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PRESIDENT'S MESSAGE

Brahim Ardolic, MD FACEP
Chair, Department of Emergency Medicine
Vice President, Department of Research
Staten Island University Hospital

Last week one of the nurses at my emergency department (ED) was attacked by a patient. In an instant, she went from someone who was trying to do her job taking care of people with medical needs to a victim of violence. We often lament burnout amongst emergency providers, both physicians and nurses. We have already written volumes of articles about different reasons for burnout, yet many have not asked basic questions about violence and burnout. According to the Massachusetts Nursing Association, an emergency department nurse, our colleagues, are four times more likely to be assaulted than a police officer. This is a statistic based upon reported assaults. Now I will ask the question: What percent of the assaults in your EDs get reported? In most EDs, it is a small percentage of the total assaults that occur.

According to the Massachusetts Nursing Association, an emergency department nurse, our colleagues, are four times more likely to be assaulted than a police officer.

In 2008, Kansangra et al in Academic Emergency Medicine found that 25% of ED personnel don't feel safe. This has to play a major role in burnout amongst staff. How could feeling at risk of violence not shorten a career. One would conjecture it would be even truer after an assault actually occurred. Just before I started writing this, I typed in my search engine three searches: "assault nurse emergency" "assault doctor emergency" and "assault physician emergency". There were 10 hits that related to a nurse or physician being attacked in an emergency department in the last 14 days! That's almost one media reported assault each day. It's just not an acceptable number. There needs to be a new standard set and there are many aspects of this issue that need to be changed.

First, we as providers need to start making an issue of this. In many EDs, staff members do not want to report assaults or are even actively discouraged from doing so. This is not acceptable. Sedating an agitated patient is not assault, but actual assaults need to be reported every time.

Second, our communities need to take these assaults as seriously as those against other civil servants. I would like to thank DA Michael McMahon and Assistant DA Michael Tannousis for their handling of this case, and even more importantly for their statement that assaults of this nature need to lead to jail time, period. More DAs in more municipalities need to take the same stance. The message needs to be sent that this will not be tolerated, just like it should never be tolerated against any civil servant, police or otherwise. Once people are afraid to care for one another, what do we have left as a society?

If you knowingly assault an emergency department provider, you should go to jail, every time, with no exceptions. Last week, one of my staff was assaulted while taking care of someone. Sadly, I think some of you can say the exact same thing.

WHAT'S INSIDE?

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SOUND ROUNDS

Penelope C. Lema, MD RDMS FACEP
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Let's Twist Again.... A Case Report of Recurrent Testicular Torsion After Orchiopexy

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A 19-year-old male presented to the Emergency Department with severe left testicular pain for two hours. The patient had a history of testicular torsion on the left and was s/p bilateral orchiopexy and salvage of the affected testicle two months prior. The patient was sitting in his car when he felt acute testicular pain radiating to the left flank, associated with nausea and vomiting. The patient's vitals were unremarkable other than tachycardia of 114 BPM. The patient reports that the pain was similar to his previous testicular torsion. The physical exam revealed firm and exquisitely tender left testicle with absent cremasteric reflex. Intravenous analgesia was given and point-of care-ultrasound (POCUS) was performed. Ultrasound demonstrated an unremarkable right testicle (Figure 1). A small left hydrocele and lack of color flow Doppler was visualized in the left testicle (Figure 2). The diagnosis of testicular torsion was made and Urology was emergently consulted. The left testicle was manually detorsed approximately 540 to 720 degrees (1.5 to 2 turns) with immediate improvement of pain. Repeat POCUS showed return of blood flow to the left testicle (Figure 3). The patient was taken to the operating room by urology for a repeat orchiopexy. Operative findings showed physiologic hydrocele fluid with a left testicle that was pink and viable and an absent appendix testis, indicating prior surgical intervention. No evidence of prior pexy suture was seen.

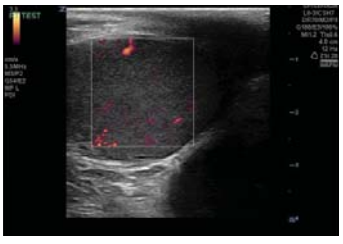

Figure 1. Normal right testicle ultrasound with power Doppler.

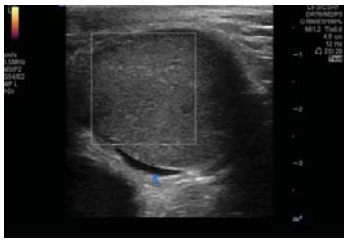

Figure 2. Ultrasound of the left testicle with hydrocele and absent power Doppler signal.

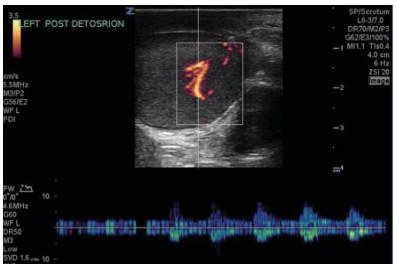

Figure 3. Ultrasound of the left testicle post detorsion with return of power and spectral Doppler signifying return of blood flow.

Introduction

Testicular torsion is a "can't miss" diagnosis in emergency medicine. It is a urologic emergency affecting 0.0038% of males annually. This twisting of the spermatic cord and its contents requires prompt diagnosis and treatment to prevent decreased fertility or orchiectomy.[1] Clinically, males typically present with acute scrotal pain, nausea, and vomiting. Tenderness, absent cremasteric reflex, scrotal skin changes and abnormal testicular positioning are classically present on physical exams.

Although this presentation may be typical, the physical exam is far from diagnostic. With such high stakes, the diagnosis should be considered for all scrotal pain. Scrotal ultrasound is the diagnostic study of choice, making POCUS performed by the emergency physician a critical application for this time sensitive diagnosis. The adage, "time is testicle" is relevant as salvage rates are highest within the initial eight-hours.[2] The treatment of choice is surgical exploration with either orchiectomy and contralateral orchiopexy, or bilateral orchiopexy if the affected testicle is salvageable.[3,4] Urologists are often hesitant to take patients to the operating room solely on physical exam findings making prompt ultrasound imperative. This diagnosis should be considered even if the patient has previously undergone orchiopexy.

Discussion

Testicular torsion after orchiopexy is a rare event. Along with a few case reports, a recent retrospective review of 292 males found only

one recurrence after orchiopexy, yielding a 0.3% recurrence rate.[5] This makes the diagnosis very challenging, as the knowledge of previous orchiopexy may cause the clinician to search for alternative diagnoses, potentially delaying the time-sensitive diagnosis.

Why the testis is able to torse after seemingly successful orchiopexy is unclear. The repeat orchiopexy described in this case did not identify any sutures from the original repair. A 1985 review of literature found that absorbable sutures were used in 15 out of 16 cases of recurrent torsion suggesting the use of absorbable suture in orchiopexy is less effective.[4] Presumably, this led to recurrent torsion in the case.

Rapid diagnosis is critical to successful salvage. POCUS use in the emergency department has shown to be an effective tool for rapid and accurate diagnosis of a range of medical conditions.[6] Testicular ultrasound, though well accepted as the initial diagnostic modality of choice for testicular complaints, has been traditionally performed in the radiology department. With the development of POCUS programs, skilled emergency physicians are more frequently performing this application. The American College of Emergency Physicians does not list scrotal ultrasound as one of its core applications,[7] and studies on POCUS testicular ultrasound are not well cited in the emergency ultrasound literature compared to other applications.[6] Testicular ultrasound training has been part of the curriculum for those being trained in Emergency Ultrasound for years. One study that evaluated emergency physicians' ability to diagnose torsion in patients with acute testicular pain had sensitivity and specificity of 95% and 94% respectively.[8] As more clinicians gain expertise in this area, there is potential for more rapid diagnosis and potentially higher salvage rates.

This case demonstrates that the combination of high clinical suspicion and early ultrasound has the potential to improve outcomes and salvage rates in testicular torsion. Emergency physicians should aim to become familiar with this application and add it to their ultrasound repertoire. Testicular torsion can occur even after orchiopexy. Emergency providers can positively impact patient outcomes with scrotal ultrasound and manual detorsion techniques. The rapid diagnosis of torsion, prompting successful manual detorsion, lead to successful salvage in this unique case.

Indications

- Scrotal swelling
- Scrotal pain
- Direct trauma

Technique

- The patient is placed supine, preferably in frog leg position with use of a "scrotal sling."
- Use the highest frequency linear probe available (≥10mHz)
- First perform an ultrasound of the unaffected testicle.
  - Establish proper gray scale and power Doppler settings (wall filter and gain).
- Scan through the testicle, making note of any heterogeneity and irregularity.
  - Measure the size of the testis and epididymis.
- Utilize power Doppler and spectral Doppler to identify arterial and venous blood flow.
- Apply the same technique to the affected testis.
  - Do not change settings that were used for the unaffected testis.
- Once decreased flow or absent flow is identified, manual detorsion with the "open book" technique should be attempted to restore flow as rapidly as possible.
  - Alert the urologist simultaneously.
- If manual detorsion is successful, you can expect to see a return of flow to the affected testicle.
  - This will have a higher resistive index compared to the unaffected side.
- Even if manual detorsion is successful, the patient must still undergo orchiopexy.

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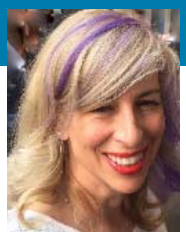
Board of Directors Election

This June, New York ACEP members will receive the 2017 Candidate Profile. Through this proxy, members will elect four board candidates to serve three-year terms on the New York ACEP Board of Directors.

Members can cast their vote on board positions by proxy no later than July 7. Proxies will be sent by email to all New York ACEP member in June. Members may cast a proxy in person at the New York ACEP Annual Meeting Wednesday, July 12 at 12:45 pm at The Sagamore Resort on Lake George in Bolton Landing.



Laura D. Melville MD
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Improving ED Care for Sexual and Gender Minorities

"Of all the forms of inequality, injustice in health care is the most shocking and inhumane."

~Martin Luther King Jr.

In Emergency Medicine we are always looking for ways to improve our patient care; trying to shorten the time we take to translate lessons from the science of medicine into how we practice the art of medicine. We continue to struggle with the recognition of our own biases in order to reach the goal of providing equal health care to all comers. It is daunting to think of the myriad disparities that persist; the study of health care disparities continues to show us pervasive differences in disease burden and mortality based on many factors including race and socioeconomic status. Yet, I cannot imagine an Emergency Medicine doctor who feels comfortable with this. We are generally a group that prides ourselves on treating "all comers", based only on what problems they come in with; admitting that it is not so simple is the first step to realizing the ideal of truly unbiased care.

Recognizing what constitutes a "disparity" is part of the issue. Sometimes it is obvious, as when our patients with poor insurance cannot get access to specialists, but disparities are often more subtle. According to Healthy People 2020 "if a health outcome is seen to a greater or lesser extent between populations, there is disparity. Race or ethnicity, sex, sexual identity, age, disability, socioeconomic status, and geographic location all contribute to an individual's ability to achieve good health."[1]

Sexual and gender minorities have had a long history of mistreatment in the house of medicine. For lesbian, gay, bisexual, transgendered or genderqueer (LGBTQ) patients, healthcare injustice is often a reality. The barriers to care start with a reluctance to even seek care, due to expectations of being disrespected, laughed at, misunderstood, misinformed, and possibly having doctors refuse to treat them. Then throughout the process of interacting with the healthcare system, LGBTQ people have experienced ridicule and treatment that did not meet their social or medical needs.[2,3]

According to the 2012 Gallup, approximately 4% of Americans self-identify as LGBTQ. This translates to about nine million people.[4] A quick Google comparison reveals that approximately 29 million Americans have diabetes[5], and about 1.5 million have lupus[6]; approximately 900,000 Americans identified as active physicians in 2015 and about 4.7% of Americans identified as "Non-Christian Religious Faith.[7,8]

In Emergency Medicine, we are proud to be on the medical front line; we are often confronted with challenges to our assumptions and culture, and we work hard to practice "cultural humility" in order to provide the best care possible to our patients. Practicing this kind of humility when it comes to someone's expression of gender identity just makes sense, and you and your institution don't have to figure it out on your own. There are a number of vetted organizations that can provide guidance and training to help us improve our care. Within easy reach are the guidelines published by the Joint Commission of Hospital Accreditation,[9] which are relatively simple and are in some part mandated. The Human Right Campaign's Healthcare Equality Index, provides a set of guidelines that is now extensive for a facility to measure themselves against with a survey tool; you can see where you are, and if your hospital or facility can meet all the requirements, your institute will earn the distinction Leader in LGBTQ Healthcare Equality. Last year, New York State had 119 facilities rated and 75 achieved Leader status.[10]

New York State and LGBTQ Healthcare

New York has been one of the more progressive states in terms of LGBTQ rights and anti-discrimination legislation. In late 2002, New York State passed SONDA, the sexual orientation non discriminatory act, which "prohibits discrimination in basis of actual or perceived sexual orientation in employment, housing, public accommodations, education, credit, and the exercise of civil rights". In 2010, the U.S. Department of Health and Human Services, (HHS) issued regulations that prohibit discrimination in hospital visitation and make it clear that designated visitors should be permitted access to patients regardless of whether they have a legally recognized relationship. These regulations also require hospitals to have written guidelines and inform patients of their visitation rights. This law is in part due to cases such as that of Janice Langbehn, who in 2007 sued Jackson Memorial Hospital for denying her the right to see her dying partner, Lisa Pond in the ICU. Ms. Pond died without being able to see either her partner or their children.[11]

The Affordable Care Act, signed in 2010, prohibits sex discrimination, including discrimination based on gender identity, transgender status, or gender stereotypes, in hospitals and other health programs or facilities receiving federal financial assistance, and prohibited most health insurance from discrimination against clients based on these same gender issues.[11] The future of that protection is currently uncertain.

In March 2015, New York State repealed its Medicaid exclusion of coverage for transgender related care –"care, services, drugs, or supplies rendered for the purpose of gender

reassignment" based on the data that these treatments are effective for gender dysphoria. This coverage is important in promoting safe hormone treatment under the care of a physician as opposed to "street" hormones, and safe gender affirming surgeries.[12]

Change The Medical Culture

In Annals, June 2014, Sarah Jalali and Lauren Sauer's article "Improving Care for Lesbian, Gay, Bisexual, and Transgender Patients in the Emergency Department" describes the case of Tyra Hunter, a 25 year old African-American transgendered woman living in Washington D.C. Ms. Hunter died in 1995 after being seriously injured in a motor vehicle accident. On the scene she was ridiculed when EMS discovered she had male genitalia, leading to a delay in her care, and again care was delayed in the hospital. Jalali and Sauer discuss the barriers to care, and summarize medical issues LGBTQ patients may be at increased risk for, and outline concrete ways to improve our communication with this group.[13]

It is very important that training in cultural sensitivity goes beyond the doctors and nurses. If, for example, at registration, the same sex parents of a child being registered are asked "who's the real mother" a hostile tone has been set and will require work to undo. Security, clerks, environmental services, transporters, volunteers AND the medical staff need to work together to create a safe, welcoming environment for all patients. It is also important that the non-discrimination policies you adopt explicitly pertain to both staff and patients, and they should be prominently posted in waiting and treatment areas.[3,9,10]

Documentation about the patient's preferred name, pronouns and family arrangements should be in the chart in an easily visible area. Designated health care proxy information should be here as well. Deutch et al, as part of the World Professional Association for Transgender Health EMR Working Group, have made detailed suggestions for the ways EMRs can prominently reflect patients' chosen names and gender identities, and these changes have been incorporated into some major EMR programs such as EPIC.[14]

It is helpful of course if once that information has been obtained, it is clearly communicated to the rest of the staff. Again, an EMR that clearly displays chosen names and gender identity can help reconcile insurance versus identity information, and make it simple for other practitioners to proceed with the information they need.

The physical space of the ED is best arranged so that there are many areas that are not gender specific, including multiple private bathrooms. All kinds of patients appreciate private bathrooms—staff too! If there are gender segregated areas in your ED, then put the patient in the area of their expressed gender.

Visiting policies should be standardized and based on space, not relationship to the patient—i.e. if your policy is "two visitors at their beside", those visitors should be whomever the patient chooses. As same sex-marriages and parenting are legally recognized in New York State, expect that health care proxies, next-of-kin and parental rights will reflect this.

Be the Change You Wish To See

Physicians are often the team leaders, so how we behave sets the tone for everyone else.

Asking patients what name and pronoun they prefer right after introducing yourself will go a long way to creating a safe environment for transgendered patients, and will make it much more likely that the patient will share important medical information with you. Initial confusion or mistakes are not disasters as long as you are sincere and correct yourself. Patients report that they don't mind being asked these questions, and are appreciative of the effort.[3,15]

Being sure to ask patients and family questions rather than making assumptions is hugely important with anyone; not "is this your sister?" but rather "who are you to each other?"

As ED physicians it is important to stick to relevant questions. If the answer will not change your management, consider if you need to ask the question. Asking a transwoman who presents for conjunctivitis, about her genitals and/or surgical transition status is inappropriate. However, if she came in for abdominal pain, that will become crucial medical information. Good judgment, with the patient's needs in mind, should guide your inquires.

Lastly, do not tolerate humor at the patient's expense. Most physicians would not stand for racial slurs, but might let gender minority humor go by. Don't. It's wrong. It sends a message to the staff, the other patients and your patient that they don't matter. If you take how you give care seriously, your team will as well.

