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# Empire State EPIC



# PRESIDENT'S MESSAGE



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## Finding Balance

I started hearing the term “burn out” several years ago. Honestly, I don’t think I understood it and I’m not even sure I believed it. Sure, we had a few colleagues cut back hours, move to a different location or retire a bit early. And yes, we all had tough cases along the way that were permanently imprinted in our memories. Additionally, we constantly were faced with challenging working conditions and space limitations. But that is why we signed up. That was emergency medicine. We do not sit in a comfy, quiet office all day. We thrive on controlled chaos, grabbing medicine by the horns, directing the beast.

Obviously, these last years have been eye opening. Initial dealing with the fear of the unknown. Battling a microscopic adversary that completely altered our professional and personal lives. Hospital inpatient boarding in the emergency department had always been a challenge, with resultant patient space shortage. Though now we had to face increasingly severe shortages in all aspects of our profession; patient space, ventilators, basic equipment, medications, personal protective equipment, a reduction in nearly all disciplines in the workforce and what seems like countless others. All the while watching our community, friends, family and even colleagues succumb directly or indirectly to this illness.

The initial wave was all truly exhausting and just plain scary. So many unknowns. So many new workflows to develop and learn. So many new challenges that popped up. The goal initially was to get through that first wave to a better time. But then came the second wave. Then the third. Then the ... I have lost count. At this point, I think the goal has changed. It is no longer to get to the other side. We are already there. We now need to figure how to deal with a different landscape in emergency medicine.

Locally, we are faced with escalating hospital capacity constraints. An utterly frightening element as we keep setting infamous records and there is no sign of a change in trajectory. Severe space constraints forced us to erect an exterior structure (aka tent) since we had already occupied many egress corridors with the department’s footprint. This added the element of sheer distance between patients. On some days we literally cover two football fields, as there can be 200 yards be-

tween patients. Coupling this with the staffing shortages has resulted in the need to complete tasks we have not had to do in years (decades for some of us). All of this is additive, making the job more difficult than ever. Tougher to get your workup completed and disposition the patient in front of you. And even tougher to get to that next patient, still stuck in the waiting room or even parking lot.

All of this has really taken its toll and our group is seeing some new changes. We have a relatively large team with nearly 80 physicians. Over the last year, I have seen well over 30% of the physicians cutting back time. This is the most I have seen in the last two decades. A few retired a bit early or left the area, while most are just cutting back their clinical hours. The rare few are looking into other medical opportunities such as urgent care or hospital level of care reviews. Though most have just cut back their time to part time employment, they are working to balance a more demanding job with the remaining professional and personal aspects of life. I doubt they will be adding that time back in the future.

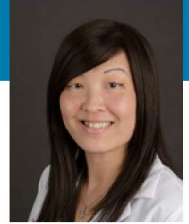
Now we have direct evidence and even data pointing to burnout. It is no longer resigned to a mere topic during a wellness lecture. We are now seeing our colleagues pick a new approach moving forward. I would wager this modified work approach will alter the workforce forecast, in addition to other aspects we saw with the recent match results. This should make for some continued interesting times.

Never let a good crisis go to waste, so perhaps a lesson for us all. Emergency medicine has changed, with a likely permanent change. Make sure you keep up with the change. We are adept to make changes in the clinical setting since we commonly need to get creative and adjust. Though carrying that over to our personal lives may be a bit more difficult. Keep focus on your priorities. Take care of yourself, your family, your dog, your cat or whatever else is important to you. For some it may be an overall reduction in hours. For others it may be something different in medicine. And for others, perhaps something else out there in the “private sector”. Regardless, we are in the new frontier, time to adapt and find our balance.

## Membership Has Its Benefits!

**Free Member CME For New York State Licensure  
Requirements in Pain Management and Infection Control**

# SOUND ROUNDS



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## Pumped for Prostheses: A Sonographic Expedition

### Case Presentation

A 68-year-old male with a past medical history of insulin-dependent diabetes and erectile dysfunction presented to the Emergency Department (ED) with suprapubic pain, penile tip pain and leakage of urine for two days after surgical placement of an inflatable penile pump placement. The patient was discharged with a foley catheter. He was concerned that his penis was swollen and urine was leaking from the foley.

The patient's blood pressure was 132/61mmHg, pulse 60, respiratory rate of 18, and temperature 37°C. On physical exam, he appeared non-toxic and comfortable. The patient had a soft, non-tender abdomen. His penis and testicles were wrapped in post-operative bandages, which were saturated with yellow fluid, consistent with urine. The tip of the patient's penis was mildly erythematous, without discharge or blood. The foley catheter appeared disconnected from the leg bag, with urine draining onto the patient. The rest of the patient's exam was unremarkable.

At this time, a point-of-care ultrasound (POCUS) was performed by an emergency medicine physician with fellowship training in Emergency Ultrasound to confirm the foley catheter location. A curvilinear transducer (Mindray M9, Shenzhen, China) placed transversely over the patient's suprapubic region demonstrated a large, cystic structure in the lower abdomen (Figure 1). Further evaluation of the region identified the foley balloon in an adjacent cystic structure. Urology flushed the foley catheter with sterile saline and demonstrated the catheter was patent and located within the bladder. The first cystic structure found was deemed to be the storage reservoir for the penile prosthesis (Figure 1A). Further sonographic evaluation of the testicle and penile shaft with the linear transducer revealed the scrotal pump (Figure 2) and the inflatable penile cylinder (Figure 3) of the penile prosthesis.

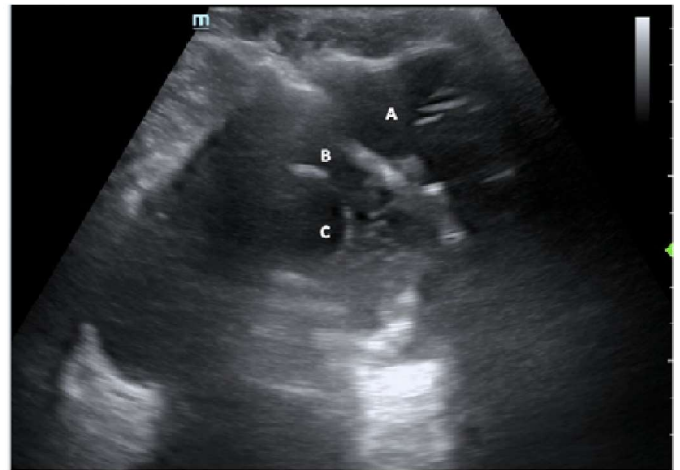


Figure 1. Ultrasound of the suprapubic area in transverse view obtained with a curvilinear transducer A. The saline reservoir drains into the cylinders which are implanted in the corpus cavernosum of the penis. B. Bladder C. Foley catheter balloon.

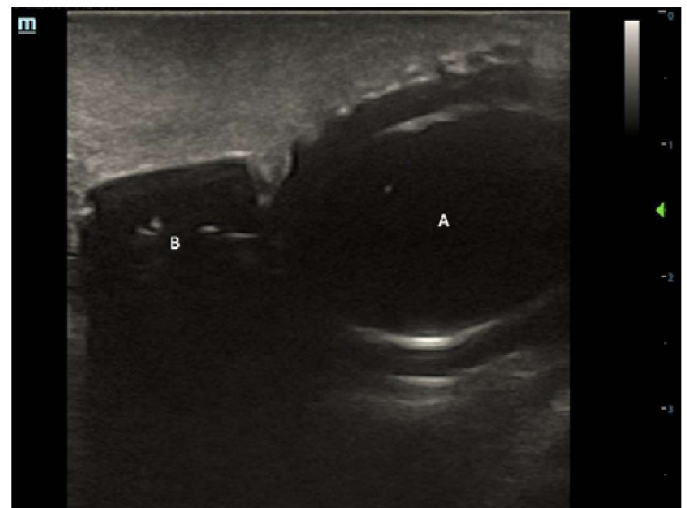


Figure 2. A sagittal view of the left testicle with a linear transducer A. Pump for the prosthesis implanted in the left scrotum. B. Beginning of the inflatable cylinder at the base of the penis.



# SOUND ROUNDS

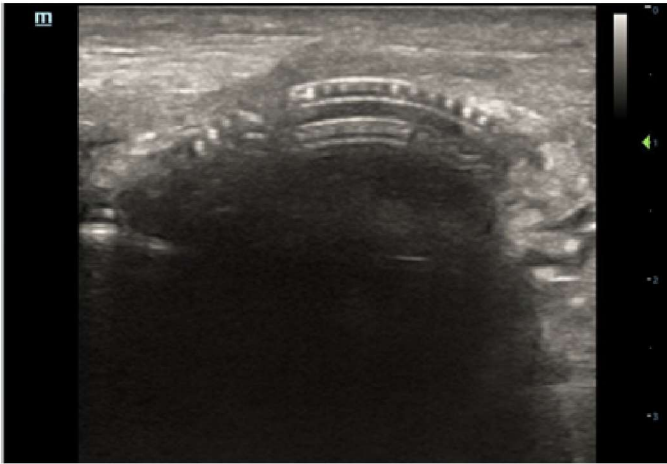


Figure 3. A sagittal view of the penile shaft with a linear transducer reveals the inflatable cylinder within the penile shaft.

## Discussion

Penile prostheses have been used in the treatment of erectile dysfunction since the 1950s. In 1998, when sildenafil was introduced, the use of prostheses decreased; however, as patients developed tolerance to this medical therapy, a resurgence in use occurred.<sup>1</sup>

There are two main types of prostheses: semi-rigid and inflatable.<sup>2</sup> The semi-rigid type, while mechanically simpler to use, results in a constant state of erection and only makes up 10% of all implanted penile prostheses. The inflatable type, such as that used by our patient, allows changes in the rigidity of the penis. The inflatable penile prosthesis consists of three primary components: two penile cylinders, a pump and a reservoir (Figure 4). The penile cylinders are implanted within the corpus cavernosum and can be inflated and deflated. A pump is implanted into the scrotum and channels the fluid from a reservoir placed in the lower abdomen.

The most common complication of penile prosthesis is infection. Other complications include mechanical failure of the pump, seroma, hematoma, reservoir displacement, erosion and migration.<sup>3</sup> Our patient did not have a complication from his prosthesis. His complaints were primarily attributed to his foley placement and mechanical tubing complications.

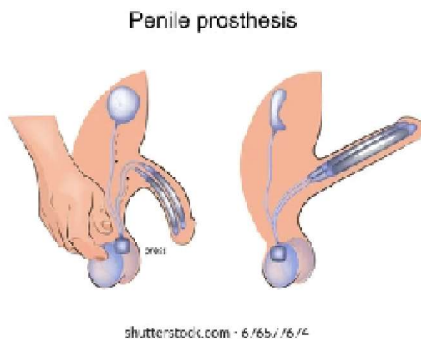


Figure 4. Inflatable penile prosthetic system with three components: a saline reservoir implanted in the abdomen, a pump in the scrotum and two cylinders implanted in the corpus cavernosa of the penis. Image courtesy of Shutterstock.

