cardiogenic shock after the DA abruptly

closed. These neonates with a critical ductal dependent CoA have dramatic presentations. Once the DA closes, blood cannot bypass the coarct, and the neonate presents in CHF and/or shock. They may appear gray, mottled, hypotensive and hypoxic. They will be without femoral pulses.

Patient #2 had a less dramatic presentation with difficulty feeding resulting from CHF. Feeding problems (slow feeding or distress/diaphoresis during feeds) is a classic presentation of CHF in an infant. Other potentially subtle symptoms include respiratory complaints (fast or labored breathing), poor weight gain or intermittent irritability.

Some neonates will make it out of the newborn period undiagnosed. Children, adolescents and adults may have a less severe CoA and subsequently develop collateral circulation that bypasses the aortic narrowing. These patients may present with chest pain, headaches, claudication, or hypertension. Interestingly, CoA is one of the most common causes of hypertension in children 6 years of age and younger. Consider the diagnosis in someone with unexplained headaches or a pediatric patient with hypertension.

The Physical Exam

The neonate may present with physical findings of heart failure. They may have tachypnea, hepatomegaly and/or an S3 gallop. There may also be a systolic heart murmur or a systolic click often heard due to a bicuspid aortic valve. The examiner may appreciate cool lower extremities and weak or absent femoral pulses.

Blood Pressure: For a child or young adult being evaluated with an elevated blood pressure (BP), make sure to have the appropriate size cuff. A BP cuff that is too small could give a falsely elevated reading. After recording a pressure, correlate it to the patient's age. Elevated readings should be repeated, as some children may be agitated, thus causing a falsely increased BP. If an elevated blood pressure is confirmed, a supine pressure should be checked in all four extremities looking for a systolic pressure difference. A systolic BP in the arm that is 10-20 points higher than a systolic pressure in the legs is considered significant and warrants further evaluation.

Pulses: Finding weak or absent femoral pulses is strong presumptive evidence

of CoA. However, the presence of a seemingly adequate femoral pulse does not rule out a CoA. Many patients, especially the older ones, have developed collateral circulation to bypass the narrowed aorta. These patients may present with a brachial-femoral pulse delay. Normally, the femoral pulse can be palpated at the same time or slightly before the radial or brachial pulse. In patients who have developed collateral circulation, the femoral pulse is delayed and therefore palpated *after* the radial or brachial pulse. This brachial-femoral pulse delay should be further investigated for an aortic pathology.

Diagnosis: CoA can often be diagnosed on physical exam. An echo, CT or MRI provides confirmation and reveals the location and severity of the CoA.

Treatment: Treatment depends on the clinical scenario, and our first patient with cardiogenic shock is discussed here. This sick neonate with sudden closure of the DA needs airway stabilization and circulatory support. Once stabilized, further treatments include prostaglandins (PGE1) and antibiotics as infectious etiologies are considered.

Prostaglandins (PGE1): For a neonate in cardiogenic shock secondary to a ductal dependent lesion, starting prostaglandins can be lifesaving. Do not wait for a diagnostic pediatric echo, as this may take time or may be unavailable at your hospital. PGE1 can be started prior to a confirmatory diagnosis. Prostaglandins can open the ductus quickly, bypassing the critical coarctation and thereby restoring distal circulation. This provides a temporizing measure until the baby is stabilized for corrective surgery. The onset of action is nearly immediate. The initial starting dose is usually 0.05 mcg/kg per minute, and may be increased to 0.1 mcg /kg/minute. PGE1 has important side effects, notably apnea, bradycardia, and hypotension. So, if you have to transport a sick neonate to a tertiary pediatric facility, intubation for airway control is usually recommended.

Pitfalls to Avoid

- CoA is a diagnosis that can often be made based on physical examination findings. Remember to check for femoral pulses in all neonates and infants, especially those with feeding difficulties or respiratory complaints.

- Neonatal cardiogenic shock can present similarly to septic shock. Neonates in cardiogenic shock may have a low grade fever and appear "septic." It is important not to anchor on just the elevated temperature and a diagnosis of sepsis or meningitis. A ductal dependent congenital anomaly should be considered for a child with this presentation.
- For a child being evaluated with an elevated BP, make sure to perform a confirmatory reading. If hypertension is confirmed, check blood pressures in all four extremities.
- Clinicians should have a high index of suspicion for a CoA for pediatric patients presenting with hypertension or headache.

Summary

Coarctation of the aorta is a congenital heart defect that can present to the emergency department in a variety of ways. The diagnosis can be subtle and is therefore easy to miss if not considered as part of the differential diagnosis. Diagnostic clues include a neonate with undifferentiated shock or a young patient with headache or hypertension. Diminished femoral pulses or a brachial-femoral pulse delay are good evidence of a CoA. Neonates suspected of having CoA who present in cardiogenic shock should have PGE1 started immediately.