Brief Review of Medical Issues

Many of the medical issues that affect LGBTQ patients are the same that affect all of us like heart disease, stroke, flu and gastroenteritis. But, there may be issues LGBTQ patients are at more or less risk for. The degree of risk will overlap with the other characteristics that make up the individual such as age, race, culture socioeconomics and risk-taking behavior. There is not a large evidence base available for determining the medical needs of the LGBTQ community, which is a diverse group not easily represented as one cohort. The Pride Study is the first large scale prospective study of LGBTQ Healthcare Outcomes; it is innovative in its use of apps as one method of enrolling patients and incorporating their input into the final health outcomes to be measured. The group is looking to get feedback from their enrollees about what is important to them as patients in terms of their health care. They began enrolling in June 2015 and have been collecting data to establish what outcomes to follow; the study parameters and initiation of the outcomes study portion is expected to start this year.[16]

As with any patient, sexual history is best obtained in private. Patients may want their partner's support but may not want to reveal important details to them. A woman in a lesbian relationship may not want her partner to know she has had sex with men as well, and requires pregnancy testing on this visit. Is it simplest to ask all patients for whom sexual history is relevant, do you have sex with men, women or both? Are you currently having sex with men women or both? In medical language, we often use men who have sex with men (MSM) and women who have sex with women (WSW) rather than gay or lesbian. Any person who has unprotected sex with any type of partner can be at risk for sexually transmitted diseases, so consider this in your history, exam and testing choices, as well as how you refer patients.[13,17] ED physicians may be less familiar with manifestations of STDs in MSM including proctitis and anal HPV, which requires ongoing PAP-type monitoring to recognized early anorectal cancers.[18]

LGBTQ teens and young adults can be at higher risk for self-harm, due to the risk of youth combined with the difficulty of being a gender or sexual minority. There may be

increased risk of drug and alcohol abuse, or suicidal behavior, and social supports may be less robust.[13]

Pregnancy and uterine bleeding are possible in trans-men who retain a uterus; uterine bleeding can become quite severe due to hormone treatments. Depending on the organs present, ovarian or testicular torsion may need to be considered.

In an Emergency Nursing article by Polly Ryan, the question of urinary catheterization in trans patients is addressed—it is apparently rare that the urethra will not be readily identifiable. Therefore the placement of a Foley catheter should not be a significant difficulty if there has not been a very recent surgery involving the urethra, in which case a catheter may still be in place.[20] Hormone regimens for MTF women are generally chosen to decrease the prothrombotic risks; however individual treatment plans may vary and patients may be taking hormones that were not prescribed; if thrombotic disease is suspected than it will be very import to know exactly what they are taking.[21]

Elderly LGBTQ patients can be more isolated than their younger counterparts, having often grown up in less accepting circumstances and, especially when in long-term care, feeling at the mercy of staff and other patients who are biased. They have self-reported significant abuse and neglect in long term care settings. This fear and isolation may prevent LGBTQ elderly from getting the medical care or social support they need to remain healthy.[21]

Summary

While there is not a huge amount of medical literature on the topic, it is clear from what is out there that healthcare disparities seriously affect the LGBTQ population. There are studied practices and benchmarks that can guide us to giving better care. As New Yorkers, we are building on a decent track record; let us continue to actively work to make these nine million people feel welcome in our Emergency Departments and facilities everywhere.

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More Resources

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http://callen-lorde.org/sexual-health-clinic/

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PRACTICE MANAGEMENT

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Press Ganey, ED PEC, HCAHPS, ED-CAHPS: What's the Story??

A Brief History of ED CAHPS

Increased attention to patient satisfaction surveys occurred in the 1990s in concordance with the global rise of the health consumer movement. CAHPS, or Consumer Assessment of Healthcare Providers & Systems, was a program introduced by CMS in the mid-2000s as part of the overall shift of healthcare from a fee-for-service to a pay-for-performance model. Because "performance" is admittedly difficult to measure given the complexities surrounding healthcare outcomes, and because there was an interest in capturing quality from the point of view of the patient (or consumer), studying satisfaction and service quality was viewed as crucial in measuring quality and developing improvement strategies. Unfortunately, the implementation of measures of patient satisfaction can be read as a primer on unintended consequences.

Healthcare providers and, to an extent, consumers, recognize that quality of care is impacted by technical results and outcomes. *Quality of service* has in turn been defined as those characteristics that shape the experience of care beyond technical competence (Kenagy et al 1999). Underlying these constructs is the concept of value: what is important (in terms of value) to the patient goes beyond technical competence, or even expertise. That being said, patient satisfaction has not been adequately or uniformly conceptualized. There are no identified gold standards in understanding or studying patient satisfaction. Is satisfaction purely subjective and derived from expectation concordance or other attributes that may be valued by individual patients? To what extent is it driven by provider performance? Can a patient even tell when they have had a quality clinical outcome? Even if we had a coherent model of what patient satisfaction is (which we don't), the question of whether satisfaction even matters in terms of what all parties ought to value most - care outcomes - remains.

Historically, some have conflated *quality of care, quality of service, and patient satisfaction.* Despite the fact that satisfaction surveys have become commonplace in the last 20-30 years, the validity of such surveys as markers of quality has only been studied recently. The actual data suggest that outcome quality and satisfaction may not correlate in the way early proponents may have thought. A number of meta-analyses examining hundreds of patient satisfaction studies have concluded that due to the absence of standardization and poor evidence of the reliability and validity of surveys as a measurement tool, the current iterations of surveys are less than ideal and alternative methods should be developed to measure both patients' evaluations of healthcare and care quality (Crowe et al 2002, Hawthorne 2006, Sitzia 1999).

> ***Is satisfaction purely subjective and derived from expectation concordance or other attributes that may be valued by individual patients?***

Having said that, there is some evidence that improvement in perceived quality may in fact be correlated with improved health outcomes. Kenagy and colleagues (1999) suggested that patients' positive perceptions of service quality may be correlated with improved efficiency of care by increasing patient engagement and compliance, and by decreasing wasteful resource utilization in the form of re-work, increased hospital lengths of stay, and associated complications. A contradictory study showed that higher patient satisfaction with doctors was associated with higher inpatient utilization, higher cost, and increased mortality when compared to less satisfied patients (Fenton 2012). Could it be that patients misidentify "attention" in the form of time and tests as quality? Although no one seems to have addressed which of these variables is the chicken or the egg, these findings suggest that measuring patient satisfaction and perceived quality of care should not be altogether scrapped.

Despite the lack of formal definition or conceptualization, parties to the health care system, including insurance companies, hospitals and health systems, moved to institute patient satisfaction measurements and incorporated them into their benchmarking outcomes metrics, culminating with the implementation of CAHPS. Beginning in 2002 CMS and AHRQ designed and piloted HCAHPS (Hospital Consumer Assessment of Healthcare Providers & Systems) surveys of inpatients. The HCAHPS methodology involves sending surveys to randomly selected patients 48 hours to six weeks after hospital discharge. Hospitals may choose to send these surveys on their own or employ a

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survey vendor. Press Ganey and Associates is the largest and best known patient satisfaction survey company. The target minimum number of returned surveys per year is 300. HCAHPS excludes patients under 18 years old, patients who expire in the hospital, patients discharged with a primary psychiatric diagnosis, prisoners, and patients with international addresses. Participation was incentivized by the Deficit Reduction Act of 2005, which established that starting in 2007 payment updates to hospitals participating in the Inpatient Prospective Payment System, or IPPS, would be conditioned on reporting of HCAHPS metrics.

Subsequently, the Hospital Outpatient Quality Reporting Program mandated by the Tax Relief and Health Care Act of 2006 required quality data submission for payment updates under the Outpatient Prospective Payment System (OPPS). In its early iteration, CMS established an early version of a care quality survey for Emergency Departments initially conceived as ED PEC (Patient Experience of Care), and seeing the proverbial writing on the wall, some health systems began systematically measuring patient satisfaction in the ED. Case in point, NYC Health + Hospitals (NYC H+H) started participating in HCAHPS in 2007 as required. By 2008, satisfaction surveys were piloted among outpatient areas (CAHPS) including four Emergency Departments, and in 2009 the surveys were expanded to cover all 11 NYC H+H EDs.

The quality reporting program was further expanded with the implementation of the Patient Protection and Affordable Care Act (PPACA) of 2010, which included HCAHPS scores (no longer just participation in survey activities) among the quality measures that would drive payments to the hospitals via the CMS's Value Based Purchasing (VBP) program. Beginning in October 2012, the VPB initiative initially targeted inpatient care by tying reimbursement to patient satisfaction scores obtained via mandated surveys distributed to inpatients post-discharge, and specifically the "top box" response rates. Broadly, top box refers to the highest possible score for a given surveyed item. Depending on the survey, its iterations may be qualitative (including a positive intervention occurring "always" or an element of performance being scored as "very good") or quantitative (e.g. a rating of 5 in a scale of 1 to 5).

CMS achieved widespread implementation and reporting of patient satisfaction surveys by tying compliance to reimbursement, but the "top box" VPB approach took this a step further by tying the scores to reimbursement. While few would deny that the patient's experience of care is valuable, that quality of care may be important to measure, or that improving quality of care is a worthy goal, there are unintended consequences to tying reimbursement to top box scores. Furthermore, applying these same rules to individual physicians and other healthcare providers, i.e. to determine their personal (or group) reimbursement based on "top box" scores, is perhaps even more damaging. Physicians may now be perversely incentivized to practice expectation-driven (as opposed to evidence-based) medicine, including care associated with increased "attention", whether it is clinically indicated or not, in order to maximize their patient satisfaction scores.

As an example, patient expectations for antibiotic prescriptions, or providers' misread of patient expectations, may in part be driving the aggressive antibiotic-prescribing practices that may put both the individual patient (who derives no clinical benefit yet stands to be harmed by adverse effects) and their community (whose overall antibiotic resistance may increase) at risk. Furthermore, some have posited that CAHPS surveys' focus on treatment of pain has inappropriately incentivized providers to increase their opiate prescribing, thereby exacerbating utilization of (and potentially, addiction to) narcotics.

What Does It Mean to Me?

How are we as emergency physicians to practice appropriate and evidence-based care in a care environment with multiple constraints and still deliver the scores that our hospitals, health care systems and government expect? What about the fact that the number of patients who receive and return surveys is a teensy fraction of all those we see, and are not even considered to be valid by many providers? How are we to improve our patient's experience when so many factors (such as boarding, test turnaround times, consultant turnaround times) impacting that experience are out of our hands?

The good news is that some of these concerns have risen to the level of ACEP leadership, other physician groups and politicians. In March of 2016, 26 US Senators sent a letter to Health and Human Services Secretary Sylvia Matthews Burwell stating "the evidence suggests that physicians may feel compelled to prescribe opioid pain relievers in order to improve hospital performance quality measures." CMS responded "While there is no empirical evidence of this effect, we propose to remove the pain management dimension from the Hospital Value-Based Purchasing Program to eliminate any potential financial pressure clinicians feel to overprescribe pain medications." A change in the prior ED survey question from "Did staff members do everything they could for your pain?" to "During this ER visit, did the doctors and nurses try to help reduce your pain?" on the pilot ED CAHPS survey is a step in the right direction.

Unfortunately, treatment of pain is only one piece of the puzzle. Many providers feel pressured to give the patients the tests or treatments they expect, and to do so in a time they expect. Because patient surveys are not going to go away anytime soon and are increasingly important in determining hospital payment, we need to figure out how to best tackle the problem.

The approach can be divided into multiple prongs. From a 20,000 foot view, emergency physicians need to work with their leadership and other physician groups to make sure that surveys going forward ask fair questions and are collected from enough patients to be meaningful. If and when the responses are collected from a minimum number of the total patients seen, the scores should be considered invalid (although individual comments may still be helpful). From a hospital perspective, addressing issues such as ED boarding that are both important to care outcomes and to survey results should be a priority. From a departmental perspective, adjusting work flows and staffing as much as possible to best meet patient arrivals and time expectations just makes sense; reimbursing individual physicians based on scores collected from only a handful of patients or from patients shared by multiple providers (other attendings, residents, PAs and NPs) does not.

From an individual provider perspective,

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other than getting involved in the aforementioned solutions, there are still few chips left to play. Literature reviews published on the topic of emergency department patient satisfaction (Trout 2000, Boudreaux 2001, Taylor 2003, Welch 2010) mention three recurring themes – information/explanation given to patient, interpersonal skills of providers and perceived waiting times. The fact that the first two of these are at least somewhat under our control means that individual providers can impact scores to a certain degree, in spite of all of the limitations discussed above.

ER Patient Experience Survey

1. During this Emergency room visit, did nurses spend enough time with you?
- □ Yes
- □ Yes, somewhat
- □ No

2. During this Emergency room visit, how often did doctors treat you with **courtesy and respect?**
- □ Never
- □ Sometimes
- □ Usually
- □ Always

3.During this Emergency room visit, how often did doctors **listen to you carefully?**
- □ Never
- □ Sometimes
- □ Usually
- □ Always

4. During this Emergency room visit, how often did doctors **explain things** in a way you could understand?
- □ Never
- □ Sometimes
- □ Usually
- □ Always

5. During this Emergency room visit, how often did doctors **spend enough** time with you?
- □ Yes, definitely
- □ Yes somewhat
- □ No

Here are a few tricks of the trade we thought were worth sharing. Learning and using these will most likely make your patients happier and your shift easier (and possibly even make it less likely that you get sued!)

1. While providing excellent evidence-based care, it helps to get at least a general sense of what the patient expects. Bear in mind that dissatisfaction is correlated with expectation discordance. Does he think his abdominal pain work up will be done in 30 minutes, want antibiotics for his URI, a script for 30 Percocet for his twisted ankle, or just a second opinion? How many times have you heard on the way out the door after a thorough interview "but what about…?"

2. To the best of your ability, give the patient a rough idea of what to expect. Set and manage the patient's expectations: "You will be with us for about two hours. You'll need to have some blood drawn, and it will need to be transported to the lab and be processed. I will come back to speak to you after the results come back." If you're unsure how long something will take, give an overestimate ("It will probably take four hours to get your CT scan done and read"). Patients do very well with the "under- promise, over-deliver" approach and won't follow you around the ED quoting your unmet time goal.

3. Explain your reasoning when you aren't going to provide what the patient expexts. The patient is a lot more likely to be okay without that prescription for a Z-pack for a URI or a head CT for a minor head trauma if you briefly discuss antibiotic resistance, C. diff or imaging association with malignancy. One study (Ong 2007) showed that in assessing satisfaction of patients seen in the ED for URI, the belief that they had a better understanding of their illness was more related to the patient's satisfaction than was the receipt of antibiotics.

Educate your patient without being condescending. Telling your patient "You shouldn't be here for this back pain you've had for three months" will not be received well. Empathizing with her for having pain ("I'm sure it's frustrating to have pain for this long"), delving into some pain control measures they may not have tried (heating pad or massage), and even encouraging appropriate follow up ("Make sure you are visiting your PCP regularly to monitor your weight and activity so you don't have to end up in the ER like this") doesn't take much longer, but may result in the patient feeling more relieved and you feeling less annoyed.

4. Sit down if at all possible (use the edge of the patient's bed or a garbage can when there's no extra chair). Introduce yourself to the people in the room and ask how they are related to the patient. (Don't assume! Guessing that the patient's home health aide, daughter or sister is his wife is just downright embarrassing.)

5. Before you leave the room or discharge the patient, ask "What else can I do for you before I go? And "What questions do you have?" This phrasing is thought to be more encouraging than "Do you need anything else?" and "Do you have any questions?"

6. When things don't go according to plan, use words that will make the patient feel better about the situation. "Thank you for being so patient - I'll try to figure out what's going on" goes a lot further than "I can't believe that the radiologist is taking so long to read your CT scan." Similarly, "Sorry to keep you waiting so long," is strongly preferred to "We are so short staffed tonight," or "Our computer system just crashed again."

It may help to pay attention to what phrases or attitudes make you especially happy or unhappy when you or your loved ones are on the patient (or customer) side. Getting a quick update from the hostess about why you're still standing when your dinner reservation was for 45 minutes ago, is always preferred to no communication. Hearing from a customer service representative "I-don't-know-who-told-you-that-but-it's-just-plain-wrong" is a lot more anger-provoking than "That doesn't sound quite right but let me look into it/fix it." Last but not least, an attitude of "You're the 100th person today who told me they were going to miss their connection, too bad for you" doesn't hold a candle to "Let me call ahead, help you get there or even just seem to care that you're going to miss your flight."

As ED docs, we are used to being pulled in a million directions every day. Taking excellent medical care of our patients while getting the patient survey scores our bosses expect is just one more of these challenges. While "just give the patient what he wants" is an approach some have given into, a more sophisticated approach may be a bigger win in the long run.

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Empire State EPIC
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EDUCATION

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Critical Reflection in Training: The After Action Report

The sprawling core curriculum of emergency medicine leaves little time in the didactic schedule for topics outside the umbrella of medical knowledge, patient care and procedural skills. One important omission is formalized reflection on medical practice—thinking or talking about events that have transpired in order to learn or improve from them. To address this deficiency, we started After Action Report, a multi-year longitudinal thread to engage residents in thinking and reflecting on the work that they do.

Reflection is undervalued in emergency medicine. The work that we do is fast-paced and mentally exhausting and the serial patient encounters leave practitioners drained at the end of a busy shift. There is rarely an opportunity to process challenging experiences, let alone remember them. In true ER fashion, these events pile up over the course of time and the emotional tone of stress and anxiety becomes associated with the work environment. Without pausing to reflect on their experiences, residents are prone to an unconscious assimilation of the hidden curriculum of cynicism and self-preservation that characterizes hospital medicine. Extended over a career, practitioners can accumulate dysfunctional reactions to their patients as well as their work, and before you know it we have the poisoned foundation of burnout!

So precisely because of the nature of the work that we do, reflection is a necessary practice. Physicians need a space where they can step back and think about what has happened, rethink and reframe their reactions to the challenges of medical practice, change the emotional tone of the encounters in hindsight and renew themselves for further practice.

Reflective training has been instituted in many resident training programs with variable success. Often the sessions are run like unstructured "therapy" in large groups that can be considered tedious or embarrassing.

So, how can we make this a more interesting process? We have developed a multi-year longitudinal program to engage residents in thinking and reflecting on the work that they do. What has been helpful is to break up the reflective process into themes which relate directly to the relevant issues that truly concern residents. They are one-hour small groups in a quiet setting facilitated by an experienced faculty member. The residents are of mixed levels and the groups are kept to six or fewer residents. The sessions are exploratory and participatory and there is no preparation required. Importantly, the groups are structured and facilitators have a manual to guide them through the experience. In short, they must be active, engaging and relevant. The program consists of the following modules.

