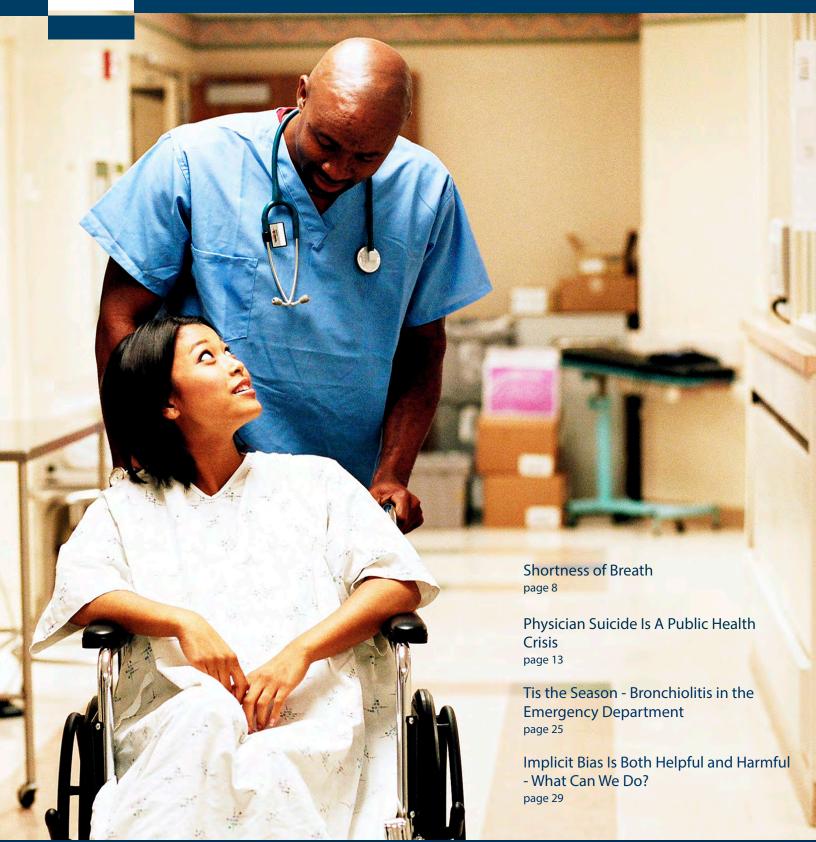
## New York American College of Emergency Physicians



# **Empire State EPIC**



## PRESIDENT'S MESSAGE





### Patients (and us) Caught In The Middle

"So as we get closer to the legislative session,

start having conversations with your

legislators, and remind them that we are

always there no matter what. We do not want

patients to be caught in the middle, but if

insurance companies are not held to

adequate reimbursement whether in- or out-

of-network, the safety net will have even more

holes that our patients will fall through."

The next New York legislative session starts in January. Yet we already know what piece of legislation is likely to come front and center. On September 30, Senator Rivera, Chair of the Senate Health Committee, introduced S6757 (available at https://www. nysenate.gov/legislation/bills/2019/s6757). Two days later, Assemblyman Gottfried, Chair of the Assembly Health Committee, introduced A8639 (available at https:// www.nysenate.gov/legislation/bills/2019/ a8639). I will save you the reading: They are identical pieces of legislation. Clearly a lot of work has been happening behind the scenes to enact the "Patient Medical Debt Protection Act" in New York. It has significant benefits for our patients, but has a significant unintended consequence to our practice.

The Cliff notes of this 10 page bill is that it will amend public health law:

1) As it relates to the billing of facility

fees and require hospitals to provide a consolidated, itemized bill that includes all services provided inclusive of professional services. In doing so, it will prohibit a provider from separately billing the patient.

2) Prohibit the ability of a hospital or health care professional to bill or seek payment from a patient for a facility fee that is not covered by the patient's health insurance carrier.

3) Require hospitals to use a uniform patient financial liability form to disclose if their care is in- or out-of-network, whether it is a covered benefit and the patient's projected financial liability. Further, a patient will not be financially liable for undisclosed bills or any bills related to services rendered by a provider who

failed to ascertain that they were in the patient's health plan network.

- 4) Establish an "all payor database" to which all hospitals and health care providers must participate and makes amendments to the "indigent care pool".
- Amend the civil practice law for when hospitals can pursue collection of medical debt.
- 6) Hold patients harmless for emergency services and surprise bills, making it acceptable to only bill for copayment, coinsurance or deductible and thus eliminate so called "balance billing."

No doubt, our patients are put in the middle. They often come to the Emergency Department (ED) not expecting to that day, do not know if the ED (or the physician) is in- or out-of-network, and may have no choice of what hospital they go to based on geography, injury or illness. In many cases, they are referred to our ED by another

health care provider because of their complaint, the time of day, or the inability to get a timely appointment. Fundamentally, I think we all agree that patients should not be stuck with bills they

thought would be covered by having health insurance and such legislation is important to protect our patients from skyrocketing medical debt burden.

The reality though, is our reimbursement is a "take it or leave it" from insurance companies. We willingly accept every patient anytime, anywhere, for any reason, regardless of our EMTALA mandate or not. But without holding insurance companies responsible for providing adequate reimbursement for the care their beneficiaries receive in the ED, we too are put

in the middle and this bill does nothing to support the safety net, in fact it only places insurance companies in the negotiating driving seat.

So as we get closer to the legislative session, start having conversations with your legislators, and remind them that we are always there no matter what. We do not want patients to be caught in the middle, but if insurance companies are not held to adequate reimbursement whether in- or out-of-network, the safety net will have even more holes that our patients will fall through.

### WHAT'S INSIDE

### **FEATURES**

Albany Update | 31 Ask the Experts | 10

Education | 19

EMS | 11

New York State of Mind | 21

Pediatrics | 25

Practice Management | 7

President's Message | 2

Residents | 29

Sound Rounds | 3

Toxicology | 8

### **INSIGHTS**

Is It Time for "Epinephrine Saturation" for Patient Benefit in Anaphylaxis? | 14 How ACEP Makes the Sausage | 17 Physician Suicide Is A Public Health Crisis | 13

### **EVENTS**

Awards | 24, 32

Calendar | 6

ED Director Forum | 11

EMRC Day Supporters | 20

Holiday Office Hours | 27

New Fellows | 18

New York ACEP Reception | 12

Scientific Assembly | 28

## **SOUND ROUNDS**

Penelope C. Lema, MD RDMS FACEP
Vice Chair, Faculty Affairs
Director, Emergency Ultrasound
Associate Professor, Department of Emergency Medicine
Columbia University Vagelos College of Physicians & Surgeons





Guest Author
Di Coneybeare, MD MHPE
Assistant Director, Emergency Ultrasound Fellowship
Assistant Professor, Emergency Medicine
Columbia University



Guest Author
Phong Huyah, MD
PGY3 Emergency Medicine Resident
New York Presbyterian, Weill Cornell and
Columbia University

## Colicky Flank Pain with a "Twist"

### Case

A 25-year-old female with past medical history of anxiety and hirsutism presented to the Emergency Department (ED) with sudden onset of left sided flank pain that radiated to the groin. The pain had woken her up from sleep early in the morning. She described the pain as constant with intermittent worsening cramps. She took ibuprofen at home without any improvement. The pain was worse with sitting and any type of movement. Nothing helped to alleviate the pain. She experienced one episode of non-bloody, non-bilious emesis at home and decided to come to the ED. The patient had no previous history of abdominal surgery, pelvic abnormalities, sexually transmitted infections, nor personal or family history of renal colic.

On arrival, the patient appeared uncomfortable and was found writhing on the stretcher holding her left upper quadrant and left flank. Her vital signs were 130/90, 96, temperature of 37°C and SpO2 100%.

Given the chief complaint of flank pain and the degree of patient discomfort, the primary team initially thought this was likely renal colic and proceeded to perform a point-of-care ultrasound (POCUS) (Figures 1 and 2). While examining the urinary bladder, the patient experienced significant pain from pressure of the probe and was unable to tolerate application of pressure on the pelvic region. The team's differential at this time turned to pelvic pathology due to the absence of hydronephrosis and degree of patient's pelvic discomfort.

A transvaginal exam was next performed finding bilateral ovarian dermoid cystic tumors (Figures 3 and 4). The left ovarian teratoma measured up to 10cm in diameter and lacked internal vascularity consistent with ovarian torsion (Figure 5). Gynecology was consulted and the patient was taken to the operating room for surgical management. Intraoperatively, the patient had confirmation of left ovarian torsion around the ovarian pedicle and underwent bilateral ovarian cystectomies. Pathology examination showed that both cysts were mature cystic teratomas.

### **Discussion**

Ovarian torsion typically presents as unilateral lower abdominal or pelvic pain with sharp and colicky quality; however, symptoms can often be vague and non-specific. Our patient presented with significant flank pain and only with the physical exam was the etiology localized to the pelvic region. In fact, pain from the adnexa can radiate

to the flank due to ovarian sensory innervation.<sup>3</sup> Torsion of the ovaries while rare, representing only about 3% of all gynecologic surgical emergencies, require time sensitive diagnosis.<sup>4</sup> Symptoms for more than 48 hours make salvage of ovarian tissue difficult.<sup>5</sup> When ovarian torsion occurs, it can involve just the ovary, the associated fallopian tube, or both.<sup>2</sup> While the sensitivity for the diagnosis of ovarian torsion by ultrasound is not 100%, it remains the standard-of-care and the initial diagnostic tool.<sup>6</sup>

Pelvic structures can be interrogated both through transabdominal ultrasound as well as transvaginal ultrasound.

### **Transabdominal Approach**

### **Indications**

Evaluation of uterine and ovarian pathology in both pregnant and non-pregnant patients

#### **Contraindications**

- No absolute contraindications
- Avoid scanning over healing surgical incision sites, open wounds or areas of active bleeding

### **Equipment**

- Any low frequency probe
  - Curvilinear probe (preferred)
  - Phased array probe
- In a very thin patient, a high frequency linear probe can also be used to increase resolution of structures

### **Technique**

With the patient in the supine position, place the curvilinear probe in the transverse plane with the probe indicator aimed towards the patient's right side over the pubic symphysis. To improve visualization, a full bladder can be used as an acoustic window to enhance the uterus. Fan the transducer in a superior to inferior fashion to evaluate the uterus. Visualize the ovaries by following the off-shoot of the fallopian tubes on either side of the adnexa and again fan superiorly and inferiorly. Next, evaluate the uterus in the sagittal plane with the probe indicator aimed towards the patient's head. Fan the transducer left and right to interrogate the pelvic structures, including the ovaries.

## SOUND ROUNDS

### **Transvaginal Approach**

### **Indications**

Evaluation of uterine and ovarian pathology in both pregnant and non-pregnant patients

### **Contraindications**

- No absolute contraindications
- Not optimal in unstable patients

### **Equipment**

· Endocavitary probe

### **Technique**

Place the patient in the lithotomy position with legs separated and flexed at the hip. Unlike the transabdominal approach, an empty bladder will allow for better visualization of the target organs. A full bladder displaces the uterus posteriorly, making access to the uterus and adnexa by the transducer more difficult. Insert the probe with the probe indicator aimed to the anatomic anterior position of the patient and move probe towards the patient's cervix; this obtains a sagittal view of the uterus (probe indicator towards the ceiling). Monitor the screen as you insert the probe, aiming to have the uterus in the center of the screen with the bladder superiorly. Find the patient's endometrial stripe and fan both left and right to evaluate the pelvic structures. Fan until the uterus disappears in both directions to ensure that you have a complete view of the uterus. Next, rotate the probe

90 degrees counterclockwise until the probe indicator is aimed towards the patient's right side to visualize the uterus in a transverse plane. Fan the transducer anteriorly and posteriorly to interrogate the uterus. Follow the off-shoots of each fallopian tube to find each ovary on either side of the adnexa and again fan anteriorly and posteriorly to interrogate each ovary.

Ultrasound findings of ovarian torsion depend on the degree and time of torsion.<sup>5</sup> Classically, early ultrasound findings of ovarian torsion include ovarian enlargement (>4cm in diameter), which results from venous congestion. As the ovary becomes more engorged from lack of venous flow, follicular cysts become more edematous and move to the

**Table 1: Common Differential of Cystic Adnexal Structures** 

Cystic Adnexal Structures	Ultrasound Characteristics
Tubal Ectopic	Extrauterine and extraovarian thick echogenic circumferential vascular wall with possible internal yolk sac or fetal pole "Ring of fire" on color doppler
Simple ovarian cyst	Unilocular anechoic Intraovarian or exophytic Thin or imperceptible wall No internal vascularity
Complex ovarian cyst	Irregular wall thickening Cyst wall >2-3mm Internal echogenicity and vascularity
Mature cystic teratoma	Rokitansky nodule (dermoid plug) Homogenous echogenicity Dermoid mesh (with dots and dashes)
Hemorrhagic cyst (chocolate cyst)	Low level diffuse echogenicity (acute) No internal vascularity Thin walled Pelvic free fluid Lace-like or fishnet reticular pattern when RBCs lyse Echogenic thrombus with retractile margins (chronic)
Tubal ovarian abscess	Complex thick walled multilocular collection with echogenic debris May be indistinguishable from edematous fallopian tubes Often bilateral Increased vascularity with low resistance arterial waveform

periphery; this is sometimes referred to as the "string of pearls sign". <sup>2,4</sup> The venous congestion can be appreciated as engorged vasculature around the affected ovary. <sup>6</sup> Diminished or absent arterial flow to the ovaries can be a later stage finding of ovarian torsion and may not always be present as the ovaries receive blood supply from both the ovarian as well as uterine arteries (Figure 5). <sup>6</sup> As the ovary experiences prolonged ischemia, hemorrhage and infarction occurs and manifests as a heterogenous ovarian stroma on ultrasound. <sup>2</sup>

Ovarian torsion in children is often primary, whereas ovarian torsion in adults is secondary, and associated with an adnexal mass such as an ovarian cyst. 4,7 The most common ovarian mass associated with torsion is a mature cystic teratoma (MCT) like in our patient.5 MCTs are benign germ cell tumors that are found to be present in 20% of ovarian torsions.<sup>5</sup> Bilateral MCTs exist in 10% of patients with teratomas.8 There are three prominent findings in teratomas on ultrasound: Rokitansky nodule, diffuse or partial echogenicity occupying the cyst, and dermoid mesh (Figure 4).8,9 Rokitansky nodules, also known as "dermoid plugs", are tubercles that project into the lumen of the cystic teratoma; they are formed by clumping of bony tissue like teeth with hair making it hyperechoic casting a shadow.<sup>10</sup> The diffuse echogenic partial mass of the cystic structure is formed by echogenic sebaceous material with internal calcifications.<sup>11</sup> Lastly, the dermoid mesh appear on ultrasound as a hypoechoic background with differing lengths of linear echogenic bands also known as "dots and dashes." The hypoechoic background is formed by sebum, which is fatty

tissue that is liquid at body temperature, and hair floating in the sebum form the dots and dashes. <sup>8,9</sup>

Many other adnexal cystic structures can also contribute to the increased risk of torsion and can be an alternate cause of pelvic pain. In general, structures greater than 5cm increase the risk of the torsion and structures greater than 10cm are less likely to cause torsion. See Table 1 for the common differential of cystic adnexal structures and their classic ultrasound characteristics

Ultrasound can be instrumental in the diagnosis of ovarian torsion as well as identifying the underlying cause of torsion, like in our patient. However, ultrasound can also have many pitfalls that may be misleading. One study found that 60% of patients with confirmed ovarian torsion in surgery had initial normal color Doppler flow on ultrasound.2 Furthermore, while absence of arterial flow in premenopausal women have high sensitivity for ovarian torsion, postmenopausal women at baseline have harder to detect ovarian arterial flow; as a result, in the postmenopausal population, low arterial flow may not indicate torsion.5 Ultimately, the definitive diagnosis of ovarian torsion is still based on laparoscopic findings.12

### References

- Dewey K, Wittrock C. Acute Pelvic Pain. Emergency medicine clinics of North America 2019;37:207-18.
- Chang HC, Bhatt S, Dogra VS. Pearls and pitfalls in diagnosis of ovarian torsion.
   Radiographics: a review publication of the Radiological Society of North America, Inc

- 2008;28:1355-68.
- Huchon C, Fauconnier A. Adnexal torsion: a literature review. European journal of obstetrics, gynecology, and reproductive biology 2010;150:8-12.
- Sohoni A, Bosley J, Miss JC. Bedside ultrasonography for obstetric and gynecologic emergencies. Critical care clinics 2014;30:207-26, v.
- Amirbekian S, Hooley RJ. Ultrasound evaluation of pelvic pain. Radiologic clinics of North America 2014;52:1215-35.
- Cicchiello LA, Hamper UM, Scoutt LM.
   Ultrasound evaluation of gynecologic causes of pelvic pain. Obstetrics and gynecology clinics of North America 2011;38:85-114, viii.
- Huang CY, Chen CC, Lee YK, et al. Ovarian torsion caused by teratoma masquerading as renal colic. Emergency medicine journal: EMJ 2008;25:182.
- Choudhary S, Fasih N, Mc Innes M, Marginean C. Imaging of ovarian teratomas: appearances and complications. Journal of medical imaging and radiation oncology 2009;53:480-8.
- Outwater EK, Siegelman ES, Hunt JL. Ovarian teratomas: tumor types and imaging characteristics. Radiographics: a review publication of the Radiological Society of North America, Inc 2001;21:475-90.
- Srisajjakul S, Prapaisilp P, Bangchokdee S. Imaging features of unusual lesions and complications associated with ovarian mature cystic teratoma. Clinical imaging 2019;57:115-23.
- Saba L, Guerriero S, Sulcis R, Virgilio B, Melis G, Mallarini G. Mature and immature ovarian teratomas: CT, US and MR imaging characteristics. European journal of radiology 2009;72:454-63.
- Melcer Y, Maymon R, Pekar-Zlotin M, Vaknin Z, Pansky M, Smorgick N. Does she have adnexal torsion? Prediction of adnexal torsion in reproductive age women. Archives of gynecology and obstetrics 2018;297:685-90.

