



New York American College of Emergency Physicians

# Empire State EPIC



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Scientific Assembly  
July 9-11  
The Sagamore Hotel  
Bolton Landing, NY



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# PRESIDENT'S MESSAGE



**Nicole Berwald, MD FACEP**  
Chief Medical Officer  
Staten Island University Hospital

## New York ACEP Advocacy Efforts Continue

Hello, New York ACEP members. It's an exciting moment to address you following our recent advocacy day in Albany. New York ACEP has been steadfastly engaged in committee work to enhance the landscape of emergency care in our state. Through productive dialogues with state legislators, we've gained a deeper understanding of their concerns, provided them with an understanding of ours and found a mutual eagerness to collaborate on effective solutions. We've identified the challenges within our practice environment and the barriers hindering our ability to provide top-tier, equitable care to all New Yorkers. Thanks to our preparedness, our efforts yielded significant success.

Several proposed bills hold considerable importance for New York ACEP. Firstly, there's the bill addressing workplace violence, which mandates hospitals to implement violence prevention programs. Tackling emergency department (ED) violence has been a top priority for New York ACEP, as showcased by our recent collaboration with the New York State Council of Emergency Nurses Association (NYSCENA) and the American Nurses Association of New York (ANA-NY) in forming the Workplace Violence Prevention Alliance.

([www.nyacep.org/advocacy/workplace-violence-prevention-alliance](http://www.nyacep.org/advocacy/workplace-violence-prevention-alliance)) This legislation will fortify our ongoing efforts and ensure hospitals statewide are held accountable to this important initiative.

Another pressing issue impacting emergency medicine pertains to the scope of practice for advanced practice providers. While we deeply value the physician-led team model and the collaborative relationships with our physician assistants and nurse practitioners, scope of practice concerns

persist. In New York State, previous legislation has expanded the scope of practice for nurse practitioners. New York ACEP has concerns regarding quality of care, patient safety and the utilization and cost of care in the absence of appropriate supervision. We opposed legislation advocating for continued independent practice for nurse practitioners. Regrettably, the legislation passed, granting a two-year extension to the current rule. However, similar legislation for physician assistants did not advance in this session, a testament to our impactful advocacy. New York will persist in championing the physician-led team model with appropriate oversight of advanced practice providers and we'll keep you informed on our progress in this regard.

Additionally, we advocated for increased Medicaid reimbursements, as New York lags behind other states in this aspect. We also pushed for cost control measures for EpiPens to enhance access to this critical medication for New Yorkers, the ability to dispense a three-day supply of buprenorphine in alignment with FDA regulations and against bills that could further compromise the malpractice climate in our state.

These advocacy efforts provided us with an invaluable platform to highlight the challenges impacting the delivery of emergency care in New York State to our legislators and explore alternative solutions. I am optimistic that our ongoing conversations will yield meaningful outcomes in the years ahead.

## NEW YORK ACEP CME OPPORTUNITIES

FREE MEMBER CME FOR NEW YORK STATE LICENSURE REQUIREMENTS IN PAIN MANAGEMENT, INFECTION CONTROL, AND STROKE CARE.

NOT A MEMBER BUT NEED CME? NEW YORK ACEP IS PROUD TO ANNOUNCE THAT OUR ONLINE CME COURSES ARE NOW AVAILABLE TO NON-MEMBERS FOR AN AFFORDABLE RATE.



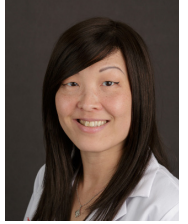
# SOUND ROUNDS



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## A Shocking Case of Retained Products

### Case Presentation

A 22 year old G1P0010 female presented to the Emergency Department (ED) with vaginal bleeding and an episode of syncope. She started bleeding ten days ago after receiving mifepristone for a missed abortion (estimated gestational age of 10 weeks and 6 days). She continued to bleed intermittently so she was also given misoprostol. On the day of her ED visit, she syncopized while in the bathtub and was still having vaginal bleeding despite the misoprostol.

Upon her arrival to the ED, her initial vitals were: blood pressure of 84/43, heart rate of 172, respiratory rate of 25, with an oxygen saturation of 97% on room air, and a temperature of 38.2 C. On physical exam, she was disoriented and appeared pale and diaphoretic. She was also noted to have active vaginal bleeding with golf-ball sized clots. The differential of her hypotension included hemorrhagic shock versus septic shock from possible retained products of conception (RPOC).

Point-of-care ultrasound was performed and revealed a hyperechoic, heterogeneous mass in the uterus with a thickened endometrial stripe, concerning for RPOC (Figure 1). There was no free fluid visualized and the endometrium was not hypervascular on color Doppler (Figure 2). Obstetrics Gynecology (OB Gyn) was consulted for definitive management. The patient was treated with empiric antibiotics and was given intravenous fluids as well as blood products. She was emergently taken to the operating room (OR) with OB Gyn for a dilation & curettage (D&C). The surgical specimen sent from the D&C showed decidua and immature placenta, confirming the diagnosis of RPOC.

### Discussions

Retained products of conception are a complication of roughly 1% of term pregnancies, with an even higher rate for miscarriages and terminated pregnancies (up to 6% and 15% respectively).<sup>1,2</sup> Miscarriages are extremely common,

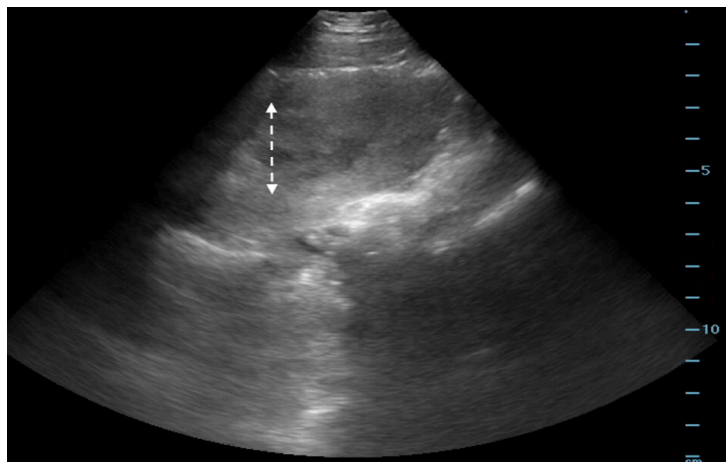
affecting about 10% - 28% of pregnancies.<sup>3</sup> Additionally, the prevalence of legally terminated pregnancies in the United States is estimated to be over 620,000 per 2021 CDC statistics.<sup>4</sup>

RPOC can be managed conservatively, medically, or surgically. If untreated, short and long-term risks of RPOC include infection and prolonged bleeding with a risk of progressing to hemorrhagic and/or septic shock.<sup>1,3,5</sup> The gold standard of treatment is surgical intervention with D&C. However, this carries the risk of causing intrauterine adhesions, infertility, cervical injury, and uterine perforation.<sup>1-3,5,6</sup> Thus, conservative and medical management are usually first line even if it is not always effective.

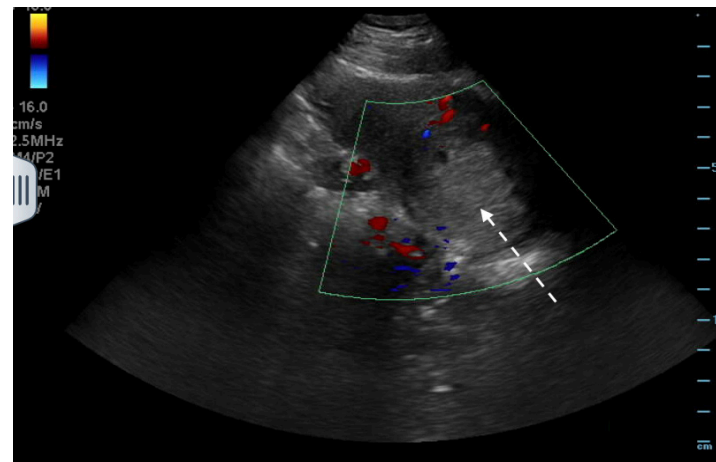
With these risks of both treatment and non-treatment, the accurate diagnosis of RPOC is imperative. Yet, its diagnosis is often challenging. Clinically, RPOC is suspected when the patient presents with prolonged vaginal bleeding (> 2 weeks), abdominal pain, and/or fever in the setting of a recent pregnancy or miscarriage.<sup>3</sup> To confirm the diagnosis, transvaginal ultrasound (TVUS) is typically used.<sup>3</sup> Sonographic findings of RPOC include an echogenic mass, a thickened endometrial stripe, and the presence of hypervascularity in the endometrium on Color Doppler.<sup>2,5,6</sup> The echogenic mass has been described as a “hyperechoic material” or “an irregular, mixed echogenic endometrium,” and the endometrial thickness cutoff used most often in the literature is 10-15 mm.<sup>2,3,6</sup>

However, there is no gold standard yet established in the literature. Previous publications have attempted to do so however the description, sensitivity, and specificity of each ultrasound finding is variable with different cutoffs used in different manuscripts. Additionally, a thickened endometrial stripe and complex endometrial fluid can be findings of normal postpartum ultrasound findings.<sup>5</sup> The most recently published 2023 meta-analysis found that an echogenic mass is the most sensitive and specific finding of RPOC (89.7% and

# SOUND ROUNDS



**Figure 1:** A transabdominal transverse view of the uterus was obtained using a curvilinear probe, showing a thickened and heterogeneous endometrium (arrow)



**Figure 2:** A transabdominal sagittal view of the uterus was obtained using a curvilinear probe, with color Doppler overlying to show a lack of hypervascularity of the endometrium (arrow).