Reflection on a Medical Narrative

Participants are asked to write briefly (10 minutes) about a memorable clinical encounter with a patient / family / colleague and then take turns telling their story. The facilitator and group talk about each narrative with an eye to pulling out the implicit assumptions, analyzing the underlying attitudes and trying to formulate how to think about the event in a way that might be transformative.

Professional Boundaries Cases

We use a case-based exploration of the doctor-patient relationship to challenge residents into looking at the assumptions of professional boundaries, emotional self-expression on the job, as well as colleague impairment and misbehavior. Facilitators are active in working through the case, and actively involving residents in dialogue to illuminate the premises upon which preconceived notions are formed.

Recognizing and Responding to the Difficult Patient

Participants discuss and use role play to dive into the dynamics of the difficult patient encounter and demonstrate the intrapersonal and interpersonal forces at play. The group then analyzes the meaning of the difficult patient, as well as strategizes different approaches that can be used in such cases.

EDUCATION

Working in an Underserved Community

Residents reflect on the difficulties faced by their patients and their varying social circumstances. They are also asked to consider any paradoxical negative feelings they may feel to homeless alcoholics and other vulnerable patients. There is a brief didactic component related to social determinants of health.

Self-Awareness During the Shift

Participants make explicit the effects on their psyche and performance of multiple competing demands on one's attention, on their inadequacy to fully adequately address patient suffering, and the challenges of being emotionally present in difficult circumstances. This session involves a brief instruction in mindfulness meditation—a tool for focus.

Appreciative Inquiry

Residents are prompted to discuss positive narratives or aspects of their work. The theory is that doing so rehearses gratitude and wholesome attitudes that can be an antidote to burnout. Facilitators and other participants are there to support and encourage the resident in their exploration.

Smarticles

Facilitators lead discussion in one or more brief instructive articles in small groups. Examples include "A Great Case," by Jerome Groopman, and "Close Encounters of the Human Kind," by Abraham Verghese.

Our residents have generally regarded this program enthusiastically. The small group size fosters trust and self-revelation. Participants naturally enter a realm unfamiliar to medical training, which is one of expressing themselves from an emotional point of view. This in and of itself is of great value for residents who see part of their training as dissociating themselves from their emotions, to their detriment and perhaps to the detriment of their patients. Frank discussion with other residents who have similar concerns, fears and insecurities eases resident isolation and the feeling of being an imposter. Reflecting on, and examining experience as a means to modify one's assumptions and attitudes is a form of self-improvement in medicine. Doing so lays the groundwork for a practice that is based on positive motivations, as opposed to fear of reprisal. We see this as authentic professional development, the goal being to make medical practice more sustainable and less draining.

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SCIENTIFIC ASSEMBLY

July 11 - 13

FACULTY

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Richard M. Levitan, MD
Gillian Schmitz, MD FACEP

Tuesday July 11

11:00 am-12:30 pm	Board of Directors Meeting
12:30-5:00 pm	Registration
12:30-1:30 pm	Research Forum: Poster Presentations
1:40-3:10 pm	Research Forum: Oral Research
2:30-6:30 pm	Exhibits Open
3:10-3:30 pm	Break and Exhibits
3:30-4:30 pm	New Speakers Forum, Best Practices in Emergency Medicine
4:30-5:30 pm	Top 10 Articles of 2016
5:30-6:30 pm	Exhibits and Networking Reception
9:30 pm	Airway: True Stories from the ER

Wednesday, July 12

6:45 am	Fun Run
7:30-Noon	Registration
7:30-8:00 am	Exhibits and Continental Breakfast
7:30-11:00 am	Exhibits
8:00-9:00 am	Top Plain Film Diagnoses You Don't Want To Miss
9:00-10:00 am	Cric 2.0 - Save Life - Use a Knife
10:00-10:30 am	Break and Exhibits
10:30-11:30 am	Baby on Board : Pregnancy in Trauma
11:30 am-12:30 pm	Toxicology Literature Update
12:45-1:45 pm	New York ACEP Annual Meeting and Legislative Update
1:45-2:15 pm	New York ACEP Committee Meetings
3:00 pm	Residency Volleyball Challenge

Thursday, July 13

7:15-8:00 am	Career Advancement Panel
7:00-8:00 am	Board of Directors Meeting
8:00-8:45 am	Post Traumatic Litigation Stress
8:45-9:30 am	Critical Care Airway Management for the Non - CC Emergency Physician
9:30-10:15 am	Best and Worst of Choosing Wisely
10:15 am	Break
10:30-11:15 am	Incrementalization - Doing Well & Being Well in Emergency Medicine
11:15 am-12:00 pm	"Alternative Truths" to CPR

For more information or to register, go to www.nyacep.org

NEW YORK STATE OF MIND

Compiled By:
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Delays in Door-to-Needle Time for Acute Ischemic Stroke in the Emergency Department: A Comprehensive Stroke Center Experience.

Mowla A, Doyle J, Lail NS, Rajabzadeh-Oghaz H, Deline C, Shirani P, Ching M, Crumlish A, Steck DA, Janicke D, Levy EI, Sawyer RN; Department of Emergency Medicine, University at Buffalo; J Neurol Sci. 2017 May 15; 376:102-105.

BACKGROUND: Current American Stroke Association guidelines recommend initiating intravenous thrombolysis (IVT) for acute ischemic stroke (AIS) within 60min of patient arrival, given the benefits of IVT for AIS are time dependent. This study aimed to identify the delaying factors in door-to-needle time (DTN) in the emergency department of one of the largest comprehensive stroke centers in New York State. We also recommended measures to reduce the delays.

METHODS: We retrospectively reviewed the medical charts of all AIS patients who received IVT in our emergency department patients between April 1, 2012 and December 31, 2015 to identify those with a DTN time of >60min. We categorized the factors causing the delay into different groups. For each group, we recommended measures to reduce the treatment delays.

RESULTS: A total of 487 patients received IVT for AIS during the 3.7-year period. Of these, 96 patients (20.4%) met our DTN time delay criteria. Delays for obtaining stroke imaging and hypertension control were the most common factors. Thirty-eight patients (39.5%) had delay in obtaining CT-based stroke imaging. Twenty-two patients (22.9%) required control of elevated blood pressure prior to IVT. Other causes for delay in DTN time included delay in stroke triage and paging (11.4%), fluctuating neurological symptoms (7.2%), uncertainty about diagnosis (12.5%), delays associated with obtaining consent (9.3%), and uncertainty about the time of symptom onset (5.2%).

CONCLUSION: Important and common causes of delay in IVT for AIS were identified in a review of charts at our comprehensive stroke center. The authors recommend strategies to achieve faster DTN time for each of the delaying factor categories including faster acquisition and interpretation of stroke imaging, more effective triage protocols and faster blood pressure control for AIS patients who are eligible for IVT.

Complexities of Consent: Ethics in the Pediatric Emergency Department.

Dreisinger N, Zapolsky N; Department of Emergency Medicine, Mount Sinai Beth Israel, New York; Pediatr Emerg Care. 2017 Apr 18.

Informed consent is a communicative process of sharing information with patients, which helps assure their understanding of the information provided and asks for their permission to proceed. Informed consent allows a patient or a patient's family to use his or her own value system to determine the need for a particular procedure or test. Asking a patient for permission to treat requires the provider to respect the patient's autonomy through allowing him or her to be an active part of the decision-making process. Consent in the pediatric emergency department can be a complex process. Parental consent is generally required for medical evaluation and treatment of pediatric patients, but in the pediatric emergency department, there are exceptions to this rule. If the provider determines that a parent's refusal of consent places the child at risk of harm, then consent is not necessary. By using the concepts of Emergency Medical Treatment and Active Labor Act, in emergent situations, consent may not be necessary. Finally, adolescents are often deeply concerned about privacy-their acceptance of appropriate care is often based on this promise of confidentiality. In the emergency department, adolescents can therefore be treated for issues relating to reproductive care without parental consent. It is important for the emergency department physician to understand the rules surrounding the care of pediatric patients to avoid compromising their privacy, and ultimately their well-being and medical care.

An Evaluation of a New Debriefing Framework: REFLECT.

Zinns LE, Mullan PC, O'Connell KJ, Ryan LM, Wratney AT; Department of Emergency Medicine, The Icahn School of Medicine at Mount Sinai, NY; Pediatr Emerg Care. 2017 Apr 18.

BACKGROUND: Postresuscitation debriefing (PRD) is recommended by the American Heart Association guidelines but is infrequently performed. Prior studies have identified barriers for pediatric emergency medicine (PEM) fellows including lack of a standardized curriculum.

OBJECTIVE: Our objective was to create and assess the feasibility of a time-limited, structured PRD framework entitled REFLECT, Review the event, Encourage team participation, Focused feedback, Listen to each other, Emphasize key points, Communicate clearly, and Transform the future.

METHODS: Each PEM fellow (n = 9) at a single center was a team leader of a pre-intervention and post intervention videotaped, simulated resuscitation followed by a facilitated team PRD. Our intervention was a two hour interactive, educational workshop on debriefing and the use of the REFLECT debriefing aid. Videos of the pre-intervention and post-intervention debriefings were blindly analyzed by video reviewers to assess for the presence of debriefing characteristics contained in the REFLECT debriefing aid. PEM fellow and team member assessments of the debriefings were completed after each pre-intervention and post-intervention simulation, and written evaluations by PEM fellows and team members were analyzed.

RESULTS: All nine PEM fellows completed the study. There was an improvement in the pre-intervention and post-intervention assessment of the REFLECT debriefing characteristics as determined by fellow perception (63% to 83%, $P < 0.01$) and team member perception (63% to 82%, $P < 0.001$). All debriefings lasted less than five minutes. There was no statistical difference between pre-intervention and post-intervention debriefing time ($P = 1.00$).

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CONCLUSION: REFLECT is a feasible debriefing aid designed to incorporate evidence-based characteristics into a PRD.

Inhaled Steroids Reduce Pain and sVCAM Levels in Individuals with Sickle Cell Disease: A Triple-Blind, Randomized Trial.

Glassberg J, Minnitti C, Cromwell C, Cytryn L, Kraus T, Skloot GS, Connor JT, Rahman AH, Meurer WJ; Department of Emergency Medicine, Icahn School of Medicine at Mount Sinai, New York; Am J Hematol. 2017 Mar 28.

Clinical and preclinical data demonstrate that altered pulmonary physiology (including increased inflammation, increased blood flow, airway resistance and hyperreactivity) is an intrinsic component of SCD and may contribute to excess SCD morbidity and mortality. Inhaled corticosteroids (ICS), a safe and effective therapy for pulmonary inflammation in asthma, may ameliorate the altered pulmonary physiologic milieu in SCD. With this single-center, longitudinal, randomized, triple-blind, placebo controlled trial we studied the efficacy and feasibility of ICS in 54 non-asthmatic individuals with SCD. Participants received once daily mometasone furoate 220 mcg dry powder inhalation or placebo for 16 weeks. The primary outcome was feasibility (the number who complete the trial divided by the total number enrolled) with pre-specified efficacy outcomes including daily pain score over time (patient reported) and change in soluble vascular cell adhesion molecule (sVCAM) levels between entry and eight weeks. For the primary outcome of feasibility, the result was 96% (52 of 54, 95% CI 87% - 99%) for the intent-to-treat analysis and 83% (45 of 54, 95% CI 71% - 91%) for the per-protocol analysis. The adjusted treatment effect of mometasone was a reduction in daily pain score of 1.42 points (95% CI 0.61 - 2.21, p = 0.001). Mometasone was associated with a reduction in sVCAM levels of 526.94 ng/mL more than placebo (95% CI 50.66 - 1,003.23, p = 0.03). These results support further study of ICS in SCD including multi-center trials and longer durations of treatment.

Reliability, Laterality and the Effect of Respiration on the Measured Corrected Flow Time of the Carotid Arteries.

Doctor M, Siadecki SD, Cooper D Jr, Rose G, Drake AB, Ku M, Suprun M, Saul T; Mount Sinai St. Luke's Hospital, New York; J Emerg Med. 2017 Mar 25.

BACKGROUND: Corrected flow time (FTc) measured via sonography of the carotid artery is a novel method that has shown promising results for predicting fluid responsiveness in shock states. It is a rapid and noninvasive examination that can be taught to emergency physicians with ease. However, its reliability has not been assessed, and the effects of several variables, including respiration and side of evaluation, are unclear.
OBJECTIVES: The objectives were to compare carotid FTc during different phases of the respiratory cycle, (at end-inspiration and end-expiration), to compare FTc reproducibility among providers, and to compare FTc on the right and left sides in a given individual.
METHODS: The FTc of both the right and left carotid arteries was measured in 16 healthy volunteers during an inspiratory hold and an expiratory hold. Examinations were completed by three sonographers blinded to previous results and were analyzed for reliability and reproducibility.
RESULTS: Reliability and reproducibility were poor when comparing sonographers under all circumstances. No significant differences were found when comparing left vs. right sides of measurement regardless of respiratory phase.
CONCLUSION: Although this method for predicting fluid responsiveness has many promising aspects, reproducibility between sonographers was found to be poor. No significant difference was found between the two sides of the body or respiratory phase.

Delayed Second Dose Antibiotics for Patients Admitted From the Emergency Department With Sepsis: Prevalence, Risk Factors, and Outcomes.

Leisman D, Huang V, Zhou Q, Gribben J, Bianculli A, Bernshteyn M, Ward MF, Schneider SM; Department of Emergency Medicine, Hofstra-Northwell School of Medicine, Hempstead; Crit Care Med. 2017 Mar 21.

OBJECTIVE: 1) Determine frequency and magnitude of delays in second antibiotic administration among patients admitted with sepsis; 2) Identify risk factors for these delays; and 3) Exploratory: determine association between delays and patient-centered outcomes (mortality and mechanical ventilation after second dose).
DESIGN: Retrospective, consecutive sample sepsis cohort over 10 months.
SETTING: Single, tertiary, academic medical center.
PATIENTS: All patients admitted from the emergency department with sepsis or septic shock (defined: infection, > 2 systemic inflammatory response syndrome criteria, hypoperfusion/organ dysfunction) identified by a prospective quality initiative.
EXCLUSIONS: Less than 18 years old, not receiving initial antibiotics in the emergency department, death before antibiotic redosing, and patient refusing antibiotics.
INTERVENTIONS: We determined first-to-second antibiotic time and delay frequency. We considered delay major for first-to-second dose time greater than or equal to 25% of the recommended interval. Factors of interest were demographics, recommended interval length, comorbidities, clinical presentation, location at second dose, initial resuscitative care, and antimicrobial activity mechanism.
RESULTS: Of 828 sepsis cases, 272 (33%) had delay greater than or equal to 25%. Delay frequency increased dose dependently with shorter recommended interval: 11 (4%) delays for 24-hour intervals (median time, 18.52 hr); 31 (26%) for 12-hour intervals (median, 10.58 hr); 117 (47%) for 8-hour intervals (median, 9.60 hr); and 113 (72%) for six hour intervals (median, 9.55 hr). In multivariable regression, interval length significantly predicted major delay (12 hr: odds ratio, 6.98; CI, 2.33-20.89; 8 hr: odds ratio, 23.70; CI, 8.13-69.11; 6 hr: odds ratio, 71.95; CI, 25.13-206.0). Additional independent risk factors were inpatient boarding in the emergency department (odds ratio, 2.67; CI, 1.74-4.09), initial three hour sepsis bundle compliance (odds ratio, 1.57; CI, 1.07-2.30), and older age (odds ratio, 1.16 per 10 yr, CI, 1.01-1.34). In the exploratory multivariable analysis, major delay was associated with increased hospital mortality (odds ratio, 1.61; CI, 1.01-2.57) and mechanical ventilation (odds ratio, 2.44; CI, 1.27-4.69).
CONCLUSION: Major second dose delays were common, especially for patients given shorter half-life pharmacotherapies and who boarded in the emergency department. They

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were paradoxically more frequent for patients receiving compliant initial care. We observed association between major second dose delay and increased mortality, length of stay, and mechanical ventilation requirement.

The Use of Ketamine for Acute Treatment of Pain: A Randomized, Double-Blind, Placebo-Controlled Trial.

Sin B, Tatunchak T, Paryavi M, Olivo M, Mian U, Ruiz J, Shah B, de Souza S; The Brooklyn Hospital Center, Brooklyn; J Emerg Med. 2017 Mar 6.

BACKGROUND: Pain is one of the most common reasons for emergency department (ED) visits in the United States. Ketamine is a sedative with N-methyl-D-aspartate (NMDA) receptor antagonism. Recent literature has suggested that the use of subdissociative dose ketamine (SDDK) may be safe and effective for acute pain.

OBJECTIVE: The objective of our study was to evaluate ketamine in subdissociative doses as an adjunct for acute pain in the ED.

METHODS: This was a single-center, prospective, randomized, double-blind, placebo-controlled trial that evaluated the use of SDDK in adult patients who presented to the ED with acute pain. Patients received ketamine 0.3 mg/kg via intravenous piggyback over 15 minutes or placebo. Morphine 0.1 mg/kg intravenous push was administered with the study interventions. The primary outcome was the patient's pain score 15 minutes after initiation of the intervention. Secondary outcomes included adverse events, consumption of rescue analgesia, patient's length of stay, and patient satisfaction with treatment.

RESULTS: Thirty patients were enrolled in each group. Median pain scores in patients who received ketamine were lower than in controls at 15 minutes (3.5 interquartile range {IQR} 1.0-7.3 vs. 6.0 [IQR 4.0-9.0], respectively; p=0.018. No serious adverse events occurred. No difference was detected in the amount of rescue analgesia used or in length of stay. Patients who received ketamine reported a higher mean satisfaction score with their pain management (8.57 [standard deviation {SD} 2.1]) than patients who received placebo (6.05 [SD 2.6]; p=0.01.

