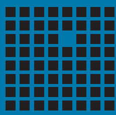

New York American College of Emergency Physicians

Empire State EPIC

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PRESIDENT'S MESSAGE

Nicole Berwald, MD FACEP
Chief Medical Officer
Staten Island Univeristy Hopsital

We Are Here For You

Hello New York ACEP. I can't believe another year has passed, as I enter my second year as your President. It has been an exciting year with a lot of valuable work being done to support emergency care in New York State. Our committees have been busy with academic and professional development, wellness, practice management and advocacy initiatives. I want to extend a debt of gratitude to our committee chairs and members for their hard work to provide resources to all of us.

I would be remiss not to mention our premier event, held just a few weeks ago. For those who were able to attend the Scientific Assembly at the Sagamore, I hope you had a chance to connect with your colleagues and rest a little while enjoying the program. For me the Scientific Assembly has always been the perfect combination of education, connection and wellness; it refreshes my passion for emergency medicine. Though we are faced with challenges, I am confident that emergency physicians will continue to find solutions to care for the communities they serve and our own physician communities.

Our specialty is forever adapting to the world around us and New York ACEP is here to support those changes through our platforms and our programs.

2022-2023 was a busy year for New York ACEP in other ways too. Not only were we busy planning events but the legislative season challenged us with controversial issues that we continue to address. Workplace violence, the New York State malpractice climate, scope of practice issues, practitioner identification and advertising and mandatory CME to name a few. Some of our efforts were more successful than others, but we remain committed to continuing our strong advocacy efforts on your behalf. This year's National ACEP agenda mirrors many of the issues we have been advocating for at the local level in New York State including boarding and fair payment. I am optimistic that there will be progress in the 2023-2024 year!

Many times I have asked you for your continued engagement and participation in New York ACEP. Now is a critical time for emergency medicine, please let us know how we can help you. I want you, our membership, to know the New York ACEP leadership team is excited to continue to provide you with new resources along with our tried-and-true programs to support your changing needs.

New York ACEP is also experiencing its own change. On behalf of the New York ACEP Board of Directions, it is with the utmost respect and gratitude that I wish the happiest well-earned retirement to JoAnne Tarantelli, our Executive Director of 37 years. JoAnne's tenure at New York ACEP provided the foundation for the resilient and agile organization we are today. With that said, I am also excited to welcome our incoming Executive Director, Katelynn Ethier, who I have no doubt will continue to support, grow and transform this organization.

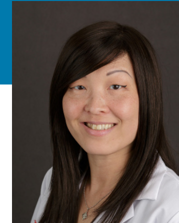
Have a great summer New York ACEP – and know we are here for you.

New York ACEP
Member Reception

NEW YORK ACEP
American College of Emergency Physicians
ADVANCING EMERGENCY CARE

Monday, October 9th
6:00-7:00 p.m.
The Philadelphia Marriott
Franklin Hall

SOUND ROUNDS



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

Guest Author
Miles Gordon, MD
Assistant Professor of Emergency Medicine
Columbia University Department of Emergency Medicine
Vagelos College of Physicians and Surgeons

Guest Author
Tyler Wise, MD
PGY-3, Emergency Medicine Resident
New York – Presbyterian Columbia Cornell
Emergency Medicine Residency

Abdominal Pain With a "Negative" CT...Sonographic 'Tic Tips

Case

A 56-year-old female with a significant past medical history of diverticulitis presented to the emergency department with 3 days of worsening left lower quadrant abdominal pain associated with fever, nausea, constipation and decreased appetite. She had been treated for a similar episode of abdominal pain two years earlier and was hospitalized for diverticulitis. Initial vital signs were reassuring with no fever, hypotension or tachycardia. Physical exam revealed abdominal tenderness over the left lower quadrant with localized voluntary guarding. Initial labs were largely unremarkable without leukocytosis. Her presentation was concerning for diverticulitis, however, the differential diagnosis also included other intra-abdominal pathology, including intra-abdominal abscess, colitis, pancreatitis, appendicitis, pyelonephritis and ureteral colic. Computed tomography (CT) abdomen and pelvis with intravenous (IV) and oral contrast was obtained and interpreted as having no acute abdominopelvic findings.

Given the high pretest clinical suspicion for diverticulitis, a bedside point-of-care ultrasound (POCUS) was performed using the curvilinear probe (Figure 1) followed by the linear probe to enhance the resolution (Figure 2), which showed hyperechoic pericolonic fat surrounding diverticula, areas of thickened colonic walls and sonographic tenderness of the area consistent with diverticulitis. After further discussion with the radiology attending, the CT interpretation was revised and confirmed our findings suggestive of proximal sigmoid diverticulitis. The patient was admitted to the hospital and was initiated on intravenous antibiotics. Six weeks later, she underwent a sigmoid colectomy for recurrent diverticulitis.

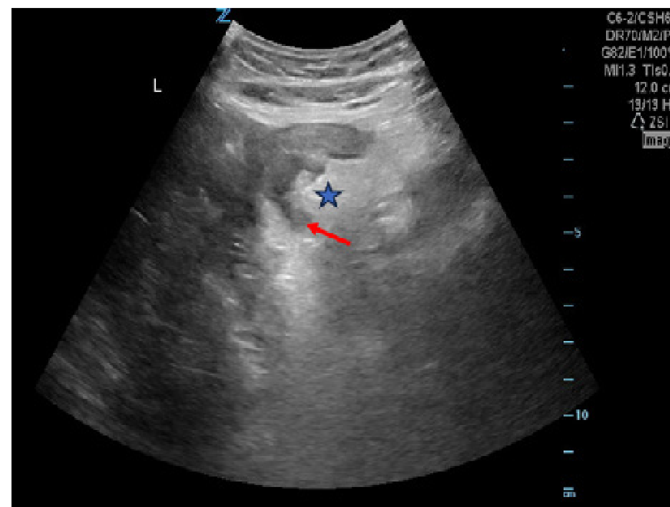


Figure 1. Ultrasound image obtained using a curvilinear probe demonstrates hyperechoic pericolonic fat (star) surrounding a diverticulum (solid red arrow)

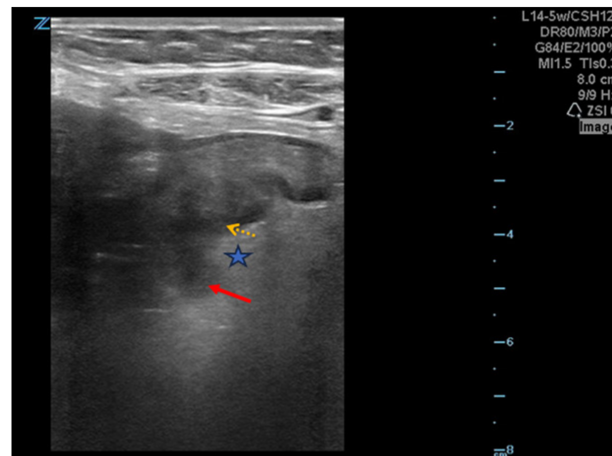


Figure 2. Ultrasound image obtained using a linear probe showing hyperechoic pericolonic fat (star) surrounding a diverticulum (red arrow) with colonic wall thickening (dotted yellow arrow) with higher resolution

SOUND ROUNDS

Discussion

In the setting of undifferentiated abdominal pain, CT is often relied upon as the diagnostic gold standard for patients in the emergency department, as it can differentiate many intra-abdominal pathologies and has a sensitivity of 97% and specificity of 98% for the diagnosis of acute colonic diverticulitis.[1] In this scenario, we encountered a patient with a high pretest probability of diverticulitis. The initial CT interpretation failed to identify the pathology and it was only due to high clinical suspicion and our POCUS findings that the pathology was recognized. A discussion with radiology occurred, who recognized the pathology, changed the CT report and altered the patient's treatment and disposition.

CT is widely recognized as the gold standard for the diagnosis of acute colonic diverticulitis. However, a meta-analysis of 630 patients did not show a statistical difference in accuracy between CT and ultrasound.[2] Although POCUS is user-dependent, a more recent study demonstrated impressive accuracy of POCUS for diagnosing diverticulitis. As per Cohen et al., POCUS had a sensitivity of 92% and a specificity of 97%.[3] Specifically, these metrics were found when all three of the following were seen: 1) bowel wall edema measuring 5 mm or greater surrounding an adjacent diverticulum, 2) enhancement of the surrounding pericolonic fat, and 3) sonographic tenderness to palpation.[3] There is some diagnostic variability among sonographers for diverticulitis; some clinicians use a criterion of bowel thickness of at least 4mm.[4] For Cohen et al., three of 14 false negative ultrasound scans had colonic wall thickness measurements less than 5mm of bowel wall thickness, but greater than 4mm.[3] A 4mm cutoff would have improved POCUS sensitivity, although at the expense of specificity, as seen in a recent study by Shokoohi et al. that used a 4mm cutoff for bowel wall thickness resulting in a sensitivity of 95% and a specificity of 77%.[4] Applying a wall thickness cutoff of 4mm may be more beneficial to increase sensitivity, identify more cases as a screening exam and confirm with CT.

Although more research is needed, POCUS has many benefits in the diagnosis of diverticulitis relative to CT. POCUS is a dynamic and interactive study in which the patient can help guide the sonographer for accurate visualization of the disease process. The performing clinician is also intimately aware of the patient's clinical presentation, which can further direct the exam. It is feasible that POCUS could be applied in certain scenarios to avoid CT imaging and reduce radiation exposure. Despite being the gold standard, CT does not have 100% sensitivity, and it may be beneficial to consider ultrasound for the diagnosis of diverticulitis when clinical suspicion is high with a negative CT result.