86.8% respectively).<sup>2</sup> An endometrial thickness of over 10mm has a sensitivity of 66.7% with a specificity of 86.6% and the color Doppler findings have a sensitivity and specificity of 82.1% and 44.2% respectively.<sup>2</sup> In their conclusion, they recommend using all three sonographic findings to increase both specificity and sensitivity of the sonographic diagnosis.

## Case Conclusion

The patient was started on vasopressors while in the OR and was moved to the intensive care unit (ICU) overnight. She was quickly weaned off pressors and was extubated by the following day. She was transitioned to oral antibiotics and discharged by postoperative day 3. She followed up with OB Gyn at an outpatient clinic and had no further complications

## Indications

- Fever
- Hypotension
- Lower abdominal pain
- Miscarriage
- Pregnancy
- Vaginal bleeding

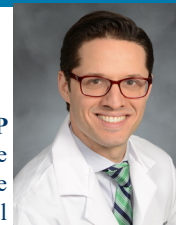
## Pitfalls and Limitations

- A thickening endometrial stripe and complex endometrial fluid can be normal postpartum ultrasound findings
- Additional research needs to be performed to confirm a gold standard cutoff and sonographic diagnosis of RPOC
- Use both clinical and sonographic findings for the diagnosis of RPOC

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## Improving Emergency Care in New York (Help Wanted)

March 5th was wet and windy in Albany, I was at the state capitol in a business suit waiting for an elevator with my friend, colleague and fellow Upper West Sider, Dr. Elaine Rabin. As the relative absurdity of the moment washed over me, I ask her: “Elaine, what are we doing here? This is our day off!”

### **What were we doing there?**

We, along with about 20 other NY ACEP members from around the state (including residents, junior and senior attendings, department chairs and regional chiefs of service) were in Albany with appointments to meet elected officials and their staff to help them understand how various proposed laws and budget items would affect the delivery of emergency care in our state. We were representing Emergency Medicine in NY, we were lobbying.

Most of us (myself included) are not particularly interested in lobbying. We’re not policy wonks, movers, shakers, or legal eagles. But at some point over the years a friend or colleague invited us to lobby day and that helped us to understand just how close we are to the levers of power. We learned that simply taking some time to explain the Emergency Physician’s point of view to lawmakers can have seismic effects on our personal and professional lives and on how emergency care is delivered to New Yorkers.

Every year there are legislative threats and opportunities relevant to Emergency Medicine in New York and lawmakers often have an absent, incomplete, or inaccurate understanding of the intended and unintended consequences. In lobbying, we doctors educate the politicians about what a proposed new law could mean to the way Emergency Medicine is practiced and delivered in NY. And we often open their eyes to things they hadn’t considered.

To wit, a few years ago the I-STOP program became law in New York. Had it been adopted as initially written, we’d all be required to spend 5-7 minutes using I-STOP and documenting the same every single time we prescribed an opiate. Thankfully, a group from NY ACEP lobbied lawmakers and explained to them that Emergency Physicians do not prescribe more than a few tablets at a time, we do not prescribe refills and we are not the intended targets of an “over prescribing” initiative. Furthermore, the burden of compliance would drain our limited time and have a deleterious effect on our ability to tend to the real needs of emergency patients. In a stark and wonderful example of how lobbying works, the lawmakers listened to these points, appreciated the unintended consequence of the legislation and agreed to create a specific carve-out exempting Emergency Physicians prescribing a 5-day supply of medication from the requirement.<sup>1</sup> So, tomorrow, when you prescribe 12 tablets of Percocet to a patient with a long bone fracture, you are not required to utilize I-STOP. I wasn’t involved back then, but I am very grateful to those who were.

As someone who was never keen to get involved with lobbying, let me share why I’m glad I did, and why you should consider it too...

### **It’s Easy.**

You don’t need to do any homework, possess any specific prior knowledge or skills, read any pending legislation, or prepare in any way—NY ACEP retains the services of a professional lobbying firm to do all that hard work. You’ll simply show-up in the morning and (over coffee and bagels) get briefed on our appointments for the day and the issues we want to discuss. We’re provided background, talking points and a meeting schedule in a clean and concise packet. Also, we work in groups, so we’re never 1-on-1 in a meeting; there’s a “veteran” who’s done this before on every meeting team. The tools you need are given to you on a silver platter and the value you bring to the process is simply being yourself, an Emergency Physician who works, lives and votes in New York. The lawmakers listen respectfully because a busy Emergency Physician who has taken the time to come to their office to speak on issues important to the health of New Yorkers.

### **It’s important.**

The issues on our agenda are not abstractions, they have tangible impact on our professional lives, on the way we deliver emergency care and on the health and safety of New Yorkers. It’s surprising to learn just how accessible the decision makers are; we can exert actual influence on what becomes law. Of course, for each of our positions there is an opposing (sometimes far more powerful) lobby. For example, the trial lawyers are in favor of the Grieving Families Act, and the nursing lobby successfully achieved independent practice for Nurse Practitioners. While it would be naïve to think that simply showing up gets the job done, failing to show-up certainly surrenders our interests. There is nobody else who can sit with the decision makers and educate them about the implications of their decisions. It has to be working New York Emergency Physicians, it has to be you and me.

### **It’s fulfilling.**

Lobbying doesn’t need to be your niche. Ultrasound, critical care, med-ed, EMS, wilderness, narrative medicine, toxicology, whatever—we all have our individual professional sub-interests, but we have collective interests which require safeguarding and advocacy. Lobbying isn’t “fun” per se, but there is a certain satisfaction explaining something to a lawmaker that they didn’t know before and that may influence their support for (or opposition to) a new law. After your meetings, when you’re in your car or on the Amtrak, there is a certain satisfaction to knowing that you carved out a little time in the service of your profession and the people of New York. It feels good.

Please have a look at the next page detailing issues we worked on this year, I think you’ll find them eminently relevant.

### **I hope you’ll consider joining us next March.**

**Email [kethier@nyacep.org](mailto:kethier@nyacep.org), we’ll put you down as a “maybe”, and contact you when the time comes.**

**Independent Practice for Physician’s Assistants (PA’s)<sup>2</sup>:**

There is an item in the proposed state budget granting PAs the right to practice medicine independently, without any supervision or input from a physician. We explained to lawmakers the gaping difference in training between a physician and a PA and the threat to safe high-quality of care if PAs are granted the right to practice independently. We urged them to strike this from the budget.

**Insurance Companies Must Cover Epinephrine Autoinjectors<sup>3</sup>:**

We explained to lawmakers that “Epi Pens” are lifesaving devices in situations where minutes count. We urged them to support a bill sponsored by Assemblyperson O’Donnell and Senator Rivera which would require insurance companies cover them.

**The Grieving Families Act<sup>4</sup>:**

Senator Hoylman-Sigal and Assemblyperson Weinstein have re-introduced a bill which would expand the damages available in wrongful death (i.e., medical malpractice) suits and also extend the statute of limitations to bring these suits. We urged lawmakers to oppose this bill. We explained that New York is already a national outlier with regard to the medical malpractice climate and this bill would result in an explosive increase in the already high liability costs for practicing medicine in the state.

**Preventing Violence in Hospitals<sup>5</sup>:**

Workplace violence is intolerable and Emergency Departments are especially vulnerable. We urged lawmakers to support a bill authored by Senator Sepulveda and Assemblyperson Cruz which would require hospitals to establish formal violence prevention programs.

**Dispensing Buprenorphine<sup>6</sup>:**

We urged lawmakers to support legislation which would allow Emergency Departments to prescribe and dispense a 3-day supply of buprenorphine. We explained the benefits to patients and to public health and also explained this would bring New York into alignment with federal DEA regulations.

**Medical Malpractice Insurance<sup>7</sup>:**

In New York we are susceptible to medical malpractice judgments in excess of what our insurance will cover. For this, there exists the state-funded Excess Medical Malpractice Insurance Program. We urged lawmakers to oppose legislation which would require physicians to cover 50% of the cost for the state excess medical malpractice program. The program is essential to providing patients access to specialized care (not just Emergency Medicine), and passing 50% of the insurance premium to the physician would further threaten and degrade the availability of high-quality care in New York.

**Medicaid Reimbursement:**

In New York, Medicaid reimburses emergency care at 33% of Medicare rates and also at a fraction of the Medicaid rates in neighboring states. While we are realistic in understanding that parity with Medicare or neighboring states is untenable, we urged lawmakers to support a significant increase.

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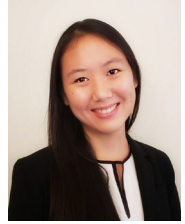
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## EMERGENCY MEDICINE RESIDENT COMMITTEE



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## Rethinking International Medicine: Moving beyond Medical Tourism

### Introduction

Now more than ever we are a globalized world, so problems that afflict one part of the globe affect all parts of the globe. Due to growing global health threats including climate change, refugee and migrant displacements and the easy spread of infectious pathology such as that we have seen with the COVID19 pandemic, international medicine is no longer a luxury, but a necessity in today's globalized world. However, over the past several decades, there has been a decrease in the excitement surrounding global health. Isolationism and nationalistic ideologies have taken root amongst many high-income countries, funding for global initiatives has been cut and the pervasive nature of social media has perpetuated a fear about partaking in exploitative medical tourism. All of this has further clouded the positive impacts that studying and implementing international medicine curricula and projects can have on a larger scale. Those in the field of emergency medicine are uniquely qualified to engage in international medicine as these skills can be easily transferred to many different environments and more so in austere conditions with limited resources. It is thus important that medical education programs, especially those in emergency medicine, address ethical concerns and teach a framework that encourages international engagement beyond medical tourism.