CONCLUSION: When used as an adjunct, SDDK administered at 0.3 mg/kg over 15 minutes resulted in safe and effective analgesia for < 30 minutes in patients who presented with acute pain in the ED.

A Qualitative Analysis of General Emergency Medicine Providers' Perceptions on Pediatric Emergency Telemedicine.

Kim JW, Tiyyagura G, Langhan M; Division of Pediatric Emergency Medicine, Department of Pediatrics, Weill Cornell Medical College, New York; Pediatr Emerg Care. 2017 Feb 21.

OBJECTIVE: Most children in the United States are evaluated in general emergency departments (ED), which are staffed by practitioners who care for both adults and children and may have limited pediatric resources. The application of telemedicine in pediatrics is growing and has been shown to be effective in outpatient as well as critical care settings. Telemedicine has the potential to address disparities in access to pediatric emergency care. The objective of this study was to explore experiences of general ED providers with telemedicine and their perception about a potential video telemedicine program with pediatric ED providers.

METHODS: Using qualitative methods, a purposeful sample of general ED providers (attending physicians and physician assistants) in three Connecticut hospitals participated in audio-recorded semistructured interviews. In line with grounded theory, three researchers independently coded transcripts, collectively refined codes, and created themes. Data collection and analysis continued in an iterative manner, past the point of theoretical saturation.

RESULTS: Eighteen general ED providers were interviewed. Three themes were identified: (a) familiarity with use in adult stroke patients but limited practical experience with telemedicine; (b) potential uses for pediatric telemedicine (guiding pediatric differential diagnosis and management, visual diagnosis, alleviating provider fears, low-frequency high-stakes events, determining disposition, assessing level of illness, and access to subspecialty consultation); and (c) limitations of telemedicine (infrequent need and implementation barriers).

CONCLUSION: General ED providers identified seven specific potential uses of pediatric emergency video telemedicine. However, they also identified several limitations of telemedicine in caring for pediatric emergency patients. Further studies after implementation of telemedicine program and comparing provider perceptions with actual practice may be helpful. Furthermore, studies on telemedicine's effect on patient-related outcomes and studies on cost-effectiveness might be necessary before the widespread implementation of a telemedicine program.

Validation of the Prognostic Utility of the Electrocardiogram for Acute Drug Overdose.

Manini AF, Nair AP, Vedanthan R, Vlahov D, Hoffman RS; Elmhurst Hospital Center, Queens; J Am Heart Assoc. 2017 Feb 3;6.

BACKGROUND: While it is certain that some emergency department patients with acute drug overdose suffer adverse cardiovascular events (ACVE), predicting ACVE is difficult. The prognostic utility of the ECG for heterogeneous drug overdose patients remains to be proven. This study was undertaken to validate previously derived features of the initial ECG associated with ACVE in this population.

METHODS AND RESULTS: We performed a prospective validation cohort study to evaluate adult emergency department patients with acute drug overdose at two urban university hospitals over 5 years in whom an emergency department admission ECG was performed. Exclusion criteria were alternate diagnoses, anaphylaxis, chronic drug toxicity, and missing outcome data. ACVE was defined as any of the following: circulatory shock, myocardial injury, ventricular dysrhythmia, or cardiac arrest. Blinded cardiologists interpreted ECGs for previously derived predictors of ACVE (ectopy, QT prolongation, nonsinus rhythm, ischemia/infarction), QT dispersion, and prominent R wave in lead AVR. Of 589 patients who met inclusion criteria (48% male, mean age 42), there were 95 ACVEs (39 shock, 64 myocardial injury, 26 dysrhythmia, 16 cardiac arrest). The most common drug exposures were as follows: benzodiazepines, opioids, and acetaminophen. Previously derived criteria were highly predictive of ACVE, with QT correction >500 ms as the highest risk feature (OR 11.2, CI 4.6-27).

CONCLUSION: This study confirms that early ECG evaluation is essential to assess the cardiovascular prognosis and medical clearance of emergency department patients with acute drug overdose. Furthermore, this study validates previously derived high-risk features of the admission ECG to risk stratify for ACVE in this patient population.

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Presence of Alcohol, Cocaine, and Other Drugs in Suicide and Motor Vehicle Crash Decedents Ages 18 to 54.

Conner KR, Lathrop S, Caetano R, Wiegand T, Kaukeinen K, Nolte KB; University of Rochester Medical Center, Rochester; Alcohol Clin Exp Res. 2017 Mar;41(3):571-575.

BACKGROUND: Use of alcohol and select other drugs confer risk for injury deaths, yet how such use compares in different types of injury deaths including suicide and fatal motor vehicle collisions (MVCs) is unclear.

METHODS: Individuals in New Mexico ages 18 to 54 that died in 2012 by suicide or MVC were analyzed. Toxicology results were used to code the presence of alcohol and the presence of one or more drugs including cocaine, opiate (oxycodone, heroin, etc.), or amphetamine or methamphetamine, yielding a four category variable: Alcohol+Drug, Alcohol (without drug), Drug (without alcohol), and Neither (ref). Suicides were compared to MVCs (ref) using unconditional logistic regression analyses adjusted for sex, age, and ethnicity. Poisoning suicides were removed prior to analyses to exclude cases where the drugs may have been used to hasten death.

RESULTS: Analyses were based on 185 suicides and 161 MVCs. Alcohol+Drug was more likely in suicide decedents, AOR (95% CI) 4.33 (1.70, 11.03). Alcohol (without drug) and Drug (without alcohol) did not differ between the groups. Uniquely, all suicides that were positive for cocaine were also positive for alcohol. As follow-up, similar results were obtained in a post hoc analysis that limited the drug exposure variable to cocaine: Alcohol+Cocaine, AOR (95% CI) 4.69 (1.59, 13.88).

CONCLUSION: The co-presence of alcohol and one or more drugs of abuse, particularly cocaine, may be more likely in suicide deaths compared to MVCs. Results may inform prevention efforts targeting specific substances and types of injury.

Early Sepsis Bundle Compliance for Non-Hypotensive Patients with Intermediate Versus Severe Hyperlactemia.

Leisman DE, Zemmel D'Amore JA, Gribben JL, Ward MF, Masick KD, Bianculli AR, Bradburn KH, D'Angelo JK, Doerfler ME; Hofstra-Northwell School of Medicine, Hempstead; Am J Emerg Med. 2017 Jan 15.

OBJECTIVE: To compare the association of 3-h sepsis bundle compliance with hospital mortality in non-hypotensive sepsis patients with intermediate versus severe hyperlactemia.

METHODS: This was a cohort study of all non-hypotensive, hyperlactemic sepsis patients captured in a prospective quality-improvement database, treated October 2014 to September 2015 at five tertiary-care centers. We defined sepsis as 1) infection, 2) SIRS criteria, and 3) organ dysfunction criterion. "Time-zero" was the first time a patient met all sepsis criteria.

INCLUSION CRITERIA: Systolic blood pressure>90 mmHg, mean arterial pressure>65 mmHg, and serum lactate, > 2.2 mmol/L. Primary exposures: 1) intermediate (2.2-3.9 mmol/L) versus severe (> 4.0 mmol/L) hyperlactemia and 2) full 3-h bundle compliance. Bundle elements: The primary outcome was 60-day in-hospital mortality.

RESULTS: 2,417 patients met inclusion criteria. 704 (29%) had lactate, > 4.0 mmol/L versus 1,775 patients with lactate 2.2-3.9 mmol/L. Compliance was 75% for antibiotics and 53% for fluids. Full-compliance was comparable between lactate groups (n=200 (29%) and 488 (28%), respectively). We observed 424 (17.5%) mortalities: intermediate/non-compliant - 182 (14.9%), intermediate/compliant - 41 (8.4%), severe/non-compliant - 147 (29.2%), severe/compliant - 54 (27.0%) [difference-of-differences=4.3%, CI=2.6-5.9%]. In multivariable regression, mortality predictors included severe hyperlactemia (OR=1.99, CI=1.51-2.63) and bundle compliance (OR=0.62, CI=0.42-0.90), and their interaction was significant: p (interaction)=0.022.

CONCLUSION: We observed a significant interaction between 3-h bundle compliance and initial hyperlactemia. Bundle compliance may be associated with greater mortality benefit for non-hypotensive sepsis patients with less severe hyperlactemia.

Acute Salicylate Poisoning: Risk Factors for Severe Outcome.

Shively RM, Hoffman RS, Manini AF(3,)(4). Icahn School of Medicine at Mount Sinai , New York. Clin Toxicol (Phila). 2017 Mar;55(3):175-180.

BACKGROUND: Salicylate poisoning remains a significant public health threat with more than 20,000 exposures reported annually in the United States.

OBJECTIVE: We aimed to establish early predictors of severe in-hospital outcomes in Emergency Department patients presenting with acute salicylate poisoning.

METHODS: This was a secondary data analysis of adult salicylate overdoses from a prospective cohort study of acute drug overdoses at two urban university teaching hospitals from 2009 to 2013. Patients were included based on confirmed salicylate ingestion and enrolled consecutively. Demographics, clinical parameters, treatment and disposition were collected from the medical record. Severe outcome was defined as a composite occurrence of acidemia (pH <7.3 or bicarbonate <16,Eq/L), hemodialysis, and/or death.

RESULTS: Out of 1,997 overdoses screened, 48 patients met inclusion/exclusion criteria. Patient characteristics were 43.8% male, median age 32 (range 18-87), mean initial salicylate concentration 28.1,mg/dL (SD 26.6), and 20.8% classified as severe outcome. Univariate analysis indicated that age, respiratory rate, lactate, coma, and the presence of co-ingestions were significantly associated with severe outcome, while initial salicylate concentration alone had no association. However, when adjusted for salicylate concentration, only age (OR 1.13; 95% CI 1.02-1.26) and respiratory rate (OR 1.29; 95% CI 1.02-1.63) were independent predictors. Additionally, lactate showed excellent test characteristics to predict severe outcome, with an optimal cutpoint of 2.25,mmol/L (78% sensitivity, 67% specificity).

CONCLUSION: In adult Emergency Department patients with acute salicylate poisoning, independent predictors of severe outcome were older age and increased respiratory rate, as well as initial serum lactate, while initial salicylate concentration alone was not predictive.

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CMS Emergency Preparedness Final Rule Basics

What is the Final Rule? The adoption and publication of a proposed government agency rule in the Federal Register is what's known as the Final Rule (FR). The FR is an official publication by the federal government and delineates government agency rules as well as proposed rules and public notices. The Code of Federal Regulations (CFR) is a code of rules and regulations published in the FR by executive departments and agencies of the Federal Government of the United States and updated annually.[1] The FR is a means of announcing changes in government policy to the public.[2] The Center for Medicare and Medicaid Services (CMS) is a federal agency within the United States Department of Health and Human Services (HHS). Federal agencies are authorized to implement rulemaking. Rulemaking is controlled by the Administrative Procedure Act (APA). Part of the process of rulemaking set forth by the APA is what is known as the notice of proposed rulemaking (NPRM). First, proposed new rules are announced. Then there is an NPRM, which is a period of public open comment and participation in the decision making. Finally, there is adoption and publication of the proposed rule in the FR, along with the addressed public comments, at which time it becomes the Final Rule. There are 50 titles in the CFR, each one represents a broad category. Title 42 is Public Health and parts 403, 416, 418, 441, 460, 482, 483, 484, 485, 486, 491, and 494 pertain to Emergency Management.[3]

Final Rule 42 CFR parts 403, 416, 418, 441, 460, 482, 483, 484, 485, 486, 491, and 494 are emergency preparedness requirements put out by CMS. They regulate both suppliers and providers participating in Medicare and Medicaid in planning for natural and man-made disasters. See Table 1[4] for a list of those suppliers and providers that are affected by this rule. The requirements are intended to help coordinate participating suppliers and providers with federal, state, tribal, regional and local emergency preparedness systems. The purpose is to enhance patient safety and establish nationally more coordinated responses to natural and man-made disasters for those served by Medicare and Medicaid-participating facilities. The Final Rule aims to assist in safeguarding human resources, maintaining business continuity and protecting physical resources that allow the facility to function during a disaster. It is a "comprehensive, consistent, flexible and dynamic regulator approach to emergency preparedness that incorporates lessons learned and proven best practices".[5]

What Agency Is Implementing The Final Rule?

Centers for Medicare & Medicaid Services (CMS), Department of Health and Human Services (HHS).

When Was It Published?

September 16, 2016, after a period of open comment.

When Did It Become Effective?

November 15, 2016

When Must It Be Implemented?

November 15, 2017[6]

Who Does The Rule Apply To?

The rule applies to both suppliers and providers participating in Medicare and Medicaid. There are 17 suppliers and providers in both the inpatient and outpatient setting (Table 1). See Table 2[7] for a list of Final Rule sections pertaining to those suppliers and providers.[8]

Why Were The Rules Established?

They were established as a result of lessons learned from past natural and man-made disasters such as the September 11, 2001 terrorist attacks, the subsequent anthrax attacks, the catastrophic hurricanes in the Gulf Coast states in 2005, flooding in the Midwestern states in 2008, the 2009 H1N1 influenza pandemic, tornadoes and floods in the spring of 2011, and Hurricane Sandy in 2012 combined with best practices of the present.[9]

Elements Of The Emergency Preparedness Program

Suppliers and providers need to adhere to the four elements of the program:

1. Risk Assessment and Emergency Planning
2. Policies and Procedures
3. Communications Plan
4. Training and Testing

Risk Assessment and Emergency Planning

Hospitals must have an emergency preparedness program as well as an emergency preparedness plan. The plan itself must comply with both Federal and State requirements and must be reviewed at least annually. During annual reviews, staff must be trained on the policies and procedures. The reviews must compromise revisions based on any man made or natural disasters. Prior to establishing the plan, a risk assessment must be performed. The risk assessment and emergency planning element mandates facilities to conduct "all hazards" risk assessments that are specific to the location of the facility and consider hazards most likely to occur in that particular area. More information on an all hazards risk assessment can be found on the Federal Emergency Management Agency (FEMA) National Preparedness System web site located at: https://www.fema.gov/threat-andhazard-identifica-

tion-and-riskassessment.[10] In providing the risk assessment the provider should use an "all hazards approach". Rather than plan for many different threat scenarios, it would focus on capabilities critical to a full range of emergencies and disasters. Thus it doesn't specify every threat but ensures that a broad range of emergencies are addressed. Hospitals should identify operations essential to business functions, identify all reasonable risks posed to the hospital, identify contingencies to plan for, consider all hospital locations for patient care and business operations, assess the extent to which operations may be halted or curtailed due to disaster and determine what arrangements by other suppliers need to be in place during an emergency.[11]

Policies and Procedures

Facilities must develop and implement policies and procedures that support the successful execution of the emergency plan and risks identified during the risk assessment process. For FEMA's preparedness guide on developing and maintain emergency operations plans visit https://www.fema.gov/media-librarydata/20130726-1828250450014/cpg_101_comprehensive_preparedness_guide_developing_and_maintaining_emergency_operations_plans_2010.pdf.[12]

These policies and procedures must be updated at least annually. Revisions should be made based on any emergencies that occurred with the hospital or the community. The plan should address emergencies identified in the risk assessment and include strategies to address these risks. The plan needs to address at risk populations including those with disabilities, institutionalized, diverse cultures, non-English speaking, pharmacologic dependencies, those without transportation, those with chronic medical conditions and children. Delineation of authority during a disaster needs to be made clear in the plan in order to be able to implement the plan promptly when needed. In addition, there must be documented efforts to collaborate with local, tribal, regional, state or federal emergency management officials with the thought that planning in advance would achieve a more efficient response. Issues to be addressed in the plan include subsistence needs for staff and patients including food, water and medical; surge capacity; alternate energy for temperature control, emergency lighting, fire detection and extinction and alarms; on duty staff and sheltered patient tracking upon as well as on evacuation; HIPPA compliant documentation; evacuation procedures; shelter in place procedures; stocking of pharmaceuticals; use of volunteers; sewage and waste disposal.[13]

Communications Plan

Hospitals and all providers/suppliers must develop and maintain an emergency preparedness communication plan and update it annually. It should incorporate a system to contact staff, patients' treating physicians, entities providing services under arrangement, other hospitals and volunteers in a timely manner to ensure continued patient care and have up to date contact information for these entities as well as contact information for local, state, federal, tribal and regional contact information for emergency preparedness staff and other assistance sources. Hospitals need a primary and alternate means of communication with staff and federal, state, tribal, regional or local emergency preparedness staff as well as other assistance sources. There must be a HIPAA compliant means of sharing healthcare information with other facilities as needed for continuity of care. In the event of evacuation, there must be a means of releasing patient information. Hospitals must be able to communicate the general condition and location of patients and the means of providing hospital status information such as occupancy and needs. These communications plans must comply with local laws.[14]

Training and Testing

CMS requires facilities to develop an emergency preparedness training and testing program. This includes initial training for new and existing staff as well as annual refresher training and documentation of such training maintained. Drills and exercises must be conducted annually. For more information on developing a training program visit The Homeland Security Exercise and Evaluation Program (HSEEP), developed by FEMA, which includes a section on the establishment of a Training and Exercise Planning Workshop (TEPW). The TEPW section provides guidance to organizations in conducting an annual TEPW and developing a multi-year Training and Exercise Plan (TEP) in line with the (HSEEP): http://www.fema.gov/medialibrary-data/20130726-1914-250458890/hseep_apr13_.pdf.[15] For drills, there must be annual full-scale exercise, ideally community based but if unavailable, facility based. Of note, an actual man made or nature disaster causing activation of the emergency plan would exempt the facility for one year of this requirement following the actual event. One second exercise must be performed, either full-scale or tabletop format. Facilities are to analyze and document the response and revise the emergency plan as necessary based on testing.[16]

One added piece for hospitals, long term care facilities and critical access hospitals is an emergency fuel and generator testing requirement. Hospitals must adopt the 2012 NFPA edition of the Life and Safety Code, specifically in regard to storing emergency fuel and other associated equipment and systems as well as inspection and testing. Systems must be secure from natural or man-made disasters. There must be a plan to keep operations functioning during a disaster unless the facility is evacuated. It must address alternate sources of energy to protect patient's health and safety as well as enable storage of provisions in a safe and sanitary manner. The expectation is that emergency lighting, alarms systems, extinguishers and fire alarms remain functional.[17]

Finally, if the facility is part of a healthcare system, it may elect to have a unified emergency preparedness program. Each facility must have participated in the program's development. The uniqueness of each facility, including patient population and services, must be taken into account. Each facility must be in compliance with the capability of using the unified plan. The plan must be based on each individual facility's own risk assessment and all hazards approach.[18]

In summary, the four core elements that the 17 provider and suppliers are required to meet is well summarized by the Assistant Secretary for Preparedness and Response (ASPR) and Technical Resources Assistance Center and Information Exchange (TRACIE):

1. "Emergency plan—Develop an emergency plan based on a risk assessment and using an "all-hazards" approach, which will provide an integrated system for emergency planning that focuses on capacities and capabilities.