## Indications

- Erythema
- Induration
- Penile pain
- Swelling

## Technique

- To image the structures of the inflatable prosthesis in the pelvic, scrotal and penile regions, position the patient supine with bilateral legs externally rotated to expose the region.
- The inflatable prosthetic system, the bladder and reservoir in the pelvis can be imaged using a low-frequency phased array or curvilinear transducer. Place the transducer in the suprapubic region to identify these structures. Obtain images in transverse and sagittal planes, with special attention to additional cystic structures or free fluid. The foley catheter can be flushed with saline and bubbles from the flush can be visualized in the bladder in real-time.
- The scrotal pump can be imaged with a linear high-frequency transducer in transverse and sagittal planes. Any additional fluid collections, such as hematomas, seromas or abscesses can also be identified with the linear transducer.
- The penile shaft and underlying cylinders can also be evaluated in transverse and sagittal views. The transducer is placed directly on the penile shaft to obtain these images.

## Pitfalls and Limitations

- The fluid reservoir in the lower abdomen can mimic postoperative complications such as seromas, hematomas, abscesses and free fluid. It can also easily be mistaken for the bladder or bladder diverticula.
- There is usually a metallic component to each reservoir causing reverberation artifact, which can help differentiate it from other potential cystic structures.
- Abiding by foundational principles of ultrasound by imaging in orthogonal planes and the application of color doppler to evaluate for blood flow will also aid in further evaluation of the apparatus.

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# PRACTICE MANAGEMENT



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## New York ACEP 2021 ED Director Forum Highlights

New York ACEP held its 2021 ED Director Forum virtually Friday May 7, 2021.

Litigation and medical malpractice, as well as the stress associated with these occurrences and ways to avoid being sued were topics at the forum. Here are highlights from last year's forum. The summary is presented in bulleted format.

*The content of this summary is provided for informational purposes only and is not legal advice. You should consult an attorney if you have legal questions that relate to specific litigation and medical malpractice. New York ACEP does not recommend or endorse any specific actions, procedures, opinions or information contained herein.*

### Medical Malpractice: Tips to Avoid It and What to Do If Sued!

This lecture was given by three plaintiff attorneys (Ben Rubinowitz, Esq., Richard Steigman, Esq., Rich Saldano, Esq.). During the talk they shared their perspective on medical malpractice/medical negligence and their advice on how to prevent physician litigation.

#### Definition of Medical Malpractice

- Medical malpractice is the negligence of a doctor.
- The failure to use reasonable care under the circumstances.
- It is a deviation or departure from the expected medical practice standards.

#### What is a Doctor's Obligation and Requirements?

- To use a reasonable degree of knowledge and ability which he or she is expected to provide.
- The standard of knowledge and ability to which the doctor is measured is by the degree of knowledge and ability of the average doctor in good standing in the medical community in which the doctor

practices.

- In performing a medical service, the doctor is obligated to use his or her best judgment and to use reasonable care.

#### Medical Negligence vs Criminal Conduct

They each have different standards of proof.

- Criminal standard – beyond a reasonable doubt
- Medical Negligence – a fair preponderance of the credible evidence i.e. more likely than not i.e. greater than 50% chance
- Plaintiff in New York is NOT required to prove it is more likely than not
- It does not have to be a substantial probability but rather a substantial possibility of improved outcome or cure (it's an even lower standard than preponderance of the evidence)

But to prove malpractice, a plaintiff needs to show ALL THREE components/elements.

1. Duty of care and breach of that duty (departure from the standard of care)
2. Proximate causation
3. Actual harm (damages)

#### General Advice on Medical Records and Documentation

- Do not alter records
- Do not write things that did not happen. Don't prepopulate your notes before something took place (procedure, consultation, discharge)
- Be careful using templates
  - Too comprehensive
  - May not be applicable to the specific patient
  - Templates include statements that may not have happened
- Proofread your chart

#### General Advice on Conflicts of Interest

- When named in the lawsuit, make sure the

representation is in your interest

- If the lawsuit summons and complaint caption has more than one defendant's name, make sure there are no conflicts
- Do not get lumped together with other defendants
- Your lawyer needs to represent your interest and not as a unified interest with the hospital itself
- If there are potential conflicts, get your own legal representation

### Litigation Stress Lecture

This lecture was given by Tracy G Sanson, MD FACEP

#### "Medical Malpractice Syndrome" and "Litigation Stress Syndrome"

- Impact on the physician, the physician's family and our patients
- Greater than 10% of physicians are sued every year
- Permeates the soul of who you are
- Anger, irritability, fatigue, insomnia, eating disorders, difficulty concentrating, depression, negative self-image, decreased self-confidence
- Isolation- feeling of being alone and unsure of who to speak to

#### Stress Can Change Your Practice Style

- Avoiding those types of patient complaints
- Obsessive record keeping
- Increasing orders of diagnostic tests/ consultations
- Avoiding procedures that may result in complications
- Considering early retirement
- Discouraging own children from entering medical profession

#### Facts about litigation

- Physicians prevail 60% of the time and 80% of the time if the case goes to trial
- Increased risk of second litigation within a year of receiving notice of the first claim

- Cases usually take three-seven years to be resolved- it is out of our control

### Don't Expect

- Compassion from colleagues, especially if they have not been sued
- Immediate understanding from family, friends and partners
- Support from administration
- Change of heart from plaintiff or their attorneys

### Strategies

- Reassess work schedule
- Free up time to mount a strong defense
- Free up time for family and friends
  - Tell them what is going on
  - Share your pain and feelings
  - Ask for support
- Stay involved in the case and be present with your attorney
- Get help: coaching on trial/deposition, counseling, find your group of trusted family/friends to have as a support system

### Risk Reduction Lecture

This lecture was given by Tracy G Sanson, MD FACEP.

We work in the chaotic and complex environment of the ED.

#### “Environmental” Risk Factors

- Noise, distractions, interruptions, workflow and systems/process designs

Strategies to improve situation awareness/environment:

- Practice - training can improve routine performance and help maintain awareness in an emergency
- Minimize distraction -- box or space to minimize distraction - nothing must divert your attention
- Watch out for fatigue: know the symptoms of tiredness and take a break when you need one
- Be active: look for new information, monitor your environment so you can spot problems and react accordingly

#### Human Risk Factors

- Diagnostic errors:
- Timing of diagnostic errors
  - 44% testing phase
  - 32% clinician assessment phase
  - 10% history taking
  - 10% physical exam
  - 3% referral/consultants
- Strategies to avoid error:
  - Time-out prior to any procedure
  - Compare films -- look at the older x-ray
  - Nodules/incidental findings -- referral and document the discussion with patient
  - Ensure there is a system in place to ensure follow-up
  - Ensure there is a system in place to ensure call backs for various post discharge results
  - Neurological complaints: severe headache, any LOC
  - High risk areas: transitions of care/sign outs
    - No interruption during sign outs.
    - Standardize communication during transition of care, e.g. I-SBAR
  - High risk area: Medication

- Confirm the name
- Similar sounding names
- Similarly looking bottles
- Most of the time, when an error occurs, it is a process problem, not a person problem. Error analysis – Root Cause Analysis (RCA). RCA causes the system to look at everything. “The system approach is not about changing the human condition but rather the conditions under which humans work”

### Panel Discussion

New York ACEP hosted a panel discussion during the ED Director Forum. The panel consisted of defense and plaintiff attorneys and an ED physician with experience in ED administration. Below is the selection of questions posed.

**Question on Liability for PA Cases:** What are the liability concerns for ED attendings in a case of “patient seen by PA only” (e.g Fast track), while documenting attending was available for discussion?

**Answer:** The physician is ultimately responsible. Standards of care are doctor made. In this case, the ED attending is ultimately responsible for the care provided even if he/she never evaluated the patient. Additionally, if the chart is billed under the physician, it will be even more problematic from a legal perspective, since there was a relationship established.

**Question on Nursing Notes:** How to reconcile contradictory statements in a nursing note?

**Answer:** Elaborate on why you disagree with the nursing note. Don't just state “disagree with nursing note”. Conservative suggestion: Address the complaint in the nursing note. Be very careful at dismissing the complaint mentioned by a nurse.

**Question on CAREs Act:** What are the liability implications for a patient's access to their own medical records/charts?

**Answer:** Documentation should be appropriate. Most patients don't access them unless they need to look something up. A lawsuit does not depend on documentation, but it can inflame a patient or his/her relative. An angry patient will accelerate this process. Don't be pejorative.

#### Question on Error Disclosure

**Answer:** An apology is a tricky problem. Sincerity and transparency are very important. By disclosing an error to the patient/family, you will be viewed as a sincere and caring physician. If family sees the degree of caring for the patient while the case is still on-going, it will make a difference. Another factor is messaging. While transparency is very important, messaging must be thought out. The provider must be prepared for the discussion.

#### Question on Strategies that Help in Avoiding a Medical Malpractice Lawsuit

- Pay specific attention to patients who otherwise you won't want to deal with, i.e. difficult patients. Diagnoses can be missed if avoiding these types of patients.
- Be nice
- Communicate
- Leave biases at the door





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## The Role of EMS in the COVID-19 Pandemic: In Brooklyn and Beyond

Emergency Medical Services have always been on the frontline of disaster identification and response. While other healthcare providers are generally limited to the controlled environment of the clinic or hospital, EMS personnel are trained to recognize health risks and disasters in the outside world. In 2011, long before “COVID” was part of everyday lexicon, the National Association of EMS Physicians (NAEMSP) issued a position statement that addressed the role of EMS in disaster response.<sup>1</sup> While compelling at the time of publication, the paper now reads like a playbook for how EMS responded to the COVID-19 pandemic. The roles EMS personnel played in responding to the ever-changing challenges posed by the COVID-19 pandemic demonstrates their invaluable role in creating and operating systems to respond to disasters and public health crises.

While much of the country reported decreased EMS utilization early in the epidemic,<sup>2</sup> New York City first witnessed a dramatic increase in 911 EMS utilization with high rates of critical respiratory failure and cardiac arrest.<sup>3</sup> True to the NAEMSP position paper, this left EMS with the task of performing field triage, prioritizing salvageable patients and recognizing the limits of available resources. Availability of resources and concern for spreading viral pathogens made it necessary to deviate from standard protocols. Nebulized medications that could aerosolize viral pathogens were discontinued in the New York City region. Providers were permitted to treat stable patients without actually transporting them to a hospital. Mutual aid ambulances and EMS providers from across the country were mobilized to support us in New York City, despite being unfamiliar with the complexities of our region’s geography and protocols.