### Definitions

**-International Medicine:** (global health) a field within healthcare that has a public health emphasis across regional or national boundaries.

**-Medical Tourism:** the term commonly used to describe international travel for the purpose of providing or receiving medical care. This can be synonymous with "short term medical missions".

**-High-Income Countries (HIC):** countries as of 2022, with >\$13,846 gross national income (GNI).<sup>9,10</sup>

**-Low-Middle Income Countries (LMIC):** Low-income countries have <\$1,135 GNI per capita and middle-income countries have between \$1,135 and \$13,845 GNI per capita.<sup>9,10</sup>

### History

In order to understand the complexity and the nuances of how global health has been intertwined with religion, imperialism and even racism, it is imperative to understand a brief history of medical tourism's modern development. Some of the earliest documentation of medical tourism began in the 19th century when American Peter Parker was sent to China in 1834 as the first Protestant medical missionary.<sup>2,5,8</sup> He was a skilled surgeon and ophthalmologist and his success in treating previously untreatable conditions won over the initial hesitations of the local population. It became apparent that through Western medicine, missionaries could gain access to parts of society that were otherwise closed off to the rest of the world.

Thus began a complex relationship between providing medical care and incorporating religious conversions.

More American doctors followed Parker and in 1838 they founded the world's first society for medical missions: the Medical Missionary Society of China. Parker later traveled to Edinburgh, Scotland in 1841 and appealed to a number of the city's leading doctors to establish the Edinburgh Medical Missionary Society which was the first of its kind in Europe.<sup>5,8</sup> During this time period, many developing nations' healthcare began to be delivered by Catholic and protestant missionaries, as foreigners earned their right to preach through providing healthcare to local communities. This in part explains why many international medical efforts are still affiliated with faith-based organizations and often contain elements of missionary work integrated into their clinical projects.

Over time, there was a shift from religious affiliations towards a more secular form of medical tourism. The International Committee for the Red Cross and Red Crescent was founded in 1863 becoming one of the first organizations operating outside of government or church influence. This set the stage for humanitarian aid expansion globally and over the next century, medical missions experienced an unprecedented time of infrastructure building. However, many of these developed institutions were formed out of necessity, as this was also the time period of both World Wars, where imperialism and war had spread across the globe and ravaged countries like never before. It is this history of imperialist expansion, by mostly European countries, that contributes to the reluctance of some receiving LMICs to this day. It is imperative to understand this context as many ethical concerns still arise about the implication of majority Caucasian countries sending medical workers to ethnically diverse communities to practice international medicine.

As the 20th century came to a close, there were geopolitical changes that saw the influence of international organizations diminish. The spread of socialist and nationalist movements throughout various regions, the decolonization of many African countries and a shift in academic perspectives saw much of the financial backing by donors dry up and the medical missions infrastructure began to collapse.<sup>1</sup> Mission-sending organizations could no longer support running hospitals, supplying staff, or maintaining a supply of expensive equipment and drugs. Hospitals were closed, sold, or nationalized frequently during this era.

Then came a 21st century re-birth. Organizations such as The Gates Foundation began to fund international efforts and influence outcomes on a global scale. By 2010, the World Health Organization began to set global standards for various aspects of healthcare bringing the global community one step closer to a level playing field.



# EMERGENCY MEDICINE RESIDENT COMMITTEE

## Ethical Concerns

Ethical considerations regarding international medicine have become a key concern amongst academics, clinicians and students during this rebirth of global health. Some of the more pressing problems that exist with short term medical missions (STMMs) include the perpetuation of colonization, exploitative practices and the misuse of resources.

The field of medicine has a long and troubled history in formerly colonized countries and thus concerns about STMMs perpetuating imperialist beliefs underscore much of their work. Historically, efforts to “modernize” or “civilize” indigenous communities by missionaries or colonizers often meant debunking superstitious and mythological understandings of health and healing. This practice has transcended to current times as even today, there is the pervasive belief that the West offers modernized solutions to LMICs problems. This then undermines efforts and ideas arising from the local communities and perpetuates the stereotype that Western practices equate to best practices. Therefore, by participating in international medicine there is a concern of perpetuating this Western influence abroad without considering LMICs autonomy to drive their own progress.

Another critique of short-term medical missions is that the sending HIC institutions ironically reap more of the benefits than their LMIC counterparts through educationally or socially exploitative practices. There is the belief that the West continues to utilize LMICs as a resource from which to draw knowledge and experience from without truly offering sustainable benefits to the host. This can be witnessed in the research realm, as there are publication co-authorship inequities that often benefit those from HICs. It can also be seen clinically when practitioners or trainees travel abroad to practice surgical techniques or clinical medicine on a local population, as oftentimes the level of training and supervision required to perform these skills in their home HIC is vastly different. Exploitation may also come in the form of social media usage, as it has the potential to exploit local cultures and communities to garner attention without providing anything substantive in return. Even the most well-meaning trips can come across as problematic given the inherent inequities in terms of overall decision-making, which is often related to one-sided funding coming from the HICs.

A third and more practical concern is the deployment of vital resources needed to “host” foreign medical personnel. Already working with limited resources and employees, local staff will often need to take time to translate, explain and mentor international visitors. This results in them diverting their own energy and focus from providing care to patients or supporting their own students who will continue to work in the environment long after the international provider has gone. There is also the emotional burden placed on host institutions to create a comfortable experience for their visitors. Many visiting students are often confronted by unfamiliar degrees of suffering and resource disparities while needing substantial clinical supervision, all serving to potentially burden hosts further.

## Benefits

The above ethical concerns should be given serious consideration, but are not grounds to abandon the concept of international medicine efforts altogether. If done thoughtfully, there is an opportunity for benefit to all parties involved. The enhancement of clinical skills, the exchange of ideas, the pursuit of broad research, all while gaining new perspectives and exploring different cultures throughout the world are some of the many benefits that

international medicine can provide.

The field of international emergency medicine has expanded from disaster relief efforts to opportunities for research and resident education with the potential for substantial lasting impacts. A 2016 study titled “*Global health programs and partnerships: evidence of mutual benefit and equity*”,<sup>7</sup> assessed perceived benefits by using survey information from 82 North American academic institutions and 46 international partnering institutions. Overall, there was near unanimous agreement that global health partnerships were mutually beneficial, with the greatest impacts being in research and education collaboration. Other published reviews<sup>3,7,11</sup> indicate that international medical electives may lead to a number of lasting benefits, such as the desire to continue with similar experiences, greater awareness of the needs of LMICs, improved clinical skills, better resource utilization and positive influences on career pathways. A UK study went on to suggest that students who had to adjust to living in a foreign culture, developed better empathy and respect for immigrants in similar positions back in their home HICs.<sup>13</sup> Taken altogether, the studies being published continually show that the benefits to international medicine are bountiful and far-reaching.

## Moving Beyond Medical Tourism

There are plenty of barriers facing physicians who consider getting involved in the global health sector. However, it is important to start somewhere and through a basic framework, physicians can navigate how to best move forward in this field. Based on the ideas of global advocates and their published works, there are three recurring factors that promote success and combat the aforementioned ethical concerns. 1. *Bidirectional collaboration*, 2. *sustainable investment* and 3. *adaptability* are all factors that may improve the overall value of international medicine partnerships for both stakeholders.

Bidirectional collaboration involves both the sending institution and the receiving one emphasizing their priorities and addressing ethical concerns that may arise. There is a repeated finding among surveys that volunteers from high-income countries often prioritize providing clinical care during the STMM, but local hosts ideally want volunteers to assist with capacity building.<sup>3,7,11</sup> Communication is key to ensuring that both parties benefit from the collaboration and that there is no discordance in regards to expectations and goals. In addition to communication, another example of where LMIC partners could benefit much more is with bidirectional education exchanges. This entails funding and creating an infrastructure where HICs host LMIC students or physicians. This ideal exchange ensures that the flow of ideas is bidirectional, not unilaterally flowing from HICs to LMICs as is a common practice now. Along with this educational collaboration, the lack of LMIC input into research projects and published papers needs to be addressed. Inclusion of LMIC collaborators at international conferences and invitation to engage in novel research will help promote better partnerships moving forward.

The second key to success in global health is ensuring sustainability. The goal should be to make a lasting impact beyond one’s physical presence in a country or location. A common critique of medical missions is that often things tend to work while the sending partners are present but then fail once they leave. Sustainable projects thus require local buy-in, in addition to an enduring stream of human, material and fiscal resources. One way to ensure a sustainable partnership is to “adopt” a hospital or a community, which promotes continuity and capacity building long-term.<sup>3,7,11</sup> Sustainable projects also more often than not

# EMERGENCY MEDICINE RESIDENT COMMITTEE

include those in education and research, as opposed to the old adage of donations or clinical work. By allowing LMICs to drive their needs assessment and having HICs participate more in capacity building, sustainable partnerships can be built to last generations.

The third component is adaptability. Anyone who partakes in international medicine must adjust to practical limitations while seeking personal growth and improvement. One popular idea in the global health community is that of pre-travel orientations to receive site-specific preparation from experienced individuals prior to departure. Pre-departure training programs should cover clear educational objectives, health and safety concerns, and any potential ethical issues. It is also helpful to take a short course in local language and culture. International medicine programs should cultivate flexibility, particularly in the HICs recognizing that despite their training, they will not be local experts and will need to adapt their research, projects, or clinical efforts based on available resources. Feedback and debriefing are also key components that ensure both partners are achieving their goals and objectives. Ongoing feedback from both the HIC and LMIC leaders provides opportunities for meaningful improvement in the partnership so that it may continue to adapt and grow.