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2. Policies and procedures—Develop and implement policies and procedures based on the emergency plan and risk assessment that are reviewed and updated at least annually. For hospitals, Critical Access Hospitals (CAHs), and Long-Term Care (LTC) facilities, the policies and procedures must address the provision of subsistence needs, such as food, water and medical supplies, for staff and residents, whether they evacuate or shelter in place.
3. Communication plan—Develop and maintain an emergency preparedness communication plan that complies with federal, state and local laws. Patient care must be coordinated within the facility, across healthcare providers, and with state and local public health departments and emergency management systems to protect patient health and safety in the event of a disaster.
4. A training and testing program—Develop and maintain training and testing programs, including initial training in policies and procedures. Facility staff will have to demonstrate knowledge of emergency procedures and provide training at least annually. Facilities must conduct drills and exercises to test the emergency plan or participate in an actual incident that tests the plan."[19]

The Final Rule is a comprehensive and detailed set of emergency preparedness requirements put out by CMS. Above is an overview of the highlights taken from the Federal Register 81 FR 63859 pages 63860-63889. The full plan can be viewed at: https://www.federalregister.gov/documents/2016/09/16/2016-21404/medicare-and-medicaid-programs-emergency-preparedness-requirements-for-medicare-and-medicaid. For a concise chart of requirements by provider type see Table 3: CMS at a Glance Chart with High Level Requirements by Provider Type.[20] Finally, a more in depth but still concise look specifically at hospital requirements can be found in Table 4.[21]

Personnel not involved in Emergency Management planning but working as providers should expect to have knowledge of their Emergency Preparedness Plan and be aware of annual updates. Providers should know generally what their role would be should a disaster strike and keep contact information up-to-date and accurate with their administration. They need to participate in initial as well as annual emergency management staff training. Finally, be prepared at home. Have a family emergency plan hashed out and put together a home kit and a go kit. For a helpful Emergency Supply list provided by FEMA go to: https://www.fema.gov/media-library-data/1390846764394-dc08e309debe561d-866b05ac84daf1ee/checklist_2014.pdf. For additional tips from FEMA on making a plan: https://www.ready.gov/make-a-plan.

TABLE 1: PROVIDER AND SUPPLIER TYPES (17)

• Ambulatory Surgical Centers (ASCs)(Outpatient)
• Clinics, Rehabilitation Agencies, and Public Health Agencies as Providers of Outpatient Physical Therapy and Speech-Language Pathology Services (Outpatient)
• Community Mental Health Centers (CMHCs) (Outpatient)
• Comprehensive Outpatient Rehabilitation Facilities (CORFs) (Outpatient)
• Critical Access Hospitals (CAHs) (Inpatient)
• End-Stage Renal Disease (ESRD) Facilities (Outpatient)
• Home Health Agencies (HHAs) (Outpatient)
• Hospices (Inpatient and Outpatient)
• Hospitals (Inpatient)
• Intermediate Care Facilities for Individuals with Intellectual Disabilities (ICF/IID) (Inpatient)
• Long-Term Care (LTC) Facilities (Inpatient)
• Organ Procurement Organizations (OPOs) (Outpatient)
• Programs of All-Inclusive Care for the Elderly (PACE) (Outpatient)
• Psychiatric Residential Treatment Facilities (PRTFs) (Inpatient)
• Religious Nonmedical Health Care Institutions (RNHCIs) (Outpatient)
• Rural Health Clinics (RHCs) and Federally Qualified Health Centers (FQHCs)
• Transplant Centers (Inpatient)

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TABLE 2. AFFECTED PROVIDER AND SUPPLIER TYPES

Inpatient		Outpatient	
	Final Rule Reference	**Facility Type**	**Final Rule Reference**
Critical Access Hospitals (CAHs)	Section II. N	Ambulatory Surgical Centers (ASCs)	Section II. E
	Section II. F	Clinics, Rehabilitation Agencies, and Public Health Agencies as Providers of Outpatient Physical Therapy and Speech-Language Pathology Services	Section II. O
Hospitals	Section II. C	Community Mental Health Centers (CMHCs)	Section II. P
	Section II. D	Comprehensive Outpatient Rehabilitation Facilities (CORFs)	Section II. M
Long Term Care (LTC)	Section II. J	End-Stage Renal Disease (ESRD) Facilities	Section II. S
	Section II. G	Home Health Agencies (HHAs)	Section II. L
Religious Nonmedical Health-care Institutions (RNHCIs)	Section II. D	Hospices	Section II. F
	Section II. I	Organ Procurement Organizations (OPOs)	Section II. Q
		Programs of All Inclusive Care for the Elderly (PACE)	Section II. H
		Rural Health Clinics (RHCs) and Federally Qualified Health Centers (FQHCs)	Section II. R

TABLE 3: CMS AT A GLANCE CHART WITH HIGH LEVEL REQUIREMENTS BY PROVIDER TYPE

Inpatient					
Provider Type	**Emergency Plan**	**Policies and Procedures**	**Communication Plan**	**Training and Testing**	**Additional Requirement**
Hospital	Develop a plan based on risk assessment using an "all hazards" approach, which is an integrated approach focusing on capacities and capabilities critical to preparedness for a full spectrum of emergencies and disasters. The plan must be updated annually.	Develop and implement policies and procedures based on the emergency plan, risk assessment, and communication plan which must be reviewed and updated at least annually. System to track-on-duty staff & sheltered patients during the emergency.	Develop and maintain an emergency preparedness communication plan that complies with both federal and state laws. Patient care must be well-coordinated within the facility, across health care providers and with state and local public health departments and emergency systems. The plan must include contact information for other hospitals and CAHs; method for sharing information and medical documentation for patients.	Develop and maintain training and testing programs, including initial training in policies and procedures and demonstrate knowledge of emergency procedures and provide training at least annually. Also annually participate in: • A full-scale exercise that is community- or facility-based; • An additional exercise of the facility's choice.	Generators–Develop policies and procedures that address the provision of alternate sources of energy to maintain: (1) temperatures to protect patient health and safety and for the safe and sanitary storage of provision; (2) emergency lighting; and (3) fire detection, extinguishing, and alarm systems.
Critical Access Hospital	*	*	*	*	Generators
Long Term Care Facility	Must account for missing residents (existing requirement).	Tracking during and after the emergency applies to on-duty staff and sheltered residents.	In the event of an evacuation, method to release patient information consistent with the HIPAA Privacy Rule.	*	Generators Share with resident/family/representative appropriate information from emergency plan.
PRTF	*	Tracking during and after the emergency applies to on-duty staff and sheltered residents.	*	*	

EMS

Inpatient					
Provider Type	**Emergency Plan**	**Policies and Procedures**	**Communication Plan**	**Training and Testing**	**Additional Requirement**
ICF/IDD	Must account for missing residents (existing requirement).	Tracking during and after the emergency applies to on-duty staff and sheltered clients.		*(current requirement)	Share with client/family/representative appropriate information from emergency plan.
RNHCI	*	*	Does not include the requirement to coordinate with state or federally designed healthcare professionals.	No requirement to conduct drills.	
Transplant Center	*	*	*	*	Maintain agreement with transplant center & OPO.

Outpatient Providers Outpatient providers are not required to provide subsistence needs for staff and patients.					
Provider Type	**Emergency Plan**	**Policies and Procedures**	**Communication Plan**	**Training and Testing**	**Additional Requirement**
Hospice	*	In home services–inform officials of patients in need of evacuation (additional requirement). Home-based hospices not required to track staff and patients.	In home services–will not need to provide occupancy information.	*	
Ambulatory Surgical Center	*	*	Will not need to provide occupancy information. Not required to develop arrangements with other ASCs and other providers to receive patients in the event of limitations or cessation of operations. Not required to include the names and contact information for "other ASCs" in the communication plan.	Community based drill not required.	
PACE	*	Inform officials of patients in need of evacuation (additional requirement). Tracking during and after the emergency applies to on-duty staff and sheltered participants.	*	*	
Home Health Agency	*	Will not require shelter in place, provision of care at alternate care sites inform officials of patients in need of evacuation. HHAs not required to track staff and patients.	Will not need to provide occupancy information. Not required to include the names and contact information for other HHAs in the communication plan. Not required to develop arrangements with other HHAs.	*	HHAs must have policies in place for following up with patients to determine services that are still needed. In addition, they must inform state and local officials of any on-duty staff or patients that they are unable to contact.
CORF	Must develop emergency plan with assistance from fire, safety experts (existing requirement).	Will not need to provide transportation to evacuation locations, or have arrangements with other CORFs to receive patients, and not required to track staff and patients.	Will not need to provide occupancy information.		

CMHC	*	Tracking during and after the emergency applies to on-duty staff and sheltered clients.	*	*	
OPO	Address type of hospitals OPO has agreement (additional requirement).	Needs to have systems to track staff during & after emergency and maintain medical documentation (additional requirement).	Does not need to provide occupancy information, method of sharing patient information, providing information on general condition & location of patients.	Only tabletop exercise.	Must maintain agreement with other OPOs & hospitals.
Clinics, Rehabilitation, and Therapy	Must develop emergency plan with assistance from fire, safety experts. Address location, use of alarm systems and signals & methods of containing fire (existing requirements).	*Not required to track staff and patients.	Does not need to provide occupancy information.	*	
RHC/FQHC	*	Does not have to track staff and patients, or have arrangements with other RHCs to receive patients or have alternate care sites.	Does not need to provide occupancy information.	*	
ESRD	Must contain local emergency preparedness agency annually to ensure dialysis facility's needs in an emergency (existing requirement).	Policies and procedures must include emergencies regarding fire equipment, power failures, care related emergencies, water supply interruption & natural disasters (existing requirement). Tracking during and after the emergency applies to on-duty staff and sheltered patients.	Does not need to provide occupancy information.	Ensure staff demonstrate knowledge of emergency procedures, informing patients what to do, where to go, whom to contact if emergency occurs while patient is not in facility (alternative emergency phone number), how to disconnect themselves from dialysis machine. Staff maintain current CPR certification, nursing staff trained in use of emergency equipment & emergency drugs, patient orientation (existing requirements).	

TABLE 4. CMS EMERGENCY PREPAREDNESS CONDITIONS OF PARTICIPATION FOR HOSPITALS

CMS Emergency Preparedness Conditions of Participation Language	CMS Emergency Preparedness Conditions of Participation Reference	DNV-GL Healthcare www.dnvglhealthcare.com	The Joint Commission Standards www.jointcommission.org	NFPA 1600 (2016)	NFPA 99
October 2016	482.15	2014 V. 11	2016	2016	2012 Edition
Require both an emergency preparedness program and an emergency preparedness plan.	482.15	PE.6 SR. 1 EMERGENCY MANAGEMENT SYSTEM	EM.02.01.01 - General Requirements		12.2.2.3 12.2.3.2 12.4.1 12.5.1
Comply with all applicable federal, state and local emergency preparedness requirements. The emergency plan must be reviewed and updated at least annually.	482.15		EM.02.01.01 General Requirements EM.03.01.01 (EP 2) Evaluation		12.2.3.3 12.4.1.2 12.5.3.6.1
The emergency plan must be based on and include a documented facility based and community based risk assessment utilizing an all hazards approach.	482.15 (a) 1	PE. 6 SR. 3 EMERGENCY MANAGEMENT	EM.01.01.01 (EP 2, 3, 5) - Foundation for the Emergency Operations Plan EM.03.01.01 (EP 1)	4.4.2 5.1.3 5.1.4 5.2.1	12.5.2 12.5.3.1

EMS

CMS Emergency Preparedness Conditions of Participation Language	CMS Emergency Preparedness Conditions of Participation Reference	DNV-GL Healthcare www.dnvglhealthcare.com	The Joint Commission Standards www.jointcommission.org	NFPA 1600 (2016)	NFPA 99
The emergency plan includes strategies for addressing emergency events identified by the risk assessment.	482.15 (a) 2	PE. 6 SR. 3 EMERGENCY MANAGEMENT	EM.01.01.01 (EP 5,6) - Foundation for the Emergency Operations Plan	5.1.5 6.6.2	12.5.3.2 12.5.3.3
The emergency plan must address the patient population including but not limited to, persons at risk, the types of services that the facility would be able to provide in an emergency; continuity of operations, including delegations of authority and succession plans.	482.15 (a) 3		EM.02.01.01 (EP 3, 7, 8) General Requirements LD.01.04.01 (EP 11) Chief Executive Responsibilities	5.2.2.2	12.2.2.3 12.5.3.1.3(1) 12.5.3.2.3(11) 12.5.3.3.6.4
Have a process for ensuring cooperation and collaboration with local, tribal, regional, state, or federal emergency preparedness officials' efforts to maintain an integrated response during a disaster or emergency situation, including documentation of the facility efforts to contact such officials and, when applicable, its participation in collaborative and cooperative planning efforts.	482.15 (a) 4		EM.01.01.01 (EP3, 4, 7)- Foundation for the EOP EM.02.02.01 (EP 4)- Communications		12.2.3.3 12.5.3.3.6.1(2) (6)
POLICIES AND PROCEDURES					
Develop and implement emergency preparedness policies and procedures based on the emergency plan set forth in (a) and (a) (1) and the communications plan section (C). The policies and procedures must be reviewed and updated at least annually.	482.15 (b) (1) (i-ii) A-D		EM.02.01.01 (EP 2)- General Requirements		12.5.3.3.5 12.5.3.3.6.1 12.5.3.6.1
The policies and procedures must address (1) the provision of subsistence needs for staff and patients whether they evacuate or shelter in place including but not limited to (i) food, water, medical and pharmaceutical supplies (ii) alternate sources of energy to maintain: (A) temperatures to protect patient health and safety and for the safe and sanitary storage of provisions (B) emergency lighting (C) fire detection, extinguishing and alarm systems.	482.15 (b) (1) (i-ii) A-C	PE.6 SR. 2 EMERGENCY MANAGEMENT	EM.02.02.07 (EP 5)- Staff EM.02.02.09 (EP 2, 3, 4, 5, 7)- Utilities EC 02.05.03 (EP 1, 3)- Utilities EC.02.06.01 Other Physical Environment Requirements		12.5.3.3.6.2 12.5.3.3.6.4(7) (8) 12.5.3.3.6.5 12.5.3.3.6.6
The policies and procedures must address... (D) sewage and waste disposal.	482.15 (b) (1) (ii) (D)		EC.02.02.01 (All EP) - Hazardous Materials and Waste IC.02.02.01 (EP3) Medical Equipment, Devices and Supplies		12.5.3.3.6.2 12.5.3.3.6.4(7) (8) 12.5.3.3.6.5 12.5.3.3.6.6
Develop a system to track the location of on-duty staff and sheltered patients in the facility's care during an emergency. If on-duty staff or sheltered patients are relocated during the emergency the hospital must document the specific name and location of the receiving facility or other location.	482.15 (b) 2		EM 02.02.03 (EP 9) - Resources and Assets EM.02.02.11 (EP 8) - Patients		12.5.3.3.6.4(9)
Have policies and procedures in place to ensure the safe evacuation from the facility, which includes consideration of care and treatment needs of evacuees; staff responsibilities; transportation; identification of evacuation location(s); and primary and alternate means of communication with external sources of assistance.	482.15 (b) 3	PE.6 EMERGENCY MANAGEMENT SYSTEM SR.7	EM 02.02.03 (EP 9) - Resources and Assets EM.02.02.11 (EP 3) - Patients		12.5.3.3.6.1(3) (4) 12.5.3.3.6.2(7) 12.5.3.3.6.4(1) (6)(7)(8)(9) 12.5.3.3.6.8
Have a means to shelter in place for patients, staff and volunteers who remain in the facility.	482.15 (b) 4	PE.6 EMERGENCY MANAGEMENT SYSTEM SR.7	EM 02.02.03 (EP 1-6) - Resources and Assets		12.5.3.3.3 12.5.3.3.6