Indications

- Abdominal pain
- Constipation
- Diarrhea
- Fever
- Nausea and/or vomiting.

Technique

- Position the patient supine. Consider having the patient bend their legs to soften the abdominal wall and allow for increased probe pressure.
- Obtain images with either the linear, phased array or curvilinear probes. Given the wide footprint and improved penetration, a phased array or curvilinear probe is often used for the average adult patient.
- A linear probe may allow sufficient depth penetration while having the advantage of a higher resolution for patients with lower body mass index (BMI).
- Locate the area of interest by placing the probe on the area of maximal tenderness. Graded compression can be utilized to disperse obscuring bowel gas.
- If no findings are seen in the area of interest, an expanded "lawn mower" approach can be utilized in which the probe is systematically moved up and down the abdomen with graded compression to evaluate all areas of the abdomen.

Pitfalls and Limitations

- Images may be limited by body habitus or bowel gas, which may account for decreased sensitivity when compared to CT imaging.
- Pneumoperitoneum may obscure evaluation of intraperitoneal structures.
- Small bowel pathology can mimic large bowel diverticulitis, however it can be differentiated from the large bowel by the presence of plicae circulares or a series of folds that project into the small bowel lumen.
- The presence of diverticulitis without visualized abscess or perforation does not rule out complicated diverticulitis.

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PRACTICE MANAGEMENT

Boris Khodorkovsky, MD FACEP
Associate Chair, Department of Emergency Medicine
Staten Island University Hospital

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

Kurien Mathews, DO MBA FACEP
Department of Emergency Medicine
Staten Island University Hospital

Norman NG, DO MBA
Department of Emergency Medicine
Staten Island University Hospital

Transforming Consultant Communication Using a PHI-Protected Communication Platform

Communication among healthcare providers is critical to patient care and daily operations. Errors due to communication are considered one of the leading causes of patient harm. The Joint Commission lists errors in communication as one of the leading causes of hospital deaths.[1] Communication among healthcare providers is complex; many critical details are shared. Emergency Medicine (EM) provides an additional layer of nuanced complexity within its chaotic environment where timely and accurate transmission of information is crucial. Because of the need to minimize errors and improve efficiency, we must focus on removing actions or workflows that provide minimal value for the provider and the patient.

The impetus for tackling communication stemmed from our annual physician engagement survey, which routinely highlighted the communication challenges between consulting services and EM. Similar to other tertiary centers, our institution consists of numerous specialty consultants and admitting units, each with its unique team and workflow. Most inter- and intra-departmental communications were handled via hospital-distributed handheld Spectra devices (mobile phones). Frequently, patients' names were misspelled or misheard on the phone. Another significant challenge was the interruptions for ED providers and consultants during such verbal communications. Calls frequently interrupted or disrupted the consultant's and ED (Emergency Department) provider's patient-related activity. Additionally, anecdotal perception of "batching" of consults by the EM staff further exacerbated poor rapport amongst services.

Value-added activity:

As we set out to revamp our communication process, we internalized the concept of Value-added and Non-Value-added activities and how they can improve the efficiency and quality of communication in the ED.[2] Value-added activities increase the quality of what is delivered, while non-value-added activities detract from or do not increase the quality of delivered communication. For example, studies have found value in minimizing non-value-added activities such as excessive documentation and unnecessary testing.[3] Healthcare is considered a cognitively intensive service model, and value-added activities provide a framework for identifying waste and optimizing safe workflows. By focusing on value-added activities centered around consultant communication, our departments established a novel and streamlined process.

Solution:

As we began to tackle the issues surrounding consultant communication, **our** hospital system started to employ Microsoft Teams (MS Teams), an electronic PHI-compliant platform for messaging, videoconferencing, scheduling and file storage. (Figure 1) Our team saw an opportunity in this application to solve the abovementioned challenges. MS teams allowed for the creation of individual chats or PHI-specific channels that could transmit consult notifications, messages, images or media. This application could be opened on our organization's secured mobile or desktop device, including a personal computer (PC), Apple or Android. The application was vetted, the governance structure built, and tutorials developed at the system level. Once a provider was onboarded into the system, they could join or create a specific team or channel.

Figure 1: Microsoft Teams

Implementation:

The initial stage included a year-long orientation of all ED providers using MS teams in various tasks (i.e., internal communication, accessing resources and files). This, in turn, created a sense of familiarity with the new platform among the ED staff. This included one on one troubleshooting to decrease barriers and facilitate adoption. Providers were instructed on the appropriate code of conduct on the digital platform. Furthermore, a teach-the-teacher structure was created within the ED leadership for application fluency and standard setting. Concurrently, we coordinated with healthcare system Informatics to create dedicated PHI (Protected Health Information) channels based on consultant specialty services. All ED providers included in the channel were given read-and-write access. (Figure 2)

The second stage included contacting various departments/consulting services to engage earlier adopters. We identified a consulting service with a well-established, collegial relationship and their willingness to be agile and experimental with the ED. Preliminary meetings included a discussion with consultant service leadership for scoping and feedback. As we onboarded new services, we identified

process champions, attending, fellow, resident, PA or NP.

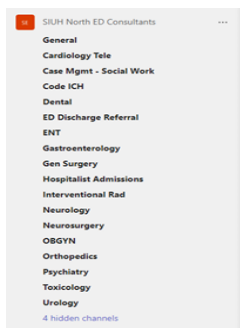

Figure 2: ED Consultant Teams

Once a consulting department was enrolled, there were ongoing strategies to ensure consistent improvements in the process. ED leadership followed up with each consulting service to determine familiarity with the application, troubleshoot various issues and identify barriers to use. Go-live dates were placed towards the middle of the week to facilitate the workflow during lower volume days. Internal messaging to ED staff was provided by the leadership before each go-live date.

Clinical Integration:

Over the next few months, MS teams channels between EM Providers and consultants were created. To initiate a consult, the provider would select the appropriate consulting channel and transmit the patient's name, location, diagnosis and callback number. (Figure 3) For ease, a provider could also take a picture or screenshot of the EMR (Electronic Medical Record) screen with the pertinent patient information and transmit it via the channel. (Figure 3) Each consultant was expected to reply within 15 to 20 minutes, commonly using the word "okay" or the emoji "thumbs up." Lack of response or device failure is reverted to the standard mode of communication by phone. This workflow was not intended for life-threatening consultations, e.g., ruptured AAA (Abdominal Aortic Aneurysm), hypotensive ectopic, etc. Emergent life-threatening conditions were communicated directly via phone or activation of an overhead code. Any further communication concerns, questions or recommendations from the consultant or the ED provider were addressed as a reply to the initial thread. The ED provider and consultants' names were visible and time-stamped with each message.

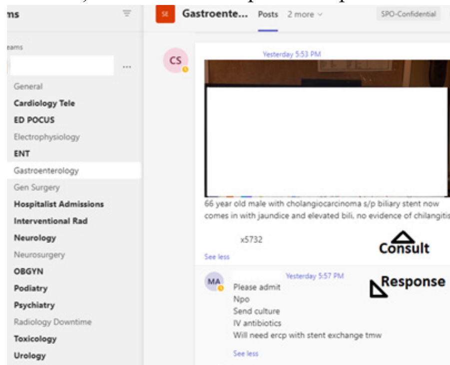

Figure 3: Teams Consultation

Clinical Impact:

We expected that implementing MS Teams into the ED workflow would reduce the number of non-value events, such as waiting for consultant responses, callbacks for missed calls and interruptions to consultant and ED providers. (Figure 4,5) Furthermore, we increased value-added activities by communicating without interruption, increasing the accuracy of conveyed information between parties and the visibility to track consult delivery, response and feedback. Value-added activities increase the efficiency and quality of the provider-consultant workflow.

Since the implementation, various strengths have been observed. The workflow smooths friction points among consultants and ED providers. Additionally, it decreased interruptions for both consultants and ED providers. The project's strength also included accurate verification of patient demographics for our consultants. The requesting ED physician's and consultants' names were easily visible with the ability to direct message the sender. Anecdotally a sense of accountability for timely responses was established due to the electronic time stamp of the responses. Overall, issues surrounding callbacks were