In the end, there is no wrong way to help others, but we can all do better. With an understanding of history, consideration of ethical concerns and a thoughtful framework through which to engage in global health initiatives, emergency physicians can exert lasting positive impacts beyond geopolitical borders. Through this framework, the field of international medicine can continue to grow and move beyond medical tourism.

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## NEW YORK

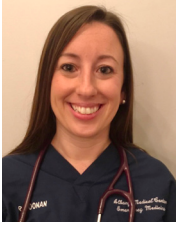
### Emergency Medicine Political Action Committee

The New York Emergency Medicine Political Action Committee (NYEMPAC) will promote and strive for the improvement of government by encouraging and stimulating emergency physicians and others to take a more active and effective part in governmental affairs.

NYEMPAC contributes to the election campaigns of candidates for state office who support emergency medicine issues. We encourage emergency physicians to contribute to NYEMPAC to raise emergency medicine influence in the state capitol.

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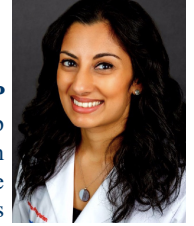
# EDUCATION



## Guest Author

### Jessica Noonan, MD FACEP

Associate Professor of Emergency Medicine  
Associate Program Director, Department of Emergency Medicine  
Albany Medical Center



## Devjani Das, MD FACEP

Director, Emergency Medicine Clerkship  
Director, Emergency Ultrasound Division  
Associate Professor of Emergency Medicine  
Columbia University Vagelos College of Physicians and Surgeons

## “ROPE IN” Your Learners to Wrap Up Your Teaching Shifts

Jessica Noonan is the 2024 winner of the *CORD Scientific Assembly’s “FirstUp!”* New speaker competition. This article is an adaptation of her talk.

“What a great shift!” you think to yourself, as you exit a successful resuscitation, still daydreaming about that double sequential defibrillation. Reality quickly sinks in, however, as you realize there is only one hour remaining until sign out. You are suddenly flooded with thoughts about the results and dispositions still pending. And what about all the clinical teaching pearls you meant to share with your learners? The last hour of a clinical teaching shift is critical for both patient care and your educational mission. If you make a point to “Rope In” your learners at the top of the last hour, you are dedicating time to discuss both the current management of the patients, as well as to provide education and feedback to your learner in an organized and efficient manner. “Rope In” is a novel clinical teaching model that can be utilized for resident/learner teaching, as well as a feedback tool that can be utilized during any clinical shift.

### What does the “Rope In” strategy entail?

Start by asking your learner to run their board. Resist the urge to run the board for them! There is greater educational value in listening as opposed to speaking at this stage. Preface this request by explaining that you are looking for them to touch on 3 key points for each patient: RESULTS, OBSTACLES and PLAN.

### Results

Your learner should start by summarizing any pertinent results or updates for each patient. This activity provides a safety check on patient care, making sure no information is missed or misinterpreted. It also provides you the opportunity to evaluate your learner on how they synthesize the data and how well they have followed up on their patients.

### Obstacles

Ask your learner to point out any obstacles they have come across for any patients. With one hour to go, you still have plenty of time to help them troubleshoot tough situations. This is one of the most valuable educational moments that can occur in any shift. A learner can easily go home and read about the workup or pathophysiology behind a certain disease, but it is not so easy to google how to navigate the frustrated patient or the patient with competing disease processes: think the bleeding patient who is on anticoagulation for an artificial heart valve. Your greatest value as a teacher is often the years of real-life experience that you can share with your learner in situations that do not “follow the flow chart.

### Plan

Make sure your learner tells you their final plan for each patient. Do not make any assumptions. Someone who seems like a slam dunk admission to you may not be so obvious to your learner. This is another

great moment to explore their thought process and understanding of each patients’ severity. It also ensures a safe sign out to the next team where everyone agrees on what should happen with the patient after you leave.

When you have finished reviewing all your learners’ patients, they are going to want to run off to accomplish everything that you just talked about. Don’t let them go quite yet! Now it is your turn to lead the meeting touching on: EVALUATION, INSIGHT, and NEXT TIME.

### Evaluation

You worked with your learner the whole shift and just finished listening to their medical decision making for their patients. This is the moment to provide a brief verbal evaluation of their performance today. Be sure to point out both their strengths, as well as areas for improvement for the future. Keep it short and to the point. This can be accomplished in less than 60 seconds in most cases. Simple but specific comments are the most helpful. Some examples may include: “Your bedside manner with that anxious patient was excellent.”; “It would have been better to evaluate the patient yourself after the nurse expressed concern instead of just ordering more pain medications.”

### Insight

After providing your evaluation, you should always ask your learner to tell you what they thought about the shift. Getting their insight is very important. This opens the door for further dialogue and questions from your learner. If you do not specifically ask this question, your learner may not feel comfortable speaking up.

### Next Time

Finally, you should make sure your learner knows that they actually learned something on the shift! Remind them of the take-home learning points that will help them next time. For example, “Today we saw the importance of observing a patient ambulate. Your patient was a great example of how posterior stroke may not cause dysmetria on finger to nose testing.”

You should be able to conduct this meeting in about 10 minutes. It will get easier and more efficient each time you do it. If you think you are too busy to do this, rest assured, you will likely save your learner at least ten minutes of time by your input and guidance. Most importantly, an investment in someone’s education is an investment in the future medical care of thousands of patients over the course of their career. What you do matters, and your learners will appreciate this more than you realize.

So that’s it! Loosen your theoretical “rope” and let them go wrap up their cases before sign out!

## NYACEP Committees

Participation at the committee level is a great way to introduce yourself into the activities of New York ACEP.

Committee member appointments are made by the President in consultation with the committee chair. Members with specific interests or expertise are encouraged to apply for committee membership.

### **EDUCATION:**

This committee is responsible for assuring the availability of high-quality undergraduate and graduate education in emergency medicine and will be the key provider of continuing education in emergency medicine in New York State.

### **GOVERNMENT AFFAIRS:**

The Government Affairs Committee is New York ACEP's key advocate for high-quality emergency care and public policy relating to emergency medicine and the recognized authority on emergency medical issues.

### **RESEARCH:**

The Research Committee fosters and supports emergency medicine research and research education in New York State. It is responsible for developing a statewide network of emergency medicine investigators and clinicians positioned to develop data to create an agenda for the future of emergency medicine in New York State.

### **EMS:**

The EMS Committee provides medical leadership in the advancement of the state EMS system.

### **EM RESIDENT COMMITTEE:**

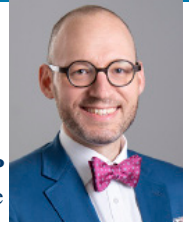
The EMRC provides a unified voice for emergency medicine residents in New York State.

### **PROFESSIONAL DEVELOPMENT:**

This committee is responsible for promoting the value of ACEP membership, enhance communication and increase participation of its varied membership.

### **PRACTICE MANAGEMENT:**

This Committee promotes safe, efficient and high-quality patient care practiced in a fair, equitable, safe and supportive environment and assists members in gaining greater influence over their practice environment.



**Jeffrey J. Thompson, MD FACEP**  
UBMD Emergency Medicine

## Endorsement Denial

Over the past several years, the terms endorse and denies have found their way into our medical *presentations* and *documentation*. I originally saw these used in psychiatry notes, but today more frequently read them in emergency department (ED), inpatient, and discharge summaries. However, they seem quite out of place to me, since the definitions I learned growing up seem to be different than the meanings these terms convey in contemporary medical documentation.

To settle this in my mind, I decided to head to my bookshelf and dust off the old hardcover Oxford English Dictionary, arguably a standard for the English language. *Endorse* is defined in this dictionary as “to confirm, to declare one’s approval, or to sign/write on the back of a check or document.” None of these definitions really describe what is meant when we read *endorse* in the medical record. I suppose we might say to a patient, “I heard you’re having abdominal pain,” and they may respond with, “yes, that is true.” In this case, they would be confirming our statement and thereby *endorsing* it. But that is not the way we conduct most medical interviews. If we are asking open-ended or yes/no questions as we were taught, then our patients will rarely respond in a manner that would be considered endorsing their symptoms. Or consider this example: I once read “the patient endorses wearing a seatbelt.” Actually, so do I! I think it’s a great idea and has been shown to save lives. But in the context of this particular medical record, I understood the author to be indicating that the patient was wearing a seatbelt themselves at the time of their motor vehicle crash. In light of this definition in the Oxford dictionary, we should ask ourselves whether our patients really *endorse* their symptoms? I might endorse a political candidate or endorse a policy statement. I may even endorse a check. But I do not endorse a symptom and I suspect our patients do not, either. If we substitute the definition for the word *endorse*, it does not make sense: “the patient supports a facial droop” or “the patient confirms diarrhea.” These are cringeworthy at best and awkward and inaccurate otherwise. Even more inelegant is the negative: “the patient does not endorse shortness of breath.” Well, neither do I, actually. I think it is rather awful to feel short of breath and I certainly would not support it in myself or anyone else.

I am aware that an alternative online dictionary has recently added a medical definition of *endorse* in to mean “to report a symptom.” Perhaps it should feel like an honor that the medical profession has convinced the Merriam-Webster company to amend and update a centuries-old term to conform to our new documentation convention. For whatever reason, though, that’s a feeling I just do not share.

You may be wondering how this practice evolved. I must admit that I do not know for certain. My deep dive into the blogs and reddit threads leads me to believe that it emerged as an alternative for the term *complain*, a term that we understand perfectly well in medicine, but which has very negative connotations for many patients. While some patients do actually complain and may appropriately be described as having a chief complaint (or, as is sometimes the case, a litany of complaints), many find this term offensive and prefer it not describe their chief concern or symptom.