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CMS Emergency Preparedness Conditions of Participation Language	CMS Emergency Preparedness Conditions of Participation Reference	DNV-GL Healthcare www.dnvglhealthcare.com	The Joint Commission Standards www.jointcommission.org	NFPA 1600 (2016)	NFPA 99
Have a system of medical documentation that preserves patient information, protects the confidentiality of patient information and secures and maintains availability of records.	482.15 (b) 5		EM.02.02.03 - Resources and Assets EP 10 EM.02.02.11 - Patients EP 3, 8 IM.01.01.03 Planning and Management of Information IM.02.02.01 Protecting the Privacy of Health Information	4.7.2	12.5.3.3.6.1(4)
Have policies and procedures in place to address the use of volunteers in an emergency and other emergency staffing strategies, including the process and role for integration of state or federally designated health care professionals to address surge needs during an emergency.	482.15 (b) 6	PE. 6 SR.4 EMERGENCY MANAGEMENT MS.13 SR.4 TEMPORARY CLINICAL PRIVILEGES	EM.02.02.07 (EP 9)- Staff EM.02.02.13 (All EPs)- Volunteers EM.02.02.15 (All EPs) - Volunteer Practitioners MS.01.01.01 (EP 14) - Medical Staff Bylaws MS.06.01.13- Credentialing and Privileging	6.9.1.2	12.5.3.4.5
The development of arrangements with other hospitals and other providers to receive patients in the event of limitations or cessation of operations to maintain the continuity of services to hospital patients.	482.15 (b) 7	PE. 6 SR.3 EMERGENCY MANAGEMENT	EM.02.02.03 (EP 9) - Resources and Assets	6.9.1.2	
Policies and procedures to address the role of the hospital under a waiver declared by the Secretary, in accordance with section 1135 of the Act, for the provision of care and treatment at an alternate care site (ACS) identified by emergency management officials.	482.15 (b) (8)		EM.02.01.01 (EP 7)- General Requirements		
COMMUNICATION PLAN					
Be required to develop and maintain an emergency preparedness communication plan that complies with local, state and federal law and required to review and update the communication plan at least annually.	482.15 (c)	PE.6 SR. 1 EMERGENCY MANAGEMENT	EM.02.02.01 (All EPs)- General Requirements	6.4	12.5.3.3.6.1
As part of its communication plan include in its plan, names and contact information for staff; entities providing services under arrangement; patients' physicians, other hospitals and CAHs and volunteers.	482.15 (c) 1		EM.02.02.01 (EP 1, 2, 7, 8, 9, 10) - Communication	6.4.1	
Require contact information for federal, state, tribal, regional, or local emergency preparedness staff and other sources of assistance.	482.15 (c) 2		EM.02.02.01 (EP 3 -13) - General Requirements	6.4.1	12.5.3.3.6.1(6)
Include primary and alternate means for communicating with hospital staff and federal, state, tribal, regional, and local emergency management agencies.	482.15 (c) 3		EM.02.02.01 (EP 14) - General Requirements	6.4.1	12.5.3.3.6.1
Include a method for sharing information and medical documentation for patients under the hospital's care, as necessary, with other health care providers to maintain continuity of care.	482.15 (c) 4		EM.02.02.01 (EP 11, 12) - General Requirements		12.5.3.3.6.1(4)
Have a means, in the event of an evacuation, to release patient information as permitted under 45 CFR 164.510.	482.15 (c) 5		EM.02.02.01 (EP 5, 12) - General Requirements	6.4.1	12.5.3.3.6.1(4)

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CMS Emergency Preparedness Conditions of Participation Language	CMS Emergency Preparedness Conditions of Participation Reference	DNV-GL Healthcare www.dnvglhealthcare.com	The Joint Commission Standards www.jointcommission.org	NFPA 1600 (2016)	NFPA 99
Have a means of providing information about the general condition and location of patients under the facility's care, as permitted under 45 CFR 164.510(b)(4).	482.15 (c) 6		EM.02.02.01 (5, 6, 12) -General Requirements		12.5.3.3.6.1(4)
Have a means of providing information about the hospital's occupancy, needs, and its ability to provide assistance, to the authority having jurisdiction or the Incident Command Center, or designee.	482.15 (c) 7		EM.02.02.01 (EP 4) - General Requirements		12.5.3.3.6.1(2)(6)
TRAINING AND TESTING					
Develop and maintain an emergency preparedness training and testing program based on the emergency plan, risk assessment, policies and procedures and communications plan. The training and testing program must be reviewed and updated annualy.	482.15 (d)	Staffing Management SM.4 ORIENTATION	HR 01.04.01 (EP 1,2,3) - Orientation EM 02.02.07 (EP 7) - Staff EM.03.01.03 (EP 1) - Evaluation	7.1	12.3.3.10
Provide initial training in emergency preparedness polies and procedures to all new and existing staff, individuals providing on-site services under arrangement and volunteers consistent with their expected roles. Provide this training annually and maintain documentation of all emergency preparedness training along with demonstration of staff knowledge of emergency procedures.	482.15 (d) 1	Staffing Management SM.4 SR.1 ORIENTATION	HR 01.04.01 (EP 1,2,3) - Orientation EM 02.02.07 (EP 7) - Staff	7.1	12.3.3.10
Conduct exercises to test the emergency plan at least annually.	482.15 (d) 2	PE 6 SR.4 EMERGENCY MANAGEMENT	EM.03.01.03 - Evaluation	8.1.1 8.5.1	12.3.3.10
Participate in a full scale exercise that is community based or when community based exercise is not accessible, individual, facility-based.	482.15 (d) 2	PE.6 EMERGENCY MANAGEMENT SYSTEM SR.4	EM.03.01.03 (EP 4, 5) - Evaluation		
If the facility experiences and actual natural or man made emergency that requires activation of the emergency plan, the facility is exempt from engaging in a community based or individual, facility based full-scale exercise for one year following the onset of the actual event.	482.15 (d) 2	PE 6 SR.4 EMERGENCY MANAGEMENT	EM.03.01.03 (EP 1) - Evaluation		
Conduct a second exercise that may include but is not limited to a second full-scale exercise that is individual, facility based; a tabletop exercise that includes a group discussion led by a facilitator using a narrated, clinically relevant emergency scenario and a set of problem statements, directed messages or prepared questions designed to challenge the emergency plan.	482.15 (d) 2	PE.6 EMERGENCY MANAGEMENT SYSTEM SR.4	EM.03.01.03 (EP 1) - Evaluation		12.3.3.2
Analyze the response to and maintain documentation of all drills, tabletop exercises and emergency events and revise the facility emergency plan as needed.	482.15 (d) 2	PE.6 EMERGENCY MANAGEMENT SYSTEM SR.4c	EM.03.01.03 (EP 6-16) - Evaluation		12.3.3.2
EMERGENCY AND STANDBY POWER SYSTEMS					
Emergency and standby power systems- The hospital must implement emergency and standby power systems based on the emergency plan set forth in paragraph (a) of this section and in the policies and procedures plan set forth in paragraphs (b)(1)(i) and (ii) of this section.	482.15 (e)		EM.02.02.09 (EP 8) EC.02.05.07 (EP 7) – Note that this requirement is to run this test every 36 months not every 12 as the rule would be.		12.3.3.2

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CMS Emergency Preparedness Conditions of Participation Language	CMS Emergency Preparedness Conditions of Participation Reference	DNV-GL Healthcare www.dnvglhealthcare.com	The Joint Commission Standards www.jointcommission.org	NFPA 1600 (2016)	NFPA 99
Emergency generator location. The generator must be located in accordance with the location requirements found in the Health Care Facilities Code (NFPA 99 and Tentative Interim Amendments TIA 1-2, TIA 12-3, TIA 12-4, TIA 12-5, and TIA 12-6), Life Safety Code (NFPA 101 and Tentative Interim Amendments TIA 12-1, TIA 12-2, TIA 12-3, and TIA 12-4), and NFPA 110, when a new structure is built or when an existing structure or building is renovated.	482.15 (e) (1)	PE. 6 SR. 2. EMERGENCY MANAGEMENT SR.2	EC 02.05.03 (All EP) - Utilities EM 02.02.09 (All EPs) - Utilities		Section 3-4
Emergency generator inspection and testing. The facility must implement emergency power system inspection and testing requirements found in the Health Care Facilities Code, NFPA 110, and the Life Safety Code.	482.15 (e) (2)	PE. 6 SR.2 EMERGENCY MANAGEMENT	EC.02.05.07 (EP 7)- Utilities EM.02.02.09 (EP 8) - Utilities		
Emergency generator fuel. CAHs that maintain an onsite fuel source to power emergency generators must have a plan for how it will keep emergency power systems operational during the emergency, unless it evacuates.	482.15 (e) (3)	PE. 6 SR.2 EMERGENCY MANAGEMENT	EM.02.02.09 (EP 2, 5 ,8) - Utilities		
INTEGRATED HEALTHCARE SYSTEMS					
If the facility is part of a healthcare system consisting of multiple separately certified healthcare facilities that elects to have a unified and integrated emergency preparedness program, the facility may choose to participate in such a program.	482.15 (f)				
Demonstrate that each separately certified facility within the system actively participated in the development of the unified and integrated emergency preparedness program.	482.15 (f) 1				
The unified and integrated emergency preparedness program must be developed and maintained in a manner that takes into account each separately certified facility's unique circumstances, patient populations and services offered.	482.15 (f) 2				
Demonstrate that each separately certified facility is capable of actively using the unified and integrated emergency preparedness program and is in compliance.	482.15 (f) 3				
Include a unified and integrated emergency plan that meets all standards of paragraphs (a) (2), (3), and (4) of this section.	482.15 (f) 4				
The plan must be based on a community risk assessment using an all-hazards approach with each separately certified facility within the health system having a documented individual facility based risk assessment.	482.15 (f) 5				

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ASK THE EXPERTS

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Depression, Suicide and Resiliency Among EM Physicians

On March 31, 2017, I had the opportunity to interview Dr. Megan Fix and Dr. Loice Swisher on the topic of depression, suicidality and resilience among physicians.

Megan Fix, MD FACEP is an Assistant Professor of Surgery (Emergency Medicine) at the University of Utah School of Medicine. She is also the Associate Program Director for the Emergency Medicine Residency Program, the Course Director for the School of Medicine Transitions to Internship Course as well as the Director of Faculty Mentoring for the School of Medicine Student Affairs office.

Loice Swisher, MD has been an ED nocturnist at Mercy Philadelphia Hospital for 20 years and is a Clinical Associate Professor at Drexel University College of Medicine. Her focus is on Physician Resilience and Suicide Prevention and is a member of the AAEM Wellness Committee as well as Chair of the CORD Metal Health Task Force. She is also a professional member of the American Association of Suicidology.

1. INT - How did you get involved in this important topic?

LS – In January 2016, Chris Doty, MD, the Residency Director at the University of Kentucky, sent an e-mail to the CORD listserv stating that one of his residents killed himself. When I read the e-mail I could feel how devastated he was. Even more than that, I felt that I knew the story of the resident. That was because I seriously contemplated suicide when my then-five year old daughter was devastated neurologically after surgery for a cancerous brain tumor. The resident's story touched me.

I chose a different path. I considered myself dead and suppressed all my dreams and hopes and desires for 16 years until this e-mail came across my computer. As I read it, I knew how it could happen and I knew how it could be missed. Before this I hadn't had the courage to talk about it, but it seemed so painful that I really needed to find a way to open that conversation that's been in the shadows for too long.

MF – I have personal experience with depression and suicidality as a second year resident. I had a very hard time. I was very lucky to have a very supportive Program Director and Assistant Program Director that helped me get the counseling and resources that I needed. It really changed my life, going through a period of dark despair and the nadir of my life. I think a lot of residents and attendings have similar experiences. For me, I feel the physician culture has a hard time openly discussing our own feelings. We think it will be considered a sign of weakness. One thing that makes me feel very passionate about this topic is trying to be open and honest about ourselves so that we can do a better job of helping ourselves and helping each other. It has been an important topic for me since I was a resident, but it wasn't really until I was involved in CORD that I have been more open about my own story.

2. INT - Is this issue of depression only a resident problem or is this an issue that affects attending physicians as well?

LS – It definitely affects attendings. It's not only a resident problem. We don't have good numbers on depression or suicide because deaths are tracked as "trauma" or "overdose" and some of those may actually be suicides but aren't counted that way. So we don't know. Clearly, once someone enters medical school, the risk of depression and suicide goes up.

MF – This is an everyone problem. Right now we are very focused on residents because the ACGME has placed a focus on resident wellness. This is a very good thing. Doctors in general have a higher rate of depression and suicide than the general population. Studies vary and it is hard to get accurate numbers. But people are starting to come out and talk about this. There are blogs and posts on the internet about physicians who attempted suicide. I don't think anyone is immune to it. The big thing is to identify it and make sure we are intervening when needed.

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3. INT - What do you think is responsible for the increased incidence of depression and suicidality among physicians over the last several years?

LS- I don't believe the incidence is much different. We've known for a long time that doctors kill themselves more than the general population. For at least a half a century, if not a century and a half. There is a publication in JAMA from 1977 that gave the same statistics as today regarding physician suicide. Some of that is because physicians have more education so they know better ways to die. That is why physicians commit suicide more than the general population. I think what we're seeing is an increased incidence of people talking about it. I believe this is due to social media. The internet and blogs and sharing of stories allow people to write what they want and share things openly.

MF – I think it is multifactorial. The culture of physicians is very much one of overachievers. We want to be seen as people who can handle anything that is thrown at us. This culture does help us become resilient and it allows us to work long hours. But it also is a double edged sword. The pressure to maintain this persona makes us push our feelings under the rug and not want to open up about our feelings. I think sharing our feelings is actually a sign of strength. It is very important for us to recognize that we do have a different culture in medicine.

Physicians for the most part have a broader knowledge base than the general population and hence may know better methods of suicide. There is a theory called Joiner's Theory of Suicide which states that three different things are needed to actually complete suicide:

1. Low Belongingness –This is the sensation that you are alone. Our culture does tend to perpetuate this feeling.
2. Perceived Burdensomeness – Feeling that you are a burden to others, to your family and colleagues. Physicians can often get into that state. They feel they are making things worse for those around them.
3. Capability – The person feels they are not afraid to die. Physicians tend to have a better understanding of this as well.

4. INT - What warning signs should someone look for in a colleague that should alert them to a potential problem of depression or suicidality?

MF – A lot of this is very nebulous because burnout is different than depression. We feel burnout much of the time, especially during training when burnout is high. This is where we are exhausted emotionally and we are not as connected with our patients. Depression, however, is something that pervades your entire life. It pervades your work life and your home life.

The warning signs are:

a. If someone talks about wanting to die. That should be a huge red flag. In our colloquial speech, we often say, "This shift was terrible. I just want to die." But if someone keeps talking about wanting to die, or has a very depressed affect, we should really pay attention to that.
b. People talking about feeling hopeless, having no purpose, feeling trapped, or in severe emotional pain.
c. People talking about being a burden to others.
d. Increased use of alcohol or drugs.
e. Sleep changes – Too much or too little.
f. Social withdrawal – This is important for residencies to look out for. Someone who used to be social with their peers and is now very withdrawn.

LS – I think of a few areas.

1. Situational – Look at what's going on in the person's life. The more areas in a person's life that take a hit, the higher the risk. If a resident performed poorly on the in-service and had a relationship break up, they have taken two significant wellness hits. They are going to be at more risk. If you get two or more hits, that is the time to be concerned.
2. Verbal – If someone talks about emotional pain or hopelessness, that is a huge risk for suicide. If someone says, "I don't think that I can handle this", or if someone feels particularly responsible for a bad outcome and they talk about that responsibility being too hard to handle. If someone talks about not fitting in or that they are failing. If someone says they should take a bottle of Tylenol. People saying these things in conjunction with a bad situation increases the concern.
3. Behavioral – There was an incident with a resident who used to participate in the group and then people noticed that they would just walk away from the group. Two weeks later the resident killed himself. Behavior that is inappropriate for the situation should be a warning.

5. INT - What warning signs should someone look for in themselves that they may be becoming depressed or suicidal? Is this the same as what they should look for in others or is it different?

LS – This is the toughest question for me. I think that people that are suicidal know they are suicidal. They think, "I wish I wouldn't wake up in the morning". They have an idea that they are thinking about death.

Certain things put you more at risk. During those times, it is important to cognitively realize these are risks. Even when you are suicidal there is still a rational part of your brain working.

There is no safety without sobriety. You've got to stay away from alcohol and substances because it increases your impulsivity. Sleep deprivation also clouds rational thinking. A lot of residents are sleep deprived and that puts them at risk.

Any time of transition is a stressful time. This includes a job change, a relationship change or a new child. These increase stress and you need to give yourself more time and space when they are happening.

People who are suicidal often have an inner voice, and that inner voice lies to you. If you are vulnerable those words take you further and further into the darkness. So, if you are able to develop

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better words to try to keep you on the lighter side of life that will help you.

Always have a plan for someone to call when you are in crisis because talking helps take away the pain.

MF – It is sometimes hard to know if you are really depressed or if this is just normal for residency. Everyone knows residency is going to be hard. But, at what point does difficult become depressed? For me, it was a time when I found that I was not enjoying the things I normally do. I always used to enjoy exercise, but when I was depressed I had no desire to do that. Other signs include sleep changes, guilt, lack of energy, difficulty concentrating, loss of appetite, psychomotor agitation and suicidal thoughts. Thinking about suicide is obviously a big red flag. Don't push that under the rug.

In a normal state, you should have a sea of feeling good with little islands of feeling bad. This could be a bad case or an argument with your significant other. But, it's relatively easy to get back into that warm sea of feeling good. However, in a depressed state, you are in a sea of feeling awful and hating yourself, with very few islands of feeling good. You have a constant, pervasive, very down feeling. Even the things you love don't make you feel better.

6. INT - Both of you struggled with suicidality but ultimately, thankfully, you decided not to go ahead with it. What made you change your mind?

LS – When my daughter was diagnosed with her brain tumor, I felt incredibly guilty and I felt like a failure as a doctor. How can something so big be growing in your kid's brain and you not know it? How can I discharge patients from the ED and think that they are safe? I had a lot of feelings of incompetence as a doctor. I tried to think of someone I could talk to who would understand. I ended up speaking to someone on an internet support group. I talked to him every day by e-mail for years. That connection prevented me from taking my life.

My decision was contingent on my daughter's health. If she was doing okay then I was going to have to figure out a way to survive. If she got worse, my decision might have been different. She got better so suicide no longer became an option for me at that time. So, I had to figure out a different way. I considered myself dead for a long time. I went through life and I did things but I did not have the normal feelings of typical people. And that worked okay for a while until I began working in the suicide community. This work and talking about it has actually been much harder, because for a long time I always considered suicide an option. Now, I can really say today that I have gotten rid of a suicidal mindset and I no longer consider suicide as an option.

The biggest thing for me was being open and talking about it and finding other people who went through the same thing and sharing their stories. By finding the right group of people, I developed a feeling of connectedness and my feelings of isolation all reversed. My life changed entirely.