At our own institution, our EMS Operations Director also wears the hat of Director of Emergency Management, so EMS was quickly incorporated into the overall strategy for response to the COVID-19 health crisis. At the institutional command center, our EMS providers fulfilled a variety of tasks - from answering phones to transporting patients and equipment to newly converted patient care spaces - all of which were critical to mitigating the patient surge.

As vaccines became available in the following months, our EMS crews created our vaccine points of distribution (PODs). These PODs first served as vaccination locations for our hospital-based healthcare teams but were expanded to meet the diverse needs of the community,

allowing us to provide services ranging from mobile PODs for home-bound patients to pediatric PODs. Our EMS crews were the ideal teams to operate the PODs: they are comfortable with logistical challenges, mobile, fully trained to manage anticipated reactions to the vaccines and readily able to transport patients to healthcare facilities as needed.

The Omicron variant posed another serious test to our institution. By the winter of 2021, our human resources had been depleted. Reflecting declining patient volumes over the previous months, the number of employees at our institution was the lowest it had been in a decade. The dearth of available nurses – especially trained emergency nurses – proved hardest to overcome. As noted by the Institute of Medicine, nursing shortages impede adequate surge capacity in large-scale emergencies such as disasters, terrorism and public health crises.<sup>4</sup> While some authors have contended paramedic training approximates the standards for Certified Emergency Nurse and Critical Care Registered Nurse with only a few areas of deficiency,<sup>5</sup> our institution has not been able to use prehospital providers in this capacity due to agreements with various unions.

Thus, rather than using paramedics as a direct analogue to nursing staff, we created a triage paramedic position within our institution. Initially, our nursing shortage created delays in patient triage and subsequently in ambulance patient offload time (APOT). This kept EMS providers waiting in the emergency department for extended periods prior to giving handoff reports on their patients. The novel position of triage paramedic aimed to shorten APOT by allowing transporting agencies to instead give report to our paramedic triage officer, who would be the one to communicate with the next available triage nurse. This shortened the turnaround time before our municipal, private and volunteer EMS providers could return to duty and respond to the next patient in need. This new role helped to mitigate the impact that our in-hospital resource crisis had on regional prehospital resources. Anecdotally, the triage paramedic position appears to have improved physician satisfaction with the workflow in the emergency department, given paramedics a unique opportunity to work more closely with our ED staff and made a significant clinical impact by reducing patient wait times in both the ED waiting room and in the field.

Of course, examples of EMS stepping up to meet needs precipitated by the COVID pandemic extend far beyond our institution. Jaffe

et al<sup>6</sup> describes the use of EMS providers by the Magen David Adom Ambulance service in Tel Aviv to direct quarantine processes, monitor exposed person clinical status and perform testing in the efforts to contain COVID-19. Marrazzo et al<sup>7</sup> describes how rapid reorganization of EMS dispatch operations in Milan were crucial in mitigating both pre-hospital and hospital resources during the early phases of the pandemic. The ability of well-run EMS to effectively respond to the COVID-19 pandemic across a variety of healthcare contexts demonstrates their widespread importance in public health and disaster response.

Throughout the ever-changing landscape caused by the COVID-19 pandemic, EMS has been a tremendous public health resource. Now, we must advocate for our EMS community. New York ACEP has supported a recent budget proposal<sup>8</sup> to expand the definition of prehospital care, support an enhanced relationship between EMS leaders and public health authorities and ultimately empower EMS to advance their role in public health and disaster management. The COVID-19 pandemic has demonstrated the crucial role of EMS not only in responding to illness and injury on an individual scale, but also in responding to public health crises and disasters on a local, regional and national scale. Forging ahead, we as emergency physicians should consider the ways in which our prehospital resources can enhance our patient care goals. Similar to how emergency physicians - even without dedicated fellowship training - use knowledge of ultrasonography, toxicology, pediatrics and more in their daily practice, so too should we encourage closer integration with EMS on a regular basis. EMTs and paramedics are the boots on the ground that define prehospital care and it will take the participation of every emergency physician to help the field of prehospital medicine flourish and thrive.

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**Flushing Hospital Medical Center in Flushing (Queens), New York seeks a full-time emergency physician to join our team of hospital-employed physicians. Residency training in Emergency Medicine and ABEM/ABOEM Board Preparation/Certification preferred.**

Flushing Hospital Medical Center is the oldest continuously operating acute care hospital in Queens and serves a vitally important role as a 293-bed, not-for-profit teaching hospital in the heart of one of America’s most diverse communities. The Emergency Department recorded nearly 43,000 visits in 2019. The ED is an ACEP certified Geriatric Emergency Department, and a major expansion and modernization project is currently underway. The hospital is a Primary Stroke Center, a Bariatric Surgery Center of Excellence, and hosts residency programs in internal medicine, surgery, obstetrics and gynecology, pediatrics and dentistry. It features both inpatient psychiatry and a Chemical Dependency Unit.

To learn more about this exciting opportunity to join a dynamic group of hospital employed emergency physicians please contact Luis Abas at [labas.flushing@jhmc.org](mailto:labas.flushing@jhmc.org) / 718-670-5766.



# EDUCATION

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Icahn School of Medicine at Mount Sinai

## Finding Career Satisfaction

The past two years have been particularly trying and difficult for the specialty of Emergency Medicine. Prior to the pandemic, emergency medicine doctors were already at high risk for burnout, a survey study found that physicians practicing emergency medicine were 3.18 times more likely than the average physician to develop burnout.<sup>1</sup> The pandemic concentrated the factors causing physicians feeling frustrations of the specialty. The Coping with COVID study predicts a more widespread clinician exodus: in the pandemic's first year, 23.8% of the more than 9,000 physicians from various disciplines in the study and 40% of 2,301 nurses planned to exit their practice in the next two years.<sup>2</sup>

It is clear job satisfaction, physician morale and a call to practice are at a critical low from the last two years. Emergency physicians are tired and the stressors from our jobs have made many of us weary.

However, amongst us, there are plenty of doctors who have been able to continue to find deep meaning in their work. We'll highlight a few of our colleagues who have found continued career satisfaction and we hope can serve as an inspiration to our membership. They serve as a reminder and an example of how to reinvigorate our reasons for practicing in our specialty.



**Ryan P. Bodkin, MD**

**Dr. Bodkin is program director and associate professor at the University of Rochester.**

### 1. What has your career trajectory been?

Initially when I started my residency training in emergency medicine I expected to complete my residency and work as a community emergency medicine physician caring for patients back in my home town. Instead, I truly fell in love with academics and education during my time as a Chief resident in my program. With the mentorship and encouragement of my program director, I decided to jump in with both feet and take an academic position as an assistant program director at the University of Rochester my first year out of training. This was a very intimidating step for me, but when you surround yourself with amazing people who care about you and believe in you, anything is possible. I made it my goal at that time to become a program director myself and hoped to provide future generations with the same incredible mentorship and dedication that I received early in my career. Having achieved my goal of becoming program director, I can honestly say that I could not imagine a job where I didn't have direct interaction with emergency medicine residents and other learners interested in medicine.

### 2. Was there a time in your career that you felt burnt out or dissatisfied with your work?

During the early years of my career I was incredibly dedicated and focused on the goal of putting myself in the best position to become a program director when that job opportunity would present itself. When I finally was offered that position I couldn't have been more excited. I had spent the previous seven years as an assistant and associate program director and was ready to take the reins, or so I thought. About six months into this new position I felt an overwhelming sense of imposter syndrome. I took over this job from my mentor, someone who was the perfect fit for this role and incredibly skilled in the job. This, on top of the administrative burdens that come with this type of job, had me for the first time, second guessing if this was the right role for me. The remainder of that year was incredibly challenging, fraught with a lot of self-doubt and because of this I felt a lack of satisfaction in my job. But in the end it came back to the people, my people. My colleagues, mentors, friends and family were always there to give me what I needed. Whether that was help with a problem, honest feedback about my decisions, an ear to listen or a kick in the butt, they were there for me. I knew they would not have appointed me to a position that I was not ready for and they were always there to support me. My people pulled me back to a place where I could thrive and truly enjoy the job I worked so hard to get and I haven't looked back since.

### 3. What advice do you have for physicians for developing a long and satisfying career in emergency medicine?

First off, believe in yourself, you are capable of so much. You did not get here by accident, it wasn't some mistake that landed you in this role. You are an emergency physician because of endless amounts of hard work and effort, you deserve this. Secondly, find your people. Spend the time to develop relationships with the people you work with. Be vulnerable with them and let them know who you are and what you are all about, only then will they be able to trust you and let you in too. You may have to go first, and that can be hard. Invest time and effort into them and the return will be a career filled with wonderful experiences and lifelong friends.

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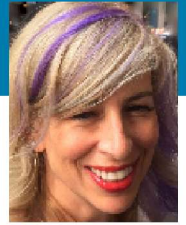
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## RESEARCH

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## Best Practices for Conducting Research in the Emergency Department With Patients Who Suffer From Substance Use Disorder

### Introduction

From overdoses and withdrawal, to skin abscesses and psychiatric complaints, the emergency department (ED) represents an important opportunity to study patients with diverse disease conditions, including substance use disorder (SUD). Fittingly, many emergency physicians (EPs) are very invested in improving care and outcomes for this population. Some EP researchers may be driven by witnessing the healthcare system fail this population, others by personal experience through friends or family who struggle with SUD.

The study of any patient population comes with obstacles and research involving patients with SUD can present unique challenges. Unstable housing, inconsistent cell phone access and other social needs can make it difficult for patients to follow up with appointments or treatment centers and can make follow-up for research nearly impossible. Concomitant mental health diagnoses can further complicate consent and enrollment.

However difficult it may be, SUD patients represent a tremendous opportunity for clinicians and researchers to serve potentially life-changing interventions, especially given the current state of the opioid crisis and the increasing options available for treatment and harm reduction. In this piece, we discuss six practices that may be helpful to consider when conducting ED-based research involving patients with SUD.

### Time it right

Depending on what you intend to study, an ED patient with a substance-related complaint may initially be too somnolent or agitated (if

acutely intoxicated) or too uncomfortable (if in withdrawal), to consider consenting for a study. If you are studying patients in alcohol withdrawal, you will have more success obtaining a thorough history and needs analysis if you talk to them after they have been fully treated for their withdrawal. Similarly, if trying to study patients who present to the ED with opioid overdose, it will be necessary to wait until the patient has adequately metabolized the opioids and has normal mental status but prior to discharge. Good communication between the research team and ED providers regarding the timing of the approach is key. If available, a chat function embedded in the Electronic Health record, such as Epic Secure Chat<sup>®</sup>, can be very useful.

### Be considerate of the patient's situation

Approach the patient in a gentle and empathetic way. Many patients with SUD have concomitant mental health diagnoses and it helps to approach them with compassion, patience and a nonjudgmental attitude. Trying to understand their concerns and where they are coming from can go a long way.