Figure 1
Sagittal ultrasound image of the right kidney without hydronephrosis.



Sagittal ultrasound image of the left kidney without hydronephrosis.



Figure 3
Endocavitary ultrasound image of the right adnexa with large mature cystic teratoma.



Figure 4
Endocavitary ultrasound image of the left adnexa with large mature cystic teratoma. (A) Rokitansky nodule; (B) Echogenic mass; (C) Dermoid mesh.



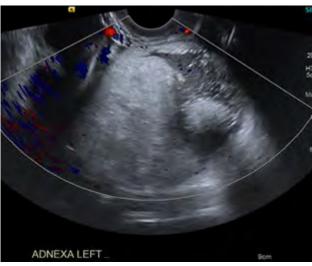


Figure 5
Endocavitary ultrasound of left adnexa evaluating mass with color Doppler. No internal blood flow is shown.

### Calendar

### December 2019

- 11 Education Committee Conference Call, 2:45 pm
- 11 Professional Development Conference Call, 3:30 pm
- 12 Practice Management Conference Call, 1:00 pm
- 13 Board of Directors Conference Call, 1 \$\," 0 pm-1:30 pm
- 18 Government Affairs Conference Call, 11:00 am
- 18 Emergency Medicine Resident Committee Conference Call, 2:00 pm
- 19 Research Committee Conference Call, 3:00 pm
- 19 EMS Committee Conference Call, 2:30 pm

### January 2020

- 8 Education Committee Conference Call, 2:45 pm
- 8 Professional Development Conference Call, 3:30 pm
- 9 Practice Management Conference Call, 1:00 pm
- 15 Government Affairs Conference Call, 11:00 am
- 15 Emergency Medicine Resident Committee Conference Call, 2:00 pm
- $15\,$  Research Committee Conference Call, 3:00 pm
- 16 EMS Committee Conference Call, 2:30 pm
- 31 Board of Directors Cnference Call, 12 pm 3:00 pm

### February 2020

- 12 Education Committee Conference Call, 2:45 pm
- 12 Professional Development Conference Call, 3:30 pm
- 13 Practice Management Conference Call, 1:00 pm
- 19 Government Affairs Conference Call, 11:00 am
- 19 Emergency Medicine Resident Committee Conference Call, 2:00 pm
- 19 Research Committee Conference Call, 3:00 pm
- 20 EMS Committee Conference Call, 2:30 pm

### March 2020

- 3 Advocacy Day, Albany, New York 10:30 am 4 pm
- 11 Education Committee Conference Call, 2:45 pm
- 11 Professional Development Conference Call, 3:30 pm
- 12 Practice Management Conference Call, 1:00 pm
- 18 Government Affairs Conference Call, 11:00 am
- 18 Emergency Medicine Resident Committee Conference Call, 2:00 pm
- ${\bf 18}~$  Research Committee Conference Call, 3:00 pm
- 19 EMS Committee Conference Call, 2:30 pm

## PRACTICE MANAGEMENT

### Joseph Basile, MD MBA FACEP

Associate Chair
Department of Emergency Medicine
Staten Island University Hospital, Northwell Health
Chair, New York ACEP Practice Management Committee





Guest Author
Kirby Black, MD
Director of Emergency Medicine, Oneida Health
Member, New York ACEP Practice Management Committee

## Flow Optimization in the Community ED

All emergency departments have intricacies in operations that affect the flow of patients. We strive to deliver compassionate, competent and efficient care, but there are many challenges we are faced with on a daily basis to accomplish these goals. I am the medical director of a small community hospital in Central New York. We have an annual volume of just over 20,000 visits per year seen in 13 rooms. There are many unique challenges that come with working in a hospital of this size. We staff the emergency department (ED) with 24 hours of physician and 12 hours of Advanced Practicing Clinicians (APC). Our primary hospitalist admitting team has 12 hours in house physician coverage and 24 hours of APC coverage. Overnight, the only providers in house are the ED physician and the hospitalist service APC with Surgery, OB, Urology, Hospitalist and Anesthesia on call from home. There is one CT scanner that serves the entire hospital. A small group of phlebotomists cover the hospital and the attached Extended Care Facility (ECF).

In healthcare, we are always trying to make incremental improvements and we chose to try to decrease the admitted length of stay (LOS) as a goal for this year. When we surveyed our ED group, the hospitalist group and dove into cases, we did not find a glaring primary focus to fix everything. Although it may be the norm in many larger systems, ED boarding is minimal at our site and always rectified by the morning staffing. Ultimately, we sought to make several incremental improvements.

### **Culture of Accountability**

Our first step was to raise awareness of the problem. We met with all major stakeholders on the ED to inpatient transition. There was administrative buy-in and involvement from the outset and this was pivotal in the ability for us to complete projects and keep the admitted LOS as a priority. We met with the Chief Medical Officer - whom in our system has direct administrative oversight of the hospitalist program and is able to work with the general surgeons. These two groups account for the vast majority of admissions. The Chief Nursing Officer was also involved immediately. She brought ideas back and forth to the nursing supervisor department, as they are the warden of bed assignments and they are continually rounding in all departments day and night. The ED-ICU nurse manager (yes, same person at my hospital) and the Med/Surg floor nurse manager were also directly involved in the project. The Chief Operating Officer (COO) was involved early as well. This was important because the lab and radiology managers report to the COO and having their buy-in with our goals was very helpful.

In these preliminary meetings we discussed the overall admitted LOS and our goals for incremental reduction. We asked for assistance in identifying bottlenecks in workflow for all of the related service lines and started to come up with plans to address these issues. All of these managers returned to their departments and emphasized the priority that admitted ED patients represented to the institutional goals. Merely from this Hawthorne effect we saw our admitted LOS drop gradually about 10 minutes on average.

## **Emergency Department - Starting at Home**

The emphasis on admitted patients was not foreign to the physician group. We have and continue to discuss potential strategies to lower the admitted LOS with techniques for operating in parallel. We encouraged direct bedding when available and for the triage and provider encounter to occur simultaneously allowing for a unified single telling of the history of present illness (HPI).

The nurse manager and I developed a quick presentation on easily ordering basic labs (CBC, CMP, UA, hCG) and plain films. We delivered this to the nursing staff and focused on those who are trained to triage. That way the time spent waiting for a provider is not wholly wasted time. This option has been used only sparingly, but has been successful when used. Hopefully as comfort increases it will see more success.

### **Efficiency of Testing**

It has long been known that the single CT scanner can often lead to waits when outpatient, inpatient and ED testing occur together in the afternoon. This is even without mentioning a CT guided procedure. Thankfully there was an organizational need for a PET-CT scanner and construction is ongoing. With the availability for a single resource limited, we did focus on radiologist turn-around-times. The COO and the director of radiology collected data on the metrics and communicated this back to the radiologist group. Since then we have seen better times. They instituted "front-end" dictation software that has resulted in quicker availability of the full report.

Taking a patient directly to the radiology suite from the waiting room has now become commonplace. Previously this was not the practice. The phlebotomists (whom perform nearly all ED blood draws), began partnering

continued on page 9

## **TOXICOLOGY**







Guest Author Wells Brambl, MD Fellow, Medical Toxicology, Northwell Health



Guest Author
Mark Huang, MD
Fellow, Medical Toxicology, Northwell Health

### Shortness of Breath

### Case

A 19 year old male with no past medical history presents to the Emergency Department (ED) with a two day history of progressively worsening shortness of breath. He reports cough associated with dyspnea as well as nausea and vomiting which started six hours prior to arrival. He denies fevers, chills, chest pain, abdominal pain, recent travel, leg pain/swelling or rash. A social history reveals that he vapes multiple times per day over the past 16 months. His last use was one day prior to ED presentation, and he primarily vapes nicotine products with a Juul device but uses another device for THC as well.

His vital signs are: HR 89 beats per minute, BP 142/86mmHg, RR 18 breaths per minute, Temp 37.6 degrees Celsius, and oxygen saturation 95% room air. Physical exam is notable for conjunctival injection, diminished breath sounds bilaterally, but no wheezes, crackles or ronchi. Heart rate is normal with a regular rhythm without murmurs, rubs or gallops and there is no peripheral edema. Remainder of physical examination is unremarkable. CXR was within normal limits.

Laboratory workup was remarkable for a WBC 20.98; the remainder of his CBC, CMP, LFT and troponin were unremarkable.

The patient was observed overnight, but found to have worsening shortness of breath in the morning. CTA chest demonstrated no evidence of a pulmonary embolus but bilateral ground glass opacities were present. Antibiotics were started and he was admitted to the hospital. Twenty-four hours later he was noted to be hypoxic in the low 80s and was intubated. Methylprednisolone was initiated at 60mg q12 hours. Bronchoalveolar lavage revealed abundant lipid-laden macrophages on an Oil Red O stain. He was extubated on the fourth day after intubation.

### **Electronic Cigarettes, Nicotine & THC**

E-cigarettes are battery powered devices that are used to inhale nicotine and cannabis products, such as THC oil, cannabidiol, and butane hash oils ("dabs"). An e-cigarette is typically comprised of a nicotine or THC cartridge, an atomizer or heating element and a battery power source.

As of 2014, there were more than 460 brands of e-cigarettes on the market, with large marketing expenditures wagered upon adolescents. Consequently, the prevalence of e-cigarette use is highest amongst this group, with as many as one out of every five high school students having reported e-cigarette use in 2018<sup>2-5</sup>.

Until recently, the effects of vaping have largely focused on nico-

tine's addictive properties and the legality of THC. However, when a mysterious vaping-related lung illness began to surface in 2019, the safety of vaping was called into question. As of October 8, 2019, the CDC reports that 1,299 cases of VALI have been reported, which have resulted in 26 deaths. While the vast majority of cases are associated with cannabis products, VALI has been associated with nicotine products as well.

### **Diagnosis of VALI**

The pathophysiology of VALI has yet to be elucidated, but theories include: 1) lipoid pneumonia due the accumulation of condensates of vaping oils, 2) accumulation of free radicals, and even 3) exposure to metal vapors from the vaporizer's heating coil. Typical diagnostic features of VALI include: recent vape use, cough, wheezing, shortness of breath, hypoxia, GI upset, tachycardia, fever, leukocytosis and elevated ESR/CRP.

Obviously, there is significant overlap between this disease process and that of a viral URI or community acquired pneumonia. Chest X-rays are not sensitive, while noncontrast chest CT will often demonstrate diffuse bilateral ground-glass opacities. Ultimately, the diagnosis is typically one of exclusion, after an infectious etiology has been ruled out and with the identification of lipid-laden macrophages on bronchial alveolar lavage (BAL). Multiple diagnostic algorithms exist, but most invoke a detailed social history, CXR, respiratory viral panel, chest radiography and admission for patients with any signs of respiratory distress.

### Treatment of VALI

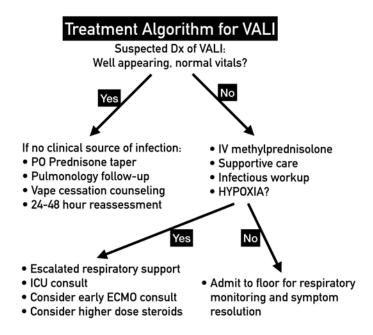
Corticosteroids are thought to reduce disease severity and inpatient treatment is preferred whenever respiratory distress, hypoxia or poor reserve is present. Cases of fulminant respiratory failure should be transferred to ECMO-capable facilities whenever ARDS-physiology develops.

As we enter the upcoming cold and flu season, a thorough social history that includes screening questions for vaping product usage should be performed. Repeat ED visits, lack of clinical response to antibiotics, laboratory indicators of systemic inflammation and a history of vaping may help differentiate infectious pulmonary disease from VALI.

Ultimately, all cases of suspected VALI with concomitant respiratory distress should be admitted to the hospital for corticosteroids and dedicated non-contrast chest CT. Patients who do not meet admission criteria should be offered corticosteroid therapy and be vigilantly reassessed within two days for signs of worsening symptoms.

continued on page 9

Shortness of Breath - continued from page 8



### References

- US Department of Health and Human Services. E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2016
- Cullen KA, Ambrose BK, Gentzke AS, Apelberg BJ, Jamal A, King BA. Notes from the field: use of electronic cigarettes and any tobacco product among middle and high school students — United States, 2011–2018. MMWR Morb Mortal Wkly Rep 2018;67:1276-1277.
- Kowitt SD, Osman A, Meernik C, et alVaping cannabis among adolescents: prevalence and associations with tobacco use from a cross-sectional study in the USABMJ Open 2019;9:e028535. doi: 10.1136/bmjopen-2018-028535
- Madeline H. Meier, Meagan Docherty, Scott J. Leischow, Kevin J. Grimm, Dustin Pardini. Cannabis Concentrate Use in Adolescents. Pediatrics Sep 2019, 144 (3) e20190338; DOI: 10.1542/peds.2019-0338
- Marynak K, Gentzke A, Wang TW, Neff L, King BA. Exposure to Electronic Cigarette Advertising Among Middle and High School Students United States, 2014–2016. MMWR Morb Mortal Wkly Rep 2018;67:294–299.
- Zhu S, Sun JY, Bonnevie E, et alFour hundred and sixty brands of e-cigarettes and counting: implications for product regulation Tobacco Control 2014;23:iii3-iii9.
- 7. <a href="https://www.fda.gov/consumers/consumer-updates/facts-fdas-new-tobacco-rule">https://www.fda.gov/consumers/consumer-updates/facts-fdas-new-tobacco-rule</a>
- 8. <a href="https://www.cdc.gov/tobacco/basic\_information/e-cigarettes/se-vere-lung-disease.html">https://www.cdc.gov/tobacco/basic\_information/e-cigarettes/se-vere-lung-disease.html</a>

### Flow Optimization - continued from page 7

with the charge and triage nurses to coordinate a space for lab drawing. Our "Family Room", a room with chairs used for vertical patient encounters, family discussions, etc., was outfitted with a lab draw chair and sharps container. Now we can create a secondary space for multiple patients to cycle through the waiting room and have blood testing safely and privately prior to having an available bed. The lab and phlebotomist supervisors were pivotal in this process and culture change.

## Bed Assignment and ED Departure

There were inconsistencies among nursing supervisors regarding when a notification was supposed to be given for an ED admission. We standardized the practice to be as follows:

- 1- "Heads Up" is given at time of the general impression of the patient being admitted with estimated location of the admission (OR, Floor, ICU, OR-short stay)
- 2- Admission notification is given when there has been an accepting conversation with an admitting provider. At this point, the bed assignment should be given.