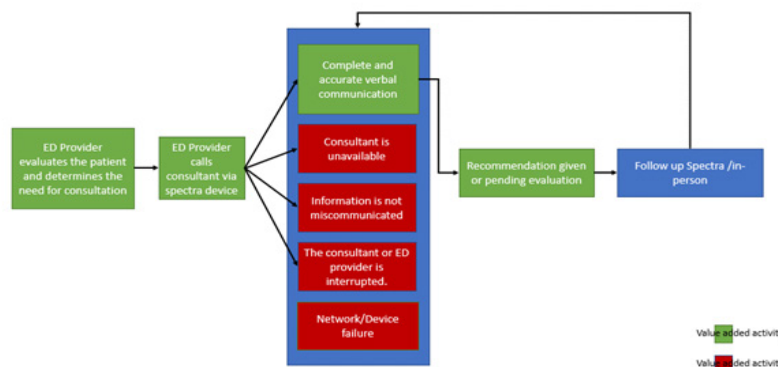

Figure 4:Non-Value-Added Activities

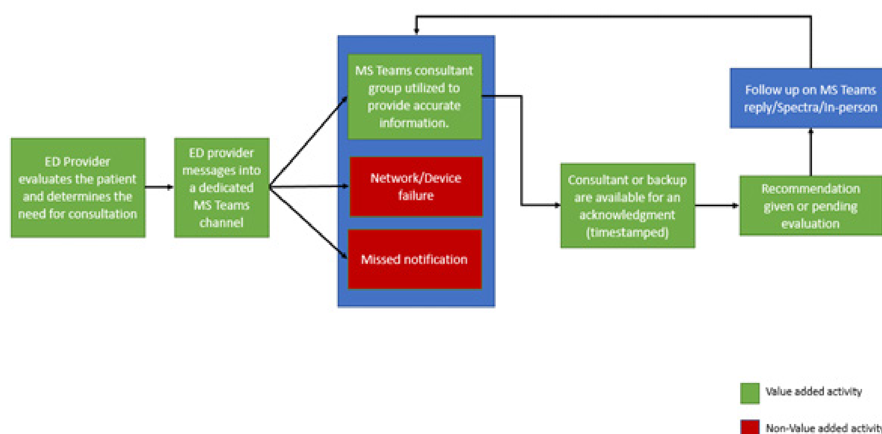

Figure 5: Value-Added Activities

PRACTICE MANAGEMENT

Figure 6: Automated Notification

mitigated as consultants were part of the specific channel and confirmation of consult was straightforward. As discussed earlier, identifying superusers led to a smoother collaborative effort to optimize platform use and overcome resistance. Subsequently, other uses for MS Teams were discovered – specifically, automated notification of admissions to hospital service using an EMR-integrated messaging Bot. (Figure 6) Since the inception of the MS Teams "ED consultant" workflow, the team has grown to include 15 consulting services over 18 months.

Performance improvement requires ongoing monitoring of process change. There were continued challenges and limitations of this process. Initially, decreased familiarity with the MS Teams platform led to a slow adoption rate among ED providers and consulting services. This was corrected by continuous education. Since this process heavily depended on mobile devices, we encountered certain challenges with battery longevity, limited charging stations and missing notifications due to various individual notification phone settings. Professionalism issues and gaps in messaging etiquette were addressed contemporaneously with individualized coaching by leaders in the respective departments. One specialty joined but dropped off from the workflow soon after the implementation. As an academic center, a cyclical turnover of providers was expected and consistent maintenance of the group roster by our administrative staff was needed.

Overall, implementing a PHI-protected communication platform streamlined interdepartmental communications, decreased non-value-added interruptions and increased the accurate and prompt transmission and response of patient information.

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Calendar

September 2023

13 Education Committee Conference Call, 2:45 pm
13 Professional Development Conference Call, 3:30 pm
14 Practice Management Conference Call, 1:00 pm
15 Board of Directors Conference Call; 1:00 pm - 5:00 pm
20 Government Affairs Conference Call, 11:00 am
20 Emergency Medicine Resident Committee Conference Call, 2:00 pm
20 Research Committee Conference Call, 3:00 pm
20 Academy of Clinical Educators, Zoom Lecture, 4:00 pm
21 EMS Committee Conference Call, 2:30 pm

October 2023

7-8 ACEP Council Meeting, Philadelphia, PA
9 New York ACEP Reception, Philadelphia Marriott, Philadelphia, PA, 6-7 pm
11 Education Committee Conference Call, 2:45 pm
11 Professional Development Conference Call, 3:30 pm
12 Practice Management Conference Call, 1:00 pm
18 Government Affairs Conference Call, 11:00 am
18 Emergency Medicine Resident Committee Conference Call, 2:00 pm
18 Research Committee Conference Call, 3:00 pm
19 EMS Committee Conference Call, 2:30 pm

November 2023

1 Annual Research Conference
Columbia University Irving Medical Center, 8:30a-12pm
8 Education Committee Conference Call, 2:45 pm
8 Professional Development Conference Call, 3:30 pm
9 Practice Management Conference Call, 1:00 pm
15 Government Affairs Conference Call, 11:00 am
15 Emergency Medicine Resident Committee Conference Call, 2:00 pm
15 Research Committee Conference Call, 3:00 pm
16 EMS Committee Conference Call, 2:30 pm

December 2023

13 Education Committee Conference Call, 2:45 pm
13 Professional Development Conference Call, 3:30 pm
14 Practice Management Conference Call, 1:00 pm
15 Board of Directors Conference Call; 10:00 am - 11:30 am
20 Government Affairs Conference Call, 11:00 am
20 Emergency Medicine Resident Committee Conference Call, 2:00 pm
20 Research Committee Conference Call, 3:00 pm
20 Academy of Clinical Educators, Zoom Lecture, 4:00 pm
21 EMS Committee Conference Call, 2:30 pm

EDUCATION

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

EM Residency Match 2023: What happened?

For those of us who work in the "trenches," results of the 2023 Emergency Medicine (EM) Residency Match may not come as any surprise. Amid staffing shortages, increased pressure to meet productivity metrics, the innumerable challenges coinciding with the COVID-19 pandemic and many articles pinpointing the skyrocketing levels of physician burnout and attrition in emergency medicine, it is no wonder medical students are paying attention. In 2022, it was clear there was a trend beginning to emerge with the first major decrease in applicants into EM, resulting in 219 unfilled residency spots. And then 2023 happened and news was made that unfilled EM residency positions (prior to the Supplemental Offer and Acceptance Program, or SOAP) reached an unprecedented 555. For many years, EM maintained its status as a competitive specialty, typified with more students applying to EM than number of residency positions available. In 2021 the number of applicants into EM peaked. The following year, the number of applicants began to decrease, however the number of residency positions continued to increase.

So what happened and do we need to be concerned?

This phenomenon may partially be explained by a shift in the supply-demand curve of available EM residency positions. For the past decade, the number of residency positions have grown significantly. Many programs have expanded the number of spots available in the match as they have developed their programs, hired additional academic leaders and grown their clinical acuity and procedural training. On the same token, several for-profit hospital corporations have opened a number of programs, which some point to as a financial move for hospitals since residents earn lower salaries than attendings and are partially funded by the government. Due to concern of the corporatization and growth of these programs, ACEP successfully advocated against the opening of one new EM program in a large urban center - the first step in advocating for responsible growth of programs. Organizations like the Emergency Medicine Residents' Association (EMRA), have also advocated for responsible growth of programs by submitting recommendations to the ACGME to increase certain EM residency procedure requirements, thereby limiting the growth of programs where procedures may not be as common in daily practice.

On a separate note, the COVID-19 pandemic initially had a booming effect on the medical field where medical providers, specifically "frontline" workers, were viewed as the true heroes during an otherwise catastrophic time. Soon after, attention was quickly directed to the mental health concerns surrounding the pandemic, which included handling overcrowded Emergency Departments (EDs), inadequate personal protective equipment and the emotional burden of making many life-altering decisions with sparse medical resources and knowledge. Measures have recently been instituted to increase attention in both the medical field and the general public about the unique mental health challenges in healthcare, like the Lorna Breen Act and National Physician Suicide Awareness Day. The mere existence of these actions, however, has highlighted the increasing rates of physician burnout and attrition within the medical field in general, and emergency medicine specifically. Medical students are not immune to these stories and are understandably anxious about how this may affect their future career options.

Compounding these challenges to EM is the general fear of poor job prospects, both in quantity and quality, for new residency graduates in the near future. An article published in the Annals of Emergency Medicine in 2021 conjectured that there may, in fact, be an oversupply of emergency physicians by 2030. Recent research has also highlighted the realities of workplace violence, both verbal and physical, and a study published in the American Journal of Emergency Medicine reported that 100% of ED nursing staff had experienced such violence during their careers. The prospect of a limited EM job market, in addition to the very real possibility of facing workplace violence in the ED, are powerful factors when medical students are considering their future residency choices.

Given all of this, what is our response as a specialty? The cat is most certainly out of the bag - the romanticization of what it means to be a physician, particularly in many crowded, understaffed and under-resourced emergency departments across the country, has clearly made its way into the news headlines. Medical students are listening and are hearing the messages loud and clear. A Match Task Force, made up of a broad array of EM organizations—including EMRA, ACEP, SAEM, CORD, ACOEP and AAEM, among others—have convened to identify factors leading to the current workplace, as well as to develop strategies to improve it for future matches.

On a more local and personal level, it is our job to remind ourselves and our students that emergency departments are by far the most critical aspect of the safety net for so many people across the country. Having a dearth of EM physicians in the future will not only affect our specialty but will have direct consequences for our patients. We need to be mindful of supporting our fellow physicians, residents and students with the resources needed to provide the care our patients deserve. In addition, we should consider a decrease of the daily demands placed on us in order to remain productive with fewer resources. As well, we should support the mental and physical well-being of all who work in the emergency department. There will be no overnight solution and there is the very real possibility it may get worse before it becomes better. But if we care to foster future generations, we need to take these necessary steps today.

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- EMRA's Response to the 2023 Match EM Match: Strengthening the Specialty from all sides. 24 Mar 2023.
- Joint statement on the Emergency Medicine 2023 Match Results. AAEM, RSA, ACEP, CDEM, CORD, EMRA, SAEM, RAMS, ACOEP, AACEM, RSO.