To avoid all of this, it may be more appropriate to use more objective, non-value laden language such as *reports*, *states*, or *describes*. For instance, “the patient reports having one week of chest pain and describes an intermittent pressure sensation on the left chest that does not radiate. She states there is no shortness of breath, nausea, vomiting, or diaphoresis.” This covers all the bases without the ambiguity.

Now that that’s settled, let’s move onto my second least favorite term in the chart: *denies*.

I think the term *denies* has more legitimate applicability in our day-to-day medical parlance, but is still, in my opinion, often inappropriately used. According to the OED, *deny* means to declare untrue or non-existent, repudiate, contradict, or to refuse a person or thing. At times this may appropriately describe a patient’s response. Consider the patient who states they were not drinking alcohol, but whose BAC is 0.35%. That patient is truly denying their use of alcohol – refusing to acknowledge the truth. But a patient stating that their chest does not hurt is not *denying* the presence of chest pain if it really is not there. Instead, they are indicating, reporting, or stating that they have no chest pain. To state they *deny* their pain is to imply they have been accused of having pain in the first place and either repudiate that claim, or declare its non-existence. It may technically be true, but likely only applicable to a handful of patients. I saw this much more when we were documenting a page full of negative ROS – “denies chest pain, headache, dysuria, etc.,” but it still seems to be dominating the negative symptom vernacular.

If you are still reading this, good for you! I endorse your decision to deny yourself an extra five minutes of doing something else with your time today. But in all seriousness, I think there is merit in using precise language in our medical documentation. As I have already indicated, we in the healthcare professions understand the way these terms are used and can draw conclusions based on their incorporation into the medical records. However, with expanded access to medical records, our patients are more readily able to review these documents than ever before. They may be relieved to know they are no longer considered “complainers,” but may be equally troubled or confused by the unique use of the terms “endorse” and “deny” in our contemporary medical documentation. It seems to me we could simply substitute the other terms I have already suggested without any difficulty, and create more simple, objective, accurate narratives of our patients’ ED encounters that patients and healthcare workers alike can mutually appreciate and comprehend.

If you are still not convinced, feel free to pull me aside during this summer’s Scientific Assembly at the Sagamore so we can continue the conversation further. I promise I won’t deny you the chance to endorse your choice of terminology in the medical record!

## 2024 New York ACEP Board of Directors Ballot



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Brandon Godbout, MD FACEP  
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Abbas Husain, MD FACEP  
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UBMD Emergency Medicine



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# PRACTICE MANAGEMENT



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Emergency Medicine Resident  
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**Joseph Basile, MD MBA FACEP**  
Chair, Department of Emergency Medicine  
Medical Director, Clinical Operations  
Staten Island University Hospital

## New York State (NYS) Hepatitis C Virus (HCV) Universal Screening: Implications for Emergency Departments

Beginning May 3, 2024, New York State (NYS) will require all persons 18 years and older and all persons under the age of 18 years with risk factors undergoing treatment in Emergency Departments (EDs) and other practice settings to be screened for Hepatitis C Virus (HCV).<sup>1</sup> Hepatitis C is the most reported bloodborne infection in the United States and is responsible for approximately 15,000 deaths annually, making its death rate greater than that of HIV.<sup>2</sup> In NYS alone, it is estimated that 116,000 New Yorkers are living with Hepatitis C.<sup>1</sup> As such, NYS in July 2018 announced the establishment of a Hepatitis C Elimination Task Force, aimed at furthering research, surveillance and cross-sector care models.<sup>3</sup> This upcoming NYS Law presents an opportunity for discussion regarding the impetus for such measures, as well as its impact on EDs across the state.

As stated in the NYS Hepatitis C Elimination Plan, ensuring timely access to HCV screening, diagnosis and linkage to care/treatment is key to the elimination of HCV, making screening and surveillance the first step in addressing this public health issue.<sup>3</sup> The goal is for NYS to screen approximately 10 million individuals to reach elimination goals by 2030.<sup>3</sup> A major rationale for universal screening is that once individuals with HCV infection are identified, they can benefit from treatment with direct acting antiviral (DAA) therapy, with most of these patients being cured with 8 to 12 weeks of oral therapy. This treatment option is far more scalable and feasible now given recent lower costs of DAAs. Additionally, the use of HCV reflex testing enables simplified adoption of screening, as active hepatitis C infection can be confirmed with a single test order. Fur-

thermore, it has been suggested that universal screening with opt-out testing is less stigmatizing for patients.<sup>4,5</sup>

In many ways, the ED is a suitable health care setting for HCV screening, however it does come at a cost to EDs. EDs serve as a safety net for persons at risk for HCV who may be living with the infection without knowing it. In a study at one large-volume New York City ED, prevalence of HCV infection was higher than previously reported state/national prevalence, and the proportion of undiagnosed HCV was nearly one-fifth of these cases.<sup>6</sup> Additionally, it is well documented that injection drug use (IDU) is the most common risk factor in HCV cases and EDs already provide care for a large proportion of these patients (e.g., those with opioid use disorder).<sup>7</sup>

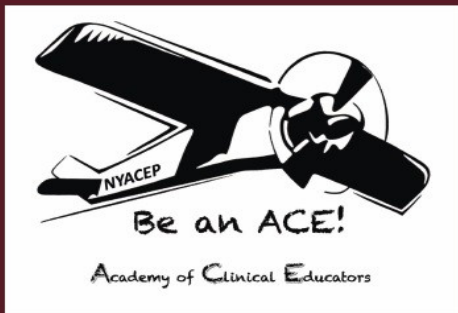
While the NYS HCV Testing Law specifies exceptions to universal screening in the ED such as instances of life-threatening emergency and when patients lack capacity to consent, there are still challenges to HCV screening in the ED. Firstly, HCV screening requires additional nursing/provider tasks such as drawing and sending blood samples. In situations in which patients otherwise would not be having lab work done, this may lengthen ED length of stay and further contribute to ongoing challenges with ED overcrowding. For patient presentations and workups that are unrelated to bloodborne infection, offering testing for such conditions may necessitate additional discussion and patient education, adding to provider burden. Also, such discussions and results reporting surrounding historically stigmatized conditions such as HCV and HIV infection ideally require privacy, which is often difficult given physical space within EDs. Lastly,

follow-up is a concern with an integrated follow-up program needed to inform patients about results and provide appropriate linkage to treatment.<sup>5</sup> All of these steps require additional resources without any financial assistance from the state.

Without treatment, however, active HCV infection progresses to chronic hepatitis C, liver cirrhosis and decompensation of these conditions results in increased ED visits, hospital admissions and mortality. The public health benefit of DAA treatment can only be realized through markedly increased screening and EDs are a reasonable healthcare setting to initiate such screening. Still, adding additional workflow steps and healthcare utilization via offering and ordering testing, drawing labs and following up results with reporting and treatment, to an already resource-constrained environment is not without challenge. Ultimately, though EDs in New York State will need to continually prepare for and adjust to incorporating opt-out HCV surveillance testing to their workflow, this public health measure represents a meaningful step in the goal of eliminating Hepatitis C from our population.

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## Academy of Clinical Educators Lecture Series

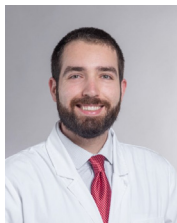
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## Prehospital Treatment of the Acutely Agitated Patient: Ketamine in the Spotlight

Mental and behavioral health emergencies represent a large proportion of both pre-hospital and emergency department volumes with estimates ranging anywhere from 5-15% of Emergency Medical Services (EMS) call volume<sup>1</sup> and up to 10% of emergency department (ED) visits each year.<sup>2</sup> The term “EDP” or “emotionally disturbed person” has become popular amongst emergency services personnel and the term is used to encompass acute psychiatric conditions, intoxication with mind altering substances and for patients acting strangely due to significant medical decompensation. When an EDP call is dispatched, it is not uncommon for police to be the first on scene to ensure scene safety for EMS personnel, bystanders and the patients themselves. It is at this intersection of police, EMS, and EDPs that we have unfortunately identified a pattern of unnecessary patient deaths which have been more and more often found in the national spotlight. Cases of death in EMS or police custody as of late can often be found in the national news, with high profile lawsuits, payouts, and recently, with criminal charges to EMS and police involved.

There is one other significant factor that has been found to be interwoven with so many of these unfortunate encounters: the use of ketamine. Ketamine, a dissociative anesthetic, has had a meteoric rise in popularity over the past few decades in the emergency medicine (EM) and EMS worlds. It is a versatile medication, with indications ranging from procedural sedation, induction for intubation, pain control and in cases of EDPs, as a fast-acting chemical restraint.<sup>3</sup> However, amidst the rising scrutiny against this medicine by the general public and the media demonizing it for its purported role in patient deaths, the question remains: is this medication safe?

Yes. Ketamine is overwhelmingly safe. For the remainder of this article, I would like to discuss the efficacy and safety of ketamine, the historical use of terms including Excited Delirium, and the interplay between ketamine and restraint in so many of these highly publicized deaths.