We are still exploring the use of secure text messaging to save phone calls as the nursing supervisor receives greater than 50-75 phone calls during a day shift. Other avenues that we will further explore optimizing is the nurse-nurse communication and the registration workflow. The surgical group designed a "Quick Admit Order Set" which is essentially telephone bridging orders and this has been quite successful when utilized. We continue to explore the possibility of adjusting the physician workflow in this process.

We have seen about a 10% reduction in admitted LOS so far with these campaigns. However, with the significant variability we still have significant room for improvement.

## **ASK THE EXPERTS**

### Robert M. Bramante, MD FACEP

Chairman, Emergency Medicine, Mercy Medical Center Progressive Emergency Physicians Chair, New York ACEP Professional Development Committee





Interview With
Dara Kass, MD FACEP
Assistant Clinical Professor of Emergency Medicine
and Director of Equity and Inclusion, Department of
Emergency Medicine, Columbia Medical Center



Interview By
Jennifer Pugh, MD MBA FACEP
Associate Chief of Emergency Medicine,
Erie County Medical Center,
UBMD Emergency Medicine

### An Advocate for Equity and Inclusion

I had the pleasure to speak with Dr. Dara Kass at the New York ACEP Scientific Assembly this summer where she received the Advancing Emergency Care Award for her contributions to emergency medicine in New York State. I also had the privilege to see Dr. Kass in action at the successful FemInEM Idea Exchange (FIX 2019) Conference this September.

Dara Kass, MD is the founder of FemInEM and is known as one of the leading voices for advancement of women in emergency medicine.

She currently serves as an Assistant Clinical Professor of Emergency Medicine at Columbia University Medical Center in New York City where she is also the Director for Equity and Inclusion for the Emergency Department.

She has won numerous awards this year in addition to her New York ACEP award including the SAEM Advancement of Women in Academic Emergency Medicine Award and the EMRA 45 under 45 Award.

### What educational experiences shaped your career?

I completed medical school and residency at SUNY Downstate Medical School and Kings County Hospital, a large urban safety net hospital where I learned from amazing faculty who taught me to advocate for my patients every day. Advocacy is the most important thing we do-both for our patients and our colleagues.

Following residency, I became a faculty member at Staten Island University Hospital where I facilitated the start of the emergency medicine residency program. In my last position, I served as director of undergraduate medical education at NYU/Bellevue. I focused on residency education, longitudinal career advising and innovative educational modalities.

I was active in ACEP's American Association of Women Emergency Physicians (AAWEP) and served on the board of SAEM's Women in Academic Emergency Medicine (AWAEM) early on which helped me to found FemInEM. FemInEM is complimentary to these groups and reinforces their values.

### What advice would you give to early career attendings?

You can be a change agent. You can be a part of the solution even though it takes time to make major changes in an organization. It is important for each emergency physician to support their colleagues and act as champions for one another. It is important to talk about issues such as equity objectively and consistently. Diverse faculty have better patient and financial outcomes.

### What is the next step mid-career faculty should make?

Push yourself to develop your network outside your institution. I would challenge others to be involved in both state organizations such as New

York ACEP and national organizations such as SAEM and ACEP. This is just as important as being involved in committees in your own hospital or emergency medicine group. Having a group of colleagues who can communicate your value across institutions and help write letters for promotion becomes important later in your career if you decide to change jobs.

## You were honored with the American Association of Women Emergency Physicians Mentor of the Year Award. Who serves as your mentor?

I have had the privilege to collaborate with some amazing women including Dr. Jenny Beck-Esmay, Dr. Esther Choo, and Dr. Jen Gunter. I have had the opportunity to work with many strong mentors and sponsors who have made me a better person. Together we are more productive. I'm also fortunate to have a very supportive boss who sees value in the work that I do every day.

### How do you maintain a work-life balance?

It is important to realize that what works for me may not work for you. Having children has been the best but most stressful time of my life. I have had the privilege of raising three amazing kids, Hannah, Charlie and Sam, with a supportive husband who also works full time. This summer I chose to work as a camp doctor to spend additional time with my children.

There are many challenges for emergency physicians returning from maternity or paternity leave. Women physicians working both in the community and academic institutions will have different options during their maternity leave. It is important that physicians speak up regarding policies at their institution to allow women to have families and remain in emergency department leadership roles.

## You are known for your energy and passion. What is your superpower?

My superpower is building things. I am good at building solutions to support individuals and organizations who make positive changes. I am proud of the work done through FemInEM and the Gender Equity in Medicine Research Foundation but I want everything I create to be able to exist without me in the future.

### Links:

New York ACEP: <a href="https://www.nyacep.org/about-new-york-acep/awards">https://www.nyacep.org/about-new-york-acep/awards</a>
American Association of Women Emergency Physicians: <a href="https://www.acep.org/how-we-serve/sections/american-association-of-women-eps/">https://www.acep.org/how-we-serve/sections/american-association-of-women-eps/</a>
Academy for Women in Academic Emergency Medicine: <a href="https://www.saem.org/awaem">https://www.saem.org/awaem</a>

FemInEM: https://feminem.org/

## **EMS**







Guest Author Jenna Mandel-Ricci Vice President, Regulatory and Professional Affairs Greater New York Hospital Association

# GNYHA Releases Toolkit to Help Prepare for Mass Casualty Incidents

The Greater New York Hospital Association (GNYHA) recently released a <u>Mass Casualty Incident Response Toolkit</u> to help its member hospitals and health systems develop and improve their mass casualty incident response plans.

In the New York region, mass casualty incidents (MCIs) occur frequently, with most producing only a few patients. However, MCIs that result in large numbers of patients, including critical patients with life-threatening injuries, can quickly overwhelm area hospitals. Hospitals must be prepared to effectively and efficiently respond to such incidents while continuing to meet the needs of other patients.

GNYHA's toolkit includes suggested preparedness and response actions for the many clinical and non-clinical departments that participate in an MCI response, and related training, drills, and exercises. While patient care is the priority, the toolkit emphasizes the importance of planning and developing protocols and processes for additional activities, including patient registration and tracking, family reunification, and coordination with external entities. If these non-patient-care activities are not thought through in advance, their impact can overwhelm a facility and compromise its ability to deliver lifesaving care. While the toolkit refers to several New York City or region-specific protocols and resources, GNYHA believes the content will be valuable to hospitals throughout the United States.

Much of the toolkit's content and organization stems from collabo-

rative planning efforts that GNYHA has led or been involved in over the last several years, resulting in the development of new communication protocols and structures, and targeted training and programming. The toolkit also includes emerging best practices from intentional attacks that have occurred nationally and internationally.

The toolkit can be used in many ways to advance internal MCI response planning, including:

- Discussing the contents of the toolkit at an Emergency Management Committee meeting
- Reviewing the toolkit to identify and address existing gaps in internal plans
- Using sections of the toolkit to inform planning meetings with key clinical and non-clinical departments
- Adapting response aids in Appendix A for use within your facility
- Modifying scenarios in Appendix L to develop unit-based and facility-based exercises

The toolkit can be viewed at: www.nyacep.org.

For questions about the *Mass Casualty Incident Response Toolkit* and related initiatives, please contact Jenna Mandel-Ricci, Vice President, Professional and Regulatory Affairs at GNYHA, at (212) 258-5314 or <a href="mailto:jmandel-ricci@gnyha.org">jmandel-ricci@gnyha.org</a>.



## New York ACEP's Annual Reception

"  $\dots$  a great place to connect with colleagues and friends."



























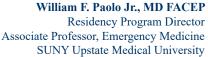














## Physician Suicide Is A Public Health Crisis

That there is an epidemic of physician suicide as borne out by the publicly available data is as irrefutable as it is alarming. Currently, physicians represent the profession with the highest associated suicide rate with one physician per day taking his or her own life. Physicians die by suicide at a rate of twice the general public, while 23% of residents in training report experiencing suicidal thoughts. These stark facts have mostly gone unnoticed within the general population and rarely does the association of physician burnout with depression garner front-page headlines in a system overtaken by elevating levels of non-physician administrative bureaucracy.

In a society still trying to figure out how to effectively and reasonably deliver health care, the plight of those charged with holding together the fragments of the broken system are subsumed into accusations of negligence and complicity in allowing the development of the currently broken status quo. Fortunately, there has been an increasing movement within the house of medicine to remedy our own blind-spot and ensure that we, as physicians, are aware of the pressing need to address this issue not only as a failure of the profession but indeed as a public health crisis.

Individuals leaving college and entering medical school are, in general, hard-working, high achieving individuals with established tendencies towards empathic and altruistic personality traits. The expectations established are unlike analogous professions with students viewing medicine as a calling rather than a simple commitment to an above average lifetime income. The process of creating new physicians involves the utilization of these traits and career hopes in a financially burdensome competitive environment where self-sacrifice and unreasonable hours are the expectation in order to produce the fully actualized physician.

Overarching this system is the narrative we tell about ourselves as we endure the rigorous process of training—what we do makes a positive difference in society. In spite of all of the sacrifices to the profession: financial independence, youth, sleep, etc., our labors are meaningful and worth the efforts. The metanarratives that define our sense of self and worth are wrapped within these stories we tell about ourselves and the profession's role within the edifice of our social housing. Affronts to this narrative, realities that challenge our established mode of thinking serve as existential threats to the vision of the self we have created and result in the discordance between expectations and unsatisfying realities. What if we work within a system that does not value what we do? What if the medical system is designed to minimize satisfying patient interactions? What if we are treated like employees of a corporation far removed from us whose governance is disinterested in the realties of day-to-day medical practice? What if our work does not make a positive difference?

Physicians are forced to confront a disinterested system intending to maximize nonsensical measurable metrics of physician productivity while minimizing the cornerstone of the profession—time spent healing. The commodification of physician time and the reality of a system dispassionate to the concerns of physicians trapped within its confines combined with a sensation of helplessness create the intellectual and emotional discordance we have labeled "burnout." Accompanying this is the financial ties individual practitioners have to the profession whereby leaving the system with burdensome indebtedness is infeasible. The system, as it were, therefore has directly resulted in confined physicians forced to perform a job in which they feel they can make no positive change that simultaneously functions at odds with their values as an individual in which daily practice appears to have no redeeming worth.

Rates of so-called "diseases of despair" have risen to prominent national attention as the opiate crisis and rates of death related to alcoholism have increased nationwide. These ailments of spirit have caused a stirring national debate as to the root cause within society accounting for the sudden and dramatic increase and concomitant decreases in life expectancy among particular demographic groups within the U.S. In spite of this, the physician suicide crisis, an analogous situation, has not resulted in an assessment of the conditions within health-care leading to drastically disproportionate rates of suicide. Conditions antithetical to physician flourishing abound within the medical establishment and the national conversation continues to neglect this fact and tries to discern novel ways for the beleaguered physician to do more with less.

Public health is dependent upon a cadre of trained physicians to look after the diseases and ailments of the society they serve, continuously acquiring new skills and knowledge to ensure the survival of the collective. If the structures built by said society result in harm to those willing to serve it then the presuppositions undergirding the structures of said society are sure to reveal themselves as the same disease underpinning the crisis of its own creation. It is an empirical fact that the system is resulting in direct physician harm and therefore the public safety established by the guild of physicians is under direct threat. As more highly skilled individuals are turned away by the risk of spiritual injury, the already weakened system will have difficulty meeting its stated aims. We must help one another and recognize this pattern within ourselves and offer support as we await changes to the infrastructure that has brought us to this point. Diseases of despair are a public health crisis and currently physicians abound in these ailments with no help in sight.



Sanjey Gupta, MD FACEP
Chairperson, Emergency Medicine, Southside Hospital
Associate Professor, Zucker School of Medicine at Hofstra/Northwell



Guest Author
Jason Brenner
Academic Associate
Southside Hospital, Northwell Health
Undergraduate Junior, University of Michigan

# Is It Time for "Epinephrine Saturation" for Patient Benefit in Anaphylaxis?

Imagine this scenario: a normal 13-year-old girl, her mother and sister go to a shopping mall to pick out a graduation dress for her upcoming rising up ceremony. After shopping, they stop by a chain sandwich shop where she orders a sandwich that she has eaten many times in the past. Food is always a concern as the teen has a severe nut allergy. About ten minutes after finishing the meal, she begins to feel hot as her eyes turn red and her lips begin to swell. Her condition rapidly deteriorates as she develops difficulty breathing, turns blue and expires from anaphylaxis less than 30 minutes after her symptom onset. Although the teen and her mom knew about her peanut allergy, they were not carrying epinephrine, a potentially life-saving treatment for anaphylaxis (Vonder Meulen, 2019). Fatal allergic reactions are not rare; between 1999 and 2010, 2,458 people died due to anaphylaxis in the United States (FARE, 2019) and many of these deaths may have been preventable if epinephrine was immediately available. Epinephrine is the most effective immediate pharmacologic intervention to help save lives in anaphylaxis and is easy and relatively safe to administer via auto-injector (EAI).

In the United States, food-based allergic reactions send someone to an emergency department every three minutes. The most common food allergens include dairy products, eggs, peanuts, tree nuts, wheat, soy and fish, but any food can induce an allergic reaction (FARE, 2019). Anaphylaxis resulting from food allergies is a growing problem--between 2007 and 2016, medical interventions to treat anaphylaxis increased by 377% (Aaaai, 2014). Anaphylaxis occurs when an allergen triggers an immunologic IgE mediated response, prompting one's immune system to release a flood of histamine and other inflammatory mediators in a cascade. This inflammatory cascade can lead to erythema, pruritus, urticaria, angioedema, bronchospasm, laryngeal edema, hypotension, cardiac arrhythmias, loss of consciousness, shock, or death (Kemp, 2008).

At the onset of a severe allergic reaction/anaphylaxis, epinephrine is the first-line treatment. Prompt delivery of the first administered drug is essential. Other commonly administered drugs like anti-histamines and glucocorticoids are considered second-line (Fromer, 2016).

Epinephrine has several physiological effects in the treatment of anaphylaxis: (1)  $\beta 1$ -adrenergic receptor effects-increased ionotropy and chronotropy, (2)  $\beta 2$ -adrenergic receptor effects- bronchodilation and reduction of inflammatory mediator release from mast cells and basophils, (3)  $\alpha 1$ -receptor effects-increased vasoconstriction and peripheral

vascular resistance with subsequent decrease in mucosal edema (Kemp, 2008). The Anaphylaxis Practice Parameters Workgroup recommends immediate treatment with epinephrine to prevent symptom progression and evolution to more severe anaphylaxis (Liberman 2015).

In order to mitigate the potential morbidity and mortality from anaphylaxis, and considering that 50% of patients with fatal reactions were previously prescribed EAIs, but did not have them available at the time of reaction (or were carrying just one EAI, while the recommended dose is two), we propose that EAIs should be made available everywhere-- from the first aid packs of wilderness guides to university dining halls (Fromer, 2016). We propose a veritable epinephrine saturation campaign.

Even when an allergic reaction is in doubt, many EM physicians state that epinephrine should still be used as treatment because it has minimal contraindications (Kemp, 2008). Common pharmacologic side effects of the drug include agitation, anxiety, headaches, dizziness and palpitations (Kemp, 2008). These effects typically pass within hours when the medication is administered correctly and at the recommended dosage. Rarely, and only in cases of overdose or overly rapid IV infusion, will epinephrine injection result in more severe effects such as MI, pulmonary edema, emergent hypertension, intracranial hemorrhage and ventricular arrhythmias (Kemp, 2008). These complications are extremely unlikely to result from an EAI because they come with the dose premeasured and are administered via injection into muscle tissue. There are, however certain medications and conditions in which epinephrine administration carries higher risks. Extremely young or old individuals, those with hypertension, untreated hyperthyroidism, heart disease and patients with peripheral vascular disease may be more vulnerable to the risks associated with epinephrine (Kemp, 2008). Additionally, certain medications have the potential to exaggerate the pharmacological effects of epinephrine. Patients taking β-adrenergic blockers and antagonists, α-adrenergic antagonists, angiotensin-converting enzyme inhibitors and possibly angiotensin II receptor blockers, tricyclic antidepressants and monoamine oxidase inhibitors, cocaine or amphetamines may all be at a higher risk of epinephrine toxicity. Even considering the aforementioned risk factors, epinephrine administration via EAI is benign in the majority of situations.