Kaushal H. Shah, MD FACEP
Assistant Dean of Academic Advising
Professor & Vice Chair of Education for Emergency Medicine
Faculty, Center for Virtual Care
Weill Cornell Medical College

Syrena Carver
Pre-Medical Student and Research Assistant

Neurologic Manifestations of COVID-19 Infection

Overview:

COVID-19 has several long-term issues. This article will focus specifically on the neurologic manifestations of COVID-19. The most common symptoms include sensory changes, alterations in cognition and memory ("brain fog") and headaches, but seizures, encephalitis, stroke and intracranial hemorrhage have all been linked to COVID-19 as well. These manifestations broadly range in degree of severity and prevalence. For the vast majority of patients, neurologic symptoms resolve within three months.

Although the Center for Disease Control (CDC) broadly defines Long COVID, also known as Post-COVID, as any signs, symptoms or conditions that continue or develop after the in the initial infection, most researchers and clinicians would expect persistent symptoms beyond three months. Typical symptoms of Long COVID include fatigue, exertional malaise, difficulty concentrating ("brain fog"), headaches, shortness of breath, chest pain, or heart palpitations.

Sensory:

The most commonly experienced neurologic manifestation of COVID-19 is olfactory dysfunction (OD) and gustatory dysfunction (GD). The etiology of OD and GD is unknown and is still heavily being researched. However, some research has shown that SARS-COV-2 accesses the olfactory nerve through the angiotensin-converting enzyme 2 (ACE2) and the transmembrane serine protease 2 (TMPRSS2) receptors, which allows it to damage the olfactory nerve, leading to inflammation and vascular damage. Short-term symptoms of OD and GD from COVID-19 are partial loss of smell (hyposmia), loss of taste, and congestion. Long-term symptoms of OD and GD are the complete loss of smell (anosmia), the persistent and spontaneous smell of odors, and a distorted sense of smell. Most patients with COVID-19 spontaneously recover their sense of smell, but some researchers (based on small studies) have advocated for nasal steroids, fluticasone, and even an oral steroid taper. Further research is required to make a strong evidence-based recommendation.

Headaches:

Headaches are a common symptom found to persist in many patients with Long COVID-19. Interestingly, this symptoms inflicts patients with no history of headaches as well as those with prior headaches. Mild headache symptoms include aching pain in a region of the head, and severe headache symptoms include more frequent and worsening headaches, vision changes, confusion, loss of balance, numbness, and weakness. Cause of the headache is unclear and can be multifactorial therefore treatment should address possible fever (antipyretics), dehydration (IV fluids, antiemetics), and the inflammatory response (NSAIDs) from fighting off the virus. There is no specific test for COVID-related headache. As COVID-19 patients might be hypercoagulable, consider brain imaging if there is any concern for hemorrhagic or ischemic stroke.

Congnition and Memory ("Brain Fog"):

The symptoms of "brain fog" are often described as confusion, forgetfulness, inability to focus, and mental fatigue. Although it is discussed often, our understanding of it is very opaque. What we do know is: (1) COVID-19 has more cognitive impact than other viruses such as influenza; cognitive defects are measurable in over 20% of hospitalized COVID-19 patients at three month follow-up; (2) degree of cognition impairment is not correlated with severity of the initial COVID infection; (3) those patients with pre-existing cognitive dysfunction are more likely to experience delirium or worsening dementia; (4) vast majority of patients (98% in one study with a relatively low rate of co-morbidities) return to baseline cognition at four month follow-up testing. As there is no test for "brain fog", emergency physicians would be wise to approach these patients as "altered mental status" or "delirium" and conduct an appropriate evaluation, including brain imaging. There is currently no established treatment for "brain fog". Nonetheless, medications such as guanfacine in combination with N-acetylcysteine (NAC) are being used to relieve the symptoms and severity of brain fog.

Other Neurologic Disorders:

Seizures, strokes, cranial nerve deficits, Gillian-Barre Syndrome, and encephalitis have all been associated with COVID-19. Although these manifestations post-COVID are rare, they are likely to be encountered in the emergency department. Fortunately, the evaluation and the treatment are not different than presentations of these diseases without COVID. The emergency physician can address the patient in front of them without deviation from their usual protocols, other than possibly wearing personal protective equipment if the patient has active COVID symptoms.

Conclusion:

Emergency physicians will likely encounter patients with neurological symptoms related to COVID-19 or Long COVID; however, given that the presenting symptoms could also be related to other underlying causes and the evaluation and treatment are not unique to COVID, the ED work-up should not be altered. COVID patients are at risk for a variety of neurologic sequalae for many months after the initial illness therefore physicians should simply raise their pre-test probability for disease.

New York ACEP is proud to offer 10.50 hours of free CME credits on Stroke Care as a part of your membership.

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STROKE CARE FOR THE EMERGENCY PHYSICIAN

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- The Dizzy Patient, *Mary McLean, MD*
- The Prehospital Approach to Stroke, *Jeremy T. Cushman, MD MS FACEP*
- TIA "The Harbinger", *David M. Janicke, MD PhD FACEP*
- Traumatic Brain Injury, *Amit Kandel, MD MBA*
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ADVANCES IN ACUTE STROKE CARE

- A Stroke in the Eye: Identification and Acute Management of Retinal Artery Occlusions, *Gareth Lema, MD PhD*
- Endovascular Management of Acute Stroke, *Paolo N. Grenga, MD*
- Stroke Care Road Show: The Mobile Stroke Unit, *Robert M. Bramante, MD FACEP CHCQM*
- Neuroimaging of Stroke, *Amit Kandel, MD MBA*
- Pediatric Stroke, *Sarah DiPalma, MD and Elizabeth Rosen, MD*
- Stroke Prevention & Anticoagulation: What Works?, *Annemarie Cardell, MD*
- Stroke Therapies-Thrombolysis 'N Thrombectomy, *Neil C. Suryadevara, MD MPH CPH and Hesham E. Masoud, MD RPNI CHSE*
- Coordinating Interfacility Stroke Care: The Hub and Spoke Model, *Robert M. Bramante, MD FACEP CHCQM*
- tPA Then and Now: A Literature Review, *Jeffrey J. Thompson, MD FACEP*
- WAKE-UP Stroke, *Umran Ugur, MD*

Visit nyacep.org/events to access this program.

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American College of Emergency Physicians and New York ACEP. The American College of Emergency Physicians is accredited by the ACCME to provide continuing medical education for physicians.

SCIENTIFIC ASSEMBLY HIGHLIGHTS

The 2023 Scientific Assembly at the Sagamore Resort featured expert faculty members: Robert S. Hoffman, MD FAACT FACMT FRCP Edin FEAPCCT; Duncan Grossman, DO, Rama B. Rao, MD FACMT, Rachel Liu, MD FACEP FAIUM, and Peter Viccellio, MD FACEP who wowed 300 emergency medicine physicians from around the state. Twenty-two companies participated through exhibits and support.

Lifetime Achievement *Physician of The Year*

Established Researcher *EMS*

Awards

Each year New York ACEP honors individuals for significant contributions to the advancement of emergency care. New York ACEP member, Joshua Lynch, DO FACEP was presented with the 2023 Advancing Emergency Care Award. Brian Clemency, DO MBA FACEP FAEMS was presented the Michael G. Guttenberg Outstanding Contribution to EMS Award; Brenna Farmer, MD MBA MS FACEP was presented with the Physician of the Year Award and Vincent P. Verdile, MD FACEP was presented the Edward W. Gilmore Lifetime Achievement Award.

The Lifetime Researcher Award was presented to Jeffrey Bazarian, MD MPH, University of Rochester. The Established Researcher Award was presented to Ethan A. Cowen, MD MS FACEP, Icahn School of Medicine at Mount Sinai and Ethan Abbott, DO MSCR FACEP, Icahn School of Medicine at Mount Sinai received the Rising Star Researcher Award.

Leadership Elected

Congratulations are extended to the newly elected Board members: Bernard Chang, MD PhD FACEP, Columbia University Irving Medical Center; Elyse Lavine, MD FACEP, Mount Sinai Morningside; Laura Melville, MD MS, New York-Presbyterian Brooklyn Methodist Hospital and Manish Sharma, DO MBA FACEP, NewYork-Presbyterian - Queens.

New Speaker Forum

Congratulations to David O. Andonian, MD MPH, SUNY Upstate Medical University, recipient of the award for best presentation for *Top Ten Pro Tips to Live By.*

Research Forum Winners

Tuesday's program included the Research Forum featuring oral and poster presentations. Congratulations to the following research presenters who took the annual award in their category.

Oral Presentation

- Troponin Velocity: The Negative Predictive Value of Flexible-Interval Serial High-Sensitivity Troponin Testing for the Detection of Acute Coronary Syndromes.
  Marc A. Probst, MD MS, Columbia University Irving Medical Center

Poster Presentations

- Prevalence of Fentanyl Co-Ingestion Among Emergency Department Patients With Opioid and Non-Opioid Drug Overdoses.
  Dana L. Sacco, MD MSc, Columbia University Irving Medical Center.
- Can Color Doppler of the Hepatic Vein Accurately Predict the Spectral Doppler Analysis of the hepatic Vein in teh Venous Excess Ultrasound Score?
  Stephanie Midgley, MD, Vassar Brothers Medical Center
- A Pilot Study Assessing the Effectiveness of a Virtual Reality Intervention for Alleviating Pain and Anxiety in the Pediatric Emergency Room.
  Jemer Garrido, BS Maimonides Medical Center
- Research and Scholarly Activity (RSA) Point System to Enhance Resident Productivity.
  Joseph Wu, MD, NewYork-Presbyterian Queens

Albany Medical Center took the Crown in the 7th Annual Resident Volleyball Challenge

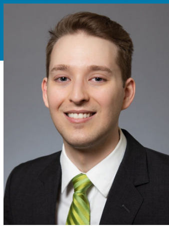
Eight residency programs competed for bragging rights in the Scientific Assembly volleyball tournament.