Many studies include patient incentives (e.g. gift cards) out of consideration for a patient's time and, as in all studies, enrolled patients will be very grateful. However, it is important to recognize this can be a vulnerable patient population and to make sure to avoid manipulation or coercion.

### Enlist your co-workers

Getting your ED colleagues on board with understanding *what* you are studying and *why*

it is crucial to the success of your study. Many patients will be referred to your research team by the ED providers caring for them. Posting signs in the ED can also be helpful for both patients (if offering an ED-based intervention that may benefit the patient, such as suboxone) as well as to remind ED providers of the study inclusion and exclusion criteria. Some EDs find morning rounds or huddles are a good place for researchers to remind the larger clinical team of ongoing research studies.

The population of patients with SUD are often stigmatized by society and this stigma and bias too often carries over into medical providers as well. However, many providers feel more positively towards treating a patient with SUD if they feel that they can intervene in a meaningful way, whether that means starting patients with opioid use disorder on buprenorphine or getting a patient connected to appropriate outpatient resources for ongoing care. Sometimes this will mean working with the social work and care coordination team to create a list of up-to-date SUD programs that are accepting patients. Empowering providers to connect these patients with the appropriate out-patient resources can help to decrease frustration and stigma that may exist.

### Think creatively about follow-up

Studies that require post-ED visit follow-up can be challenging but also provide invaluable data. Getting multiple contact numbers from a patient, including family members or friends as secondary contacts, can be key to making sure you have the necessary contact information when you are looking to connect in the future for follow-up. If a patient is willing to give a

family member's contact information as a secondary contact, this can go a long way towards reinforcing a patient's support network. Testing the phone number while the patients is still in the ED can help detect any inaccuracies in the number recorded.

Depending on your hospital's policies, you may consider other means of communication including email or social media to connect with enrolled patients (e.g. connecting to your patient through a site such as Facebook to message them or obtain current contact information). Of course, an emphasis should be made on ensuring privacy and security and protected health information should not be shared in this way. However, this may represent another manner for researchers to access patients for follow-up. Researchers have had success creating a social medial presence for their research group and having patients who are willing to connect. For some, social media accounts are more of a constant than a cell phone number and the ability to send a message through a social media platform can help link patients and researchers.

### Create reasonably broad inclusion criteria

Don't define your population too narrowly, where possible. Many SUD presentations involve more than one substance and it may not always be obvious from the beginning of a patient's ED course which substances they are using. Similarly, patients under 18 years old can develop opioid use disorder, just like older adults. Abuse of prescription medications (e.g. opioids, benzodiazepines, methamphetamines) may be worth including in a study of patients who abuse similar medications purchased "on the street", depending on what you are studying. The profile of someone who struggles with SUD is not monolithic and the most useful research will be generalizable.

### Share the successes

When a patient does well as a result of an intervention (e.g. referral to a Medication-Assisted Treatment (MAT) clinic for opioid use disorder), share the win with the entire research and clinical team! It is these personal stories that make this research worthwhile and motivate

your clinical colleagues to call the research team the next time they are caring for a patient who may be eligible for a study. It is so important to remind people of the positive impact they are having, particularly with burnout rates so high in emergency medicine.

### Summary

Research involving patients with SUD can be highly impactful and it will serve the research team well to think through some of the unique aspects of this patient population when designing and executing such research projects. There are many unique challenges researchers will encounter when trying to conduct research with this patient population. That having been said, this type of research will offer the opportunity and the privilege of engaging with this population and potentially help a highly vulnerable group of people who have historically been overlooked/understudied in the acute care setting. These six tips may improve the chance of making this research a positive experience for all those involved: patients, researchers and clinicians.



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# ASK THE EXPERTS



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**Interviewer**  
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**Interviewee**  
**Mark K. Su, MD MPH FACEP FACMT**  
Director, New York City Poison Control Center  
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I had the pleasure of speaking with Dr. Mark Su about his impressive career in toxicology. Dr. Su is the current Director of the New York City Poison Control Center (PCC). He is also an emergency medicine attending at Bellevue Hospital Center. More than 10 years after completing his fellowship training he received his Master's in Public Health degree. He is now the senior biostatistics editor for the Journal of Medical Toxicology. At this point in his career, he feels he has achieved the best balance of all worlds: emergency medicine, toxicology, education and research.

Thank you, Dr. Su, for taking the time to participate in this interview.

## **DeSanno: Can you share with us why you pursued a career in toxicology?**

**Su:** I was like everyone else, an emergency medicine resident, interested in everything. I liked everything. That's why we go into emergency medicine. However, somewhere in my third year of residency, I needed something more. Toxicology filled the role. I love it. I still love emergency medicine. It is a great part of my life. I tell people all the time I have a great job. I love my job. Every day is different. It is very fulfilling.

As for why specifically toxicology, well, when I was training, there were not as many options as there are now. I loved critical care and had critical care fellowships been more developed at the time, I might have chosen it. But toxicology was natural for me. The one thing I really liked about toxicology was that nobody else really does toxicology and that is really a unique aspect. Ultrasound has radiologists, sports medicine has orthopedists and critical care has intensivists. That was a driving force for me because it truly was an area in emergency medicine that no other specialty does.

## **DeSanno: What does a typical day and week look like as a toxicologist?**

**Su:** Previously, coming out of residency I was core faculty working full-time clinical at 27 hours. I left that job for a different position, becoming Fellowship Director, moving to 20 clinical hours, the rest, toxicology. Now in my current position I work about one shift a week clinically in emergency medicine, the rest is toxicology.

Being at the PCC, I live and breathe toxicology. Pre COVID we were receiving about 90,000 calls per year, 30,000 from the public asking for information and 60,000 from exposures. My day-to-day activity is hearing about toxicology cases that come to the hospital or the PCC. For the cases that are local and within the NYU system, we physically see the patient at the bedside. We are consultants to the five boroughs. I teach fellows, residents and rotators. We also have to teach the PCC personnel including the staff that answer the phones (i.e., specialists in poison information). It is my responsibility to supervise these specialists in their day-to-day activities as well. In my prior position, I felt more like a part-time toxicologist. Therefore, working at the PCC was a big shift for me.

I have had this position for about nine years now. It got me to a place where I am still able to practice emergency medicine; I spend 90+% of my time doing toxicology on a day-to-day basis. That was a very big moment in my life in many respects.

## **DeSanno: Do you have to live near a regional Poison Control Center to be a toxicologist?**

**Su:** In short, no. Some hospital systems have a toxicology consult service without being directly affiliated with a PCC. It was more logical for me to work at the PCC consider-

ing my public health skills. Toxicologists can practice outside of a PCC. They can try to do so although it is a struggle to practice in this setting because of the challenges in trying to get financial reimbursement. In fact, I would never tell people to go into toxicology to try to make more money. Most people who have done toxicology fellowships as I did, practice mostly in emergency medicine and do toxicology "on the side." Not everyone does this though and others do research or have even branched out to more broad avenues such as addiction medicine. I even have a friend that works for the CDC!

## **DeSanno: Does a career in toxicology always equal a career in academia?**

**Su:** I don't think so. I think a lot of us like the angle, though. When I went into toxicology, one of my motivating factors was that I was interested in academia. I was interested in having a niche in emergency medicine so that if I were to apply to an academic job, I am an expert in a specific field. It is not mandatory; you can still be involved in the clinical care at your hospital.

After more than 10 years post fellowship training, I obtained my Master's in Public Health degree with a focus on biostatistics. This has encouraged my teaching and research avenues. I intertwined the public health principals and biostatistics and applied them to toxicology. I did an accelerated program that was three semesters long. Traditionally it is over two years. I paid out of pocket and it was not cheap but I would pay for it over and over again because it was totally worth it and it altered my career trajectory significantly.

## **DeSanno: What are the challenges you may face with a career in toxicology?**

**Su:** This is a tough question. A personal challenge I have faced is that there are many

fellowships producing toxicologists and consequently case reporting and call volume to the NYC PCC is decreasing. There are many toxicologists in NYC. Therefore, people are not calling cases into the PCC. We need people to call us! We are a government, state and city-funded institution. From a public health standpoint, because reporting is less, we may not hear about an outbreak of a new substance and cannot understand the epidemiology and alert the public of potential risks. It also puts us at risk of losing funding.

Another thing to reiterate is that people are not making more money in toxicology despite spending an additional two years of life in training. You really have to have a passion for the subject area. There is no financial incentive but the academic fulfillment is wonderful.

The challenges you may face in the community are that you do not get to see the breadth of cases and may lose some of your academic toxicology practice. You may not get as much exposure. Being the lone toxicologist somewhere, you may have to take calls for your hospital system by yourself. That is a big lifestyle thing to consider and one that most people in toxicology would not want.

### **DeSanno: How can you advance your career within toxicology?**

**Su:** It depends what path you want to go in and what you define as “advanced.” Many toxicologists end up in administration as chairs, residency directors or fellowship directors. I think it is a natural progression for toxicologists to be involved in teaching or other administrative aspects.

My MPH was a unique advancement it seems. Many people in emergency medicine do not have additional degrees beyond the MD or DO. As I mentioned earlier, I have a friend that works for the CDC. I asked him for advice years ago while in the community setting where I felt that emergency medicine was all about money and reimbursements. That path was not fulfilling for me. My friend suggested obtaining an MPH as it could open doors to different pathways. After completing the MPH, I knew he was right and it was a natural progression into a career path that could be combined with toxicology too.

Some career advice I have for people would be to surround yourself with people of like-minded interests. When you work with other people, there is a synergy to help motivate you and make you more productive. The

sum is always greater than the individual parts.

### **DeSanno: Any tips to help colleagues or those interested in pursuing a career in toxicology?**

**Su:** If you have an interest in toxicology, find a toxicologist and do something with them. See if that specialty is for you. Like everything in life, try to expose yourself to it as much as possible. If you are not exposed to something, you are never going to know if you like it or not. I never had a plastic surgery experience, but who knows, if I had a rotation in plastic surgery, I may have loved it. My whole career path would have changed.

In summary, I love toxicology. I want the whole world to love toxicology! I want people to appreciate it and to love it. It is a very fulfilling career. I could do my job 24/7 if I didn't have to sleep. That's the kind of feeling I get and everyone should feel like this. You know the old saying, “Find a job you like you never work a day in your life.” That's what toxicology is to me. It never feels like work.

## **Board of Directors Election**



This June, New York ACEP members will receive the 2022 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 1. Proxies will be sent by email to all New York ACEP members in June. Members may cast a proxy in person at the New York ACEP Annual Meeting Thursday July 7 at 12:45 pm at The Sagamore Resort on Lake George in Bolton Landing.