The University of Maryland recently installed EpiPens in its largest campus dining halls (Hayes, 2019). Two units are stored in a case resembling a fire alarm pull station, often placed alongside AEDs. When

students remove the front case, an alarm sounds alerting trained dining hall staff that someone is in need of help (Hayes, 2019). In accordance with House Bill 1473, trained non-medical-professional dining hall staff are then allowed to administer epinephrine if needed after assessing the situation and aid in transporting the student to definitive care expeditiously (Hayes, 2019). Not only do the EpiPens have the potential to save lives, but they also give students, many of whom are away from home for the first time, and parents of students peace of mind with the fact that their child can eat safely. Furthermore, the availability of epinephrine to college students might be even more important than in other situations due to their propensities to engage in risk-taking behavior, social pressures to try new foods at unknown restaurants, and risks associated with living without parental supervision for the first time. One study reported that 24% of all fatal allergic reactions occur in college-age students (Sampson, 2006). This is not surprising, given that 39% of college students with known allergies do not carry epinephrine with them at all times and that 54% of individuals in this population admitted to eating a food with a known allergen in the past year (Sampson, 2006). For these reasons, we hope that the University of Maryland's decision to install EAIs in their dining halls sets a new standard for universities around the nation.

In the University of Maryland dining halls, only trained staff members are legally able to administer the stored EpiPens (Hayes, 2019). However, almost anybody can become certified to administer epinephrine. The Food Allergy Research and Education organization has a free online course that describes signs and symptoms, step-by-step guides, how to spot risks and even case studies. Individuals with food allergies who need to know how to administer EAIs, but do not need a formal course, can usually be trained by their doctor in just a few minutes. Moreover, in emergency situations, anyone who can read the brief directions on the back of an EpiPen or listen to the verbal directions from an AUVI-Q can administer the drug. Training is always helpful, but in emergency situations, one can administer epinephrine without any prior experience.

Some may have questions regarding the legality of epinephrine administration that vary from state to state. Some of these include: 1) Can a physician write a prescription for an organization rather than an individual? 2) Can a physician write a prescription for an individual intended to be used on a third party? 3) Can a trained nonmedical professional (such as a teacher or dining hall employee) inject epinephrine in an emergency situation? 4) Can an organization that allows its staff to administer epinephrine be held liable? (Brown, 2006)

Laws vary by state, but in New York, entities eligible to administer epinephrine in an emergent situation include ambulance services, summer camps, daycare centers, schools, entertainment facilities, government centers and many other locations (Brown, 2006). Another law "provides that "eligible persons," including EMTs, overnight camps counselors and others approved by the State, may enter into a collaborative agreement with a health care provider containing protocols for the emergency use of epinephrine and for such persons the emergency administration of epinephrine shall be considered first aid with Good Samaritan protection" (Brown, 2006). However, New York is only one of two states that prohibits epinephrine administration to any persons not explicitly mentioned (Brown, 2006). New York does not have a state program, which several other states do have, to train and certify individuals who may be responsible for individuals having allergic reactions, such as camp counselors or tour guides (Brown, 2006). Please see Summary

Matrix of State Laws Addressing Epi-Pen Use in Schools for more information on each state's laws.

Epinephrine saturation may not have an impact on the number of hospitalizations due to allergic reactions, but would likely reduce morbidity and mortality rates due to food allergies. Take naloxone saturation as a comparison; opioid overdose is endemic in many parts of the country with approximately 150 deaths from opioid overdoses a day (CBS News, 2018). When administered within minutes of an opioid overdose, it has incredible life-saving potential. Naloxone is available over the counter and is given away for free in many areas of the country. Since Hamilton County, Ohio began distributing this drug for free, overdose deaths have decreased 31% and hospitalizations from opioid overdose have decreased by 42% (CBS News, 2018). We hope that epinephrine saturation would have similar life-saving potential to that of naloxone (CBS News, 2018).

Although epinephrine is widely accepted as the most effective first-line treatment for cases of anaphylaxis, it is not nearly as available in emergency situations as it should be. We, therefore, recommend that legislation be passed allowing public institutions to obtain prescriptions for EAIs, much like the state of Maryland. There are few medications or treatments that have as powerful a life-saving potential as epinephrine, to reach this potential, societal epinephrine saturation needs to be enacted.

#### References

- Brown, Rufus E. "Outdoor Law: The Legal Structure of Teaching and Administration of Epinephrine in Wilderness Emergency Situations." Brown & Burke, Attorneys at Law, 2006, www.brownburkelaw.com/articles-epinephrine.html.
- CBS News. "Opioid Overdose Deaths Plunge 31 Percent in Ohio County Thanks to Free Narcan." CBS News, CBS Interactive, 17 Dec. 2018, www. cbsnews.com/news/opioid-overdose-deaths-plunge-31-percent-ohio-hamil-ton-county-free-narcan/.
- Curtis, Rick. "Epinephrine: Medical & Ethical Necessity or Legal Nightmare?" Epinephrine: Medical & Ethical Necessity or Legal Nightmare? / OutdoorEd.com, 25 Mar. 2015, www.outdoored.com/articles/epinephrine-medical-ethical-necessity-or-legal-nightmare.
- Dying from Allergies: Fatal Anaphylaxis in the United States: AAAAI." The American Academy of Allergy, Asthma & Immunology, 30 Sept. 2014,
- www.aaaai.org/global/latest-research-summaries/Current-JACI-Research/ fatal-anaphylaxis.
- "Facts and Statistics." Food Allergy Research & Education, 19 Feb. 2019, www.foodallergy.org/life-with-food-allergies/food-allergy-101/facts-and-statistics.
- Fromer, Leonard. "Prevention of Anaphylaxis: The Role of the Epinephrine Auto-Injector." *The American Journal of Medicine*, vol. 129, no. 12, Dec. 2016, pp. 1244–1250., doi:10.1016/j.amjmed.2016.07.018.
- Hayes, Theo. "University of Maryland Adds EpiPens to All Campus Cafeterias." WBAL, WBAL, 16 Apr. 2019, <a href="www.wbaltv.com/article/epipens-at-umd/27166291">www.wbaltv.com/article/epipens-at-umd/27166291</a>.
- Kemp, Stephen F., et al. "Epinephrine: The Drug of Choice for Anaphylaxis--A Statement of the World Allergy Organization." World Allergy Organization Journal, vol. 1, 15 July 2008, doi:10.1186/1939-4551-1-s2-s18.
- Lieberman, Phillip, et al. "Anaphylaxis—a Practice Parameter Update 2015." Annals of Allergy, Asthma & Immunology, vol. 115, no. 5, Nov. 2015, pp. 341–384., doi:10.1016/j.anai.2015.07.019.
- Sampson, M, et al. "Risk-Taking and Coping Strategies of Adolescents and Young Adults with Food Allergy." *Journal of Allergy and Clinical Immunology*, vol. 117, no. 6, June 2006, pp. 1440–1445., doi:10.1016/j. jaci.2006.03.009.
- Vonder Meulen, Paul, and Catrina Vonder Meulen. "Emily's Story: A Life Lost to a Food Allergy and a Parent's Wish." Robyn O'Brien, 16 Apr. 2019, robynobrien.com/emilys-story-a-life-lost-and-a-parents-wish/.



# Corrections and Community Supervision



Clinton\* - Clinton CF (sporting and recreational outlets)

Chemung - Elmira & Southport CFs (Gateway to the Finger Lakes)

Columbia\* - Hudson CF (antiquing, arts & collectables)

Dutchess - Green Haven CF (Hudson River Valley beauty)

Erie - Gowanda CF (Hudson River Valley beauty)

Franklin\* - Franklin and Upstate CFs (North Country, 1 hour to Montreal)

Greene\* - Greene CF (rural charm yet only 2 hours to NYC)

Livingston\* - Groveland CF (State Parks, hiking, fishing)

Physicians, are you looking for a change? Tired of working long shifts with an overwhelming patient load? Come work at a well-equipped and staffed correctional facility where you can MAKE a difference, working with a smaller number of patients for reasonable hours.

Starting salary is \$143,381 - \$171,631 \*Addtl. \$20,000 geographical differential for Clinton & Franklin CF, and \$10,000 for Five Points, Greene, Groveland and Hudson CFs.

Offer Full-Time, Part-Time & Hourly/Per-Diem

Inquire with the Facility Personnel Office regarding benefits and anticipated opportunities: http://www.doccs.nv.gov/faclist.html.

Contact: <a href="www.doccs.ny.gov">www.doccs.ny.gov</a> or DOCCS Personnel Office at (518) 457-8132 to apply.

We have openings in the following counties:

Oneida - Mohawk CF (Cooperstown, breweries)

Orleans – Albion CF (Greater Niagara Region)

Sullivan - Woodbourne CF (mountains, outlets, entertainment)

Seneca\* - Five Points CF (heart of wine country)

St. Lawrence - Riverview CF (hiking, boating, museums)

Ulster\* - Shawangunk & Wallkill CFs (sporting and recreational outlets)

Washington - Great Meadow CF (hiking, boating, skiing, snowboarding)

Westchester - Bedford Hills CF (less than 1 hour from NYC)







### How ACEP Makes the Sausage

We have all heard the saying by Otto Von Bismarck, "two things you don't want to see being made are laws and sausages", but how much do you really know about how ACEP business in conducted, how the Board's agenda is guided or how our ACEP Officers are elected? ACEP's Council meets once a year for two days in conjunction with the College's annual Scientific Assembly. The purpose of the Council meeting is to "conduct the business of the college". This year the Council meeting was held in Denver, Colorado Friday, October 25 and Saturday, October 26.

The ACEP Council consists of members representing ACEP's 53 chartered chapters (50 states, Puerto Rico, the District of Columbia and Government Services), its sections of membership, the Association of Academic Chairs in Emergency Medicine (AACEM), the Council of Emergency Medicine Residency Directors (CORD), the Emergency Medicine Residents' Association (EMRA) and the Society for Academic Emergency Medicine (SAEM). The Council consists of Councillors, as well as alternate Councillors who can take the place of a Councillor on the floor during debate and voting. Each representative body on the Council is allotted a number of Councillors based on set rules and criteria. For example, the 53 chapters are given Council seats based on the size of their membership, similar to the way states have congressional districts based on population. The number of Councillors who represent a chapter in a given year is determined by the number of ACEP members in that chapter December 31 of each year. Each chapter is represented by at least one Councillor; an additional Councillor is allowed for each 100 members in the chapter. EMRA is allocated eight voting Councillors; AACEM, CORD, SAEM and ACOEP, are each allocated one voting Councillor; and each section of membership is allocated one voting Councillor. Due to the membership size method of determining the number of Council seats, our New York ACEP delegation becomes a pivotal player at the Council. New York is the second largest chapter within ACEP, and was assigned 29 Councillors this year. The only delegation larger is California. Rounding out the "big 3" would be Texas with 22. By comparison, neighboring states are much smaller, Pennsylvania with 18, New Jersey with 10, and Connecticut with six. In addition to the chapters, each section of membership has a Council seat as well, as does the other member organizations listed above. These numbers come into play during the elections for the board of director positions, as well as Council officers and president-elect as the candidates are acutely aware of who has the largest delegations and number of votes they command, but more about elections later.

So what does the Council actually do? According to the Council handbook, "The Council elects the Board of Directors, Council officers, and the president-elect of the College. The Council shares responsibility with the Board of Directors for initiating policy and Councillors shape the strategic plan of the College by providing comments on behalf of the constituencies they represent. The Council

also provides a participatory environment where policies already established or under consideration by the Board of Directors can be debated." The Council generally shapes the strategic plan and initiates policy through debate on "resolutions" properly submitted to the Council in writing at least 90 days prior to the start of Council. A resolution can be submitted by at least two members, a chapter, section, committee or Board of Directors for consideration. There is no limit to the number of sponsors a resolution can have, as some resolutions are sponsored by multiple chapters, sections and/or individuals. New York ACEP sponsored three resolutions this year. The three resolutions relate to social work in the emergency department, telemedicine research and developing a vaccine preventable illness tool kit. There are also provisions for late resolutions, as well as emergency resolutions which are considered on a case-by-case basis by the Council steering committee for inclusion. All Councillors receive a copy of the submitted resolutions prior to arriving for the Council meeting so that they can have adequate time to review them and formulate a position. The New York ACEP delegation meets prior to the Council meeting to discuss all the submitted resolutions, pros and cons of supporting or opposing and formulates a position by consensus that we believe best represents the will of our membership. This year the Council considered 46 individual resolutions that will help guide the college's agenda and policy for the future year. These resolutions cover a large number of topics including bylaws amendments addressing such topics as Council membership, ethical violations and membership eligibility. Additionally, topics such as buprenorphine prescribing, sepsis core measures, EMTALA coverage, tort reform, single payer healthcare, the role of non-physician providers in the emergency department and mental health coverage will all be debated.

On the morning of the first day of Council, Councillors attend reference committee meetings where the individual resolutions are sent for gathering testimony. During these pivotal sessions, the reference committee members hear testimony both for and against the individual resolutions, as well as suggestions for amending the resolutions to make them more acceptable to the groups' interests. It is then the job of the reference committee members to summarize the bulk of the testimony to determine if the Council seems to be more in favor of or opposed to the resolution, as well as any suggested changes that the reference committee would like to submit based on testimony heard. Additionally, the reference committee develops a "consent agenda" of resolutions they feel are non-controversial and could be affirmatively voted on as a block.

Most of the afternoon of the first day of Council consists of candidate forums, where the candidates for elected position can present their platform, as well as answer questions from the group. The sessions are very important as it is the responsibility of the Council to elect the president elect, Council officers and board officers at the conclusion of Council on the second day. There is no direct mem-

bership election for these ACEP officers, and the Council votes for the officers as a representative body of the college's membership similar to the Electoral College.

The second day of Council is where the real fun begins. The second day consists of floor debate on the resolutions, voting on the resolutions and at the end of the day voting for elected offices. Each resolution is presented and then debate can begin on the resolution as well as amendments being offered and what action the Council should take. For any resolution the Councillor can take one of four actions, they can adopt the resolution, adopt the resolution as amended, refer the resolution to someone else such as the Board of Directors or defeat the resolution. For some of the more controversial resolutions, debate can go on for some period of time with passionate testimony being offered by Council members. Often a vote will need to be taken to close the debate so that voting can occur. Once the Council has worked their way through all the resolutions, the elections for the new officers is held. This voting is done by electronic balloting and often results in several runoff elections due to the rules governing the election. After the elections are over, the Council's business is concluded and they adjourn after another successful year so that people can attend the Scientific Assembly for the remainder of their week in Denver.

So while that is a synopsis of what the Council is, when it meets and what it does, you may be wondering how one becomes involved with the Council. It is up to each chapter to determine how they select their Councillors. New York ACEP elects Councillors to a two-year term as well as alternate Councillors. If the Council seems interesting to you and you have any interest in helping guide policy and the agenda of the College, consider running for a Councillor position. Even if you think you may be interested but are not sure, you can start as an alternate Councillor to experience the Council and see how it runs. During most years many of our alternate Councillors actually end up filling in for Councillors due to last-minute schedule changes, emergencies etc. Additionally, if you have an issue that you think is important to emergency medicine and should be brought to the Council, it only takes you and one other member to submit a resolution, or present your resolution to the New York ACEP Board of Directors for submission, but please get involved. I look forward to seeing some of you as new Councillors at next year's Council meeting in Dallas, Texas.