SCIENTIFIC ASSEMBLY HIGHLIGHTS

Residency Volleyball Challenge
July 12, 2023
Sagamore Resort on Lake George

2023 Volleyball Champions

Albany Medical Center



Tyler Yates, MD
PGY3 Resident
Staten Island University Hospital

Maria Tama, MD RDMS
Ultrasound Co-Director
Staten Island University Hospital

Simone Rudnin, DO RDMS
Ultrasound Co-Director
Staten Island University Hospital

Embracing Novel Methods of Medical Teaching: Sono in Wonderland

Background:

Traditional conference didactics may not always meet the learning needs of current emergency medicine (EM) residents. ACGME guidelines recommend a minimum of 16 hours of formal classroom education in ultrasound but it is unclear how this time can be utilized most effectively. EM education has been on the forefront to adopt active-learning strategies (e.g., flipped model classroom) to compliment traditional didactic lecturing. Research in medical education suggests these active learning techniques, (e.g., peer-assisted learning, problem solving and hands-on experiential learning) are effective in engaging learners and enhancing knowledge retention. However, research is scarce regarding the best means of didactic ultrasound education. This could be due in large part to a lack of established educational strategies that can be used for ultrasound teaching. The aim of the current project was to expand our toolbox of effective ultrasound teaching methods.

The purpose of Sono in Wonderland was to teach both core emergency medicine ultrasound as well as advanced ultrasound applications and pathology recognition. During this event, trainees learned about various pathologies, recognized common ultrasound signs and symbols and exercised procedural skills. This innovation was designed to create an environment that fosters competition and teamwork, as groups of students raced to complete ultrasound tasks and challenges.

Objectives:

- Create new methods of ultrasound education that employ active learning
- Assess resident engagement in team-based active learning activities that focus on problem-solving using ultrasound

Methodology:

Six teams of residents of mixed post-graduate years competed in three time-limited rounds that progressively built upon each other in order to advance to the subsequent round.

Round 1: Kahoot

An initial team score was acquired from a Kahoot quiz. The quiz tested general ultrasound fund of knowledge in multiple-choice format.

Round 2: Escape Wonderland

Task 1: A matching game was completed that required ultrasound signs and symbols to be matched with its clinical significance or diagnosis. The matched pairs spelled out a password used for the next task.

Task 2: Entering the password opened an online quiz that tested making clinical diagnoses based off of ultrasound videos and still images. Passing the quiz provided a lock combination.

Task 3: Residents had a locked manilla envelope that opened with the lock combination. The envelope contained a crossword puzzle that tested increasingly more challenging ultrasound diagnoses. A completed crossword puzzle could be traded for a riddle ("I am mostly cold, sometimes hot. You may like it or you may not. You will find me lying around this room. Use it to advance, or you will be doomed").

Task 4: The riddle took residents on a scavenger hunt for one of multiple hidden bottles of ultrasound gel. Inside the gel bottle was a key to escaping the conference room.

Round 3: RUSH showdown

Teams with the highest quiz scores and best speed at escaping the room were paired against each other in a final scanning showdown. The final two teams competed to perform a RUSH examination the fastest.

What lessons were learned?

Ultrasound teaching in an "escape room" format with hands-on scanning competitions were successful implementations of team-based active learning. Resident engagement in active-learning activities, such as a matching game and a crossword puzzle, exceeded that of traditional didactic lecturing. Subjective feedback from residents indicated these methods were superior in teaching ultrasound-specific pathology and enhanced their interest in implementing ultrasound on shift.

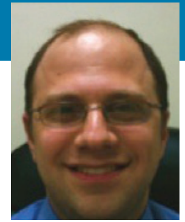
TEAMS

Ultrasound Crossword Puzzle

Down:
1. Enlarged gallbladder
2. Tricuspid plane annular excursion
4. The first [illegible] plane pierced during femoral nerve block
6. Vessel riding above the SMA
8. Thickening of this greater than [illegible] is abnormal
10. The probe placement for posterior tibial nerve block
13. The answer to Dr. Greenstein's shoulder education for the week
16. Target for PENG block injection

Across:
3. Moves like a snake
5. The artifact seen with adenomyomatosis of gallbladder
7. A branch of the celiac trunk not seen on US
9. Pseudo [illegible] sign
11. O'clock position of transvaginal sagittal view
12. Washing machine sign
14. Free fluid first seen in a pediatric fast
15. third word in [illegible]

ASK THE EXPERTS



Interviewer
Moshe Weizberg, MD FACEP
Chair, Department of Emergency Medicine
New York Community Hospital
Chair, New York ACEP Professional Development Committee

Interviewee
Angela M. Mills, MD FACEP
J. E. Beaumont Professor and Chair
Department of Emergency Medicine
Columbia University College of Physicians & Surgeons
Chief of Emergency Medicine Services
NewYork-Presbyterian|Columbia

I had the opportunity to interview Dr. Angela Mills, Chair of Emergency Medicine at Columbia University, and Immediate Past President of the Society for Academic Emergency Medicine (SAEM). She provided amazing insights into the path to promotion and advancement in emergency medicine. This article will be very valuable to anyone wondering about how to jump-start their career.

Tell us about your path that led you to becoming a Chair. I understand your trajectory began with operations and quality.

AM: I began my career at Penn. As a new faculty member, I was hired into the research track. My job was 65% clinical and 35% academic. I was tasked with a mission: I had nine years to publish enough research to show that I had a national presence. On average people had 40-50 publications when they went up for promotion. If I made it, I would get promoted. If I did not make it, I would lose my job. It was very stressful.

At the time, I had no training on how to do research. I hadn't done a research fellowship. So, I worked hard. I collaborated with other people in my department. It was recommended to me that I do research on abdominal pain. So, that is what I did. Ultimately it worked out and in nine years I got promoted.

Around that time there were some changes in the operational leadership of the department, and I was asked to take on the role of Medical Director. And I said, why me? I was really doing research. I had never done operations. But they told me that I got along with everyone and that I was a great leader and they thought I would do a good job in the role. I was sort of at a crossroads at the time and I thought it would be a good challenge for me and allow me to develop new skills. So, I agreed to become the medical director.

Once again, I had no training for the position, I was in. I took some leadership courses and tried to learn as much as I could from various colleagues. I had to work hard and collaborate with others to learn what I needed to do. Then I was promoted to Vice Chair of operations. I noticed that I really enjoyed mentoring other people and advocating on behalf of the department. My mentors eventually recommended that I apply for Chair jobs. So, I did. I felt like in leadership I could impact patient care and our team members in a bigger way.

If I was doing this today, I would have completed an administration fellowship and gotten an advanced degree. I always thought about obtaining an MBA, but it never worked out. You can learn a lot by doing things on the job and having great mentorship, but completing a fellowship or obtaining a degree provides you with dedicated time to focus on that area. For example, doing an administrative fellowship may give you an opportunity for an administrative role in your institution.

What is the role of a medical school Chair and how does it differ from being a Chair in a community site?

AM: There are really many more similarities than there are differences. In both roles, you need to lead the group. You oversee the mission. You are responsible for hiring and developing your faculty. You may also be overseeing multiple sites which are all affiliated with the health system or medical school. In a medical school, there are also some academic pieces, and you oversee the education and research missions. For example, you have trainees including students, residents and fellows. A Chair is responsible for faculty development and academic and professional advancement. You are also expected to produce research in your department.

As a Chair you may have various responsibilities and roles with the medical school. You may be on search committees for Chairs of other departments or other leadership roles in the school. That may not be the same at some community sites.

You also have opportunities and may be asked to lead committees or serve in roles for the hospital or the medical school. For example, I am currently the Vice Chair of our health system medical board and I chair the operations committee for our faculty practice organization.

As a chair in an academic medical center, I am also focused on our research mission. As a specialty, emergency medicine is ranked last in some academic parameters such as NIH funding and numbers of PI's with NIH-funded grants. In emergency medicine, we care for a vast array of medical complaints and greatly impact the population and public health. Our experience and expertise is critical in scientific discovery and it is important that we perform emergency medicine centered research to improve patient care.

What were some of the surprises you encountered when you took the job?

AM: I really researched the job well. I spoke to many people, and I understood the job of an Academic Chair well. However, there were some details about my specific job that I did not find out until I showed up. For example, we had many open lines that had to be filled. I had to do a lot of recruiting to staff the department which took a great amount of time.

Also, I was coming from an institution which was much more centralized with many administrative functions occurring at the University level. Columbia was more decentralized

with the department being responsible for many of these administrative functions. As a brand-new department, the administrative infrastructure needed to be built and so I spent a significant amount of time focused on building this foundation.

What was it like being the inaugural Chair of a new Department in an Ivy League institution?

AM: It was very exciting to be starting a new department, but it was also daunting and very challenging.

Prior to my coming to Columbia, Emergency Medicine was under the Department of Medicine, and Pediatric Emergency Medicine was under the Department of Pediatrics. When I came, we formed a new Department of Emergency Medicine and those two divisions merged to become one.

It took time to get the other departments to recognize that emergency medicine was now its own department. For example, sometimes institutional data for different departments would be presented and emergency medicine was not included. Other departments had to recognize what a department of emergency medicine truly was. Many subspecialties had to be built. We needed to recruit fellowship trained people to develop various divisions such as ultrasound. This allowed us to start new fellowship programs and increase our teaching for our trainees. We really built a lot.