Ketamine is a competitive antagonist of glutamate at the N-methyl-D-aspartate (NMDA) receptor, with hepatic breakdown and renal excretion. When given intramuscularly (IM), it takes effect within 3-5 minutes, when given intravenously (IV), within 15-30 seconds, and with effects lasting 5-30 minutes, in a dose dependent manner.<sup>4</sup> At low doses, it provides a

marked anesthetic effect. At higher doses, it also creates a dissociative amnesia, making it a powerful tool to facilitate procedures or render a patient into a non-combative state, after which additional medical aid can be administered. However, no drug is without side effects, and ketamine is no exception. It can, rarely, be associated with laryngospasm, hypersalivation, emesis, emergence reaction (recovery agitation) and when administered too quickly, transient apnea.<sup>4,5</sup> Once thought to increase intracranial pressure and potentiate neurologic injury, especially in trauma patients, recent studies have largely disproven these effects. Some concerns also exist in regards to giving ketamine to known psychiatric patients, as NMDA receptor antagonism was thought to potentiate acute psychiatric illness; however, ketamine use was not found to increase the need for inpatient psychiatric admission.<sup>6</sup> Even in quantities far exceeding the typical recommended maximums (2mg/kg IV and 6mg/kg IM), patients do not lose their respiratory drive in a dose dependent manner<sup>7</sup> or develop hemodynamic instability when controlled for comorbid conditions and other concurrent medication and drug use. Rather, the duration of their dissociative period is just prolonged.<sup>8</sup> All of this literature is to say, ketamine is remarkably safe.

Ketamine is not the only medication at the disposal of our prehospital practitioners to assist with agitated patients. Traditionally, benzodiazepines and antipsychotics have also been employed with relative success. In comparison with benzodiazepines, such as midazolam and lorazepam, ketamine is not associated with a decrease in blood pressure and has been found to act much faster.<sup>9</sup> While all of these sedative medications have some associated need for intubation for airway protection post administration, rates following ketamine administration appear much lower than once thought;<sup>10</sup> some studies suggesting higher rates may be due to individual physician practice variation.<sup>11</sup> Compared to antipsychotics such as haloperidol and olanzapine, ketamine is much faster in onset and requires fewer repeat administrations to maintain appropriate levels of sedation.<sup>12</sup>

To shift gears for a moment, the terminology we associate with these patients should also be discussed. Historically, the term “Excited Delirium Syndrome” (EDS) or “Agitated Delirium” (AD) were used as a blanket diagnosis for any patient presenting with significant agitation. It did not matter whether these patients were in the midst of an acute medical

condition, drug intoxication, or psychiatric emergency, they received a generalized diagnosis, which was then often met with a singular response: immediate physical and chemical restraint. The unfortunate end result is that this term began to be disproportionately applied to African American males and those with underlying psychiatric disorders, which led to an increase in perceived danger, which primed a greater use of physical and chemical restraint in the prehospital setting.<sup>13</sup> The consequences were deadly. The term Excited Delirium Syndrome soon became co-opted by police literature, followed by another term “Death in Custody Syndrome;” these terms were often found interwoven. The development of these terms and their widespread adoption into medical and police literature created the illusion of a unique standalone pathology that was responsible for these patient’s deaths. The term EDS even began to show up on death certificates, without the underlying causes being identified or evaluated further.

Fortunately, this terminology is losing favor. As of now, the majority of medical institutions have disavowed EDS. Many groups including the American Medical Association,<sup>14</sup> the American Psychological Association,<sup>15</sup> the American Academy of Emergency Medicine,<sup>16</sup> and the American College of Medical Toxicology<sup>17</sup> have put out position statements refuting the term, in favor of identifying a specific condition, or describing symptoms instead if no readily available diagnosis exists.

The American College of Emergency Physicians has also rejected EDS in favor of “Hyperactive Delirium with Severe Agitation,” or just “Hyperactive Delirium.” This term will be utilized for the remainder of this article. Their position statement also calls for additional research into the underlying causes and also includes a clause that suggests the decision to chemically sedate should be at the directive of the medical team, and no one else.<sup>18</sup>

Hyperactive Delirium and its underlying causes inherently carry a mortality risk. Hyperthermia, arrhythmia, electrolyte imbalances, transient cardiomyopathy, rhabdomyolysis and seizures can all occur if not treated in a time sensitive manner, and cardiac arrest may occur spontaneously if there is not rapid intervention.<sup>19</sup> This is in addition to the trauma that can occur with altered mental status in regards to accidental trauma by means of falls, traffic and direct violence. Hyperactive Delirium is a high lethality situation, and aborting it in a timely fashion with quick acting medications is the best way to save lives. Unfortunately, some of these patients will die due to their underlying pathologies despite receiving appropriate chemical sedation. This is one of the confounding factors that I would like to propose in relation to purported ketamine related deaths. A retrospective analysis on prehospital ketamine use and mortality evaluated <sup>11</sup>,291 patients administered ketamine which included 128 deaths, but were able to effectively disregard ketamine as a primary contributor in all but 8 cases; this represents only 0.07% of patients who received ketamine.<sup>20</sup>

The compounding factors in the lethality of Hyperactive Delirium occur during and immediately after the administration of ketamine or other sedative agents: physical restraint, patient positioning, and monitoring. Physical restraint, though often necessary to facilitate safe patient contact initially, has been strongly linked with these deaths. A 2020 metanalysis investigating Excited and Agitated Delirium deaths found that 90% of Hyperactive Delirium patient deaths occurred in settings where physical restraint was employed. Digging even deeper into this study, only 2% of deaths specifically did not involve physical restraint (and 8% did not indicate clearly if physical restraint was used or not).<sup>21</sup> Restraint in a prone position, in a classic hog tie, or in cases involving pressure, such as knee’s, to the chest or back can all significantly impede adequate chest excursion during respiration. Combine physical restraint (appropriately employed or not) to an agitated patient with elevated metabolic demand, possible impairment with additional substances, and a chemical sedative like ketamine, and positional asphyxia will ensue. In cases of improper monitoring, this will be deadly.

The bottom line is this. Some patients with Hyperactive Delirium will require chemical and physical restraints to be treated and ketamine is a reliable and low risk option to employ. However, all medications and procedures carry risk; I will argue that sedating and restraining these patients is safer than not. Chemically sedating a patient should be treated with the same attention any other involved procedure is given and only performed after less invasive alternatives like verbal de-escalation have been exhausted. Positioning and monitoring are the ultimate keys to safety. As soon as it is safe to do so, physical restraint should be minimized or removed, monitoring tools initiated, back up airway equipment should be readily available and these patients should be brought expeditiously to the emergency department where they can receive the remainder of their care. The solution to preventing these unnecessary deaths is not in restricting ketamine or limiting sedation protocols in the prehospital setting, it is just to maintain good patient care.

I wish to end with two additional sources of information which can further shed light on this issue and provide guidance on best practices. First, please direct your attention to [emupdates.com](http://emupdates.com), where you can find extensive educational materials provided by Dr. Reuben Strayer on agitation and chemical sedation with step-by-step pathways and treatments for mild, moderate and severely agitated patients in the emergency department environment.<sup>22</sup> I also wish to provide a referral to the website [thehardwork.org](http://thehardwork.org), created by Paramedic and Attorney Eric Jaeger. Mr. Jaeger is uniquely experienced in both the medical and legal sides of prehospital sedation and has been able to provide expert guidance to many EMS agencies across the country.<sup>23</sup>

#### Take Home Points:

- Hyperactive Delirium is a highly lethal condition which requires rapid intervention.
- Only proceed with chemical restraint when other modalities have failed.
- Only proceed with chemical restraint if you, the medical provide, feel it is warranted.
- Physical restraint and prone positioning can be lethal, even before sedative medications.
- Proper patient positioning and monitoring are key to reducing unnecessary patient deaths.
- Ketamine is a remarkably safe medication when used correctly.

## Calendar

### June 2024

- 12 NYACEP Virtual Residency Visit, 10:00 am
- 12 Education Committee Conference Call, 2:45 pm
- 12 Professional Development Conference Call, 3:30 pm
- 12 Academy of Clinical Educators, Zoom Lecture, 4:00 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

### July 2024

- 9 Scientific Assembly Day 1
- 9 Board of Directors Meeting, Sagamore 11:00a
- 10 Scientific Assembly Day 2
- 10 New York ACEP Annual Meeting, Sagamore 1:30p
- 11 Scientific Assembly Day 3
- 11 Board of Directors Meeting, Sagamore 7:00a

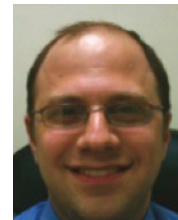
### August 2024

- 7 Emergency Medicine Resident Career Day  
New York Academy of Medicine, 8:00am-1:00pm

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# PROFESSIONAL DEVELOPMENT



**Moshe Weizberg, MD FACEP**  
Medical Director, Emergency Department  
Maimonides Midwood Community Hospital  
Chair, New York ACEP Professional Development Committee



**Interviewer**  
**Lauren Curato, DO FACEP**  
Assistant Professor, Department of Emergency Medicine  
Columbia University Irving Medical  
Center/ New York-Presbyterian Hospital



**Interviewee**  
**Chat GPT 3.5**  
Chat Generative Pre-trained  
Transformer developed by OpenAI

Each quarter, we in the Professional Development Committee interview a practicing Emergency Physician with an interesting body of expertise on their niche area. This month, we've interviewed a different type of "expert": Chat GPT 3.5.

This Chat Generative Pre-trained Transformer is a form of Artificial Intelligence (AI), and although I've been a casual observer of the increasing omnipresence of AI in everyday life, I've been increasingly curious about the relevance of AI to my life as an Emergency Physician. Articles from [The NY Times](#) to [Annals of Emergency Medicine](#) have covered topics such as physician use of ChatGPT to improve bedside manner, write insurance appeal letters, or even compare human versus AI differentials.

In the spirit of professional development, I wondered if ChatGPT had any non-sentient "ideas" about how it could be of service to the practice of Emergency Medicine. With no prodding whatsoever, it agreed to my interview request ...