### References

- 1. <a href="https://www.acep.org/council">https://www.acep.org/council</a>
- 2. <a href="https://www.acep.org/how-we-serve/council/">https://www.acep.org/how-we-serve/council/</a>
- b. https://www.acep.org/education/meetings/future-annual-meeting-dates/

### Congratulations to New Fellows of the American College of Emergency Physicians

Frosso J. Adamakos, MD FACEP Cristine M. Adams, MD FACEP Shahram Ahari, MD MPH FACEP Samantha Bordonaro, MD FACEP Lewis W. Britton, IV, MD FACEP Jerel Chacko, MD FACEP Bernard P. Chang, MD PhD FACEP Kevin Chason, DO FACEP Arlene S. Chung, MD MACM FACEP Lauren J. Curato, DO FACEP Neil Kumar Dasgupta, MD FACEP Suchismita Datta, MD FACEP Timothy B. Depp, MD FACEP Elizabeth Ann Fernandez, MD FACEP Tsion Firew, MD FACEP Ryan Giorgetti, MD FACEP Juan Pablo Gonzalez, MD FACEP Johanna C. Innes, MD FACEP Mary Jo Johnstone, MD FACEP Hideki Kishikawa, MD FACEP

Jennifer Ann Maccagnano, DO FACOEP FACEP Justin Adam MacKinnon, MD FACEP David A. Marcus, MD FACEP Robert Trevor Marshall, MD FACEP Jolion McGreevy, MD FACEP Marion-Vincent Legaspi Mempin, MD FACEF Christopher Mendoza, MD FACEP Ellen Marie Menocal, MD FACEP Aekta Andrea Miglani, MD FACEP Michael O'Brien, MD FACEP Mark Adam Papish, MD FACEP Joseph Robert Pereira, DO FACEP Tony Rosen, MD MPH FACEP Sanjay Shetty, MD FACEP Joshua Silverberg, MD FACEP Erika St. James, MD FACEP Matthew C. Talbott, MD FACEP Rishi Vohra, MD FACEP Jason Zimmerman, DO FACEP

## **EDUCATION**



Guest Author John Morrison, MD Attending Physician and Clinical Faculty Brookdale Hospital Medical Center

Joshua Schiller, MD
Faculty, Department of Emergency Medicine
Maimonides Medical Center



## Teaching in A Pressure Cooker

Resident education and patient care are the chief purposes of every emergency medicine residency. As providers, we have to meet the clinical demands of the moment and the limitations of the available resources to deliver patient care. As educators, we have to accommodate the stresses of our residents, find time to teach effectively and objectively evaluate resident performance.

Working at a busy, urban teaching hospital with an under-resourced demographic, we have additional challenges as well. We are a new residency that just graduated our first class. As well, we are a busy trauma center in an area with a comparatively high crime rate, compared to surrounding areas of the city. So in general, our emergency department (ED) could be characterized as many in the emergency medicine (EM) community may describe their workplace—a setting where need often challenges capacity. This, coupled with overcrowding, means that burnout is a frequent problem among members of the medical team.

Educating in this pressure cooker is challenging. On the one hand these external forces can be a crucible that produces strong clinicians who are proud of their residency experience. On the other hand it can be a destructive force for a multitude of reasons. I believe managing resident stress effectively can make a critical difference.

Stress is probably the most ubiquitous force in emergency medicine—as such, it is among the most discussed and researched. While some literature shows that stress can help memory formation—and indeed we have all had something "seared" into our minds—others show that stress inhibits recall and integration of data. Most alarmingly, there is evidence that our residents are under too much stress altogether with a post-traumatic stress disorder (PTSD) incidence as high as 21.5%.

All the data aside, I think common sense leads us to the conclusion that residents cannot learn well when they are afraid. At least, this was my conviction when I finished my residency and started as an attending. So, during my first year after graduation, I was constantly working to uplift and empower my residents. I had the goal of creating a safe place for them to feel secure enough to learn and make mistakes. I know this seems like an obvious goal - but it takes a high level of vigilance to keep those mistakes from reaching patients, particularly in our emergency room. Regardless, I truly felt that I was on to something - that residents tend to rise to the level you expect of them.

In my second year, I was unnerved by a few near misses and began to wonder if I was making my residents feel so secure that they became relaxed. It is one thing to enable an over-cautious resident to embrace what they know. It is another situation entirely when an over-confident resident does not know what they do not know. Furthermore, I began to worry that I was too friendly an attending - and that this comfort was leading my residents relaxing their own standards around me. I realized that due to the stresses in our ED, it can be hard to meet the standards

we draw from ideal clinical scenarios in textbooks. It was this failure to meet standards that led to the near misses and these failures were not a factor of resident complacency but rather due to the much more difficult problem of limited resources.

For example, if I need an EKG to give a patient a HEART score of 3 and discharge - there are a multitude of reasons why this can be hard to obtain. The PCT may be doing other work, may be on break, the EKG machine may be broken and the back-up in use. As the amount of pending EKGs increase, there becomes a tipping point of who really needs it. So, when you have been waiting for an hour for an EKG on a 30 year old that hit his chest on a steering wheel, and then 3 GSWs stumble into your trauma bay, it becomes increasingly easy to tell the now asymptomatic 30 year old to go home. We all know he is probably just fine, and you need your PCT to come off break and go find stretchers and monitors. But he really did need that EKG—that would be a critical action on any oral boards case.

Discrepancies between what a resident is taught and what occurs in clinical reality creates an atmosphere where standards feel flexible to residents. Recently one of our best residents did not get a CXR in simulation. In debrief we realized this was because she did not think the patient "really needed it." She made a similar triage of resources that she saw me make. However, she made it subconsciously. This highlighted to me that lapses in the standard of care can accumulate and run the risk of becoming a faulty standard of practice. I think this type of thought process may lead to ambivalence in training when it comes to medical decision making. The implications suggest an absolute worst outcome - a cessation of study in general.

In emergency medicine, being right is a gestalt. Being wrong is a bias. Being right is a heuristic. Being wrong is a short cut. If we knew which was which ahead of time we would be perfect. But unfortunately, we do not. However, I have realized the importance of telling your residents when and why are you taking a short cut - specifically what the risks are to the patient and why you believe in this one time you can do without. The other side of this is an insistence that standards be upheld whenever possible. Being an attending in our ED is a tight rope between setting resident expectations, holding them to that, creating enough room for them to feel empowered, while not giving them too much leash that they buy into the variable application of standards that is an unfortunate reality in a chaotic, underserved ED.

### References

- Vanyo, Lara et al. Posttraumatic Stress Disorder in Emergency Medicine Residents, Annals of Emergency Medicine, Volume 70, Issue 6, 898 - 903
- Schmitz GR, Clark M, Heron S, et al. Strategies for coping with stress in emergency medicine: Early education is vital. *J Emerg Trauma Shock*. 2012;5(1):64–69. doi:10.4103/0974-2700.93117



## We Want to Help.

Let our expert SAFE (Sexual Assault Forensic Examiner)





For organizations with SAFE programs in place, we can help supplement your existing program. For organizations with no SAFE program, we can help you build one.

### **BENEFITS FOR VICTIMS & ORGANIZATIONS**

- Highly Trained, Experienced Staff
   Reduce Transfers
- Compliance
- Decrease Wait Times
- Increase Patient Satisfaction
- Save Money

### **EASY TO IMPLEMENT**

- Documentation
   Training
  - Golive
- Policies
- I.T.

United Concierge Medicine has partnered with St. Peter's Health Partners, recipient of two grants to provide SAFE services using telemedicine  $technology. The {\it pilot program has two partners:} Funding {\it provided through the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office of Victim Services:} {\it Grant number the New York State Office Office$ 2016-VA-GX-0069, awarded by the Office for Victims of Crime, Office of Justice Programs, U.S. Department of Justice. The opinions, findings, and conclusions or recommendations expressed in this product are those of the contributors and do not necessarily represent the official position or policies of the U.S. Department of Justice. Support funding from The New York State Department of Health, Division of Family Health.

### FIND OUT MORE AT TELESAFE.ORG

Thanks to the 2019 New York ACEP **Emergency Medicine Resident Career Day Supporters** 

CompHealth **EMPros Envision Physician Services** Mount Sinai Health System Northwell Health Physician Affiliate Group of New York Progressive Emergency Physicians TeedCo. Healthcare Recruiting The Guthrie Clinic **US Acute Care Solutions** Vituity



## VEW YORK STATE OF MIND



New York-Presbyterian Brooklyn Methodist Hospital

Comparison of Oral Ibuprofen at Three Single-Dose Regimens for Treating Acute Pain in the Emergency Department: A Randomized Controlled Trial.

Motov S, Masoudi A, Drapkin J, Sotomayor C, Kim S, Butt M, Likourezos A, Fassassi C, Hossain R, Brady J, Rothberger N, Flom P, Marshall J; Department of Emergency Medicine, Maimonides Medical Center, Brooklyn, NY; Ann Emerg Med. 2019 Oct;74(4):530-537.

STUDY OBJECTIVE: Nonsteroidal anti-inflammatory drugs (NSAIDs) are used extensively for the management of acute pain, with ibuprofen being one of the most frequently used oral analgesics in the emergency department (ED). We compare the analgesic efficacy of oral ibuprofen at 3 different doses for adult ED patients with acute pain.

METHODS: This was a randomized, double-blind trial comparing analgesic efficacy of 3 doses of oral ibuprofen (400, 600, and 800 mg) in adult ED patients with acute painful conditions. Primary outcome included difference in pain scores between the 3 groups at 60 minutes.

**RESULTS**: We enrolled 225 subjects (75 per group). The difference in mean pain scores at 60 minutes between the 400- and 600-mg groups was -0.14 (95% confidence interval [CI] -0.67 to 0.39); between the 400- and 800-mg groups, 0.14 (95% CI -0.65 to 0.37); and between the 600- and 800-mg groups, 0.00 (95% CI -0.47 to 0.47). Reductions in pain scores from baseline to 60 minutes were similar for all subjects in each of the 3 groups. No adverse events occurred in any group.

CONCLUSION: Oral ibuprofen administered at doses of 400, 600, and 800 mg has similar analgesic efficacy for short-term pain relief in adult patients presenting to the ED with acute pain.

Report of a Collaboration Between a **Law School and an Emergency Medicine Residency Program for a Full-Scale Medical Malpractice Litigation Simulation.** 

Curato M, Shlahet A; Department of Emergency Medicine, St. Barnabas Hospital, Bronx, NY; AEM Educ Train. 2019 May 20;3(3):295-298.

BACKGROUND: Medical malpractice litigation is a prevalent challenge for emergency physicians, but there is a dearth of dedicated training in residency programs on this subject. As a result, when emergency physicians become the subject of a medical malpractice action they often find themselves ill-equipped to successfully navigate the process.

OBJECTIVES: We sought to create an indepth medical malpractice simulation encompassing all key aspects of medical practice litigation. We collaborated with a law school for a semester-long simulation of a fabricated medical malpractice case brought against an emergency medicine (EM) resident.

**DISCUSSION**: In harnessing the legal expertise of law students and faculty we were able to deliver a months-long medical malpractice simulation to our EM residency program. Similarly, in lending the medical expertise of our residents and faculty to the project, the law students were afforded a unique practical experience in learning to litigate medical malpractice.

CONCLUSIONS: The project resulted in a rich educational experience for both the EM residents and the law students. We present a guide for replication by any residency program in collaboration with a law school.

### Implementation of an Innovative, Multiunit, Postevent Debriefing Program in a Children's Hospital.

Zinns LE, Welch-Horan TB, Moore TA, Ades A, Wolfe HA, Mullan PC; Department of Emergencv Medicine. The Icahn School of Medicine at Mount Sinai, New York, NY; Pediatr Emerg Care. 2019 Jul 19.

**BACKGROUND**: Postevent debriefing has been associated with improved resuscitation outcomes and is recommended by the American Heart Association and the American Academy of Pediatrics to improve clinical

OBJECTIVE: Despite the benefits of postevent debriefing, published debriefing programs have focused on single areas within a hospital. We are unaware of any hospital-wide debriefing programs implemented in a pediatric setting. METHODS: We established a multidisciplinary, interprofessional debriefing collaborative at the Children's Hospital of Philadelphia to implement postevent debriefings in multiple

areas of the hospital. The collaborative created a standardized debriefing form to capture data about the postevent debriefings.

**RESULTS**: From July 23, 2015 to December 31, 2017, the emergency department performed 153 debriefings (18%) for 850 resuscitations. The neonatal intensive care unit conducted 10 debriefings (9%) for 107 resuscitations, and the pediatric intensive care unit performed 5 debriefings (7%) for 73 resuscitations.

**CONCLUSIONS**: Several departments at the Children's Hospital of Philadelphia have incorporated hot and cold debriefings into their clinical practice as part of their continuous quality improvement programs. By disseminating the tools and lessons learned from the implementation process, the collaborative hopes that other institutions will benefit from their lessons learned to successfully create their own debriefing programs. Widespread adoption of debriefing programs will enable a more scientific approach to studying the outcomes of debriefing.

Safety and Feasibility of a Rapid Outpatient Management Strategy for Transient **Ischemic Attack and Minor Stroke: The** Rapid Access Vascular Evaluation-Neurology (RAVEN) Approach.

Chang BP, Rostanski S, Willey J, Miller EC, Shapiro S, Mehendale R, Kummer B, Navi BB, Elkind SV; Department of Emergency Medicine, Columbia University Irving Medical Center, New York, NY; Ann Emerg Med. 2019 Oct;74(4):562-571.

STUDY OBJECTIVE: Although most transient ischemic attack and minor stroke patients in US emergency departments (EDs) are admitted, experience in other countries suggests that timely outpatient evaluation of transient ischemic attack and minor stroke can be safe. We assess the feasibility and safety of a rapid outpatient stroke clinic for transient ischemic attack and minor stroke: Rapid Access Vascular Evaluation-Neurology (RAVEN).

METHODS: Transient ischemic attack and minor stroke patients presenting to the ED with a National Institutes of Health Stroke Scale score of 5 or less and non-disabling deficit were assessed for potential discharge to RAVEN with a protocol incorporating social and medical criteria. Outpatient evaluation by a vascular

## NEW YORK STATE OF MIND

neurologist, including vessel imaging, was performed within 24 hours at the RAVEN clinic. Participants were evaluated for compliance with clinic attendance and 90-day recurrent transient ischemic attack and minor stroke and hospitalization rates.

RESULTS: Between December 2016 and June 2018, 162 transient ischemic attack and minor stroke patients were discharged to RAVEN. One hundred fifty-four patients (95.1%) appeared as scheduled and 101 (66%) had a final diagnosis of transient ischemic attack and minor stroke. Two patients (1.3%) required hospitalization (one for worsening symptoms and another for intracranial arterial stenosis caused by zoster) at RAVEN evaluation. Among the 101 patients with confirmed transient ischemic attack and minor stroke, 18 (19.1%) had returned to an ED or been admitted at 90 days. Five were noted to have had recurrent neurologic symptoms diagnosed as transient ischemic attack (4.9%), whereas one had a recurrent stroke (0.9%). No individuals with transient ischemic attack and minor stroke died, and none received thrombolytics or thrombectomy, during the interval period. These 90-day outcomes were similar to historical published data on transient ischemic attack and minor stroke.

CONCLUSION: Rapid outpatient management appears a feasible and safe strategy for transient ischemic attack and minor stroke patients evaluated in the ED, with recurrent stroke and transient ischemic attack rates comparable to historical published data.

### Decreasing the Lag Between Result Availability and Decision-Making in the Emergency Department Using Push Notifications.

Koziatek C, Swartz J, Iturrate E, Levy-Lambert D, Testa P; New York University School of Medicine, Department of Emergency Medicine, New York City, New York; West J Emerg Med. 2019 Jul;20(4):666-671.

INTRODUCTION: Emergency department (ED) patient care often hinges on the result of a diagnostic test. Frequently there is a lag time between a test result becoming available for review and physician decision-making or disposition based on that result. We imple-

mented a system that electronically alerts ED providers when test results are available for review via a smartphone- and smartwatch-push notification. We hypothesized this would reduce the time from result to clinical decision-making.

METHODS: We retrospectively assessed the impact of the implementation of a push notification system at three EDs on time-to-disposition or time-to-follow-up order in six clinical scenarios of interest: chest radiograph (CXR) to disposition, basic metabolic panel (BMP) to disposition, urinalysis (UA) to disposition, respiratory pathogen panel (RPP) to disposition, hemoglobin (Hb) to blood transfusion order, and abnormal D-dimer to computed tomography pulmonary angiography (CTPA) order. All ED patients during a one-year period of push-notification availability were included in the study. The primary outcome was median time in each scenario from result availability to either disposition order or defined follow-up order. The secondary outcome was the overall usage rate of the opt-in push notification system by providers.