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## Understanding Mobile Integrated Health - Community Paramedicine

For decades, medic agencies have operated with a “you call, we haul” process. The 1965 Social Security Act established payment for the transportation of patients to hospital emergency departments, skilled nursing facilities and dialysis appointments among other destinations.

As the new saying may go over the coming years: imagine going to the emergency room without leaving the living room.

The COVID-19 pandemic has forced health systems across New York State to devise innovative emergency response systems. Volumes have fluctuated across urgent care clinics and hospitals, suggesting a paradigm shift that all emergency services should be provided in the “doctor’s setting.” Studies have shown many patients, especially older adults, now embrace alternative technologies including telehealth for receiving medical care.<sup>1</sup> In fact, one in four Medicare beneficiaries experienced a telehealth visit during the COVID-19 pandemic – significantly higher compared to the pre-pandemic period.<sup>2</sup> Many are left scratching their heads, asking themselves “what alternatives do we have to care for our communities?”

An emerging area is **mobile integrated health care - community paramedicine** (MIH-CP) and the delivery of EMS-driven care in the home setting using mobile technology. Medics are trained to provide patient-centered medical services like completing a full medical evaluation, contacting a telehealth provider for additional treatment options and addressing other areas like fall risk and medication refills.

The goal: to avoid unnecessary emergency department visits, hospitalizations and readmissions particularly for high-risk patients.

The basic workflow of MIH-CP goes as follows: a provider requests an official visit followed by a community paramedic dispatched to the patient’s home to conduct a medical evaluation - a process supervised in real-time by an emergency physician via telemedicine. The decision is then made to either (a.) treat in place, (b.) transport to an alternate destination or (c.) transport to the emergency department. The National Association of Emergency Medical Technicians (NAEMT) reported in 2018 there were over 200 community paramedicine (CP) programs nationally and that number has only grown since the pandemic started in 2020.<sup>3</sup>

In New York State, momentum is building to foster more collaboration. Bill S1590 – now on the floor of the New York State Senate – aims to create more collaborative opportunities among hospitals, EMS agencies, physicians and home care agencies for CP. New York Governor Kathy Hochul signed an executive order last October (2021) to ramp up telehealth initiatives for supporting staffing shortages and members of the Scarsdale Volunteer Ambulance Corps were recently commemorated for starting their own community paramedicine program last year.

The advent of home care using medics and telehealth-connected providers has created special initiatives extending across New York State, offering important lessons about the

future of home-based care. The Mount Sinai and Cornell-Presbyterian Health systems are collaborating on a unique Patient Centered Outcomes Research Institute (PCORI) funded (HS-2019C2-17373) “Using Mobile Integrated Health and Telehealth to Support Transitions of Care among Patients with Heart Failure” (MIGHTY Heart) study: a multi-site, randomized, pragmatic trial that compares the effectiveness of MIH to standard post-discharge care among older adults with heart failure who have been discharged home from the hospital. The trial has shown promising early signs of having medics use structured checklists for their home evaluations, coordinating virtual care platforms within a given health system and working across networks to facilitate monthly follow-up care for high-risk patients.

MIH-CP and programs like MIGHTY Heart have shown most segments of the population - especially older adults - can be reached for health care services despite significant challenges in the pre-pandemic era. Despite 80% of the US population having connectivity to the internet, there are still significant disparities regarding internet access across many demographic variables.<sup>4</sup> The pandemic even illustrated that communities hardest hit by COVID were the least likely to use telehealth.<sup>5</sup>

Another unique initiative is the new payment model “Emergency Triage, Treat, and Transport (ET3) model.” ET3 is an alternative payment model that will allow ambulance agencies to participate in new pathways for Medicare fee-for-service beneficiaries. The

initiative in New York City remains part of a national program, aiming to connect patients in their homes to major health systems and their ability to coordinate care. Telemedicine encounters, transportation to alternative care destinations and traditional hospital transport will be allowed. Early signs of success have already been seen in other parts of the country including Miami-Dade county (FL), Philadelphia (PA) and Milwaukee (WI).

Novel initiatives like MIH-CP, MIGHTY Heart and ET3 remind us that emergency medicine offers enormous value to patients beyond the walls of hospitals. Public health systems must be robust in the aftermath of COVID-19, providing impetus for steadfast coordination between stakeholders to offer even better acute, unscheduled care services to communities in New York State. The traditional “you call, we haul” expression will hopefully soon be a thing of the past.

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# PEDIATRICS



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## Pediatric Hyperpyrexia: A Review

The evaluation and management of pediatric fever has changed drastically over the past few decades. For this reason, it is important for the general emergency medicine provider to identify factors that may place the child at high risk for poor outcomes. In this review, hyperpyrexia will be defined as a temperature of  $\geq 40.0^{\circ}\text{C}$ . High fevers raise concern for families and providers alike, mostly as a result of in vitro studies which have found temperatures above  $42.0^{\circ}\text{C}$  are cytotoxic due to protein denaturation and impaired DNA synthesis.<sup>1</sup>

Fever is commonly used as a sign of infectious illness in children. Prior teaching was the higher the fever the more likely an infection was due to a bacterial source.<sup>2,3</sup> Therefore, many providers are inclined to perform a more extensive diagnostic work up when a patient presents with temperatures greater  $\geq 40^{\circ}\text{C}$ . However, to fully understand hyperpyrexia, one must first understand normal thermoregulation. The normal core body temperature is around  $37^{\circ}\text{C}$  and deviations from the normal will activate thermoregulatory mechanisms.<sup>4</sup> The control center of thermoregulation is located in the hypothalamus.<sup>4</sup> In response to cytokines, prostaglandin E2 is produced and inhibits the preoptic area of the hypothalamus which “raises the temperature set point” by disinhibiting downstream heat generating processes that cause a fever including vasodilation.<sup>4</sup> Although the definition of fever is broadly accepted as any temperature  $\geq 38.0^{\circ}\text{C}$ , the definition of hyperpyrexia is variable.<sup>2,3,5</sup> Over the years, the definition of hyperpyrexia has constantly shifted with some sources defining it as any temperature  $>41.5^{\circ}\text{C}$ <sup>4,5</sup> to any temperature  $>40.0^{\circ}\text{C}$ .<sup>6</sup>

### Causes

Hyperpyrexia can occur due to several etiologies, however categorizing them into four main groups can be helpful: infectious, toxin induced, environmental exposure and endogenous.

The most often thought of source causing hyperpyrexia is infection. Although dogma once was the majority of hyperpyrexia was indicative of a bacterial infection, successful implementation of routine childhood vaccines have led to significant changes in the epidemiology of infections in the pediatric population.<sup>7</sup> *Haemophilus influenzae* and *Pneumococcal pneumoniae* were once the major organisms causing serious bacterial infections and hyperpyrexia.<sup>7</sup> These organisms have declined since the introductions of *Haemophilus influenzae* type B and *Pneumococcus* conjugate vaccine 7 (i.e. Hib and PCV7) vaccines in 1988 and 2000 respectively.<sup>8-10</sup> Viral etiologies have now become the predominant

source of infectious hyperpyrexia.<sup>7</sup> The most frequently encountered viral pathogens responsible for hyperpyrexia includes roseola and influenza.<sup>7,11</sup> The most recent prospective study on hyperpyrexia found the majority of children with hyperpyrexia presenting to the Emergency Department (ED) had no positive bacterial cultures.<sup>12</sup> Only 18.4% of subjects had a culture positive serious bacterial infection (SBI) such defined as growth of a clinically significant bacterial pathogen from blood, urine, stool, cerebrospinal fluid (CSF) or any normally sterile body site.<sup>12</sup> The viruses identified in this cohort from viral testing were adenovirus, influenza A, Respiratory Syncytial Virus, parainfluenza 3, picornavirus and cytomegalovirus. The presence of a chronic medical condition was associated with an increased risk of bacterial infection.<sup>12</sup>

There are several common pharmacologic or toxicologic exposures which may result in hyperpyrexia. First, side effects from appropriately dosed medications such as neuroleptic malignant syndrome associated with antipsychotics and anti-emetics such as metoclopramide, promethazine and levosulpiride.<sup>13,14</sup> Second, adverse reactions due to excess ingestion of medication or recreational drugs including sympathomimetics, anticholinergics, salicylates and thyroid replacement.<sup>15</sup> Lastly, inhalational anesthetics may cause hyperpyrexia in the setting of malignant hyperthermia.<sup>13</sup>

Environmental exposure to exogenous heat sources which overwhelm the body's compensatory heat loss mechanisms result in hyperpyrexia. This is often seen in hot environments with excess physical activity.<sup>16</sup>

Lastly are endogenous sources which can be grouped into neurologic, endocrine and autoimmune etiologies. Neurologic sources originate due to a damaged hypothalamus which causes rapidly fluctuating temperature set points (i.e. neurostorming). This can occur with any brain injury but is most commonly from direct trauma including head injury or neurosurgery. Endocrine sources are related to an overactive thyroid which raises the basal metabolic rate resulting in hyperpyrexia, particularly during thyrotoxicosis. Lastly, autoimmune conditions such as systemic onset juvenile idiopathic arthritis have been identified as a source of inflammation resulting in increased levels of cytokines, thereby establishing a high temperature set point.<sup>17</sup>

### Epidemiology

There is a notable paucity of hyperpyrexia epidemiology research from 1980 onward. The most recent metanalysis in 2018, identified viral and



bacterial infections as the most prominent cause of hyperpyrexia.<sup>7</sup> Small single institution studies have identified the other causes of hyperpyrexia as an exceedingly rare event, accounting for < 1% of the cases.<sup>12</sup>

## Diagnostic Evaluation

As with many conditions, a good history and physical can help narrow down the differential. Any child, regardless of age, that appears unwell should have a septic workup including cultures of blood, urine and – in the appropriate clinical context – CSF as well as chest X-ray.<sup>18-23</sup> In well-appearing young infants, ≤60 days old, without a source of infection, recent risk stratification tools have been developed to help identify the possible presence of bacterial infections and the need for empiric antibiotics depending on your institution's laboratory capabilities and your comfort with assessment of young infants.<sup>18-21</sup> In well-appearing children older than 60 days old, the presence of viral symptoms other than diarrhea were shown to be associated with a lower risk of SBI, however a clinical indicator that could reliably distinguish between bacterial and viral etiologies, was not identified.<sup>12</sup> Other symptoms such as rash and seizure were not reported and there is a gap in this data. Leukocytosis was not associated with increased risk of SBI.<sup>12</sup>

A thorough history should include inquiry into medications or other substances used by caregivers and others around the child. Availability of drugs or medications associated with hyperpyrexia may clue the provider in to a toxicologic etiology. Similarly, an inquiry should be made into the child's physical environment and recent activity to determine if these may have played a role in the development of hyperpyrexia. The history should also note any trauma or surgery that could have led to damage to the hypothalamus.