*(Interview has been edited for brevity)*

**Hello, ChatGPT. I'm an Emergency Physician working in New York. I'm interested in learning more about how you can assist me during my busy clinical shifts in the Emergency Department (ED).**

**ChatGPT:** Hello, I'm glad you're interested in exploring how I can support you during your shifts. As an AI language model, I can provide various forms of assistance, including **clinical decision support, differential diagnosis assistance, patient education, documentation assistance**, and more. How can I help you specifically during your shifts?

**That's great to hear. Let's start with clinical decision support. During my shifts, I encounter complex cases where I need to quickly access evidence-based guidelines and treatment recommendations. Can you help me with that?**

**ChatGPT:** Absolutely. I can provide real-time clinical decision support by helping you access relevant guidelines, treatment protocols, and drug information. Whether you need guidance on diagnostic criteria, treatment options, or management strategies for specific medical conditions, I can assist you by synthesizing information from a wide range of medical resources.

**That would be helpful. I also frequently have medical students or resident doctors in training who need assistance with building a comprehensive and accurate differential diagnosis. Can you assist with that as well?**

**ChatGPT:** Absolutely, I'd be happy to assist with building a comprehensive and accurate differential diagnosis. Just provide me with the relevant clinical information, including the patient's presenting symptoms, medical history, physical exam findings, and any pertinent laboratory or imaging results, and I'll generate a list of potential diagnoses to consider. Feel free to ask for clarification or additional information as needed, and I'll do my best to help facilitate the learning process.

**Another area where I could use your assistance is patient education and communication. Can you help me with that too?**

**ChatGPT:** Certainly, I can assist you in providing patient education by generating easy-to-understand explanations and educational materials for patients and their families. Whether you need

information about medical conditions, procedures, treatment options, or discharge instructions, I can help you communicate effectively with your patients and improve patient satisfaction.

**Going back to your earlier offer about helping with documentation assistance, I don't think I'm ready for you to assist me with documentation yet, I'm leery about the medico-legal ramifications of using a bot to write my medical chart.**

**Chat GPT:** That's completely understandable. Medical documentation is a critical aspect of patient care, and ensuring accuracy and compliance with medico-legal standards is paramount. While I can provide assistance and information during busy shifts, it's important to rely on established protocols and guidelines for medical documentation to mitigate any potential risks or concerns.

If you have any questions or need assistance with other aspects of patient care, such as clinical decision-making, differential diagnosis, or accessing medical resources, feel free to let me know. I'm here to help in any way that supports your practice and enhances patient care.

**Thank you, ChatGPT. It sounds like you may be able to provide valuable support to me during my clinical shifts in the ED. I look forward to integrating your assistance into my workflow.**

# PROFESSIONAL DEVELOPMENT

Since ChatGPT was so generous with its offers of help, I put it to the test. ChatGPT said it could help me with real time clinical decision support with relevant guidelines, protocols, and drug treatments. Could it? Not really, or, not quite yet anyway.

I asked Chat GPT for help with some (hypothetical) clinical questions, some as mundane as the treatment of refractory crusted scabies and some as critical as the indications for catheter directed thrombolytics for massive pulmonary embolism (PE). I quickly learned how to phrase my queries for the types of answers I wanted, but the answer content was still lacking anything resembling “intelligence.” Typically, the answer would give an accurate synopsis of [said condition] and some common medications or treatments, but no actionable details. When asked for references, the answer was usually something like: *“While I can’t provide specific citations or direct references, the information provided is based on widely accepted medical knowledge and guidelines established by reputable organizations...”* When pressed for details, such as in the above PE example it provided a list of organizations such as the American College of Chest Physicians (ACCP) and European Society of Cardiology (ESC). Missing, critically, was information to convince me that the available data was synthesized properly. In this regard, ChatGPT was far less reliable than our common peer-reviewed quick reference resources (such as UpToDate).

It did a bit better in helping me “workshop” differentials for completeness. When offered a typical HPIs (as could be cut/pasted from a chart, sans PHI, of course), ChatGPT constructed what I would regard as thorough differentials. This might help an Emergency Physician double check their differential for completeness or a learner brainstorm further differentials.

There are two things ChatGPT did quite well. One is summarizing journal articles. I provided the titles of several rather lengthy articles and for each I received a generally solid summary paragraph and bulleted outline. I found that ChatGPT performed well in summarizing without editorializing. ChatGPTs also showed aptitude in explaining diagnosis in patient friendly language. We’re often in the position of having to break bad and unexpected news or even just assuage fears over the “incidentalomas” and ChatGPT demonstrated admirable capability in explaining various diagnoses in simple and understandable terms, with an appropriate level of detail and even giving anticipatory guidance.

AI in general and ChatGPT in particular improve along an exponential curve. The above opportunities and shortcomings exist at a moment in time, but will be different before the ink is dry on this column. I intend to keep paying attention so I’m neither the first nor the last Emergency Physician to let ChatGPT help me do my job better.

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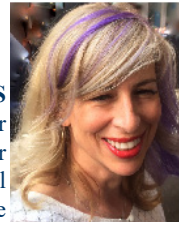
# Research



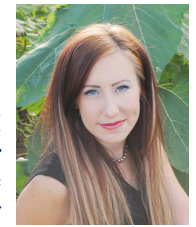
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## The Power and Utility of Geospatial Mapping Techniques in Emergency Medicine Research

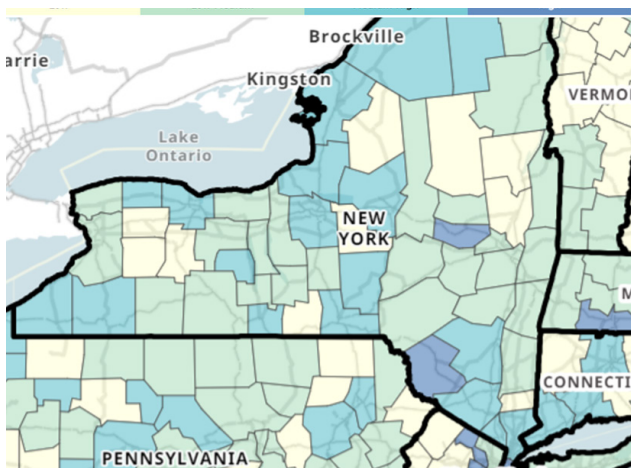
Preventative medicine and emergency medicine appear to make strange bedfellows and yet they are uniquely equipped to leverage one another. The Emergency Department (ED) does not only serve as a last resort for the end stages of care or exacerbations in unstable disease processes; but more often, for reasons of convenience or finances, as an access portal for primary care, routine work ups, or even basic human needs such as safe shelter and food.<sup>1</sup> Many of these lower-acuity services are sought by marginalized patients of lower socioeconomic status. In one Canadian study, they found that “More than 25% of ED visits in Ontario were from the most deprived population.”<sup>2</sup> Due to this, researchers, governments and public welfare groups are increasingly utilizing the ED as an access point for these difficult to reach, vulnerable populations (e.g. for broad HIV testing, vaccination, cancer screening, primary care referrals etc.).<sup>3</sup> While these initiatives are designed for holistic population benefit, in practice they often provide services that, while valuable, do not directly address the chief complaints prompting patients’ ED presentations.

The writers of this article posit there is value in adopting geospatial mapping techniques for use in Emergency Medicine research as one means to mitigate the upstream contributors of the disease processes managed by

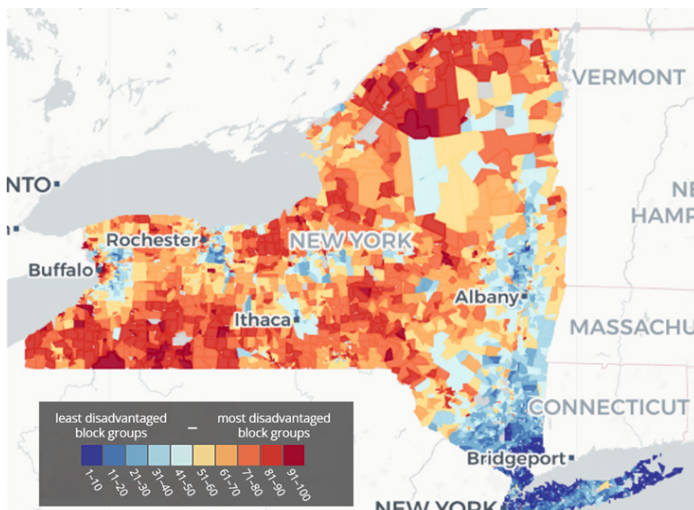
ED physicians. Broadly conceptualized, geospatial research and mapping looks at relationships between a characteristic or outcome and physical location. We assert that Emergency Medicine has clinical and public data and technological resources at its disposal to become a leader in geospatial research techniques to benefit the communities they serve, other medical specialties and themselves. The implementation of these techniques is straightforward and benefits from readily available public data.

The development of geospatial technologies and frameworks for their application has taken place within commercial industry and institutions of urban and regional planning, government and public health for over two decades. However, until recently the use of geospatial methodologies to elucidate links between health outcomes and their environments had remained largely in the realm of the theoretical due to a lack of original, local data sets. The advent of widely implemented electronic health record (EHR) systems has led to the regular documentation of descriptive data stored in an easily retrievable context, data such as chief complaints, diagnoses at time of admission and discharge and local clinical outcomes across cities and regions.<sup>4</sup> Contemporaneously, there has been the development of publically available, well-vetted metrics derived from government population data. Two examples of this are the Social Vulnerability Index (SVI)<sup>5</sup> (Figure 1), which identifies communities at risk during disasters, and the Area Deprivation Index (ADI)<sup>6</sup> (Figure 2), which identifies disadvantaged neighborhoods. Both of these tools provide quantitative estimates of a neighborhood’s vulnerability in the form of percentile scores or deciles using the state or nation as a relative comparison. Combining the publicly available data with EHR information from the ED allows for relevant clinical, demographic and geographic data to be superimposed on mapping software to generate and respond to research and clinical questions. These two measures of neighborhood-level disadvantage can be linked to geospatial mapping software, such as ArcGIS, to understand the distribution of injury and illness in a given geographic area.