**RESULTS**: During the study period there were 6,115 push notifications from 4,183 ED encounters (2.7% of all encounters). Of the six clinical scenarios examined in this study. five were associated with a decrease in median time from test result availability to patient disposition or follow-up order when push notifications were employed: CXR to disposition, 80 minutes (interquartile range [IQR] 32-162 minutes) vs 56 minutes (IQR 18-141 minutes), difference 24 minutes (p<0.01); BMP to disposition, 128 minutes (IQR 62-225 minutes) vs 116 minutes (IQR 33-226minutes), difference 12 minutes (p<0.01); UA to disposition, 105 minutes (IQR 43-200 minutes) vs 55 minutes (IQR 16-144 minutes), difference 50 minutes (p<0.01); RPP to disposition, 80 minutes (IQR 28-181 minutes) vs 37 minutes (IQR 10-116 minutes), difference 43 minutes (p<0.01); and D-dimer to CTPA, 14 minutes (IQR 6-30 minutes) vs 6 minutes (IQR 2.5-17.5 minutes), difference 8 minutes (p<0.01). The sixth scenario, Hb to blood transfusion (difference 19 minutes, p=0.73), did not meet statistical significance.

**CONCLUSION**: Implementation of a push notification system for test result availability

in the ED was associated with a decrease in lag time between test result and physician decision-making in the examined clinical scenarios. Push notifications were used in only a minority of ED patient encounters.

### Skill Proficiency is Predicted by Intubation Frequency of Emergency Medicine Attending Physicians.

Gillett B, Saloum D, Aghera A, Marshall JP; Maimonides Medical Center, Department of Emergency Medicine, Brooklyn, New York; West J Emerg Med. 2019 Jul;20(4):601-609.

INTRODUCTION: Airway management is a fundamental skill of emergency medicine (EM) practice, and suboptimal management leads to poor outcomes. Endotracheal intubation (ETI) is a procedure that is specifically taught in residency, but little is known how best to maintain proficiency in this skill throughout the practitioner's career. The goal of this study was to identify how the frequency of intubation correlated with measured performance.

METHODS: We assessed 44 emergency physicians for proficiency at ETI by direct laryngoscopy on a simulator. The electronic health record was then queried to obtain their average number of annual ETIs and the time since their last ETI, supervised and individually performed, over a two-year period. We evaluated the strength of correlation between these factors and assessment scores, and then conducted a receiver operator characteristic (ROC) curve analysis to identify factors that predicted proficient performance.

**RESULTS:** The mean score was 81% (95% confidence interval, 76% - 86%). Scores correlated well with the mean number of ETIs performed annually and with the mean number supervised annually (r = 0.6, p = 0.001 for both). ROC curve analysis identified that physicians would obtain a proficient score if they had performed an average of at least three ETIs annually (sensitivity = 90%, specificity = 64%, AUC = 0.87, p = 0.001) or supervised an average of at least five ETIs annually (sensitivity = 90%, specificity = 59%, AUC = 0.81, p = 0.006) over the previous two years.

CONCLUSION: Performing at least three

## NEW YORK STATE OF MIND

or supervising at least five ETIs annually, averaged over a two-year period, predicted proficient performance on a simulation-based skills assessment. We advocate for proactive maintenance and enhancement of skills, particularly for those who infrequently perform this procedure.

## Approach to Buprenorphine Use for Opioid Withdrawal Treatment in the Emergency Setting.

Cisewski DH, Santos C, Koyfman A, Long B; The Icahn School of Medicine at Mount Sinai, Department of Emergency Medicine, New York, NY; Am J Emerg Med. 2019 Jan; 37(1):143-150.

INTRODUCTION: Opioid use disorder (OUD) is increasing in prevalence throughout the world, with approximately three million individuals in the United States affected. Buprenorphine is a medication designed, researched, and effectively used to assist in OUD recovery.

**OBJECTIVE:** This narrative review discusses an approach to initiating buprenorphine in the emergency department (ED) for opioid-abuse recovery.

**DISCUSSION**: Buprenorphine is a partial mu-opioid receptor agonist with high affinity and low intrinsic activity. Buprenorphine's long half-life, high potency, and 'ceiling effect' for both euphoric sensation and adverse effects make it an optimal treatment alternative for patients presenting to the ED with opioid withdrawal. While most commonly provided as a sublingual film or tablet, buprenorphine can also be delivered via transbuccal, transdermal, subdermal (implant), subcutaneous, and parenteral routes. Prior to ED administration, caution is recommended to avoid precipitation of buprenorphine-induced opioid withdrawal. Following the evaluation of common opioid withdrawal symptoms, a step-by-step approach to buprenorphine can be utilized to reach a sustained withdrawal relief. A multimodal medication-assisted treatment (MAT) plan involving pharmacologic treatment, as well as counseling and behavioral therapy, is essential to maintaining opioid remission. Patients may be safely discharged with safe-use counseling, close outpatient follow-up, and return precautions for continued management of their OUD. Establishing a buprenorphine program in the ED involves a multifactorial approach to establish a pro-buprenorphine culture.

CONCLUSIONS: Buprenorphine is an evidence-based, safe, effective treatment option for OUD in an ED-setting. Though successfully utilized by many ED-based treatment programs, the stigma of 'replacing one opioid with another' remains a barrier. Evidence-based discussions on the safety and benefits of buprenorphine are essential to promoting a culture of acceptance and optimizing ED OUD treatment.

### A Randomized, Sham-Controlled Trial of Bilateral Greater Occipital Nerve Blocks With Bupivacaine for Acute Migraine Patients Refractory to Standard Emergency Department Treatment With Metoclopramide.

Friedman BW, Mohamed S, Robbins MS, Irizarry E, Tarsia V, Pearlman S, John Gallagher E; Department of Emergency Medicine, Albert Einstein College of Medicine, Montefiore Health System, Bronx, NY; 2018 Oct;58(9):1427-1434.

BACKGROUND: Greater occipital nerve block (GONB) is thought to be an effective treatment for acute migraine, though no randomized efficacy data have been published for this indication. We hypothesized that bilateral GONB with bupivacaine would provide greater rates of headache freedom than a sham injection among a population of emergency department (ED) patients who reported persistence of moderate or severe headache despite standard treatment with intravenous metoclopramide.

METHODS: This was a randomized clinical

trial conducted in 2 urban EDs. Patients with acute migraine who reported persistence of a moderate or severe headache for at least 1 hour or longer after treatment with 10 mg of intravenous metoclopramide were randomized to bilateral GONB with a total of 6 mL of 0.5% bupivacaine or bilateral intradermal scalp injection with a total of 1 mL of 0.5% bupivacaine. The primary outcome was complete headache freedom 30 minutes after the injection. An important secondary outcome was sustained headache relief, defined as achieving a headache level of mild or none in the ED and maintaining a level of mild or none without the use of any additional headache medication for 48 hours.

RESULTS: Over a 31 month period, 76 patients were screened for participation and 28 were enrolled, of whom 15 received sham injection and 13 received GONB. This study was stopped before achieving the a priori sample size due to slow enrollment. The primary outcome - headache freedom at 30 minutes - was

achieved by 0/15 (0%) of patients in the sham arm and 4/13 (31%) of patients in the GONB arm (95%CI for difference of 31%: 6, 56%, P=.035). The secondary outcome, sustained headache relief for 48 hours, was reported by 0/15 sham patients (0%) and 3/13 (23%) GONB patients (95% CI for difference of 23%: 0, 46%, P=.087). Reported side effects did not differ substantially between the groups.

**CONCLUSION:** GONB may be an effective treatment for ED patients with acute migraine who continue to suffer from moderate or severe headache after administration of intravenous metoclopramide; however, this study was stopped prior to achieving the a priori sample size.

### Point-of-Care Ultrasound Assessment of Bladder Fullness for Female Patients Awaiting Radiology-Performed Transabdominal Pelvic Ultrasound in a Pediatric Emergency Department: A Randomized Controlled Trial.

Dessie A, Steele D, Liu AR, Amanullah S, Constantine E; Departments of Pediatrics and Emergency Medicine, Division of Pediatric Emergency Medicine, Columbia University Medical Center and New York-Presbyterian Morgan Stanley Children's Hospital, New York, NY; Ann Emerg Med. 2018 Nov;72(5):571-580.

STUDY OBJECTIVE: Radiology-performed transabdominal pelvic ultrasound, used to evaluate female patients with suspected pelvic pathology in the pediatric emergency department (ED), is often delayed by the need to fill the bladder. We seek to determine whether point-of-care ultrasound assessment of bladder fullness can predict patient readiness for transabdominal pelvic ultrasound more quickly than patient sensation of bladder fullness.

METHODS: We performed a randomized controlled trial of female patients aged 8 to 18 years who required transabdominal pelvic ultrasound in a pediatric ED. Patients were randomized to usual care or point-of-care ultrasound and then assessed every 30 minutes for subjective bladder fullness (0 to 4 ordinal scale) and qualitative bladder fullness by point-of-care ultrasound. Patients were sent for pelvic ultrasound when they reported 3 or 4 on the subjective fullness scale (usual care) or a large bladder was visualized (point-of-care ultrasound). Primary outcome was time from enrollment to completion of pelvic ultrasound. Secondary outcome was success rate of pelvic

## NEW YORK STATE OF MIND

ultrasound on first attempt.

**RESULTS**: One hundred twenty patients were randomized and 117 had complete outcomes (59 usual care, 58 point-of-care ultrasound). Kaplan-Meier curves differed between groups (P<.001). Median time to successful completion of pelvic ultrasound was 139 minutes (usual care) and 87.5 minutes (point-of-care ultrasound), with difference in medians 51.5 minutes (95% confidence interval [CI] 23.4 to 77.2 minutes). All point-of-care ultrasound patients had successful transabdominal pelvic ultrasound on the first attempt compared with 84.7% in the usual care group, with difference -15.3% (95% Bayesian credible interval -5.3% to -25.0%). Weighted  $\kappa$  for interrater agreement was 0.83 (95% CI 0.79 to 0.87).

**CONCLUSION**: Point-of-care ultrasound assessment of bladder fullness decreases time to transabdominal pelvic ultrasound and improves first-attempt success.

Factors Associated With Patient Involvement in Emergency Care Decisions: A Secondary Analysis of the Chest Pain Choice Multicenter Randomized Trial. Probst MA, Tschatscher CF, Lohse CM, Fernanda Bellolio M, Hess EP; Department of Emergency Medicine, Mount Sinai Medical Center, New York, NY; Acad Emerg Med. 2018 Oct;25(10):1107-1117.

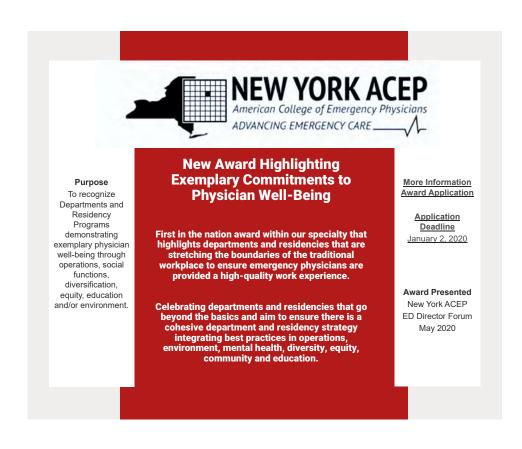
BACKGROUND: Shared decision making in the emergency department (ED) can increase patient engagement for patients presenting with chest pain. However, little is known regarding which factors are associated with actual patient involvement in decision making or patients' desired involvement in emergency care decisions. We examined which factors were associated with patients' actual and desired involvement in decision making among ED chest pain patients.

METHODS: This is a secondary analysis of data from a randomized trial of a shared decision-making intervention in ED patients with low-risk chest pain. We evaluated the degree to which patients were involved in decision making using the OPTION-12 (observing patient involvement) scale and patients' reported desire for involvement in decision making using the Control Preferences Scale (CPS). We measured the associations of patient factors

with OPTION-12 and CPS scores using multivariable regression.

**RESULTS**: Of the 898 patients enrolled, mean ( $\pm$ SD) age was 51.5 ( $\pm$ 11.4) years and 59% were female. Multivariable analysis revealed that only two factors were significantly associated with OPTION-12 scores: study site and use of the decision aid. OPTION-12 scores were 10.3 (standard error = 0.6) points higher for patients randomized to the decision aid compared to usual care (p < 0.001). Higher health literacy was associated with lower scores on the CPS, indicating greater desire for involvement (odds ratio = 0.91, p < 0.001).

CONCLUSIONS: Patients' reported desire for involvement in decision making was higher among those with higher health literacy. After study site and other potential confounding factors were adjusted for, only use of the decision aid was associated with observed patient involvement in decision making. As the science and practice of shared decision making in the ED moves toward implementation, high-fidelity integration of the decision aid into the flow of care will be necessary to realize desired outcomes.



## **PEDIATRICS**







Guest Author
Sylvia E. Garcia, MD
Icahn School of Medicine at Mount Sinai,
Assistant Professor, Pediatrics and Emergency Medicine;
Assistant Residency Director, Emergency Medicine

## Tis the Season - Bronchiolitis in the Emergency Department

It is a typical busy Monday evening in January when a previously healthy six month old male infant is brought in to your emergency department (ED) with a history of two days of cough and nasal congestion. For the past day he has had difficulty feeding and fewer wet diapers. A few hours prior to coming in, his caregiver noticed that he seemed to be working harder to breathe and felt warm. The caregiver gave ibuprofen, but he vomited immediately afterwards which prompted his visit.

He has no significant past medical history and was a term infant born via vaginal delivery. His vaccinations are up to date. There is no family history of asthma and the patient has not wheezed in the past. There is a three year old sibling at home with URI symptoms who attends daycare. There has been no recent travel.

On arrival, the infant is alert, crying, has head bobbing and is audibly wheezing and grunting. Vitals signs are as follows: HR 160 RR 68 BP: 75/50 T: 38.5 SpO2 88% on room air.

Examination of his head and neck shows nasal flaring, copious clear nasal secretions, tacky mucous membranes and serous fluid behind both tympanic membranes. He is noted to have diffuse intermittent wheezing with fair aeration, abdominal muscle use and supraclavicular retractions on lung exam. He is tachycardic, without murmur and has a capillary refill of two seconds. His abdomen is soft, nontender and nondistended, with no hepatosplenomegaly or palpated masses. His extremities have full range of motion and reveal no swelling or tenderness. There are no rashes or bruises noted on his skin.

If you see children as part of your practice you will undoubtedly encounter this patient, or one like him, in the next few months. Bronchiolitis is a clinical syndrome of respiratory disease in patients less than two years of age that begins with upper airway symptoms (rhinorrhea) with progression to lower airway disease characterized by airway inflammation resulting in wheezing, crackles or rales.

Though the terms 'RSV' and 'bronchiolitis' are often used interchangeably, bronchiolitis can be caused by any of several viral pathogens, though the most common is respiratory syncytial virus (RSV). Children may present with either a primary infection or subsequent reinfection of the lower respiratory pathways. Acute inflammation and edema occurs in the lower respiratory tract resulting in epithelial cell necrosis and increased mucus production which in turn leads to characteristic lung findings, airflow obstruction and respiratory distress. The highest incidence of infection with RSV is from December to March, but this time frame can vary by region.

The American Academy of Pediatrics most recent clinical practice guidelines on bronchiolitis (2014) addresses recommendations for the diagnosis, management and prevention of bronchiolitis. Treatment is focused on supportive care and serial reassessment for worsening respiratory distress. This also includes an assessment of hydration status, mental status and the ability of the family to care for the patient, all of which may affect the need for hospitalization. Children who are immunodeficient, have chronic neonatal lung disease or have a history of recurrent wheezing, neuromuscular disease, cystic fibrosis and/or hemodynamically significant congenital heart disease were excluded from the recommendations of management.

## 1. Follow Your ABCs and Recognize This Patient Is in Respiratory Distress

The patient in the case scenario is exhibiting the typical presentation of bronchiolitis, with first time wheezing (or rales) and respiratory distress as noted by tachypnea, wheezing, retractions, use of accessory muscles, head bobbing, nasal flaring and grunting, all preceded by a history of upper respiratory infection. There is no accepted scoring system available for determining severity of presentation in bronchiolitis, though persistent respiratory distress (head bobbing, nasal flaring, grunting, retractions, accessory muscle use, tachypnea), hypoxemia with respiratory distress, apnea and respiratory failure indicate severe disease.

A recent retrospective cohort study by the International Pediatric Emergency Research Network of patients < 1 year of age diagnosed with bronchiolitis identified ED predictors of escalated care, which included hospitalization and HFNC, non-invasive ventilation, intubation and mechanical ventilation, or management in an intensive care unit without airway support. Each of the following variables were assigned risk points, with the sum of the points yielding a clinical risk score: Age ( $\leq 2$  months); poor feeding, oxygen saturation <90%, apnea, nasal flaring and / or grunting, dehydration, and retractions. Scoring ranged from 0 to 14, with an estimated risk of escalated care 0.46% ( 0 points) to 96.6% (14 points). The strongest predictor identified of escalated care was an initial oxygen saturation <90%. This score still requires prospective validation, but may offer a tool in the assessment of infants presenting to the ED with bronchiolitis.