MF – It was a moment where I felt like I was heard and I could start on the path to recovery. I was coming into a shift and I had been contemplating suicide for a few days. My chief resident at the time, Kriti Bhatia, asked me, "How are you?" and I said, "fine". She could tell that I wasn't fine and then she looked in my eyes and said, "No, really, how are you?" Then it felt safe for me to talk. So I talked. She helped me and found me counseling. This allowed me to see that my emotional health was important to her so I made it important to me. It took somebody else letting me know that it was okay for me to make a commitment to my own well-being.

I never looked back. I'm so grateful for those people in my life. You should know that you are worth it. Once I made the decision that I was worth it and that I had a purpose in the world, it has been so rewarding.

7. What resilience tools can you recommend for young emergency medicine faculty?

LS – Everybody should have a plan for when they are sad or depressed or when something bad happens in their life. One is connectedness. Have someone to talk to when you're feeling down so you don't feel isolated. Have good mantras to say to yourself to keep yourself in a positive state of mind. Hunt for the good things. Tell yourself three positive things before you go to sleep. Instead of focusing on the bad comments from patients, count the times a patient said "thank you" to you. It's probably more than you think. Have a passion in your life for something that you really enjoy doing.

MF – This is very individualized, but I like the five pillars of resilience model. Try to sit down and find where you find meaning in your own life in these five categories.

1. Self-awareness – Identify who you are and feel good about your inner self. For me this was receiving counseling, understanding my family history of depression, and seeing how I fit into that model. This has really helped me a lot.
2. Purpose – As physicians, we have an amazing purpose. We give back to people in their time of need. But it's easy for us to lose track of that when we focus on the negative things that our patients or our staff say. So come in to work with a positive attitude. Know that you have gone through a lot of training to get you to a place where you can do a lot of good in the world.
3. Mindfulness – Know how you can be calm and appreciate the little things in life. This can include meditation, or simply putting away your iPhone and listening to the birds and the rain. Be able to identify that there is so much joy in the world.
4. Relationships – This is key. Have connectedness and have people you can count on. Have a confidant. This can be a spouse, a colleague, or a peer. Have those people in your phone. Feel free to ask people, "Hey, can I call you if I need you?" This way you know there is always a lifeline for you.
5. Self-care – This includes good sleep, exercise, and being in

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nature. The time spent in nature is significantly correlated with decreased depression.

8. INT - I am worried that a colleague may be struggling with depression, but I don't want to get them in trouble. I don't want them to lose their job or even their license. What should I do?

LS – This has an overwhelming weighty feeling to it, but it is really just a conversation. You are doctors so you have expertise, but you really don't need expertise. Just ask someone how they are. Let them talk and just listen. That provides a connection and decreases pain. People will only give the questioner what they can handle. They can read the body language. No one who is suicidal wants to make life worse for other people. Not everything will come out at one time.There is a great story about an individual by the name of Donald Ritchie who lived in Australia across from a suicide destination site (https://www.youtube.com/watch?v=o32dxRU2TPY). He lived there for 50 years. He would look out across the street and sometimes he would see people who looked like they were going to attempt suicide. He would go and speak to people. He would smile, be friendly, and say, "Can I help you?" He reportedly saved 400 people from going over the edge of the cliff. He would bring them back to his house and have a cup of tea with them. Too many times people feel that you have to send them away to a psychiatrist. Just take the time to listen.

Connectedness is powerful and a really important part of protection against suicidal ideation. The ability to connect with another person can decrease pain, hopelessness and suicidality. Showing yourself to be a source of support to someone can make the difference. There is too much fear in asking the question. Good things can happen. The person can open up and find another way to cope with things. Suicidality is a failed coping mechanism when pain outweighs the coping. Shift the balance so pain is less and coping is more. Just listening can do that.

MF – Get the person to talk and trust you. Tell them you're concerned about them. Look in their eyes. Say, "How can I help you?" Then just listen. These people have built up a lot of self-loathing and they keep it inside. Once they are given an opportunity to let that out, that can be really transformative.

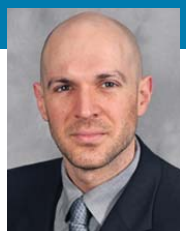
If your co-resident mentions to you that they are depressed, the program director should be informed. Say, "Can I walk with you to the Program Director's office?" or, "Can I take you to the Employee Assistance Counseling Services?" Follow up and ask them how they are doing. Find a safe place to have these conversations. This should not take place in the middle of the emergency department. Go have a "walk and talk". Go to a coffee place or a call room and have a safe conversation away from other people.

9. INT - Any final thoughts you would like to leave our readers with?

LS – If I would have known my life would be like this now, I would not have been like that then. It's so easy to see the dark things and the bad things that could happen but they may not be true. They may just be a nightmare that you are making up. Good things can happen and you should think about them.

MF – Be well. Take care of yourself and take care of the people around you. Having been depressed, I can tell you – it's not worth it.

I would like to thank New York ACEP for taking this on, and I thank Loice for joining me on this.



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The Importance of Open Data Sets in Medical Research

Science, throughout its history, has been defined by the generation of data based upon hypotheses that are then repeatedly tested to confirm the validity of the generated results. As the evidence based medicine (EBM) revolution has evolved since the 1970s to recast medical findings within the empiricism of science, simultaneous advances have been made in the dissemination in the medical literature of these data and discoveries. The rewards of such a movement have been generally evident by the shift in the lexicon of our primary learners and colleagues with concepts such as p-values and numbers needed to treat invoked when debating the various options for reasonable patient care. The expanded role of empiricism has lead to a revolution of data appraisal in which the cumulative body of knowledge in such entities as the Cochrane Review have supplanted individual studies and anecdotal discussions of the most efficient and parsimonious means of rendering up to date care. This approach has been immensely successful and has become a cornerstone of foundational medical education through its various manifestations in such efforts as morbidity and mortality and journal clubs. However, recently there have been multiple examples[1-4] of supposed high-level evidence subsequently undermined by downstream findings or the realization that the initial data was incomplete, sometimes intentionally, damaging the credibility of medical empiricism. Though the EBM project has been a boon to science based medical care it is based upon the expectation that data is transparent and objectively interpretable. However, as it has been currently manifested within the medical literature, it tends to be presented in summated averages, such as medians, modes, and data sets, which have been distilled into representational statistics. Access to raw data allows for science to work as it should, in a self correcting and critical fashion in which data granularity allows one to assess the validity of the conclusions and to attempt to reproduce the findings in order to validate the external results. There is, inherent in summated rather than raw data, an individual suspension of incredulity generated by the distillation of data to graphs and statistical comparisons. In order for the EBM mission to be built upon actual evidence and therefore, not upon a house of cards, raw data--that which comprises the actual results of the study in question—must be made available for scrutiny, reanalysis and an understanding of the limitations, in order for medical science to truly rise to the ideal of a complete information revolution of the 70s.

The recognition that publication of original material within the medical literature requires more than just the refinement of data, but general access to the raw data that generated the published results has been gaining increasing momentum within the scientific community. The European Union[5], World Health Organization[6], and National Institutes of Health[7], have made data sharing a default position, requiring that one has to opt out if it can be demonstrated why access to raw data would not be possible. This level of oversight has allowed some, but not all, publically funded research to be easily accessible to researchers looking to critically appraise the datasets. However, this affects only a particular subcomponent of medical research (i.e., federally funded) and there is still no general regulatory requirement that other data sets should be accessible to general scrutiny upon publication. To remedy this disparity, particular journals have altered their policies to allow for wider sharing of original trial data. In 2007 *Annals of Internal Medicine* began requiring data sharing statements[8] and in 2013 the *British Medical Journal* required that published drug and device manufacturers make available patient level data available upon "reasonable request".[9] Though these strides are certainly significant and may signify the start of a truly new data revolution in which access to raw datasets becomes the norm, it is still true that this requirement is not universally enforced and easy to avoid by alternative means of funding, publishing within the vast majority of journals that do not require raw data access, and claiming data sharing hardships. In order to be a true empirical discipline medicine needs objective assessment and validation of all data sets regardless of the funding source or journal of publication.

There have been multiple objections raised to a more universally enforced data dissemination requirement throughout the medical literature. It has been claimed that there is a distinction between public and privately funded ownership of data though there is no clear relevant differentiation between their direct applications to patient care regardless of intellectual property rights. There have been proposals that deal directly with the concerns over the copywriting of data and the sharing of raw data sets including the utilization of Creative Commons license that preserve data ownership while serving the public good of data dissemination.[10] Regardless, it is difficult to discern how intellectual property is a greater ethical virtue than public health as data openness has demonstrable benefits to patient centered care that copyright protection does not preserve. If industry wishes to disseminate their findings both in serving public health and an underlying profit motive then it follows that the prerequisite of the utilization of the literature for both purposes is scientific scrutiny of the published data in order to serve the greater interests of medicine in general. Industry experts have expressed concern that the supposed high cost of research and

development would be undermined by access to raw data and proprietary information leading to a decrease in innovation. Regardless of lack of demonstrable truth of this claim, it has been argued that open datasets may actually directly benefit the biopharmaceutical industry through increased efficiency, cost-effectiveness, comparative-effectiveness analysis, and reduction of duplication of efforts.[11] Further objections have been that data sharing may adversely affect patient confidentiality and that the subsequent methods applied to the data set would be inappropriate given the original study design and lead to erroneous conclusions. Reasonably one can conclude that datasets, prior to the public dissemination of their information, should be reliably deidentified, as would be the norm within the institutional review board of most institutions. The secondary analysis of raw data can be problematic and poor conclusions can be drawn from the reinterpretation of the original dataset. However, this problem is not unique to an open medical literature and can be seen in current systematic reviews and meta-analysis of compiled published datasets. The objection that the poor interpretation of raw datasets does not argue to continue to shield them for broad scientific scrutiny, rather it argues for a more stringent peer review and critical analysis of studies generated based upon data in any form, primary or secondary. It is not demonstrably true that the potential harm of poor interpretation, one readily amenable to rectification via science, counterbalances the very real benefit that unfettered access to raw data would potentially achieve. In order to further aid the process, there have been calls for central repositories of clinical trial data where the study design and results data are stored allowing for the highest fidelity in data interpretation and methodology dissemination.[12]

Science is a self-correcting discipline that continuously challenges its own assumptions through the generation of experimental data and repeated testing of generated hypotheses. In order for the medical literature to truly be called scientific there must be transparency in all aspects of data in order that interpretation and reproducibility are ultimately preserved. The slow progress of EBM should realize its full potential in data that is immediately available to the researcher, who, working in concert with the established ethical guidelines regarding access to human experimental data, is able to discern the true empirical merit of any medical finding scattered throughout the literature. Until this occurs, our medical epoch will be continuously defined by mistrust and general misadventures of hidden data recently represented by the oseltamivir debacle. To move forward, for our profession, our science, and our patients, we as a profession need to demand that all data is open data so that we may put this era behind us and get to the work of real science-based patient care.

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Pushing Daisies: The Use of Push-Dose Vasopressors in the Emergency Department

A 42-year-old male with no past medical history presents to your Emergency Department (ED) for acute onset shortness of breath. As per EMS, the patient was found in the field to be dyspneic with a blood pressure of 92/64 mmHg, a heart rate of 115 bpm, tachypneic and saturating at 88% on room air. EMS provided supplemental oxygen and brought the patient to your ED for further evaluation. You enter the resuscitation room to see a middle-aged man too short of breath to speak. You begin moving through your ABCs, but you do not get far as you become aware that the patient has a saturation of 86% on a non-rebreather face mask and appears lethargic. Concerned for an impending loss of airway, you prepare to intubate. While setting up your equipment, the nurse informs you that the patient's blood pressure is now 64/42. You know you must think carefully about your next steps. What if the induction medications lower the patient's blood pressure further, resulting in cardiac arrest? As you look back at the patient's poor oxygen saturation, you are painfully reminded that this patient needs a definitive airway immediately. Where do you go from here? Do you follow your ABCs and deal with the repercussions after the airway is stabilized? Or do you hold off on intubation in order to optimize hemodynamics?

The case above is not an uncommon scenario faced by emergency physicians on a regular basis: a patient who is hemodynamically unstable, but also requires immediate intubation for impending loss of airway. The goal is to find a means to obtain relative hemodynamic stability so that the airway can be safely managed and the patient can be transitioned to an IV vasopressor infusion if hypotension persists. Since peripheral vasopressor infusion is controversial, institution dependent, and sometimes time consuming (say, if the medications are not on hand and coming from the pharmacy), an additional solution seems necessary. This is a perfect scenario for emergency physicians to begin defining the role of push-dose vasopressors in the ED.

The utility of push-dose vasopressors in the ED is primarily hemodynamic temporization. If a patient requires rapid hemodynamic stabilization while a more definitive resuscitation plan is enacted, these medications are particularly useful. This often is in the peri-intubation setting like the case above, as once the patient receives the commonly used RSI medications the resultant loss of catecholamine surge will worsen the hypotension. Additionally, this approach may be useful to maintain a patient's blood pressure while central venous access is obtained for further vasopressor infusion. These medications may also be applied in less dire circumstances, such as blood pressure augmentation during transient hypotension, as seen with moderate sedation. Among the various cases and circumstances under which push-dose vasopressors may be appropriate in the ED, the common theme among them all is that they are meant for transitory use rather than definitive management.

While there is little ED based research to support push-dose vasopressor use, there is substantial evidence from anesthesia literature in support of their efficacy and safety, primarily in regard to transient hypotension. The majority of these anesthesia based studies have analyzed the use of bolus-dose phenylephrine and ephedrine. Most recently, Onwochei et al published a randomized control trial that sought to assess the efficacy of norepinephrine in the prevention and treatment of hypotension in patients undergoing spinal anesthesia for cesarean delivery. The study shows successful use of boluses of IV norepinephrine without adverse outcomes. This study is of particular interest in respect to patients requiring push-dose vasopressors in the ED, as many ED based protocols still require central venous access for the use of norepinephrine.

Recently, many academic emergency departments have begun extrapolating from the anesthesia literature in order to assess the applications of push-dose vasopressors in the ED. In a retrospective study, Panchal et al assessed the use of push-dose phenylephrine in the treatment of peri-intubation hypotension in emergency department patients. Hemodynamic evaluation during peri-intubation in their study population showed a 20% increase in systolic and diastolic blood pressure. Of note, this was the first ED based study that assessed the use of push-dose vasopressors in the peri-intubation setting. Additionally, a case-series by Gottlieb et al, published in the *Canadian Journal of Emergency Medicine*, followed two cases in which push dose epinephrine was administered to treat post-cardiac arrest hypotension until the transition to vasopressor IV infusion could be made. While a case-series is unable to provide powerful evidence upon which a new standard of care can be created, it does give excellent documented examples of the successful use of push-dose epinephrine in the ED for hemodynamic support.

Currently, there are three primary options for push-dose vasopressors generally available in most EDs: phenylephrine, epinephrine, and norepinephrine. Phenylephrine, the most thoroughly investigated of the three in the aforementioned anesthesia literature, is an alpha agonist that acts strictly as a peripheral vasoconstrictor. The absence of beta activity from phenylephrine allows for a resultant lack of positive inotropic effect from its administration. However, the increase in vascular tone may lead to an increase in venous return, which subsequently increases cardiac output if the output is preload dependent at that time. Phenylephrine may be dosed up to 200 mcg every two to five minutes, titrating to a systolic blood pressure or mean arterial pressure of the physician's discretion. In terms of administration, phenylephrine is

available in premixed syringes, or may be hand mixed by injecting 1mL into a 100mL bag of normal saline, thus forming a solution of 100 mcg/mL of phenylephrine. Phenylephrine has been shown to be safe in both peripheral venous administration and intramuscular administration.

Epinephrine, a rapid go-to push-dose vasopressor for many emergency physicians, has mixed alpha and beta agonist properties, leading to both peripheral vasoconstriction and increased cardiac contractility. While the beta activity can be useful in certain hemodynamically unstable patients, it should also be used with caution. Epinephrine may predispose to dysrhythmias. The ingredients for push dose epinephrine are readily available in any emergency department.

A 10ml flush is taken, 1ml is removed, then 1ml of code cart epinephrine (1:10,000) is drawn up into the 9ml normal saline flush, thus yielding a solution of 10mcg/ml of push-dose epinephrine. The concentration of push-dose epinephrine is similar in concentration to that of the lidocaine with epinephrine frequently utilized for local tissue infiltration, leaving minimal risk for localized tissue necrosis.

Norepinephrine, which is most commonly utilized as the first-line vasopressor for infusion in septic shock, is primarily an alpha-1 agonist, with some beta-1 activity as well. Norepinephrine primarily works to increase peripheral vasoconstriction, while also providing some increase in cardiac contractility. Norepinephrine is most commonly given through central venous access due to the risk of local ischemic tissue injury secondary to medication extravasation from a peripheral IV. Despite this, the risk of peripheral vasopressor extravasation and local tissue injury was studied by Cardenas-Garcia et al and showed that peripheral vasopressor use (norepinephrine, dopamine, and phenylephrine) was safe, that extravasation was uncommon, and easily treated with phentolamine injection and nitroglycerin paste. In addition, the study by Onwochei et al, showed that peripheral boluses of norepinephrine were safe and effective as a push-dose peripheral vasopressor. The dosing for norepinephrine is 2-8 mcg/minute, titrated to the desired systolic blood pressure. While norepinephrine has been utilized in multiple studies for peripheral use, it is less likely to be readily accepted at this time as the "go-to" push-dose pressor in the ED due to concerns for extravasation, as well as its frequent lack of immediate availability in the ED.