Geospatial techniques lend themselves well to readily understandable presentations of data, such as “heat mapping.” An example of a heat map of publicly available data from the city of Rochester on shooting victims<sup>7</sup>



**Figure 1: Social Vulnerability Index mapped across New York state at the county level.**



**Figure 2: Area Deprivation Index national percentiles mapped across New York state at the level of Census Block Group.**

(Figure 3) demonstrates how these data sets can quickly be transformed into researchable information on topics germane to the ED. When combined with the data available from an ED EHR, one can easily start to see the power of these techniques to show important associations between health outcomes and public policy issues. The breadth of data relevant to the ED that can be represented in this way is immense, encompassing such differing topics as access to care, social determinants of health, acute injuries and trauma, successful (or unsuccessful) management of chronic medical diseases, etc.. Heat maps are easily interpretable by the general public and policymakers, which helps physicians to direct policy and resources at a state and national level. The power of this kind of representation in advocacy should not be understated.

A local example of recent geospatial-driven research from our institution focuses on mapping out-of-hospital cardiac arrest (OHCA) to identify areas of higher community vulnerability. Using a combination of the techniques described above, the researchers were able to demonstrate associations between OHCA and communities with significantly higher SVI and ADI metrics. This kind of data mapping would, in theory, allow EMS agencies to distribute resources according to the frequency of cardiac arrests in the areas they cover. Furthermore, on a larger scale, state and local agencies can begin to address the underlying socioeconomic causes that are correlated with the increase in morbidity of these geographic areas, thus providing an opportunity to further assess health disparities on the basis of neighborhood.

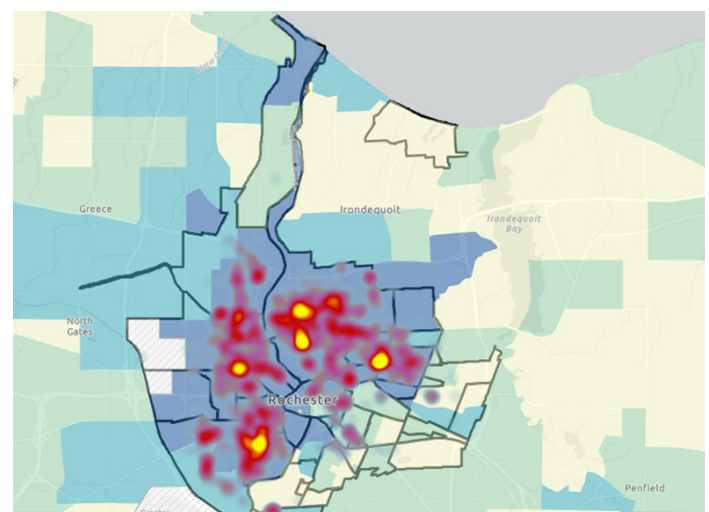
Geospatial driven research holds additional potential in the current climate of massive volumes and overcrowding in EDs across the country. While the ED is, in many respects, a “laboratory of public health,”<sup>8</sup> there are significant limitations to how much the ED can provide when its spatial and human resources for the critically ill patients it was designed to manage are stretched thin. Outside of emergency care, managing how best to apply resources to the public, both in the department and in the community, is paramount. Geospatial mapping identifying neighborhoods with frequent low-acuity visits, for example, could direct the placement of an accessible walk-in clinic or urgent care. This results in multiple benefits, including diverting flows of people with lesser acuity away from EDs, decompressing waiting rooms and potentially freeing up both hospital resources and EMS transportation for patients with higher acuity needs. This is a basic example of the application of geospatial techniques to guide upstream changes in patient flow as well as management of ED resources, but the possibilities of geospatial-driven research in this area are numerous.

Much as Emergency Medicine is uniquely poised to respond to acute illness, it also possesses unique data that, with the new tools of geospatial

research methodologies and software, can lead efforts in prevention. By projecting real world outcomes data from the ED out into the community through geospatial techniques, we can begin to look for correlations among the changes at play in policy, environment and society, with actual concrete outcomes data. Geospatial-driven research initiatives hold the potential to be an effective means of improving clinical outcomes, guiding preventative medicine and mitigating upstream contributors to the disease processes that bring people to the ED. If these research tools are applied well, we can hope to reduce ED utilization and overall disease burden in our communities.

#### Resources

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**Figure 3: Heat Map of fatal shootings 2020-2023 across Rochester, New York, overlaid on top of SVI in local neighborhoods. Figure generated using ArcGIS.**

# New York EM Residency Spotlight

## SUNY Upstate

### Demographics

**Program Director:** David O. Andonian, MD, MPH

**Program Coordinator:** Kara Welch

**Program Coordinator E-mail Address:** [welchka@upstate.edu](mailto:welchka@upstate.edu)

**Hospital Capabilities:** STEMI, Stroke, Trauma

**Total Number of EM Residents:** 33

**Residents Train Each Year:** 11

**Inaugural Resident Class Year:** 1992

**Fellowship Offered:** Toxicology, Ultrasound, PEM, EMS, Undersea/Hyperbaric/Wound Care, International, Wilderness, MedEd/SIM, Chief Resident in Quality and Safety (CQRS)

**Benefits Offered:** ROSH Review, Membership Dues Coverage, Lab Coat(s), In-House On-Call Meals, Dental Insurance, Health Insurance, Vision Insurance, Life Insurance, Travel Insurance, Disability Insurance, Professional Liability Coverage

**Website Link:** [upstateemeridency.com](http://upstateemeridency.com)

**Twitter:** @UpstateEM

**Instagram:** @upstateemresidency

**Most Unique Program Feature:** SUNY upstate is the second busiest trauma center state of NY seeing just under 3000 admissions per year (Albany being the highest volume). We also have one of the largest catchment regions in the state of New York and one of the biggest in the country. This provides us with an opportunity to learn from our patients presenting with a wide array of medical ailments. We serve a large population of underrepresented minorities and underserved patients including refugees and those seeking asylum from all over the world, as Syracuse has been identified as one of the safe havens for refugees and asylum by the US government. We have the unique honor of providing medical care to people from across the globe that have had a significant lack of medical care. We have a very high-volume system, seeing over 115,000 patients per year and covering multiple campuses including: the adult downtown trauma center, the pediatric emergency department within the Golisano pediatric hospital, our community campus on the Westside of Syracuse, and the VA Hospital emergency department.

**What is your favorite aspect of the program?** What I love the most about our program is the truest sense of a family between us all. There is a very unique closeness amongst the residents and core faculty. I love all of our time spent together, whether it be on shift, at conference, around a bonfire or enjoying the outdoors together around our beautiful fingerlakes region. We take as much time as we can do foster lifelong friendships and support each other through thick and thin, professional and personal growth. I hate to be away from my wife and children but from the bottom of my heart, if I have to be anywhere without them, I would want to be with my residents.

**What is your program known for?** As a hospital system in our region, we are known for the place where the proverbial buck stops. We are the highest level of care for any medical ailment which translates into any critical or complicated illness being transported to our front door and we are proud to support our community and outlying hospitals unconditionally. This affords our learners to learn from an infinite breath of exposure to even the rarest medical conditions. We are the only pediatric hospital within our region so this specifically translates into an unparalleled PEM exposure. Every single trauma, every single PICU case, every single sick kid is either transported directly or transferred to us and we are equally proud to care for them all. The unfortunate reality is that many EM residency programs struggle with their pediatric training but its not for not trying to create a robust learning curriculum. Pediatrics requires an exposure to a higher volume and level of acuity to truly develop proficiency and we are grateful and fortunate to have both.



# New York EM Residency Spotlight

**What are you most proud of with your program?** My residents, full stop. They are the most hard-working, humble, brilliant and loving you will ever find. I sometimes can't believe how blessed we are to have such a great group as well as our faculty but I also think that the culture we have created and continue to cultivate is a major factor in the way they all grow into such an amazing group. Each person's uniqueness is embraced which makes us something truly special, embracing that we are better as a team than that our individual parts.

**What makes your program an excellent place to complete a residency?** Aside from all of the wonderful parts of our hospital, training program, faculty, residents and the patients we are afforded the opportunity to learn from, this region of the country is a magnificent place to live. Your individual flavor of choice is all here for you to have. If you like to live in a socially lively downtown area, walking distance to shops, entertainment and restaurants, we have it here. If you like the suburban lifestyle and want to live in a house in a community, we have that as well. If you prefer more privacy and want to live on a farm in a log cabin, we've got that too. We are also nestled in between some of the most beautiful parts of nature between robust hiking, mountains and skiing in the Adirondacks to water sports on the most beautiful lakes in the country to the fingerlakes wine touring experience. We host major sporting events at the SU Dome as well as musicians and headliners. Our outdoor lakeside amphitheater also is host to major headliners and musicians which is a unique experience to have overlooking the water. Although we don't have resident theatrics like Manhattan, we do host regular traveling Broadway which provides both affordability and accessibility that is arguably better than larger cities. There is far more culture than you might think in our region including beautiful hot air balloon festivals, symphonies in the park, ballet and so much more. All in, the life we live here is wonderful, robust and fulfilled.