Before we were a department, there was limited involvement of emergency medicine in the medical school. Medical students did not have a required rotation in the emergency department. They really did not interact much with emergency medicine and were learning about emergency care from other specialties.

Now emergency medicine is viewed as a department just like all the others. We have expanded a great deal and contributed in huge ways. We own a lot of the teaching in the medical school. For example, we now run a required first responder class in the first year, a required clerkship in emergency medicine in the third year, a ready for residency course in the fourth year, and several electives. We also participate in many of the required courses in the medical school. And because of this, we have seen more medical students going into emergency medicine.

I understand you were one of the first female leaders in a "more traditional" medical center. What has that been like?

AM: When I started my new role, there were more chairs named Larry than there were female Chairs. There was not much diversity across the Chair group and leadership. In addition to me being one of the only women, many of the other Chairs were significantly older than me. This was challenging. There were times where other Chairs asked me to take the minutes in meetings or to organize meetings instead of asking their administrative assistants. It can be a little lonely. You feel like you don't fit in. I also felt there was opportunity to advocate for improved equal access to care.

However, there has been movement with increasing diversity among the Chair and leadership group. There have been a lot of great changes. People have been impressed with the growth of the Emergency Department. Many of them did not even realize emergency medicine was academic at all. Folks have been pleased to see all that we are producing. We've changed their view of what a department of emergency medicine can be.

One of your priorities has been to promote women and underrepresented minorities. What led you in that direction?

AM: When I was at Penn, where I "grew up" in emergency medicine, I was in a group that was likely more diverse than many groups at the time. I benefited greatly from that. I had many mentors who were leaders and people who "looked like me" who I felt comfortable going to. Diversity in all aspects is critical in creating smarter and more productive teams and improved patient outcomes. All the articles I read about the value of diversity really resonated with me. So, I work to be intentional in promoting a culture in the department where everybody is accepted for who they are, and everyone feels welcome. I believe you have to be deliberate about it. You have to think about creating that culture and then go about making it happen.

So, you just spent a year as the President of one of the largest national organizations in Emergency Medicine, namely SAEM. What was that experience like? What surprises did you encounter? What value did that role bring to your career?

AM: I have been involved with SAEM for a number of years. The presidential role is only one year, however there is a leadership structure that includes being a member on the board and then a member of the executive committee of the board which is a four-year process. The experience on board overall has been very rewarding. It has given me the opportunity to support our members and shape academic emergency medicine, which is something I am very passionate about. I have been able to help develop ideas and opportunities for people and allow them to build and grow programs which benefit members and the specialty.

I have had a sense of awe at seeing all the amazing work that members of SAEM are doing. One example that stands out is the Stop the Stigma campaign which we were able to accomplish as an "All EM" initiative. This was really borne out after the passing of one of our faculty members, Dr. Lorna Breen, and realizing that we should be working in this space. It was the membership and staff of SAEM that really created this campaign and made the collaborations with other organizations to make it so successful.

What are the future challenges for EM?

AM: We are definitely facing challenging times in our specialty. One challenge is that we have seen less applications into emergency medicine. There are also more programs and positions. If more positions continue to be developed, even if the number of applicants stays the same, we will have more vacancies. So, what does that really look like and how does that impact students and those who mentor them?

ASK THE EXPERTS

Our job as emergency physicians is hard. We work in a difficult environment. But we went into this specialty because we are passionate about this incredibly rewarding specialty and want to deliver the very best patient care by the mantra of anyone, anything, anytime. We want people entering the specialty who are passionate about emergency care as well. How do we share that joy? As a specialty we need to come together to figure this out, moving forward becoming even stronger.

A second challenge is increasing the scientific discovery and research in emergency medicine. How can we get early medical students interested in emergency medicine research? If you are interested in areas like health justice, equity, and population health, emergency medicine is a great space to engage in related research. Emergency medicine has not traditionally been looked at as a research specialty. We need to change that. We need to be at that table.

You have accomplished so much. Where does Angela Mills go next?

AM: I have been in this position for five and a half years. About two years into the role, the Covid pandemic hit NYC and as a department, that consumed us for quite a while. At times we were working to stay afloat. So there has been a delay in many of the initiatives we have wanted to implement. So, there is still a lot more that I want to accomplish.

I love being a Chair. It gives me a great balance of academic development and administration. I enjoy mentoring the faculty and trainees towards academic advancement, and also focusing on strategy, vision and administrative areas such as finances, human resources issues and all the other things that come with working at a big academic medical center. I truly enjoy this balance that allows me to contribute to something which I am passionate about, which is academic emergency medicine.

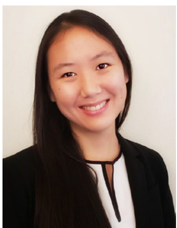
What words of advice would you have for a young woman faculty member who is looking to replicate the career that you have had?

AM: I would say seek out a great mentorship team. Mentors can be people who are senior to you, but also your peers and people who are junior to you. Be open to various opinions. Look for people who can sponsor you, coach you and also give feedback. Be open to that feedback and be flexible. For example, when I was offered the Medical Director position, that was not the path I was originally headed in. But I was open to it and it led me to great places. Work hard knowing how to integrate your personal life with your professional life. Mentors can really help guide you with these things.

Any parting words you would like to leave our readers with?

AM: I would say don't be afraid to ask for mentorship and advice. Don't be afraid to talk to people, even those with leadership positions who may be in different departments or institutions. Most people will be willing to help you. Even people in other departments were willing to mentor me on research. Look for those opportunities and you will find them.

LEADERSHIP & ADVOCACY AWARD WINNER REFLECTIONS



Joan Chou, MD, PGY-3
Emergency Medicine
SUNY Upstate Medical University

It's difficult to describe the flurry of emotions as I attended the New York ACEP state level advocacy day and subsequently the national ACEP Leadership and Advocacy Conference (LAC) but if I had to distill it down to one word, it would be "inspiring".

Prior to receiving the New York ACEP Leadership and Advocacy Award, I had served in various leadership roles, such as serving on my medical school class's executive board as the curriculum committee representative and as New York ACEP's emergency medicine resident committee (EMRC) vice chair. I had a sense of the privilege and honor of advocating on behalf of my peers for change and improvement in their careers and educational endeavors. Last year, my participation at the annual ACEP Council Meeting gave me a glimpse of the immense amount of effort and passion involved in the development of policies that go on to impact what we do as emergency physicians on a daily basis. However, I had essentially little to no exposure or experience in political advocacy and legislation.

ACEP LAC this year in May 2023 provided an excellent balance of discussions regarding the most pressing matters currently in emergency medicine (EM) and preparatory sessions that culminated in our moment of advocacy and discourse with our political leaders on Capitol Hill. Our emergency medicine leaders inspired us with their stories and words of wisdom on how we can advocate for change at home, not just for our patients but also for our fellow colleagues. State level success stories and updates from ACEP on the state of affairs exemplified the amount of passion and time dedicated to making changes in our workplace. Workshops that taught newbies to advocacy work like me, empowered me to find new avenues and ways to make change.

This year we discussed the issue of boarding in our emergency department (ED), and the strains this has caused on us as EM physicians and how it hinders appropriate patient care. Once again, we re-address the issue of workplace violence and again asked for support for Medicare payment reform. As I walked the halls of the buildings on Capitol Hill, another surge of awe and inspiration welled up within me. I was reminded of the days of the Founding Fathers of our country and the power we have to make a difference and the foundations upon which our nation was built, that We the People have the ability and responsibility to Serve the People.

I had the fortune to also attend the AAWEP Power Up workshop just before ACEP LAC. To say this was an empowering and inspiring session is an understatement. The wisdom and lessons the female pioneers and trailblazers had to share and impart on the younger generation of women physicians entering the specialty of emergency medicine was absolutely overflowing. The energy in the room was invigorating and it set the tone for the rest of my entire weekend. I am forever grateful to New York ACEP for generously granting me the opportunity to learn from the leaders of our specialty and to witness and join in on their tireless efforts. The whole experience has left me humbled and inspired to continue on their great work.

LEADERSHIP & ADVOCACY AWARD WINNER REFLECTIONS

Shane Solger, MD PGY-3
Emergency Medicine/Internal Medicine
SUNY Downstate Medical University

The American College of Emergency Physicians (ACEP) Leadership and Advocacy Conference (LAC) offered an incredible and immersive experience into the world of Health Policy and Advocacy through the lens of the emergency medicine community. As a resident, my career has barely begun. However, having not completed my residency nor being at a stage where I need to commit to a fellowship, it is inspiring to see how physicians can integrate advocacy into their careers, especially as I formulate what mine might look like.

The conference began with a Health Policy Primer, whose audience was a heterogeneous smattering of residents, medical students and attendings. This segment offered an interactive and comprehensive approach to help us break down something as complicated as "health policy" into a series of short lectures. The session took us through the lived experiences of those emergency physicians who have incorporated elected office into their careers and the rewards and sacrifices that have come with it. It also began what would be a recurring theme throughout the conference: the dire need for emergency physicians in elected office.

The conference continued with a day full of lectures that all tackled the issue of "advocacy." It covered the trials and tribulations of advocating for ourselves and our patients at all levels, with stories of triumphant advocacy tales ranging from hospital-based initiatives to improve workflow, to those emergency physicians working at the federal level in support of larger public health initiatives.