Upcoming issues will include "Preventing Lawsuits in Pediatric Emergency Medicine" and "Subtle Presentations of Abusive Head Trauma." Additional topics can be tailored to your requests. Is there a specific topic or interesting case you wanted to read about or write about? If you would like to write an article for this new section, we would be happy to hear from you. Please email us at nyacep@nyacep.org. We would especially enjoy hearing from fellows in Pediatric Emergency Medicine and residents with a special interest in Pediatric Emergency Medicine. ■

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Some Thoughts on Your Personal and Professional Time from a Busy Guy

*Christopher I. Doty, MD FACEP, Residency Program Director,
SUNY Downstate & Kings County Hospital*

I am probably no busier than you. We all have a lot of stuff to do and not enough time to get it done. A clear example... my wife works in community emergency medicine. She works three clinical shifts a week and there is no expectation for any research or academic productivity. She sometimes says she is too busy to do all of her personal errands and I often wonder why she says she does not have enough time to get things done. After all, she only works three days a week!! Conversely, she often wonders how I do not have enough time to get my stuff done. I have an office in the hospital, four assistant directors, an administrator, and 20 hours a week of protected non-clinical time.

The truth is that we are all very busy. We all struggle with multiple drains on our personal and professional time. This can lead to stress, job dissatisfaction and burn-out. Some thoughts about time management are included in this brief discussion of the subject.

Time management and time-savings has become much more important to today's emergency physician. Whether you are a seasoned faculty member, a fresh, young attending, a fellow striving to develop a niche, or you are still a resident; time management is critically important to your success, happiness and longevity.

Your Calendar

Controlling your calendar is critically important to career longevity. That is not to say that having an administrative assistant *keep* your calendar is bad. They may schedule things for you, but you need to control the content of that calendar. Having control over whom you meet with and when you are meeting them is one of the ways of being able to balance your life and exert some control over your time.

Everyone wants to meet about everything these days, and they want to meet today! Triaging these requests and being able to protect certain times for returning emails and calls, catching-up on loose ends, reading, research, lunch, or even just a little rest is good for your mental wellness.

In a time of increasing commitments and demand on practicing physicians, I highly recommend the use of an electronic calendar in order to keep your schedule organized and clean. An electronic schedule has the added benefit of being easily transportable from one device to the next. You can make an appointment on your work computer and then have it automatically transmitted electronically to your tablet or smartphone. This allows one consolidated calendar to be available across all your electronic devices and computers. When I make a new meeting on my smartphone, I can edit it when I get an email response later in the office and then see that schedule from home later that night on my desktop computer. It is also possible for your assistant to schedule appointments for you. Your assistant can even have read-only access to some calendars, while editing rights on others, leaving some of your calendars totally private. This also applies to your spouse and significant others, even your kids.

Using an electronic calendar program like Outlook, Google Calendar, Entourage or iCal will allow you to keep your calendars organized by task and within various groups. For instance, you can have all your work calendars show up in blue. Light blue for shifts, dark blue for meetings, and teal for your office time or reading time. Likewise you can have your home activities in red. For example, dark red for appointments with friends, bright red for family outings, and pink for your

own personal errands. You can also give your spouse, significant others, and kids a calendar. Moms and dads "on the go" can also have calendars for their spouse and for their children. Is it difficult to remember which days Jenny has soccer practice. Do those days get confused with Susie's orchestra rehearsals? What about Johnny's karate lessons? Your calendars can be as complex or as simple as it is found useful by you. The only limit is the amount of organization that you want, and the number of colors you can think of.

Also, most calendars can provide automatic "ticklers" to remind you that a meeting or task is coming up. I get an email six weeks and two weeks before I am scheduled to give a new lecture. It also pops up automatically in my to-do list on my computer. That list is also synchronized across all my electronic devices. There are a large number of "to do" programs available that can keep your upcoming tasks organized. You can put tasks into categories like home, priority, work and someday or make your own. Set up repeating tasks that occur every month, or pop-up on a certain day. These reminders can be life changing. The other nice thing about computers instead of a paper log is that if you lose a paper calendar book, the data is gone forever. That is not true of most electronic calendars.

Office Time

Time management in the office is critical as well. Scheduling a time each day or every other day to answer emails and phone calls can make you much more efficient. It is easy to get distracted and pick up the phone every time it rings. This is why answering machines/voicemail can be so helpful. Your outgoing message can

continued on page 33



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Thoughts on your personal and professional time

continued from page 31

say that you will return routine phone calls between 8 and 10 every morning and how to get in touch with you for urgent matters. This is why executives have receptionists or assistants. This allows your callers to have a reasonable expectation of when you might be able to get back to them. Emergencies can always be dealt with differently. For example, your outgoing message might say, "Hello this is Dr. Smith. I check these messages each afternoon and I will return your call between 8 am and 10 am if I am able. In case of emergency you can reach me via my pager at 403-765-4321." This allows voice messages to be left so that you can deal with each issue in an orderly manner and allows callers to have an opportunity to get in touch with you if there is an emergency. You can also have your secretary or administrative assistant be the one responsible for getting you in an emergency. You can just leave that information on your outgoing answering machine instead of your pager number. Some people will always need to know how to get a hold of you.