## Treatment

While investigation is pending, treatment consists of antipyretics, removal from warm environment and implementation of a cool environmental (i.e. ice baths, cold packs, cool mist, evaporative measures) to decrease the temperature. Antipyretics work by altering the prostaglandins and thus restoring the thermoregulatory set point. Most common antipyretics are acetaminophen and ibuprofen. Acetaminophen is the most widely used due to its safety at therapeutic levels. Ibuprofen is used in children >6 months and has the added effect of anti-inflammatory effects. There is no data on hyperpyrexia and combination or alternating antipyretics but studies completed on fever in general have showed limited benefit.<sup>24</sup> External cooling is recommended when rapid cooling is needed to limit end organ damage however antipyretics are required before external cooling to change the set point.<sup>25</sup> If you have high suspicion for bacterial sepsis, initial treatment includes broad spectrum antibiotics to cover for SBI, bacteremia and possibly bacterial meningitis.<sup>7,12</sup> Future research is needed to stratify those pediatric patients presenting with hyperpyrexia at high risk for SBI, bacteremia and bacterial meningitis, therefore aiding in decisions on extent of diagnostic evaluation needed and optimal treatment regimens.

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 Member, New York ACEP Board of Directors



## March Madness: An Alarming EM Residency Match

March 14<sup>th</sup> was the beginning of “Match Week”. Medical students across the country learned whether or not they had matched into a residency and residency programs learned whether or not they had filled their available positions. Perennially, it’s an emotional day for students: Joyous relief for most, but rapid cycling through the Klüber-Ross stages of grief for the disappointed minority who didn’t match and must enter the SOAP process (formerly known as “the scramble”). The competitive specialties (ours included) normally have very few unfilled positions. This year, however, our specialty experienced something several standard deviations away from normal: There were 219 unfilled residency positions in Emergency Medicine.<sup>1</sup>

219 unfilled positions in Emergency Medicine (EM) is a shocking number which demands our attention. Data from the last five years is useful in placing the aberrancy of the 2022 match into context (figure 1).<sup>2-9</sup> Whereas in recent years we have seen 98.8% to 99.7% of available EM positions filled in the match, that rate plummeted to 92.5% in 2022. This corresponds to a drop in the number of medical students applying into EM - 3,081 (7.2% of NRMP participants) this year, down from 3,734 (8.9%) last year. The interest in EM fell off a cliff this year; the importance of trying to understand why it happened cannot be overstated.

Studying non-events (i.e., why students *didn't* choose EM) is challenging, but there are two factors which seem likely to have been powerful influencers.

### 1. COVID

Medical students in the class of 2022 are the first graduating class whose entire clinical education occurred during the COVID pandemic. Most medical schools begin the clinical experience in earnest sometime between the middle of the second year and the beginning of the third year. The initial 12 months on clinical rotations is formative and is the time when many students find their calling to their future specialty. The prior class (of 2021) had 6-12 months of clinical exposure prior to COVID. This class (of 2022) began their clinical years ensconced in the pandemic and have known nothing else.

The extent to which the pandemic induced some students to choose specialties other than EM is unknowable (perhaps even to the students themselves), but we must acknowledge their perception of our specialty is different than any class to have come before them. Lifestyle has been cited<sup>10, 11, 12</sup> as amongst the strongest influencers for choosing EM, but during the pandemic the emergency physician’s lifestyle (like everyone else’s) was drastically altered. We were no longer distinguished by our days off for travel and leisure and our punch-in/punch-out shift-work. Another major driver of student’s choice of emergency medicine is hospital orientation,<sup>10</sup> but that may also seem less attractive now that one’s

mere presence in a hospital has become both uncomfortable and risky. Office and outpatient settings now seem more attractive.

We emergency physicians regard our service during the COVID pandemic as one of our finest moments. We were brave, resourceful, compassionate, cooperative and collegial. But EM certainly looked different to the class of 2022 than to those prior. A more complete accounting of how the student’s perception of our specialty has changed will take time, but it is difficult to imagine that our collective shell-shock during the height of the pandemic and our collective PTSD was not duly noted by undifferentiated medical students.

### 2. The Workforce Report

In April of 2021, ACEP released the work product of a rigorous study examining the current and projected supply and demand of emergency physicians through 2030 and the EM community began to digest, debate and discuss “The Workforce Report”.<sup>13</sup> At that time, Match Day 2021 had just passed and the next class of rising senior medical students would have the better part of a year to choose a specialty. As those of us in undergraduate and graduate medical education can attest, questions about the future job market in EM were as thoughtful as they were frequent during Q&A sessions, interviews and all other modes of faculty/student interfaces. The students were keenly aware of, and appropriately concerned about, the report’s findings.

This is not the forum for an exposition of the nuances of the report, its methods or assumptions. The punchline: “...a surplus of 7,845 emergency physicians in 2030.”<sup>13</sup> is the salient feature. That projection, based in part by expansion of EM residency programs and increasing involvement and autonomy of Nurse Practitioners and Physician Assistants in the provision of emergency care, likely suggested to undifferentiated students that the future in EM would be one of fewer jobs, in less desirable locations, for less money. The astounding increase in unfilled residency positions, if attributable in part to the workforce report, represents an effect of that report which few (if any) predicted to manifest so drastically, so quickly.

If we believe in the importance of our specialty, then we must believe it deserves the best and brightest of medical students vying for the privilege of matching into an EM program. We are working shifts *now* with the students who will enter the 2023 match and many are yet undifferentiated. It is imperative that we each consider our ability to make an impact. If the above factors contributed to the 219 unfilled residency positions, we should...

*Keep educated on the corporate expansion into EM, as well as the concurrent opening of new residency programs.*

The fast-paced expansion of EM training programs is real. In the last five years at least 35<sup>1-9</sup> new programs were created (not including formerly Osteopathic programs merging into ACGME) and the number of available EM positions increased by 19% from 2,357<sup>†</sup> to 2,921<sup>1-9</sup>. Although these programs mostly filled and the EM match rate remained stable through 2021, it is possible that 2022 was a tipping point.

There is no single entity which has the mandate or authority to regulate the EM job market, so the question of why do “they” keep allowing these new programs to open is a moot one. Furthermore, since the ACGME ensures a minimum standard of quality, these “new” programs are ostensibly of comparable quality to established ones.

Individually, we should take great care when considering getting involved as faculty or leadership in a new program. Some new programs may be worthy endeavors, but others may not. When deciding whether or not to devote our talents to a new program, the impact on the health of our specialty should be given some consideration. As the ratio of EM residency positions to graduating medical students increases, the specialty becomes less competitive.

#### *Resist the inappropriate expansion of scope of practice of non-physicians.*

The 2023 New York State budget has become law and includes a provision to remove the requirement in the State Education Law for a nurse practitioner to engage in a collaborative practice agreement with a physician for the delivery of all health care services<sup>14</sup>. NPs new ability to practice medicine in New York unsupervised is a significant development and dangerous.

As emergency physicians, we should assert ourselves as allies of our patients and the public. We should ensure that our patients understand the role of each person involved in their care, and we should never compromise the right of every emergency patient to have a physician directly involved in their care. While there is a role for NPs and PAs on emergency care teams, autonomous or barely supervised practice is deceptive (patients presume that when they visit an ER they have seen a physician), unsafe (one of the cornerstones of an emergency physicians education and training is our ability to sniff out danger in patients triaged as “low acuity”), and threatening to the EM workforce (savvy medical students will recognize the market forces acting against emergency physicians as the scope and utilization of NPs and PAs expands).

#### *Do our best work, be our best selves.*

As we stagger to our feet after getting punched in the face by COVID, we should consciously focus on getting our EM mojo back. Remember, each of us had options, but we chose EM and we know it to be exhilarating, rewarding, important, impactful, cerebral, tactile, dynamic and a proud part of our self-identities. If

we are having feelings of exhaustion, burnout or stress, we should acknowledge that we have just emerged from what will be one of the most difficult periods of our personal and professional lives and the pandemic is not a permanent condition. There is light and we can hope and expect the practice of EM will recover much of the pre-pandemic luster which has attracted the best and the brightest for years.

As we showcase our specialty for the classes of 2023 and beyond, we should do our best to practice well, intubate, defibrillate, palliate, smile under our masks, connect with our patients, teach our students and residents, learn from our consultants, support our colleagues, thank our nurses, leave our charting at work, coach our kids teams, hike, play our instruments, paint, read, write, take a weekend (or a two-week) vacation, and be the best versions of ourselves as persons and physicians. The students will notice and they’ll want a piece of the action.

†This number includes Osteopathic positions prior to ACGME merger.

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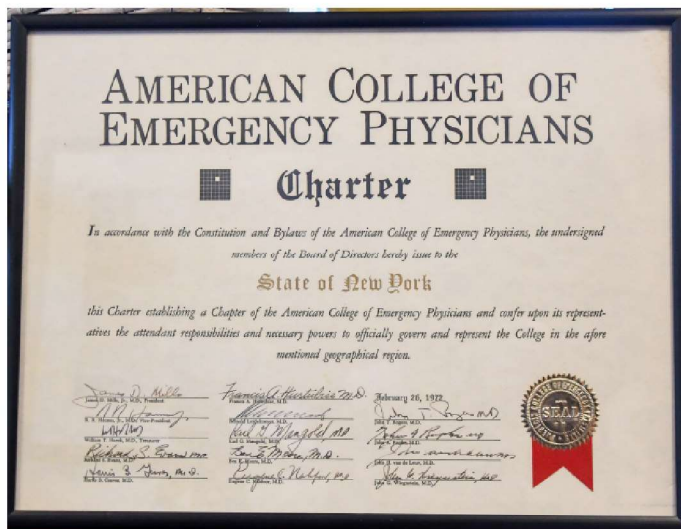


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## Guess Who's Turning 50?

New York ACEP turns 50 this year and while the office informs me New York ACEP has not yet received it's AARP membership card, we are planning a year of celebration kicking off at our Scientific Assembly at the Sagamore July 6-8 and we hope you can join us! Many of us have heard the stories of the early days of National ACEP and how it was founded in 1968 by a few physicians in Michigan, but how much do you know about our New York State Chapter?

New York ACEP was founded in 1972, just four years after ACEP and our Charter was signed on February 26, 1972. If you look closely, you will undoubtedly recognize many of the signatures of the original ACEP board members and legends in emergency medicine.