The conference rightfully allotted a considerable amount of time dedicated to defining and discussing the problems that many of us are seeing take place in our emergency departments: boarding, burnout, the opioid epidemic, mental health, staff shortages, workplace violence and the struggles with practicing in a world post-Roe. For some of these issues, there was discussion of solutions and processes by which physicians could get involved to make things better and for others, there was an acknowledgment that a good solution has yet to be discovered.

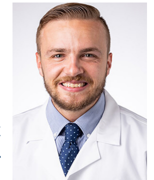
In addition to discussing those problems at the forefront of our practices, the lectures also provided tangible steps for physicians to begin to get involved. For myself, one of the most important lessons surrounded getting involved with local hospital committees. I initially resisted joining them; my most salient reason for avoiding them was that they appeared to be free labor for the hospital. As a resident, I am already one of my hospital's lowest paid (per hour) employees. Am I now expected to dedicate extra time to helping our hospital administrators do their job? However, I have also fallen victim to decisions from the C-suite that were made without consideration for myself or my co-residents. When asked why these seemingly unilateral decisions were made, the answer was, "There aren't any residents on the committee, so we didn't have anyone to ask." This story also reinforces another theme from the conference: if you aren't at the table, you're on the menu.

The final day began with a preparatory session on the three issues ACEP wanted to address with our local congressional and Senate representatives: emergency department boarding, growing workplace violence and improved physician reimbursement through Medicare. With our groups pre-determined based on our geography in New York, those of us who were new were fortunate to be embedded with veteran LAC attendees. When meeting with our elected officials' offices, this wide breadth of experience created an environment close akin to residency training, whereby I, being new to the process, had the opportunity to speak directly with the members' staffers and to tell my patient stories, under the watchful eye of more experienced emergency physicians.

Ultimately, LAC was a resounding success. I met and heard from many brilliant and successful emergency medicine physicians with every perceivable combination of alphabet soup after their names: MD, DO, JD, MBA, MPP, MPH, MS, and MMM. I also saw a lot of individuals like me who were "just" an MD. Part of the hidden curriculum for myself was that you do not need to get more degrees or complete a health policy fellowship to get engaged with health policy (but you certainly can, if you want to!). I saw many graduates from my residency program, with a broad spectrum of career paths represented, including Chief Medical Officers, a Regional Director for the Department of Health and Human Services and, more importantly, local emergency physicians involved with ACEP. I also saw how some individuals, like Arizona House Representative Amish Shah, could complete a Sports Medicine fellowship and still find a way into political activity. Ultimately, in all of these roles, individuals found a way to advocate for themselves and their patients and there was no "right way" to do it. If anything, the recurring message was, "We just need people in our field to try to step up and advocate, in any way, at every level." I walked away (or rather, trained away) from the experience rejuvenated, empowered and hopeful. I will be excited to return to LAC in 2024.

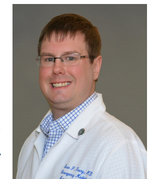
Geoff W. Jara-Almonte, MD
Associate Residency Director, Department of Emergency Medicine
Icahn School of Medicine at Mount Sinai

Sara Desantis, PA-C NYSAFE
APP Fellowship Director
Albany Medical Center



Mark Paquette, DO
PGY-2 Emergency Medicine Resident
Albany Medical Center

Erin Caffrey, MD
PGY-2 Emergency Medicine Resident
Albany Medical Center



Sean Geary, MD
Program Director Emergency Medicine
Associate Professor of Emergency Medicine &
Surgical Critical Care
Albany Medical Center

When Fever and Diarrhea Isn't Just Viral Gastroenteritis

Introduction

As the world gets smaller, emergency physicians must remain vigilant. Emergency Medicine is often an endeavor in searching for the needle in the haystack. Nowhere is that more true than the chief complaint of pediatric fever and diarrhea. We expend great effort to find that one patient that needs more than just reassurance, anti-emetics and a bottle of Gatorade. We would like to add one more item to your quiver of things to look for in this population.

World travelers come in all shapes and sizes from the globetrotting, backpacking, street food eating twenty-something influencer on Instagram to the elderly expat returning home for the first time in many years. We often forget that parents can be world travelers too in which case globetrotting adults may bring with them globetrotting kids.

While typhoid fever is rare in the United States, it is common in those traveling to endemic areas outside the country, including the Middle East and Southern Asia.[2,8] Often, an identifiable index case can be linked to either an acute infection from a recent traveler, or a chronic carrier of *S. typhi.*[1,2] This identification is important as *S. typhi* is gaining resistance to antibiotics and can spread resistance via plasmid and biofilm formation.[1,2] As described in the case below, *S. typhi* can progress from Typhoid fever to frank bacteremia. Infection with *S. typhi* can also induce a carrier state, leading to asymptomatic spread via shedding which may infect other members of a household.[5]

Case Presentation

A three-year-old male with up-to-date immunizations and no significant past medical history presented to the emergency department (ED) for evaluation of four days of fever with progressively worsening, non-bloody diarrhea. Associated symptoms included nausea without vomiting, abdominal pain, decreased oral intake for several days and one day of a palm and sole sparing rash on various parts of the body with complete resolution. Complete review of systems otherwise negative.

The patient lives at home with his mother, father and three siblings. Additional history was notable for travel to Pakistan two months prior with time spent on a farm. An older sibling presented to the ED two weeks earlier for evaluation of fifteen to twenty days of daily fevers ranging from 101-103 degrees Fahrenheit and was admitted to the hospital with Salmonella Typhi Bacteremia and discharged twelve days prior to the onset of this patient's symptoms.

Physical examination revealed a thin, ill but non-toxic appearing male with vital signs significant for a temperature of 38.3 degrees Celsius, pulse rate of 98, respiratory rate of 20 and pulse ox of 99% on room air. No initial blood pressure was documented. Mucous membranes were dry. The patient was tachycardic, but capillary refill was brisk. The abdominal exam was benign with the exception of hyperactive bowel sounds. The remainder of the physical examination was unremarkable.

The presentation was an ill-appearing child who was clinically dehydrated on examination with fever but no initial tachycardia. While initial blood pressure was not documented, there were no clinical signs of hypoperfusion. Child was medicated with 15mg/kg of oral acetaminophen. He was given two intravenous fluid boluses of isotonic crystalloid solution at 20mL/kg each and then started on maintenance fluids. Given his sibling's recent diagnosis, there was suspicion for salmonella infection however, presumed initial exposure had been almost two months prior and the sibling had been released from the hospital and was asymptomatic twelve days prior to the onset of the patient's symptoms. Therefore, broad work up was initiated with a chest x-ray, respiratory virus panel, urinalysis, stool studies, laboratory studies and blood cultures.

The work up revealed laboratory studies were consistent with dehydration with hyponatremia of 128, hypochloremia of 96 and hypocarbia of 16. Complete blood count revealed a bandemia of 38% without leukocytosis. Inflammatory markers were elevated with a CRP of 26.6 and a sed rate of 19. The urinalysis, stool studies and blood cultures were still pending at time of admission.

Given the investigation results available at that time while considering the patient's presentation and recent familial and social history, treatment was started for presumed *Salmonella typhi* Bacteremia with intravenous ceftriaxone and the patient was admitted to the hospital.

Discussion

S. typhi is a gram-negative rod-shaped bacterium responsible for an estimated 20 million cases of typhoid fever and associated illness world-wide. While most cases are seen in residents of Southern Asia, an endemic region, an increasing number of cases are being reported in the U.S., particularly in travelers to this region.[1] This emphasizes the need for the emergency medicine physician to gather a thorough travel history in cases of fever and diarrheal illness.

PEDIATRICS

S. typhi is a highly adaptable organism which has evolved multiple mechanisms to thrive and reproduce in the human host, including the formation of biofilms, resistance to otherwise noxious environments such as the gallbladder and genetic mutations conveying resistance to the most common antibiotics.[1-4] Pathogenesis itself begins with fecal-oral transmission, after which the bacteria infiltrate intestinal mucosa and macrophages where it continues to replicate, form biofilms and cause localized inflammation and mucosal sloughing, leading to the diarrhea commonly associated with typhoid fever. Meanwhile, the infected macrophages migrate to and seed the liver and ultimately the gallbladder, which is the most common reservoir for the organism in asymptomatic chronic carriers of the bacterium.[1]

While the classic presentation of *S. typhi* infection or "typhoid fever" involves systemic symptoms such as fever and chills in the setting of episodic non-bloody diarrhea, the disease can also progress to frank bacteremia, meningitis or cutaneous manifestations such as the classic "rose spots"- small, raised erythematous lesions seen as a result of vascular and lymphatic inflammation.[4,5] Infection can be diagnosed by blood culture, although PCR of stool, urine and blood is also available, with blood PCR demonstrating the highest sensitivity.[6] For clusters or outbreaks of infection, as within a family unit, it may be helpful to utilize whole gene sequencing in an effort to trace transmission.[5]

Research in both Australia and South India have demonstrated chronic carrier states of *S. Typhi.*[7,8] Identification of asymptomatic family members can help identify potential candidates for treatment to prevent asymptomatic spread. Space-time statistics have been developed and may be useful in the future for early detection and treatment of outbreaks.[9] The emergency physician should work closely with state and federal health agencies to help identify and treat outbreaks as they occur.