Taming your Smartphone Email

Just shoot me an email! Email is often more intrusive than a phone call. You might get over 100 emails in a day. How do we find time to answer all these and still get work done? Now with smartphones, the emails come right to our hip pocket. Smartphones have intruded into our personal space and personal time immeasurably. If you have a smartphone and you are like me, you are probably checking your email all the time. This digs into our own personal time and needed mental downtime. It is also disruptive in meetings and when doing tasks requiring focus. The lack

of mental downtime can eat away on our sanity. Smartphones are great when they allow us to deal with issues on the fly, but troublesome when they create a life with no downtime. You really don't need to be able to be reached all the time on email; give yourself some space.

Turn off your alerts for "new email received" on your smartphone. This alert will have you constantly checking your phone. The other more subtle point is that if you are constantly answering e-mails on your phone, you are actually training your colleagues and administrators that you are immediately available at all times by email. This will eventually cause people to expect you to answer an email right away all the time. If you do not, they feel like you are not responsive when actually you are just usually over responsive. This is not sustainable as an expectation.

One can use a strategy similar to the answering machine strategy I mentioned above for the phone. For example, block out one hour each afternoon or morning to answer non-critical emails. People that have a critical issue can page you or call your administrative assistant. This helps people have a realistic expectation of how available you are. Smartphones do make us more efficient by utilizing downtime to get things done. We can use what would be wasted time on the subway to go through messages and emails. But what often can happen if one is not careful is that the email on the phone eats up all your downtime and can lead you to be mentally exhausted all the time. One useful technique I used with my BlackBerry was to have it filter email messages differently based on who the sender was and what the subject line said. If my chairman or wife emailed me, the BlackBerry would give a verbal alert, otherwise it gave no alert that a new email was received.

Text messages can be the same way. Answering texts, that are not emergencies, right away every time will lead your colleagues to always expect an immediate response to their texts. They will become frustrated when you don't answer immediately, even if you are truthfully unable to respond. You can always decide whom to answer right away.

Email Tricks

"Away messages" are very important

when you are away from your desk. They allow your colleagues to understand that you are unavailable right now. Even if you are out of the office for only a day or two, emails will build up. It is an efficient way to allow emails and their subsequent tasks to build up.

When you return to the office, start with the most recent email first and work to the oldest, not the other way around. This allows you to see if other people on the email have answered the question yet. You can usually read down through the email to see the "trail" of responses. Now you have a reasonable history of the issue by reading one email. You can then skim the other emails in that chain to see if there are any secondary issues you need to address. Many email programs can search and display emails that are related. This way you can deal with emails by topic and be done with an issue. This is a huge time-saver.

Balancing work and home life is very difficult in the modern age. Setting expectations for when you will be able to respond to messages is critically important to healthy relationships and your own mental wellness. Electronic assistants can be very helpful for utilizing downtime. Now go make technology work for you! Just be careful that you remain the master and the phone remains the servant. ■

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- 14 Practice Management Committee Conference Call, 1:00 pm
- 20 Government Affairs Conference Call, 11:00 am
- 20 Research Committee Conference Call, 3:00 pm
- 21 EMS Committee Conference Call, 2:30 pm

July

- 9 New York ACEP Board Meeting, 11:00 am, Sagamore
- 9-11 New York ACEP Scientific Assembly, Sagamore Resort
- 10 New York ACEP Annual Meeting, 12:30 pm, Sagamore Resort
- 11 New York ACEP Board Meeting, 7:00 am, Sagamore
- 15 Empire State EPIC articles due (August issue)

September

- 12 Resident Research Conference, 8:00 am - Noon, Mount Sinai
- 25 New York ACEP Board Meeting, Mohonk Mountain House

October

- 6-7 ACEP Council Meeting, Denver, CO
- 8 New York ACEP Member Reception, Denver, CO
- 8-11 ACEP Scientific Assembly, Denver, CO
- 15 Empire State EPIC articles due (November issue)
- 22 2012 LLSA Review Course, Mount Sinai School of Medicine

November

- 7 Residents Career Day & Job Fair, New York Academy of Medicine

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Emergency Medicine Resident Career Day Job Fair Wednesday, November 7, 2012

Program: 8 am-Noon ~ Job Fair: Noon-1:30
at the New York Academy of Medicine
1216 Fifth Avenue at 103rd Street, New York, NY

2012 LLSA REVIEW COURSE

Monday, October 22, 2012
8:00 am - 1:00 pm

Goldwurm Auditorium,
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