Given the above review of push-dose vasopressors, you decide you'd like to start using this in your department so how should you proceed? As emergency physicians we are part of a team and care of these critical patients requires close teamwork and collaboration with our nursing colleagues. In order to institute the use of push-dose vasopressor use in your department several administrative considerations are important to address. The first and most important issue is one of patient safety, particularly around the process of clinical staff mixing medications. The use of epinephrine while likely the most available choice in the ED, is highly prone to dosing errors due to its availability in multiple concentrations. Best practice as recommended by the Institute for Safe Medication Practices (ISMP) is to use prefilled syringes stocked by pharmacy and avoid bedside medication mixing by clinical staff. Both epinephrine and phenylephrine are readily available in prefilled syringes with a shelf life of up to 60 days. By convincing your institution, usually through the P&T committee or pharmacy director, many concerns from nursing and physician leadership will be assuaged. Other concerns may include unfamiliarity with this practice among nursing staff as well as concerns that physicians may be administering these medications in varying doses and not adequately documenting dosages in the medical record or communicating with nursing. We have found at our institution that a successful strategy to avoid these issues is to meet with pharmacy and nursing to create both a protocol for use as well as develop an educational rollout for nursing staff.

While it is clear there is not yet enough literature to begin developing a finite standard of care for push-dose vasopressors in the ED, there are various clinical scenarios for their application in the ED. The utility for rapid blood pressure control during scenarios such as the case initially presented is clear even without substantial ED based literature. While all three of the aforementioned vasopressors are efficacious at stabilizing blood pressure, each comes with risks and benefits that should be considered on a case by case basis. At this point, the use of push-dose vasopressors should be considered at the clinicians discretion during scenarios of transient hypotension and/or imminent hemodynamics collapse. The question of which vasopressor should be utilized as "first line" for push-dose hemodynamic augmentation will require further ED based research. Overall, the addition of push-dose vasopressors to ED care has already and will continue to prove an invaluable resuscitative tool.

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LEADERSHIP & ADVOCACY AWARD WINNER REFLECTIONS

Matthew Merriman, MD
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It was difficult waking up Sunday morning in New Orleans. The day before I had been in the wedding of a good friend from college and that night had been daylight savings, stealing an extra hour of sleep in order to 'spring forward' for the season. Travel to Washington, DC was uneventful but getting to the hotel was a meandering adventure of a taxi ride due to the St. Patrick's Day parade which had shut down large blocks of city streets. When I arrived at the hotel there was an immediate swirl of rumors about the winter storm that was supposed to hit the following day, threatening anywhere between two inches and two feet of snow, surprising as the headlines from the prior week were all about the early arrival of the cherry blossoms due to the fair weather.

It would occur to me as the week marched on that these obstacles were a decent analogy for what getting involved in advocacy seemed like for me at first, and likely others as well. From an outside perspective, the looming mountain that is political advocacy can seem to be too challenging, too time consuming, too inconvenient, and with too little chance of reward to bother with. The truth is quite the opposite.

The learning experience at LAC was phenomenal. Dr. William Jaquis gave a concise 10 minute talk that hit all the high points, the main message being to just get involved, in some way, at some level, no matter what it is. This could be as big as joining up with NEMPAC and going to dinner parties with senators, or as small as joining the 911 advocacy network email list and sending an occasional message to a local representative. EMRA President, Dr. Alicia Kurtz gave a stirring early morning address on leadership (apparently I need to get a Twitter account…) and Dr. Zubin Damania, better known as ZDoggMD, gave the most entertaining and enlightening spiel of the week, complete with no less than four music videos, well worth the price of admission alone.

There was also no shortage of opportunity to meet other passionate and interesting emergency physicians from all corners of the country. I even had the opportunity to give my elevator speech to ACEP President, Rebecca Parker and Executive Director, Dean Wilkerson, literally on an elevator! I have always disliked the term networking as it feels very impersonal, but meeting so many great people and hearing their stories was anything but this.

Unfortunately, our Capital Hill visits were cancelled due to weather, but on the final day a handful of us braved the elements to head up and drop in on the representatives. Some managed to get a bit of face time but for the rest, we at least knew we delivered our message to the right hands. The time I spent at LAC confirmed to me that participating in advocacy does not have to be an onerous, drawn out, and disruptive undertaking, and is often highly rewarding both professionally and personally. Participating was an enriching and humbling experience, one that I would highly recommend to anyone even remotely interested. Thank you to New York ACEP for supporting this scholarship and the development of young physicians!

L. Carlos Zapta, MD
Assistant Residency Program Director, Nassau University Medical Center

It was an honor to have been selected by the New York ACEP Board of Directors to receive the Young Physician Leadership and Advocacy Award this year. This generous award allowed me to attend ACEP's Leadership and Advocacy Day in Washington, DC from March 12-15, 2017. It was an exciting time to be in DC, as healthcare was the talk of town since the House GOP leadership had just released their plan to repeal and replace the Affordable Care Act. I was thrilled to be there with so many of our colleagues form around the country to advocate for our patients and our specialty.

The conference began with an introduction to health policy from EMRA and the Young Physician Section. We were provided with updates on some of the major issues in health care policy. Highlights included a presentation on the nationwide dilemma of psychiatric boarders in many of our emergency departments, an update about graduate medical education findings, and an overview of the history of the Affordable Care Act (ACA).

The next day, we were privileged to have Representative Brett Guthrie (R-KY) who is on the House Energy & Commerce Committee, as the keynote speaker. Representative Guthrie gave an outline of the GOP plan. Speaker Paul Ryan (R-WI) had just introduced a bill entitled the American Health Care Act (AHCA). It was intended to be the first of a three step plan to repeal the ACA. The AHCA was designed to accommodate a Senate procedure called reconciliation, which allows for a simple majority of Senators to pass a bill restricted to budget matters only. Thus, the GOP could proceed without any votes from Democrats. It was intended to be followed by the Secretary of Health and Human Services, Tom Price, MD, making regulatory changes allowed within the framework of the ACA and another bill to repeal the non-budget related part of the ACA. Later in the afternoon, Senator Tim Kaine (D-VA) spoke to us to give the Senate and Democratic perspective. He predicted that it was unlikely that the AHCA would pass the Senate without substantial changes as Democrats were almost unanimously opposed.

Unfortunately, we were given the bad news that due to the massive snowstorm that was predicted to be in Washington, our visits with our Senators and Representatives were cancelled. Since the storm did not turn out to be as bad as originally forecast, I went to Capitol Hill anyway, and I was able to meet with my Congressman, Tom Suozzi (D-NY). Although it was my first time going to Washington to speak with my representative, ACEP made it easy by providing us with background information and the Emergency Medicine Health Care Reform Principles, which include:

LEADERSHIP & ADVOCACY AWARD WINNER REFLECTIONS

- Maintain emergency services as a covered benefit for any insurance plan
- Ensure the federal Prudent Layperson Standard extends to Medicaid fee-for-service and that compliance measures are in place for all other health plans
- Require health insurance transparency of data used to determine in and out of network reimbursement rates. Ensure appropriate reimbursement rates for emergency services
- Eliminate need for prior authorization for emergency services and guarantee parity in coverage and patient co-payments for in and out of network emergency services
- Retain protections for pre-existing conditions, no lifetime limits, and allowing children to remain on their parents insurance plan until age 26
- Enact meaningful medical liability reforms, including protection for physicians who provide federally mandated EMTALA services, care for patients in a federally declared disaster area, and who follow clinical guidelines established by national medical specialty societies
- Repeal the Independent Payment Advisory Board and the excise tax on high cost employer health benefit plans
- Acknowledge the role of freestanding emergency centers and other health care delivery models as crucial to ensuring coverage innovation
- Protect the most vulnerable populations in this country by ensuring Medicare, Medicaid, and CHIP remain available and solvent for current and future generations

Representative Suozzi was happy to meet with me and agreed with many of the healthcare reform principles outlined by ACEP. Although it was a bit intimidating at first, I found that advocacy isn't very hard. Since not everybody can make it down to Washington, every member of Congress has local offices in their district where they and their staff meet with and take calls from constituents. It turned out after the conference was over, the AHCA was pulled by the Republican leadership because they did not think it had enough votes to pass the House. As it is likely that healthcare reform will be brought up again in the next few months, it is important that all of us get involved for our patients and for emergency medicine. All it takes is a phone call.

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This past March, I was given the wonderful opportunity of attending the ACEP Leadership and Advocacy Conference (LAC). It was the first time I had attended any ACEP conference, but definitely not the last. When one of my mentors had approached me about this conference, I knew little about what it actually entailed or what to expect, but it sounded like a great idea, and he highly recommended that I go. So I happily applied to attend, and I'm so glad I did!

All in all, the conference consisted of three days of various meetings, networking events, information sessions, and the big day on Capitol Hill, meeting with politicians throughout the United States, to discuss the key issues which face all of us in emergency medicine.

The first day I arrived, I hopped off my Amtrak from New York City and headed straight for the beautiful Grand Hyatt DC, where I was greeted by fellow ACEP members from different states throughout the US. We headed straight to work at the Health Policy Primer Session hosted by ACEP and EMRA's Young Physician Section, where we were given a lengthy information session on a variety of topics within healthcare and healthcare reform. I was also able to attend one of the lectures by David Greenberg, CSP on improving presentation skills. It was an extremely useful and quick crash course on how to deliver pertinent and powerful lectures to any crowd. For me, the best part about this lecture was to see the attendance by both seasoned attendings and residents alike. It goes to show, that no matter what stage in your career, we can always improve our public speaking skills!

Day two of LAC was also full of very informative sessions from several game changers in emergency medicine. The lecture series on the opioid epidemic in the US was a very eye opening look at the effect that we as emergency physicians have on the crisis in America. Drs. Eric Ketcham and Mark Rosenberg delivered a powerful lecture on their work in combatting the opioid epidemic and the various programs which they have put in place in order to help address this issue. I know that everyone in the audience, including myself, took away the profound message that we as emergency physicians CAN have an impact on this crisis happening right in our backyard. Senator Tim Kaine also addressed ACEP members and received a standing ovation after his talk on the Affordable Care Act and its future in the United States. Then, to finish off this jam packed day, was a performance by the one and only ZDogg MD, and he did not disappoint. Despite his often light hearted and care free video parodies online, he delivered a very powerful and pointed talk on physician burnout and resilience, of course topped off by a live rap performance.

Although threatened by snowstorm Stella, most of the trips to Capitol Hill on the third day of LAC were a great success thanks to all the hard work and valiant effort by the ACEP staff. After the morning sessions on advocacy training, several of the members met with the congress men and women at Capitol Hill to lobby and promote the ACEP agenda.

Even more so than all the great lectures and learning opportunities, the greatest thing which I took from this past March was the incredible sense of community which exists among ACEP members. From head leadership and executive board members, to the general assembly, there was an immense sense of comradery and community which permeated the days spent in Washington DC. Knowing that we were all present for the same reason-to improve the community which we live and hope to make it better through the hard work which we put in. All in all, it was a wonderful few days of getting to meet other ACEP members, expand my knowledge of physician advocacy, and hear about the work of other physicians throughout the US. I have taken these lessons back with me and am looking forward to next year's conference in May!

ALBANY UPDATE

Reid, McNally & Savage

New York ACEP Legislative & Regulatory Representatives

The 2017-18 State Budget passed April 19, 2017, eight days later than the State Constitutional deadline and the latest since Governor Cuomo took office. The final spending plan totals approximately $153 billion. It includes many non-fiscal related items such as raising the age of criminal responsibility from 16 to 18 for most crimes, a plan for free tuition for attendees of SUNY and CUNY schools under certain conditions, and a pathway for ride-hailing services such as Uber and Lyft to operate out of New York City.

Legislators return to Albany from their Spring Recess April 24 and will work to complete the business of the 2017 Legislative Session by the end of June.

Provided below is a summary of final State Budget actions and other issues of interest to New York ACEP.

2017-18 State Budget

Reduction of "Avoidable" Emergency Medicaid Visits Defeated

The Legislature rejected the Governor's proposal to cut the Medicaid program by $20 million by eliminating reimbursement for "avoidable" emergency visits. New York ACEP members expressed strong opposition to the proposal on their March 7 Lobby Day.

During Lobby Day, New York ACEP stressed that many people seeking emergency care have serious or urgent symptoms. In some cases, their final diagnosis may turn out to be non-urgent. However, these visits are not "avoidable." The State's Prudent Layperson Standard law, spearheaded by New York ACEP in 1996, requires health insurance companies to provide coverage based on symptoms, not final diagnosis. This law was passed in recognition that anyone with potentially life-threatening symptoms should be treated and stabilized in an emergency department and that the visit should be covered by insurance.

Legislators were also persuaded by the fact that many so called "avoidable" visits occur when doctors' offices are closed and that those hardest hit by this proposal would be underserved people living in rural and urban areas.

Excess Medical Malpractice Program

The final State Budget includes the Governor's proposal to extend the Excess Medical Malpractice Program until June 30, 2019 at level funding of $127.4 million. The Legislature rejected language proposed by the Governor to require physicians to provide evidence that they paid their taxes as a precondition for receiving excess coverage.

Health Care Regulation Modernization Demonstration Program

The Legislature rejected the Governor's proposal to establish a demonstration program to authorize the Department of Health and other State agencies to waive any current laws, rules or regulations to implement demonstration programs to test and evaluate new models for organizing, financing, and delivering health care services that are not currently permissible under statute or regulation.

While fully supporting the concept of modernizing outdated, burdensome laws and rules, New York ACEP objected to this proposal because it provided the Executive Branch with unlimited power to bypass the New York State Legislature and change any State law, rule, or regulation. In addition, some of the areas recommended for study in the proposal have been previously considered and rejected by the Legislature including inappropriate expansion of scope of practice for non-physician practitioners.

Pending Legislation

Members of the Board will travel to Albany May 22 to meet with legislators on proposed legislation affecting emergency medicine. Now that the State Budget is passed, legislators will focus on non-fiscal legislation. Pending proposals of interest to New York ACEP members are highlighted below.

Date of Discovery (A3339 Weinstein and S4080 DeFrancisco)

Legislation was once again introduced to change the statute of limitations from two and half years to a date of discovery law. Other provisions of the bill would:

- provide that an action shall commence no later than seven years (Assembly bill) or 10 years (Senate bill) from the act, omission or failure complained of or last treatment where there is continuous treatment for the same illness, injury or condition which gave rise to the act, omission or failure;
- provide that where the action is based upon the discovery of a foreign object in the body of a patient, the action may be commenced within one year of the date of such discovery or the date of discovery of facts which would lead to such discovery, whichever is earlier;
- provide for actions to be filed for incidents that occur within one year prior to the effective date of the bill; and
- provide that the bill is effective immediately, and in the case of the Senate bill, allow for cases to be brought retroactively prior to the enactment of the law.

New York ACEP has issued a Memo in Opposition to the bill. We will continue to work hard to keep this bill from passing the Senate and Assembly.

The bill is in the Assembly Codes and Senate Judiciary Committee.

Requirement for Prescribers to Consult the Prescription Monitoring Program (PMP) in Emergency Departments

Governor Cuomo announced in his annual State of the State Address earlier this year that he plans to put forward amendments to the I-STOP Law, including the elimination of a provision of the original law that exempts prescriptions written in hospital emergency departments (ED) when the supply does not exceed five days. To date, the Governor has not submitted a proposal to the Legislature.

New York ACEP has developed a strong statement in opposition to the elimination of this exemption. It was enacted by the Legislature at New York ACEP's request in recognition of the very busy environment in emergency departments. Unlike other practitioners, emergency physicians do not have knowledge in advance of the patient's arrival as to whether a pain medication may be indicated during the visit. In addition, studies show that hospital emergency departments are not the source of opioids for patients and many have taken the lead in addressing inappropriate use.

In meeting with legislators during the March 7 Lobby Day, New York ACEP members recommended that if legislation is introduced to eliminate the five day ED exemption, it should include a requirement for integrating PMP information into patient electronic medical records. Studies show that providing a single point of access for PMP and patient health data would greatly decrease the amount of time and resources required to access information and improve patient care.

Availability of Non-Occupational Post-Exposure Prophylaxis (nPEP)

Governor Cuomo announced earlier this year that he will send a proposal to the Legislature to require non-occupational post-exposure prophylaxis (nPEP) availability in all emergency department and urgent care facilities in the State. To date, the proposal has not been submitted.

New York ACEP issued a statement in support of this concept. According to the Governor's State of the State Address, it would require emergency departments and urgent care facilities to provide a seven day starter pack of medication upon discharge to patients who have experienced a potential non-occupational exposure. This would give patients time to follow-up with a community health care provider who can provide post-emergency or post-urgent medical treatment.

The State Legislature is expected to complete its business for the 2017 year June 21, 2017. Reid, McNally & Savage will continue to work with New York ACEP to represent and advocate for access to quality emergency care and services in New York State.

Calendar

June 2017

7 Emergency Medicine Resident Committee Conference Call, 2:00 pm
8 Practice Management Conference Call, 1:00 pm
14 Education Committee Conference Call, 2:45 pm
14 Professional Development Conference Call, 3:30 pm
15 EMS Committee Conference Call, 2:30 pm
21 Government Affairs Conference Call, 11:00 am
21 Research Committee Conference Call, 3:00 pm

July 2017

11-13 Scientific Assembly, The Sagamore Hotel
11 Board of Directors Meeting, The Sagamore Hotel 11:00 am-12:30 pm
12 Annual Meeting and Legislative Update, The Sagamore Hotel, 12:45 pm - 1:45 pm
12 New York ACEP Committee Meetings, The Sagamore Hotel, 1:45 pm - 2:15 pm
13 Board of Directors Meeting, The Sagamore Hotel 7:00 am - 8:00 am

August 2017

2 Emergency Medicine Resident Committee Conference Call, 2:00 pm

September 2017

6 Emergency Medicine Resident Committee Conference Call, 2:00 pm
13 Education Committee Conference Call, 2:45 pm
13 Professional Development Conference Call, 3:30 pm
14 Practice Management Conference Call, 1:00 pm
15 LLSA & Patient Safety LLSA, Icahn School of Medicine, Mount Sinai, 8:00 am - 3:00 pm
20 Emergency Medicine Resident Career Day, The New York Academy, 8:00 am - 12:30 pm
20 Government Affairs Conference Call, 11:00 am
20 Research Committee Conference Call, 3:00 pm
21 EMS Committee Conference Call, 2:30 pm

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