### Provide supportive care

The use of bulb suctioning at regular intervals has shown to be beneficial for these patients. Nasal saline instillation into nares, followed

## **PEDIATRICS**

by suctioning with a bulb syringe, and positioning of the patient, may alleviate the upper airway obstruction caused by nasal secretions, and in turn reduce work of breathing, as well as allow maintenance of hydration. This intervention may be enough for less severe presentations. Deep suctioning is not recommended and may cause swelling and trauma.

## Record pulse oximetry and determine if the patient is hypoxic.

Additional support, such as oxygen via nasal cannula, is appropriate for those with moderate to severe disease.

The use of supplemental oxygen and respiratory support varies based on the severity of the clinical presentation. Oxygen saturation is a poor predictor of respiratory distress, though it impacts on the decision to hospitalize and length of stay. Clinicians are recommended to use supplemental oxygen for saturations lower than 90% though institutional recommendations may vary. The use of continuous pulse oximetry may be optional, as transient desaturations can occur, and without other associated symptoms of respiratory distress, are not indicative of worsening disease and may prolong hospitalization. Chest physiotherapy is not recommended.

### Who is at risk for severe presentations of bronchiolitis?

Children at risk for severe presentations are those less than three months of age, those with a history of prematurity, significant cardio-pulmonary disease or immunodeficiency. Bronchiolitis accounts for the most common cause of hospitalization in the first 12 months of infancy. The majority of patients do not require hospitalization and can be followed by their pediatrician in one to two days.

### 2. Medications

Several medications routinely recommended in the management of respiratory distress with wheezing have been shown to have inconsistent or no benefit in the treatment of bronchiolitis.

### No bronchodilators

Bronchodilators, such as albuterol or salbutamol, have shown no consistent benefit and should not be routinely administered. Though a small subset of patients who received bronchodilators had decreased smooth muscle constriction, no study has identified which groups would consistently benefit. Of note, patients with severe disease or respiratory failure were also generally excluded from trials assessing the benefits of bronchodilators, and on-time trial may be warranted in those patients with severe disease or recurrent wheeze.

### No nebulized epinephrine

Nebulized epinephrine, used for both upper and lower airway constriction, has shown no benefit when used in the inpatient setting and no consistent benefit in the outpatient setting.

### No nebulized hypertonic (3%) saline

Nebulized hypertonic (3%) saline has only shown benefit after 24 hours of use in improving symptoms in the inpatient setting, and has no effect on the rate of hospitalization when used in the emergency department.

### No systemic corticosteroids

Systemic corticosteroids administration can prolong viral shedding and do not reduce length of stay or hospitalizations. No consistent benefit

was noted with the combined therapy of corticosteroids and bronchodilators or epinephrine.

### No antibiotics

Antibiotics are only recommended for concurrent bacterial infections, or in suspected bacterial infections, such as in those patients requiring intubation and mechanical intubation. Febrile infants less than 28 days of age should still receive the full sepsis workup, as infants in this age group who also have bronchiolitis are still at risk for a significant bacterial infection.

### 3. Assess for Hydration Status

Recognize that respiratory distress may affect the patient's ability to maintain adequate hydration. Increased respiratory rates can also increase the risk of aspiration. Hydration status should be monitored, and fluids delivered via intravenous (IV) or nasogastric (NG) method for those patients who are unable to effectively orally hydrate.

## 4. Recognize That X-rays and Labs Are Not Routinely Necessary

X-rays and routine labs should not be routinely obtained in the majority of patients. In patients with severe disease, a chest x-ray (CXR) may be considered in those patients who require non-invasive (HFNC or positive pressure) or mechanical ventilation, intubation, have signs of an airway complication or require transfer to the intensive care unit. A CXR may also rule out other causes of respiratory distress with acute wheezing in those who are not improving, such as pneumonia, foreign body, cardiac failure or a vascular ring.

Obtaining viral respiratory panels (polymerase chain reaction assays) are not recommended, but may be obtained for cohorting purposes or to determine the cause of severe presentations requiring ventilatory support.

### 5. Respiratory Support

In patients with severe disease, the use of oxygen via nasal cannula and/ or non-invasive support such as HFNC and / or continuous positive airway pressure may decrease the risk of intubation and mechanical ventilation. HFNC has been increasingly used in the emergency departments in recent years. A systematic literature review was recently published by the PREDICT network on the use of HFNC and standard oxygen delivery through a nasal cannula (max of 2 L) for patients with bronchiolitis. No difference was found in PICU admissions, intubation rates, length of time on oxygen, or length of stay between those on HFNC and those on standard oxygen therapy. A subset of patients on standard oxygen therapy did require escalation to HFNC due to treatment failure. This study recommended initiation oxygen therapy via NC in those patients with respiratory distress and hypoxia, with initiation of HFNC only if the patient worsened. The conclusion was that HFNC should not be used in patients who have normal oxygen levels but are in respiratory distress or as the first line intervention for bronchiolitis in the emergency department.

The recent PARIS trial was a multicenter randomized controlled trial that assigned infants <12 months of age with bronchiolitis and hypoxia to HFNC (max 2L/kg/min) versus standard oxygen therapy (max 2L/min) via NC. This study compared immediate use in the emergency department of HFNC for hypoxemia in bronchiolitis versus using HFNC

## **PEDIATRICS**

as a rescue for patients receiving standard oxygen who have deteriorated. The majority of children on standard care did not need escalation of therapy to HFNC. Of those who needed escalation of care, more than half required escalation to HFNC only. It showed no increase in adverse events, shorter oxygen therapy, lower ICU admission rate or shorter duration of hospitalization in those infants on HFNC versus those on standard oxygen therapy via NC. Further research on the use of HFNC is ongoing.

### 6. Who Can Be Discharged?

Patients who are not hypoxic (saturations > 90% awake, but can vary on institution), have mild to moderate increase in respiratory effort, are able to maintain hydration status, can be effectively nasal suctioned by caregiver and whose caregiver is willing and able to provide supportive care at home, may be discharged with outpatient follow up.

Patients less than four weeks corrected gestational age are at high risk of primary apnea even without other high risk features and are routinely admitted for apnea monitoring.

### 7. Prevention

Several methods can offer protective benefit and prevent the spread of the viral pathogens associated with bronchiolitis. Palivizumab prophylaxis should be administered in those patients with a history of chronic lung disease of prematurity and significant heart disease in the first year of life during RSV season. Alcohol based rubs should be used to disinfect hands prior to and after glove use and after direct contact with affected patients and inanimate objects that have been in contact with patients. If these are unavailable, providers should use soap and water to disinfect their hands as noted. Breastfeeding during the first six months of life can reduce respiratory infections and the risk for hospitalizations associated with respiratory complaints. Educating caregivers on the negative impact of tobacco smoke can also decrease the risk of bronchiolitis.

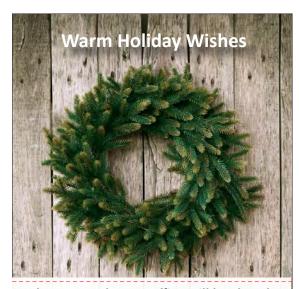
### **Clinical Course**

This patient was presumed to have bronchiolitis and he received nasal bulb syringe suctioning after normal saline instillation. He was placed on 2 L O2 via nasal cannula (NC) to maintain his oxygenation at 94%. Tylenol 15 mg/kg was given for fever control. He was placed on a monitor. After serial exams, he was noted to remain tachypneic, with repeat vital signs showing a HR 160, RR 70, POx 89% on 2 L of O2 via NC , T: 37.8C.

On repeat exam, the patient was alert and was noted to have nasal flaring, head bobbing, continued retractions and abdominal muscle use and diffuse wheezing with fair aeration. Due to his continued respiratory distress and failure to improve with O2 administration via NC, he was started on high flow nasal cannula (HFNC) at 2 L/kg/min. After this intervention, his work of breathing improved, with RR:50, his POx: 94%. There was resolution of his head bobbing and retractions, with mild abdominal muscle use and faint wheezes noted on his exam. A portable chest x-ray was obtained and showed no infiltrate, but had interstitial changes consistent with a viral process. An intravenous fluid bolus was given for dehydration and a respiratory viral panel was sent for respiratory syncytial and influenza viruses. The patient was admitted for further management.

### **Suggested Additional Reading**

- Bonadio W, Huang F, Nateson S, Okpalaji C, Kodsi A, Sokolovsky S, Homel P. Meta-analysis to Determine Risk for Serious Bacterial Infection in Febrile Outpatient Neonates With RSV Infection. Pediatr Emerg Care. 2016 May;32(5):286-9.
- Cunningham S, Rodriguez A, Adams T, et al. Oxygen saturation targets in infants with bronchiolitis (BIDS): a double-blind, randomized, equivalence trial. Lancet. 2015;386:1041-1048
- Fernandes RM, Bialy LM, Vandermeer B, Tjosvold L, Plint AC, Patel H, Johnson DW, Klassen TP, Hartling L Glucocorticoids for acute viral bronchiolitis in infants and young children. Cochrane Database Syst Rev. 2013.
- Franklin et al, A randomized trial of high-flow oxygen therapy in infants with bronchiolitis.NEJM. 2018. 378(12):1121-1131
- Freire G, Kuppermann N, Zemek R, et al; Pediatric Emergency Research Networks (PERN). Predicting Escalated Care in Infants With Bronchiolitis. Pediatrics. 2018;142(3):e20174253 - February 01, 2019
- Meskill, SD. Moore, RH; Baylor College of Medicine, Houston, TX. Highflow oxygen therapy in infants with bronchiolitis. June 21, 2018 N Engl J Med 2018; 378:2444-2447 DOI: 10.1056/NEJMc1805312
- O'Brien S, Craig S, Babl FE, Borland ML, Oakley E, Dalziel SR; Paediatric Research in Emergency Departments International Collaborative (PRE-DICT) Network, Rational use of high-flow therapy in infants with bronchiolitis. What do the latest trials tell us?' A Paediatric Research in Emergency Departments International Collaborative perspective, J Paediatr Child Health. 2019 Jul;55(7):746-752.
- 8. Ralston SL, Lieberthal AS, Meissner HC, Alverson BK, Bailey JE, Gadomski AM, Johnson DW, Light MJ, Maraqa NF, Mendonca EA, Phelan KJ, Zorc JJ, Stanko-Lopp D, Brown MA, Nathanson I, Rosenblum E, Sayles S 3rd, Hernandez-Cancio S, Clinical practice guideline: the diagnosis, management, and prevention of bronchiolitis. American Academy of Pediatrics.
- 9. Pediatrics. 2014;134(5):e1474.



The New York ACEP office will be closed December 23 - December 27 and January 1



### New York ACEP 2019-20 Board of Directors

### President

Jeremy T. Cushman, MD MS FACEP University of Rochester Medical Center

### President-elect

Keith E. Grams, MD FACEP Rochester Regional Health

### Secretary-Treasurer

Nicole Berwald, MD FACEP Staten Island University Hospital

### **Immediate Past President**

Brahim Ardolic, MD FACEP Staten Island University Hospital

### Executive Director JoAnne Tarantelli

### Directors

Robert M. Bramante, MD FACEP Good Samaritian Hospital Medical Center

Arlene S. Chung, MD MACM Maimonides Medical Center

Michael W. Dailey, MD FACEP Albany Medical Center

Sanjey Gupta, MD FACEP Southside Hospital - Northwell Health

Abbas Husain, MD FACEP Staten Island University Hospital

Penelope C. Lema, MD FACEP NewYork-Presbyterian/Columba University

Laura D. Melville, MD NewYork-Presbyterian Brooklyn Methodist Hospital

Robert F. McCormack, MD MBA FACEP University at Buffalo Jacobs School of Medicine and Biomedical Sciences

Mary E. McLean, MD (resident representative) St. John's Riverside Hospital

Joshua B. Moskovitz, MD MBA MPH FACEP Jacobi /Montefiore Medical Center

William F. Paolo, Jr., MD FACEP SUNY Upstate Medical University

Jeffrey S. Rabrich, DO FACEP FAEMS Montefiore Nyack Hospital

Livia M. Santiago-Rosado, MD FACEP Vassar Brothers Medical Center

New York

AMERICAN COLLEGE OF

EMERGENCY PHYSICIANS

## Residents



Guest Author Linelle E. Campbell, MD MS Emergency Medicine Resident Jacobi Medical Center/Montefiore



Guest Author Mary E. McLean, MD Chief Resident, St. John's Riverside Hospital

## Implicit Bias Is Both Helpful and Harmful - What Can We Do?

## Implicit bias is rightfully the hot topic of the year

There is a growing body of research showing that physicians have racial, gender, age, weight, LGBTQ, disability and many other types of implicit bias toward patients and colleagues. There is also evidence that these biases translate to explicit healthcare disparities and professional limitations.

The ACGME requires dedicated residency training in implicit bias and healthcare disparities. Furthermore, the National ACEP Council regularly votes on resolutions related to this topic. This includes the 2019 resolution 14(19) which proposes creating and releasing a policy statement promoting implicit bias training for residents and physician leaders, and continuing to create and offer free online implicit bias training. The ACEP board has been a driving force in progress, and has released several policy statements in recent years relating to this topic.

**Non-Discrimination and Harassment** 

Workforce Diversity in Health Care Settings

**Cultural Awareness and Emergency Care** 

How can implicit bias actually be helpful at times, and harmful at other times? What should we do about it?

### Implicit bias can be helpful

Implicit bias is present in almost everything we do. Humans have been taught to rely on it as a natural (almost instinctive) survival skill, and our brains are hardwired to use it. A great deal of implicit bias is actually helpful and very necessary. We use it in the absence of complete information, so emergency physicians *especially* use it to make quick

decisions for patients. This is a major aspect of essential heuristic decision making.

"A heuristic is a mental shortcut that allows people to solve problems and make judgments quickly and efficiently... [They] allow people to function without constantly stopping to think about their next course of action."

--Kendra Cherry<sup>2</sup>

Without bias and heuristic decision making, our careers in emergency medicine would be unsustainable - we might see one patient every three hours, maximum. But improper use of bias and heuristics is harmful too. It can lead to numerous types of cognitive errors in medical decision making. Part of the battle is pinpointing which biases are helpful and which are harmful.

Think of it this way: an unconscious mystery emergency department (ED) patient who *just looks* like an addict will probably get naloxone. Much of the time, that is a good thing; patients do benefit from the emergency physician's pattern recognition and quick decisions. But what happens when the physician anchors on the idea of opiate overdose, prematurely closes the case after giving naloxone, and fails to consider other causes? Afterall, this patient *just looks* like an addict and nothing else. The patient's blood glucose of 20 might be missed. That is where the harm appears.

### Implicit bias can be harmful

While many implicit and explicit biases are functional and deep-rooted natural survival tendencies, some are dysfunctional and harmful. Prior studies have shown that the presence of bias in physicians is associated with worsened quality of healthcare. Re-

search has also shown that collegial targets of destructive bias in the workplace suffer negative professional effects like reduced pay and professional limitations, as well as psychosocial effects like isolation, bullying and depression.

## We keep hearing that implicit bias can be harmful, but what specific evidence is out there?

#### **Gender Bias**

The ACEP Diversity and Inclusion Task Force conducted a 2017 survey in which 14% of respondents reported feeling their career advancement was hindered or delayed by their gender.<sup>3</sup> Prior research suggests general hiring preference for male over female candidates, as well as preference for male over female leaders.<sup>4</sup> When women leaders show agentic (historically "masculine") leadership characteristics, they receive worse evaluations.<sup>5</sup> And, although there is a nearly equal female-to-male ratio of medical school employees, females hold only 38% of faculty positions, 21% of full professor positions, and 16% of dean positions.<sup>6</sup>

Then there is the wage gap. A 2016 study showed that overall, female physicians make over \$18,000 less than their male counterparts after adjusting for work hours, productivity and experience. Women who ask for a raise are also less likely to get one than their male counterparts.