At the time, it was unclear to the initial New York ACEP founders how many emergency rooms (they weren't called departments then) there even were in New York State or how many physicians there were working in those emergency rooms as Emergency Medicine (EM) wouldn't become a recognized specialty until 1979, seven years later. Due to lack of DOH records regarding emergency department (ED) visits back then, it is not known how many visits there were in 1972, however, it has now grown to approximately 7 million annual visits in New York State in 2019, the last pre-pandemic year. Here are some interesting facts from 1972:

- A gallon of milk cost \$1.20
- A gallon of gas cost \$0.36
- New home cost \$35,000
- Richard Nixon was President
- Best Picture Oscar: The French Connection

The very first meeting was of The Standing Committee which was held March 25, 1972, in Binghamton, NY with five of the original seven members present. It was at this meeting our first chapter president, Dr.

Edward W. Gilmore was elected. Other action items at this meeting were the setting of dues for chapter membership which would have cost you \$10 a year back then, the formation of only two standing committees which were Bylaws and Membership. The plan for the membership committee was that each member of the board would get a list of the hospitals in their area and then contact them to see if they had licensed physicians working in their emergency room (if they had one) and try to get these physicians interested in joining. The group also decided there would be a State Convention with a registration fee of \$10 to be held in Binghamton in September of that year and they estimated between six and 50 people would attend (but probably close to the lower end). The plan was for the meeting to be one day, mid-week and would consist of education, a business meeting and a general discussion of mutual emergency room problems. The State Convention did occur September 20, 1972, as the first annual meeting of the New York Chapter and this could be considered our first Scientific Assembly which was attended by 22 members and had only two lectures. The very first lectures were, "Pediatric Epileptic Emergencies and Diagnosis of the Comatose Child" presented by Dr. Charles Greene and "Cardiac Emergencies and Treatment" by Dr. M.I. Abdelazim (note the initials MI, coincidence? I think not), which by all reports were very well received by those in attendance. The meeting also included a business meeting session where there was a lot of discussion around membership requirements, standards for EM to be discussed with the State Education Department and establishing the criteria for the Board of Directors which would consist of eight members from the general membership.

At the December 10, 1979 meeting it is noted in the minutes that a "discussion was held with great concern about the relationship of the hospital administrators to the emergency department physicians." It would seem even back then the hospital administrators had a lot to say about ED operations and practice and while not specifically mentioned, this may be one of the earliest discussions of boarding even though no one called it that then. In 1980 the Scientific Assembly would have cost you \$200 as a New York ACEP member and was called the June Symposium which was held at the Rye-Hilton in Portchester, NY. When accounting for inflation and consider what \$200 would equate to 42 years later, this year's Scientific Assembly is probably the best deal around! It also appears our concerns about the content of the ABEM exam and how well it reflects EM practice go way back to the initial exam as there is discussion in the board minutes they decided to send a letter to Dr. Podgorny concerning ABEM and that it did not reflect the practice of emergency medicine. While the exam fee has dramatically increased since 1980 it seems many of the complaints over the years are consistent.

Some other notable events include raising the dues to \$50 in 1982. This newsletter, EPIC has been in production since the very early years with discussion of it in board minutes from the mid 1970s, although it's content and production qualities have increased dramatically over the years. EMS in New York also developed along a similar timeline as emergency medicine and there are numerous discussions of EMS in our

meeting minutes throughout the 70s and early 80s including establishing the EMS committee as one of the earliest committees. As many of the early members were from the New York City area, there was significant involvement with the New York City Regional EMS Council (REMSCO) and development of EMS protocols and practices which has continued throughout the years and we currently have EMS physician involvement with all the REMAC/REMSCOs statewide.

New York ACEP is not without its share of tragedies as well as it appears being President was hazardous to your health for a while as Dr. Leon Taubehaus died before taking office, Dr. Jeffrey Higgs got severely ill and was not able to serve his term as president and finally Dr. Alvin Scott was unable to serve as president after dying in a scuba accident. There were also a couple of board members who suffered MIs and were not able to become president as well and it seems this run of misfortune was what led to the initial two-year term for president.

New York ACEP has a very rich and colorful 50-year history and has been a voice at the table for every major healthcare event in New York over the years including EMTALA, HIV/AIDS, 9/11 response, boarding and most recently, COVID. The Board and the 50<sup>th</sup> Anniversary committee are very excited to share more of this history and a special presentation at the Scientific Assembly this year and hope you will join us.

We will continue our celebration all year and would love to collect any photos or other memorabilia you may have which can be shared with the New York ACEP office.

*Special thanks to the New York ACEP staff for providing the original*

*minutes and background materials for this article.*







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### Emergency Department Utilization Among Maintenance Hemodialysis Patients: A Systematic Review.

Han G, Bohmart A, Shaaban H, Mages K, Jedlicka C, Zhang Y, Steel P; Department of Emergency Medicine, Weill Cornell Medicine, New York; *Kidney Med*; 2021 Dec 3;4(2):100391.

**RATIONALE & OBJECTIVE:** To evaluate predictors of emergency department (ED) utilization by adult patients receiving hemodialysis (HD) and interventions to reduce ED utilization by HD patients.

**STUDY DESIGN:** We searched Ovid MEDLINE, Ovid Embase, and the Cochrane Library for randomized controlled trials and observational studies published until April 2020.

**SETTING & PARTICIPANTS:** We included studies that investigated predictors of ED utilization and/or interventions to reduce ED utilization in HD patients. We extracted data regarding the study design and study population and results regarding ED utilization from 38 studies using Excel software.

**ANALYTICAL APPROACH:** We performed a narrative synthesis to group articles that investigated similar themes.

**RESULTS:** 1,060 titles and abstracts were screened, of which 98 were selected for full-text review. In total, 38 studies met the inclusion criteria and underwent data extraction. Quality was high according to the Downs and Black tool, with 11 studies rated as good, 22 as fair, and 5 as poor. 34 studies described predictors of ED utilization, whereas 4 studies investigated interventions in which ED utilization was studied. Our narrative synthesis produced 8 concept subgroups in the core concepts of access to care, comorbid condition burden, and new health care models. Poor access to care and a high comorbid condition burden are associated with increased ED use. No ED-based interventions designed to reduce ED utilization were identified, but recent changes in health care systems, like the formation of End-Stage Renal Disease Seamless Care Organizations and greater involvement of palliative care services, are associated with improved outcomes.

**LIMITATIONS:** Clinical heterogeneity and variability in the included studies precluded a

meta-analysis.

**CONCLUSIONS:** HD patients' high ED use is multifactorial. Further research is required to understand and predict ED utilization in this vulnerable population, which will facilitate the development of interventions to reduce avoidable ED use.

### A Randomized, Placebo-Controlled Study of Intranasal Fentanyl as an Analgesic Adjuvant For Incision and Drainage of Abscess.

Latev A, Baer J, Sharpe S, Gupta C, Feliciano C, Friedman BW; Montefiore Medical Center, Albert Einstein College of Medicine, Bronx; *J Emerg Med*; 2022 Mar;62(3):291-297.

**BACKGROUND:** Incision and drainage (I&D) of abscesses is one of the most painful procedures performed in emergency departments (EDs).

**OBJECTIVE:** We tested the following hypothesis: The addition of intranasal fentanyl to the standard practice of local infiltration with lidocaine would provide better pain control than lidocaine alone for adult ED patients undergoing I&D.

**METHODS:** This was a randomized, double-blind study. Participants received 2 µg/kg of intranasal fentanyl or a comparable amount of intranasal water in addition to local lidocaine infiltration. The primary outcome, which we assessed immediately after the I&D was completed, was a summary 0-10 pain score for which we asked study subjects to provide a number depicting their entire experience with the procedure.

**RESULTS:** During a 19-month enrollment period, we screened 176 patients for eligibility and enrolled 49; 25 received placebo and 24 received fentanyl. Baseline characteristics were comparable. Mean (standard deviation) summary pain scores were as follows: fentanyl 6.2 (3.3) and placebo 7.0 (3.2). The 95% confidence interval for a rounded between-group difference of 0.9 was -1.1 to 2.6.

**CONCLUSIONS:** In this small study, the addition of intranasal fentanyl did not substantially impact the pain scores of ED patients undergoing I&D.

### Learning Outcomes of High-fidelity versus Table-Top Simulation in Undergraduate Emergency Medicine Education: Prospective, Randomized, Crossover-Controlled Study.

Offenbacher J, Petti A, Xu H, Levine M, Manyapu M, Guha D, Quint M, Chertoff A, Restivo A, Friedman BW, Silverberg J; Department of Emergency Medicine at the Jacobi and Montefiore Hospitals, Bronx; *West J Emerg Med*; 2022 Jan 3;23:20-25.

**INTRODUCTION:** Over the last several decades simulation, in both graduate and undergraduate emergency medicine education, has continued to develop as a leading and highly effective teaching modality. Limited research exists to evaluate the efficacy of low-fidelity (table-top) simulation, as compared to high-fidelity standards, as it relates to medical knowledge learning outcomes.

We sought to assess the efficacy of a low-fidelity simulation modality in undergraduate emergency medicine education, based on quantitative medical knowledge learning outcomes.

**METHODS:** A prospective, randomized, crossover-control study comparing objective medical knowledge learning outcomes between simulation modalities. Analysis was designed to evaluate for the statistical equivalence of learning outcomes between the two cohorts. This was done by comparing a calculated 95% confidence interval (CI) around the mean difference in post-test scores, between experimental and control modalities, to a pre-established equivalence margin.

**RESULTS:** Primary outcomes evaluating student performance on post-test examinations demonstrated a total cohort CI (95% CI, -0.22 and 0.68). Additional course-subject subgroup analysis demonstrated non-inferior CIs with: Shortness of Breath (95% CI, -0.35 and 1.27); Chest Pain (95% CI, -0.53 and .94); Abdominal Pain (95% CI, -0.88 and 1.17); Cardiovascular Shock (95% CI, -0.04 and 1.29).

Secondary outcome analysis was done to evaluate medical knowledge acquisition by comparing the difference in pre and post-test examination between the cohorts. CI of the full cohort ranged from (95% CI, -0.14 and 0.96).

**CONCLUSION:** The student's performance



# NEW YORK STATE OF MIND

on quantitative medical-knowledge assessment was equivalent between the high-fidelity control and low-fidelity experimental simulation groups. Analysis of knowledge acquisition between the two groups also demonstrated statistical equivalence.

## Intranasal Ketorolac Versus Intravenous Ketorolac for Treatment of Migraine Headaches in Children: A Randomized Clinical Trial.

*Tsze DS, Lubell TR, Carter RC, Chernick LS, DePETER KC, McLaren SH, Kwok MY, Roskind CG, Gonzalez AE, Fan W, Babineau SE, Friedman BW, Dayan PS; Department of Emergency Medicine, Division of Pediatric Emergency Medicine, Columbia University College of Physicians and Surgeons, New York; Acad Emerg Med; 2022 Apr;29(4):465-475.*

**BACKGROUND:** Intravenous ketorolac is commonly used for treating migraine headaches in children. However, the prerequisite placement of an intravenous line can be technically challenging, time-consuming, and associated with pain and distress. Intranasal ketorolac may be an effective alternative that is needle-free and easier to administer. We aimed to determine whether intranasal ketorolac is non-inferior to intravenous ketorolac for reducing pain in children with migraine headaches.