Female doctors are less likely than their male doctors to be referred to by their professional title. Dr. Julia Files, a physician and associate professor of medicine at the Mayo Clinic, experienced this phenomenon on a large scale. At a conference, she noticed that female doctors were not introduced as "Doctor" as frequently as males. She turned this into a research project, reviewing 321

## Residents

introductions made at grand rounds at two Mayo Clinic locations. Female introducers used the formal title "Doctor" when introducing any other speaker about 96% of the time, while male introducers used it about 66% percent of the time.<sup>9</sup>

### **Racial Bias**

Implicit racial bias hurts patients. A 2019 meta-analysis and systematic review found that black and Latino patients were less likely than white patients to receive analgesia for acute pain in the ED.<sup>10</sup> Another study found that relative to white patients, patients of color have their first electrocardiogram performed later and receive a less thorough workup for suspected coronary artery disease.<sup>11</sup> And arguably most shockingly, pregnancy-related mortality ratios are more than three times higher for black women than white women, and more than twice as high for American Indian/Alaska Native women than white women.<sup>12</sup>

The patient experience suffers as well. A 2015 meta-analysis uncovered implicit racial bias among physicians towards black patients, and revealed that this translated to patients feeling less respected and less collaborative. They also liked their physician less. Another study of over 34,000 patient visits in 353 emergency departments revealed that black patients experienced significantly longer mean ED wait times than white patients. 14

### **Weight Bias**

Preliminary results of a 2019 study on collegial physician weight bias show that 83% of 640 physician respondents exhibit implicit anti-obesity bias toward other physicians. Furthermore, there is a direct, positive, significant correlation between implicit bias and explicit harmful views and practices. This includes decreased intent to collaborate with overweight physician colleagues; discomfort with and dislike of overweight physicians; decreased propensity to hire or promote overweight physicians; and in some respondents, even a belief that overweight physicians are less intelligent and trustworthy than their average-weight counterparts.

### **LGBTQ Bias**

Patients who identify as LGBTQ experience poorer healthcare outcomes due to a myriad of obstacles along their healthcare pathway. Specifically, they have disproportionately higher rates of substance use disorders, HIV infection, psychiatric illness, domestic violence and death by suicide and homicide. <sup>16</sup> There is also inadequate physician training in LGBTQ healthcare in medical schools, residencies and post-residency continuing education. This lack of adequate formal training leads to stigma toward patients identifying as LGBTQ, and makes it difficult to establish effective communication between patients, physicians and staff.

### Transgender and Gender-Nonconforming Bias

A 2018 study found that almost 44% of transgender and gender-nonconforming survey participants avoid the ED when they need acute care. They cited fear of discrimination, longer wait times and negative previous ED experiences as the reasons. Furthermore, the investigators sought input from participants on how to solve these issues. Participants recommended staff training in gender and trans healthcare; assurance of private gender identity disclosure; and accurate capture of sex, gender and sexual orientation information in the EMR.<sup>16</sup>

### **Compounded Biases**

When multiple biases are layered on top of one another, outcomes get much worse. For example, one study compared annual physician salaries across the medical specialties and found that white males earn \$64,812 more than black males, \$89,808 more than white females, and \$100,258 more than black females.<sup>17</sup>

### What can we do about it?

Individuals who strongly believe they are unbiased are often the source of most harmful prejudice. It can take some individuals a ton of convincing that sexism, racism, ageism, weight bias, LGBTQ bias and other classically harmful biases should be their concern. Some individuals will never be convinced, but it is our responsibility as physicians (especially emergency physicians) to fight for the principle of providing optimal care to every patient. And this means understanding our own inner tendencies toward implicit bias.

How can we tell if we are implicitly biased? How do we know when this translates to harmful explicit prejudice? And how can we correct

### harmful types of bias?

In spring of 2018, Starbucks called police on two men of color in one of their Philadelphia stores, resulting in their arrest. Starbucks addressed this highly-publicized incident by closing 8,000 stores nationwide for required in-service *racial bias education*. Is mandatory training the answer?

Prior research has shown that physicians can be rehabilitated from potentially-harmful implicit biases through improved self-awareness and bias reduction education. 18, 19
Leaders in emergency medicine are now more frequently undergoing preemptive formal implicit bias training and opting into formal training is getting easier. For example, the ACEP Board of Directors and staff completed such training in 2017, and the ACEP Diversity & Inclusion Task Force offers a free and CME-eligible online course: Unconscious Bias in Clinical Practice

# Are there other ways we can address implicit bias in the medical workplace? How can we retrain our biased brains and mitigate the harm?

### Call to Action

There is a much weaker body of research on how to fix harmful implicit bias. Regarding this topic, emergency physician and residency program director Miriam Kulkarni explains, "We're better at identifying problems than solving them." While the world of research works on this, we recommend a four-step process for change.

## **1. Awareness:** Know yourself, and know your own biases.

Recognize that the patients who are most challenging to us may be a reflection of our own faults. Find out where you fall on each bias spectrum using the Implicit Association Tests on Harvard University's <u>Project Implicit Website</u>.

## **2. Concern**: Become concerned about the negative effects of bias.

This builds empathy. Take a course. Read the literature, become culturally competent and (most importantly) talk about it with members of targeted groups and *listen* to understand their experience.

## **3. Exchange**: Exchange harmful thoughts and practices with neutral \*\*a\*<sub>i</sub> -

## **ALBANY UPDATE**



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

### 2020 Legislative Session

Legislators will return to Albany for the 2020 Legislative Session Wednesday, January 8. The first three months of the Session will be dominated by State Budget negotiations with passage required under the State Constitution by March 31. After April 1, legislators and the Governor will focus on non-fiscal bills with adjournment scheduled for June 2, 2020. The June recess will be two weeks earlier than last year due to a shift in the state primary elections from September to June to consolidate state and congressional elections on one day.

### 2020 State Budget Outlook

New York's latest financial plan projects a \$3.9 billion deficit for State Fiscal Year 2020-21, a number that is likely to grow in the coming months. Governor Cuomo's proposed State Budget which will be released in early January is expected to contain across the board cuts in Medicaid and other government funded programs.

On October 18, 2019, State Division of the Budget Director, Robert Mujica, sent the annual "call letter" to State commissioners asking for spending growth to be held at two percent. Mujica said that New York continues to face "economic headwinds due to the trade war, as well as policies imposed by President Donald Trump's administration on taxation, health care and public assistance." The two percent cap does not apply to school aid or Medicaid spending, which is subject to State statutory limits as well as federal funding.

### Advocacy Day, Tuesday, March 3, 2020

New York ACEP members will travel to Albany, New York Tuesday, March 3 to meet with legislators and staff to Governor Cuomo about State Budget and other issues. We once again expect proposals aimed at stemming the opioid crisis, including changing the exemption for emergency department (ED) personnel to check the Prescription Monitoring Program (PMP) if a controlled prescription does not exceed a 5-day supply to a 3-day supply, and requiring practitioners in the ED to notify a patient's prescriber when there has been an overdose.

### Mandated DOH Study on Emergency Room Beds Awaits Action by the Governor

Legislation (S4699 Ramos/A6832DenDekker) to mandate a State Health Department study of emergency departments passed both houses this year but has not yet been transmitted to the Governor. New York ACEP is opposed to this bill and has sent a letter to Governor Cuomo urging that it be vetoed. The bill requires the DOH to study the number of emergency room beds in the State and establish minimum numbers of beds required. The study must include: 1) the current number of emergency beds in the State; 2) the minimum number of

emergency beds required to adequately address the needs of patients; 3) the distance patients need to travel to access emergency services, including the maximum distance patients shall be expected to travel to access services; and 4) the number of emergency rooms within a specific area.

This bill could result in an unfunded mandate on hospital emergency departments for the establishment of a "minimum number of beds" which could decrease patient access to care. In addition, it does not take into account complex issues that can lead to ED bed availability, including numerous hospital closures in the State over the past several years, availability of inpatient beds, shortages of qualified emergency providers and staff, the availability of "on-call" specialists such as general surgeons, plastic surgeons and other physician specialists, and the availability of emergency medical services transportation.

In August, Reid, McNally & Savage arranged a meeting with Governor Cuomo's health policy staff to discuss these concerns. Participating in the meeting were Drs. Jeffrey Rabrich, Samuel Bosco and New York ACEP Executive Director, JoAnne Tarantelli.

Reid, McNally & Savage are monitoring the legislation. The bill will be transmitted to the Governor before the end of the calendar year for executive action.

### Governor Cuomo Signs Bills to Subject Outof-Network Emergency Hospital Charges to Independent Dispute Resolution (IDR) Process

Legislation which was hotly debate between representatives for hospitals and health care plans passed both houses and was signed into law by the Governor to subject out-of-network hospital charges for emergency services to the IDR process under New York's Surprise Bill law.

New York's law previously did not allow a health care plan or a hospital to dispute a bill for out-of-network hospital charges for emergency services through the IDR process. However, bills for emergency services provided by physicians in the emergency department are eligible for IDR. This new law does not change existing law with respect to emergency services provided by physicians in hospital emergency departments.

The new provisions for dispute of out-of-network hospital charges for emergency services are as follows:

- If a patient assigns benefits to a non-participating hospital for hospital charges for emergency services, the non-participating hospital may bill the health plan for the services. Upon receipt of the bill, the health plan must pay the non-participating hospital an initial amount and any subsequent amount determined to be owed.
- The initial payment made to a hospital by a health plan must be

at least 25% above the in-network rate for the service provided where a contract between the two parties has expired. The amount paid by the insurer does not prejudice or preclude either party from submitting a dispute to the IDR entity. In addition, it does not preclude the hospital from seeking additional payment from the health plan prior to a decision by the IDR entity.

### Election Day, November 3, 2020

The 2020 United States presidential election is scheduled Tuesday, November 3, 2020. In addition, all 213 New York State legislators are up for re-election for another two-year term. In the Assembly, the Democrats are expected to hold their super majority of roughly 107 (D) to 43 (R). In 2018, the Democrats took over the majority in the Senate for only the 2<sup>nd</sup> time since World War II, with 39 Democrats, 22 Republicans, and one vacancy. They are expected to prevail by a comfortable margin in 2020.



## January 27, 2020

Join us for a full day ultrasound-guided regional anesthesia workshop

Visit:

https://www.maimonidesem.org/fellowship/ultrasound

Hosted by the Department of Emergency Medicine at Maimonides Medical Center in Brooklyn, NY



Honoring individuals for their contribution to the advancement of Emergency Care in New York State.

- Advancing Emergency Care
- Edward W. Gilmore Lifetime Achievement
- Exemplary Commitments to Physician Well-Being
- · Leadership in Government
- Michael G. Guttenberg Outstanding Contribution to EMS
- National Leadership
- Outstanding Contribution to Emergency Medicine in New York
- · Outstanding Researcher
- · Physician of the Year

Nomination Deadline: January 2, 2020

## Residents

Implicit Bias - continued from - page 30

Put yourself in your patients' and colleagues' shoes. Catch yourself in the act of passing unfair judgment, and correct yourself. Practice individuation: discover something personal about everyone (such as what music they like) and remember them for this instead of their age, skin color, gender, etc.

### 4. Discussion: Create a culture of safe discussion.

Establish a no-judgment space for colleagues to ask questions about their biases. Do not attack people for lack of knowledge of their own biases. Allow open expression of what makes them uncomfortable about recognizing their own biases, but do not require them to share specific information about their bias. Communicate about cases in which bias might have played a role in suboptimal patient care, and establish protocols for preventing patient care misdirection due to bias uncomfortable about recognizing their own biases, but do not require them to share specific information about their bias. Communicate about cases in which bias might have played a role in suboptimal patient care, and establish protocols for preventing patient care misdirection due to bias.

"It is essential to recognize that when you are annoyed with a patient before you even walk into the room, that is implicit bias. That is the moment for you to take a pause, acknowledge you are human, that you have biases and make a commitment to yourself and your patient to leave the bias at the door so you can take the best care of them possible. It's one strategy for stopping implicit bias in its tracks."

--Kat Ogle, MD

### Acknowledgments

The authors are grateful to Abbas Husain, Miriam Kulkarni, Resa Lewiss, Laura Melville, Pik Mukherji, Kat Ogle, and Livia Santiago-Rosado for their guidance.

### References

- Dubey E; ACEP AAWEP, DIHE, and QIPS Sections; and ACEP Wisconsin Chapter. ACEP Resolution 14(19): Implicit Bias Awareness and Training. 2019.
- Cherry K. Heuristics and Cognitive Biases. Verywell Mind. March 2019. https://www.verywellmind.com/what-is-a-heuristic-2795235
- ACEP/AAMC Diversity and Inclusion Survey. Web-based. July to September 2017.
- Eagly A, Karau S, Makhijani M. Gender and the effectiveness of leaders: a meta-analysis. *Psychol Bull*. 1995;117(1):125-145.
- Eagly A, Karau S. Role congruity theory of prejudice toward female leaders. Psychol Rev. 2002;109(3):573-598.
- Lautenberger D, Dandar, V, Raezer, C. The state of women in academic medicine: the pipeline and pathways to leadership. Association of American Medical Colleges. 2015-2016. https://www.aamc.org/data-reports/faculty-institutions/data/state-women-academic-medicine-pipeline-and-pathways-leadership-2015-2016
- Desai T, Ali S, Fang X, et al. Equal work for unequal pay: the gender reimbursement gap for healthcare providers in the United States. *Postgrad Med J.* 2016;92(1092):571-575.

- 8. Artz B, Goodall A, Oswald A. Do Women Ask? *Industrial Relations: A Journal of Economy and Society.* 2018;57:611-636.
- Files J, Mayer A, Ko M, et al. Speaker Introductions at Internal Medicine Grand Rounds: Forms of Address Reveal Gender Bias. *J Womens Health* (*Larchmt*). 2017;26(5):413-419
- Lee P, Le Saux M, Siegel R, et al. Racial and ethnic disparities in the management of acute pain in US emergency departments: Meta-analysis and systematic review. Am J Emerg Med. 2019;37(9):1770-1777
- DeVon H, Burke L, Nelson H, et al. Disparities in patients presenting to the emergency department with potential acute coronary syndrome: it matters if you are Black or White. *Heart Lung*. 2014;43(4):270–277.
- Petersen E, Davis N, Goodman D, et al. Racial/Ethnic Disparities in Pregnancy-Related Deaths United States, 2007-2016. MMWR Morb Mortal Wkly Rep. 2019;68(35):762–765.
- Hall W, Chapman M, Lee K, et al. Implicit Racial/Ethnic Bias Among Health Care Professionals and Its Influence on Health Care Outcomes: A Systematic Review. Am J Public Health. 2015;105(12):e60–e76.
- Qiao W, Powell E, Witte M, et al. Relationship between racial disparities in ED wait times and illness severity. Am J Emerg Med. 2016 Jan;34(1):10-5.
- McLean M, McLean L, McLean-Holden A, Melville L, Horner A, Fernandez L, Kulkarni M. Collegial Physician Obesity Bias. 2019. Unpublished manuscript. www.physicianbias.com
- Samuels E, Tape C, Garber N, et al. Sometimes You Feel Like the Freak Show: A Qualitative Assessment of Emergency Care Experiences Among Transgender and Gender-Nonconforming Patients. Ann Emerg Med. 2018;71(2):170-182.
- Ly D, Seabury S, Jena A. Differences in incomes of physicians in the United States by race and sex: observational study. BMJ. 2016;353:i2923.
- Devine P, Forscher P, Austin A, et al. Long-term reduction in implicit race bias: A prejudice habit-breaking intervention. *J Exp Soc Psychol*. 2012;48(6):1267-1278.
- Rudman L, Ashmore R, Gary M. "Unlearning" automatic biases: the malleability of implicit prejudice and stereotypes. *J Pers Soc Psychol*. 2001;81(5):856-868.



1130 Crosspointe Lane, Suite 10B Webster, NY 14580-2986

PRSRT STD U.S. Postage PAID Rochester, New York Permit No. 161

## Our culture rocks. Here's how we roll.



At US Acute Care Solutions we share the kind of camaraderie you can only experience when you love what you do and who you work with. We share the adrenaline rush cases, and the stories from residency. The saves and the heart breaks. Friendships and family. We even share our sushi rolls. At USACS we're all in.

> Discover USACS where every full-time physician is given ownership. Culture matters. Find out why at USACS.com.



Own your future now. Visit USACS.com

or call Darrin Grella at 800-828-0898. dgrella@usacs.com