**METHODS:** We conducted a randomized double-blind non-inferiority clinical trial. Children aged 8-17 years with migraine headaches, moderate to severe pain, and requiring parenteral analgesics received intranasal ketorolac (1 mg/kg) or intravenous ketorolac (0.5 mg/kg). Primary outcome was reduction in pain at 60 min after administration measured using the Faces Pain Scale-Revised (scored 0-10). Non-inferiority margin was

2/10. Secondary outcomes included time to onset of clinically meaningful decrease in pain; ancillary emergency department outcomes (e.g. receipt of rescue medications, headache relief, headache freedom, percentage improvement); 24-h follow-up outcomes; functional disability; and adverse events.

**RESULTS:** Fifty-nine children were enrolled. We analyzed 27 children who received intranasal ketorolac and 29 who received intravenous ketorolac. The difference in mean pain reduction at 60 min between groups was 0.2 (95% CI -0.9, 1.3), with the upper limit of the 95% CI being less than the non-inferiority margin. There were no statistical differences between groups for secondary outcomes.

**CONCLUSIONS:** Intranasal ketorolac was non-inferior to intravenous ketorolac for reducing migraine headache pain in the emergency department.

## Video-Assisted Self-Reflection of Resuscitations for Resident Education and Improvement of Leadership Skills: A Pilot Study.

*Kava L, Jones K, Ehrman R, Smylie L, McRae M, Dubey E, Reed B, Messman A; Lincoln Hospital and Mental Health Center, Bronx; Perspect Med Educ; 2022 Mar;11(2):80-85.*

**INTRODUCTION:** One of the most challenging aspects of Emergency Medicine (EM) residency is mastering the leadership skills required during a resuscitation. Use of resuscitation video recording for debriefing is gaining popularity in graduate medical education. However, there are limited studies of how video technology can be used to improve leadership skills in the emergency department. We aim to evaluate the utility of video-assisted self-reflection, compared with self-reflection alone, in the setting of resuscitation

leadership.

**METHODS:** This was a prospective, randomized, controlled pilot study conducted in 2018 at an urban level 1 trauma center with a three-year EM residency program. The trial included postgraduate year (PGY) 2 and 3 residents (n = 10). Each resident acted as an individual team leader for a live real-time resuscitation in the emergency department. The authors classified a patient as a resuscitation if there was an immediate life- or limb-threatening disease process or an abnormal vital sign with an indication of hypoperfusion. Each resident was recorded as the team leader twice. Both control and intervention groups produced written self-reflection after their first recording. The intervention group viewed their resuscitation recording while completing the written reflection. After their reflection, all participants were recorded for a second resuscitation. Two faculty experts, blinded to the study, scored each video using the Concise Assessment of Leader Management (CALM) scale to measure the leadership skills of the resident team leader.

**RESULTS:** Five PGY-3 and five PGY-2 residents participated. The weighted kappa between the two experts was 0.45 (CI 0.34-0.56, p < 0.0001). The median gain score in the control group was -1.5 (IQR) versus 0.5 in the intervention group (IQR).

**DISCUSSION:** Video-assisted self-reflection showed positive gain score trends in leadership evaluation for residents during a resuscitation compared with the non-video assisted control group. This tool would be beneficial to implement in EM residency.



2022 Emergency Medicine Resident Career Day

Wednesday  
August 17

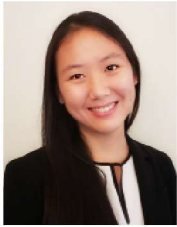
New York Academy of Medicine



# Residents



**Dhaval Mehta, MD**  
Emergency Medicine Resident (PGY-3)  
New York-Presbyterian Brooklyn Methodist Hospital  
Chair, New York ACEP Emergency Medicine Resident Committee



**Guest Author**  
**Joan Chou, MD**  
Emergency Medicine Resident (PGY-1)  
SUNY Upstate Medical University



**Guest Author**  
**Conor Bennett, DO**  
Department of Anesthesiology (PGY-1)  
SUNY Upstate Medical University

## Finance Rounds - A Bedside Discussion about Financial Health

*Disclaimer: This is a passion of ours, we are not licensed or professionally trained financial advisors nor your personal financial fiduciary.*

It's an obvious understatement transition to residency is stressful. Burnout is very real and it is likely exacerbated by this prolonged pandemic. As residents, we have limited money, time and energy. On top of our clinic duties, learning a completely foreign subject such as finance can seem daunting. However, if achieving financial literacy and independence is something you feel can improve your overall wellness and thwart burnout, then learning a thing or two about money might be a worthwhile investment of your limited free time.

Remember, there is no exam for this information. You aren't behind the curve if some of this material seems foreign; we all start learning from somewhere. Our hope for this article is to spark an interest in personal finance so you can begin your own journey towards financial literacy and healthy financial habits.

### Developing Healthy Financial Habits

Healthy financial habits implemented as a resident, fellow or junior attending will pay dividends down the road (pun intended). Notice how none of the habits listed have a dollar amount associated with them? This is because the habit is much more important than the dollar amount saved. For example, a good starting habit is to pay off credit card debt as soon as possible. Credit cards often have high interest rates and carrying a balance can quickly derail any financial progress. In a similar vein, have a healthy discomfort towards debt, such as student loans or car leases. Another habit is to spend within your budget. If you don't have a budget, figure out how much you're spending, including necessary and extraneous items. Also remember time is money, in more ways than one. Compound interest is powerful, but it takes time. And lessons learned from financial missteps earlier on with smaller dollar amounts (residency salary) than with bigger paychecks (attending money) tend to be less painful. Pick one or two habits to start working on and carry them into attending-hood and begin to reap those rewards. Last, but not least, choose a financial topic or two to familiarize yourself with. We will kick start it today and talk about two common money concerns that arise during residency - student loans and how to navigate retirement savings.

### Student Loans - Public Service Loan Forgiveness (PSLF) vs Privately Refinancing

There are generally two pathways when deciding how to navigate student loans - going for PSLF versus paying them off as soon as financially feasible.

PSLF stands for public service loan forgiveness and is the federal program that will forgive the remainder of your direct federal loan tax-free once you have made 120 monthly qualifying payments while working for a 503c non-profit employer. You may have heard that since 2017, when the first forgiveness should have rolled out, there have been reports of as low as 1% receiving forgiveness. However, most of those are due to not having filed the PSLF form correctly or met its requirements. Some common pitfalls to be aware of include being enrolled under an eligible program - that usually means an IDR (income-driven repayment) plan, certifying your 503c employer not just once but annually, and making sure your loans and payments qualify (must be direct federal loans and payments must be on time). Consider consolidating your loans and do it early because the counter the government uses for qualified payments resets with consolidation. Additionally, set up auto payments; that's one less thing you have to worry about in residency. Many servicers will also decrease the interest rate by 0.25-0.5% with auto payment.

Another option in paying back your student loans is refinancing through a private lender. Basically, the private lender will pay off your loan to Uncle Sam and instead of paying the government, you now pay the private lender. There are several potential benefits to this; you often get better interest rates on your loans. Another may be a "sign up bonus", where the lender will give you cash back the first time you refinance with them. One very large consideration, however, is that refinancing with private lenders eliminates the PSLF option. In short, this is a permanent switch, so evaluate your current and future circumstances carefully before making this decision.

### Saving For Retirement

As doctors, we often start saving for retirement at a later age compared to our non-physician peers, simply because we often do not have an income until our mid-late twenties. As residents, you have many uses for your limited funds and saving for retirement may seem unimportant or even unattainable.

Retirement may seem like an event far out on the horizon, perhaps even inconceivable when we are just beginning our training. However, assembling the foundation for a prosperous future begins decades earlier. Compounding interest has the greatest effect when it is allowed years to accumulate. To reduce the strain retirement savings may have on your paycheck, consider small, consistent contributions. Additionally, streamline your savings by setting your retirement contributions to automatic withdrawal. The more you can minimize the stress around saving for retirement, the more palatable the process will be.

Think of retirement savings as a marathon, not a sprint. Remember that our goal for financial literacy is to prevent burnout, not create additional stress. Equally important is keeping that healthy balance between saving and sanity - enjoy things you value in life here and now. Saving for retirement doesn't have to mean sacrificing that long desired vacation in the Bahamas. It's about compromise. Just don't forget that retirement is there, but don't ignore the joys of present life either.

One more thought. Take an afternoon to familiarize yourself with your institution's retirement benefits. Overlooking your employer's offered retirement packages is like taking a portion of your well-deserved salary off the table. Once you determine what your options are, ask your colleagues/research what options may be best for you.

### So, What's Next?

If all of this is old news to you, great! Pick another topic or two and challenge yourself to familiarize yourself with those. Maybe it will be filing your own taxes, digging deeper into developing your investment portfolio or learning about the physician mortgage and when to buy a house. If you are looking for additional resources, there are several physician-specific personal finance websites (e.g. White Coat Investor™) that offers more in-depth information on many financial topics. Better yet, many of these websites can direct you to trusted professionals who can help if learning about finances yourself seems rather boring. Regardless of which strategy you employ, it is our sincere belief that improved financial literacy amongst physicians not only leads to happier, healthier physicians but also happier, healthier patients.

**-Wishing you all much success on your professional and financial journey!**

**Joan and Conor**

## Calendar

### June 2022

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

### July 2022

- 6 Board of Directors Meeting, 11:00 am - 12:00 pm, Sagamore Hotel
- 6-8 Scientific Assembly, Sagamore Hotel, Bolton Landing, NY
- 7 Annual Membership Meeting, 12:45 pm-1:45 pm, Sagamore Hotel
- 7 Committee Meetings, 1:45 pm-2:15 pm, Sagamore Hotel
- 7 Annual Resident Volleyball Tournament, 3 pm, Sagamore Hotel
- 8 Board of Directors Meeting, 7am-8am, Sagamore Hotel

### August 2022

- 17 Emergency Medicine Resident Career Day, 8 am-12:30 pm  
New York Academy of Medicine

### September 2022

- 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 Emergency Medicine Resident Committee Conference Call, 2:00 pm
- 21 Research Committee Conference Call, 3:00 pm

### October 2022

- 12 Education Committee Conference Call, 2:45 pm
- 12 Professional Development Conference Call, 3:30 pm
- 13 Practice Management Conference Call, 1:00 pm
- 19 Government Affairs Conference Call, 11:00 am
- 19 Emergency Medicine Resident Committee Conference Call, 2:00 pm
- 19 Research Committee Conference Call, 3:00 pm
- 20 EMS Committee Conference Call, 2:30 pm
- 29-30 ACEP Council Meeting, San Francisco, CA