When infection of *S. typhi* is established, or highly suspected, antibiotic selection is of utmost importance given increasing drug resistance. Since 2016, increasing prevalence of extensively drug-resistant (XDR) strains of S. typhi out of Pakistan have limited effective antibiotic choices to carbapenems and azithromycin, as strains have become highly resistant to first-line agents such as ampicillin, trimethoprim-sulfamethoxazole and chloramphenicol, as well as quinolones and third-generation cephalosporins.[3-5] With such limited effective choices for eradication, it is only a matter of time before the bacteria catches up, making prevention efforts all the more important.

Prevention efforts for *S. typhi* infection include utilization of clean water supplies and proper hand hygiene, which should be reviewed with patients. An oral, live attenuated vaccine, as well as an intramuscular polysaccharide vaccine are available for all patients visiting endemic regions and should be administered at least two weeks prior to travel.[4]

Key Points

•Cases of multi-drug resistant S. typhi infection are becoming more common in the US, with demonstrated transmission within family units

•A thorough travel history should be taken in patients with diarrhea and fever to evaluate for prospective exposure

•When *S.typhi* is suspected, clinicians should utilize azithromycin as well as a carbepenem to treat until susceptibility can be determined

•Preventative measures, including vaccination, should be reviewed with prospective travelers

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New York EM Residency Spotlight

Maimonides Medical Center

Demographics

Hospital/Institution: Maimonides Medical Center

Program Director: Arlene Chung, MD MACM FACEP

Program Coordinator: Graziella Mannino

Program Coordinator E-mail Address: GMannino@maimonidesmed.org

Hospital Capabilities: STEMI, Stroke, Trauma

Total Number of EM Residents: 54

Residents Train Each Year: 18

Inagural Resident Class Year: 2001

Fellowship Benefits Offered: Medical Education, Ultrasound, Simulation, EMS, Administration, Peds EM

Other Benefits: CIR membership, food stipend, Uber travel, and much more!

Website Link: https://www.maimonidesem.org/

twitter Link: @Maimonides_EM

Instagram Link: @maimoem

What is the most unique feature of your program? We have a longstanding and dedicated four week international health rotation. It is distinct from the four weeks of elective time that we also offer. This is less common, especially for a three year program, but we think that it provides an important perspective on caring for our diverse community of patients from all over the world here in Brooklyn. Importantly, we encourage ALL of our residents to travel abroad, not just those few who are pursuing a career in Global Health. We have established longitudinal sites that do not require knowledge of a second language. Each year, residents may also propose new sites, which we do our best to support from a safety and educational standpoint. Our residents have completed rotations in over two dozen countries, including Iceland, Italy, Argentina, Turkey, Australia, Haiti, Kenya, Mexico, and Indonesia to name just a few.

What is your favorite aspect of the program? We have some amazing and exclusive moonlighting opportunities in Event Medicine for our residents. For example, we are the only Emergency Medicine program in the country that provides medical coverage for Burning Man. We send a team of residents and attendings every year to care for this pop-up city of 70,000 people in the middle of the Nevada desert for two weeks, and return with incredible stories, both medical and non-medical. We also cover the US Open and our residents watch the matches with the biggest names in tennis up close. Our residents have the opportunity to travel to provide coverage for various music festivals across the country as well as sporting events and concerts at Madison Square Garden and Barclays Center here at home. They get to be courtside for games or by the stage for the shows. All of these events allow our residents to learn and apply their medical skills in an exciting and challenging setting. And of course it's a really fun and enjoyable way to practice Emergency Medicine.

What is your program known for? We know that residency can be demanding physically, mentally and emotionally, and we highly value and prioritize resident wellness in everything that we do. Our program features physician wellness-focused programming and policies in every aspect from scheduling to curriculum. Our program director, Dr. Arlene Chung, is a nationally recognized leader and expert in physician wellness.

New York EM Residency Spotlight

What are you most proud of with your program? Our residents and graduates! Our residents possess such a diverse range of backgrounds and personalities and yet each individual has become such an integral part of our residency family. Our graduates have gone on to competitive fellowships and great jobs, both academic and community, in tough job markets across the country. We now have a well-connected and accomplished alumni network spanning the entire country.

What makes your program an excellent place to complete a residency? The Emergency Medicine Residency Program at Maimonides Medical Center is a three-year community-based program of 54 residents training in the heart of multicultural Brooklyn, New York. The ED cares for over 120,000 patients each year in one of the most diverse neighborhoods in the world. We are a Comprehensive Stroke Center, STEMI Center, Level 1 Adult Trauma Center, Level 2 Pediatric Trauma Center, and the only Pediatric Trauma Center in Brooklyn, which includes a catchment area of over 500,000 children in the borough. Our residency program was first accredited in 2001 and we have successfully graduated 18 classes of residents as of 2022. In particular, we provide robust training in critical care, point-of-care ultrasonography, pain management, and prehospital event medicine. Our residents receive experience in performing advanced fiberoptic airway management techniques, transesophageal echocardiography, and ultrasound-guided peripheral nerve blocks. Under the appropriate supervision, they have the opportunity to provide medication-assisted treatment for opioid use disorder and advanced treatments for addiction and chronic pain.

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NICE to Know Series: Aneurysmal SAH Care in the ED and Beyond (Neurological Interventional Care in Emergencies)

Aneurysmal subarachnoid hemorrhage (aSAH) is a must-not-miss diagnosis in the emergency department (ED). An aneurysm is a localized dilatation or ballooning of a blood vessel wall. Risk factors include hypertension, age >50, smoking and genetics (i.e., polycystic kidney disease, family history).[1] The rupture of an intracranial aneurysm leads to bleeding within the subarachnoid space, where cerebrospinal fluid circulates, which leads to various pathophysiological consequences, such as hydrocephalus, inflammation, vasospasm and ischemic injury.

The classic presentation for patients suffering from an aSAH is a thunderclap headache or a sudden, severe headache that reaches its maximum intensity within minutes. Some patients may have had a milder sentinel headache that occurred days or weeks earlier. Other symptoms may include neck pain or stiffness, photosensitivity, nausea/vomiting, loss of consciousness and neurological deficits.[2] This description typically prompts the evaluation for subarachnoid bleeding; however, up to 12% of presentations are still missed.[3,4] Kowalski 2004 analyzed 56/482 SAH patients that were missed in the ED and looked at the predictors associated with missed diagnosis. One of the interesting associations was that there was a longer interval between the onset of symptoms and presentation in missed cases.[5] This points to a bias among providers who might be assuming that patients with aSAH would present on the day of aneurysm rupture.

SAH is a devastating condition with high morbidity and mortality; roughly two-thirds of untreated SAH patients die or have serious neurologic disabilities consequently.[6] In the ED, clinicians are tasked with promptly identifying an aSAH and implementing treatments that are geared towards the prevention of aneurysm rebleeding and the deleterious effects of acute hydrocephalus. Here we will dive into how the ED clinician can effectively diagnose aSAH, treatments and what comes next once the patient leaves the ED.

Case Presentation

A 57-year-old female with a history of hypertension presented to the emergency department after a syncopal episode. She was shopping at the mall when she suddenly collapsed. There were no reports of head trauma. Upon arrival at the ED, she was very lethargic and slow to answer questions. She reported having an intense headache that came on suddenly prior to her collapse. She is a current smoker. She is not taking any anti-platelet or anti-coagulant medications. She was maintaining her airway and aside from her drowsiness, her neurological examination was non-focal.

Ok, I am getting a CT scan - will it provide me with the answers to my biggest question?

A non-contrast computed tomography of the head (NCHCT) is the initial test for evaluating any intracranial hemorrhage. The sensitivity of detecting subarachnoid blood is 100% within six hours of symptom onset and up to 90% within twenty-four hours.[7] Once identified, it is important to take note of a few key radiographic features: the presence of hydrocephalus, distribution of blood, intraparenchymal involvement and the presence of global cerebral edema.[7]

Hydrocephalus arises from obstruction of the brain's normal cerebrospinal fluid (CSF) flow dynamics. An increase in CSF due to obstruction will lead to an increase in intracranial pressure (ICP) and patients can quickly decline. Temporal horn enlargement, trans-ependymal edema and bowing of the third ventricle are CT findings suggestive of obstructive hydrocephalus.[8] These findings in conjunction with the patient's mentation and neurologic examination are an indication of an ICP crisis and necessitate immediate intervention.

Mild hydrocephalus can occasionally be tolerated if the patient remains easily arousable, although very close neuro monitoring must be maintained in an ICU level setting due to the risk for rapid worsening of hydrocephalus. The treatment for acute hydrocephalus in the setting of aSAH is emergent ventricular drain (EVD) placement. This procedure is performed by a trained neurosurgeon but may occasionally be done in the emergency department if necessary. Intubation is not absolutely necessary prior to EVD placement but should be performed at the discretion of the ED attending.

The distribution of blood on a NCHCT may help discern the underlying etiology or location of the patient's vascular insult. However, this will need to be further assessed with a CT angiography (CTA) of the brain. CTA has a 98% sensitivity and specificity for the detection of aneurysms >3mm in size.[1] CTA is helpful for our neurosurgical and neuro-interventional colleagues in planning an open craniotomy for aneurysmal clipping or endovascular coiling, respectively. The presence of associated intraparenchymal hemorrhage or diffuse cerebral edema indicates a higher severity of brain injury and carries a high rate of morbidity and mortality.[1]

To tap or not tap…that is the question!

Performing a lumbar puncture to exclude SAH when there is a negative NCHCT remains the standard of care. A hemorrhage on NCHCT may begin to appear less hyperdense, making a subarachnoid bleed difficult to diagnose. A LP is used to evaluate for the presence of red blood cells and xanthochromia or the yellowish discoloration in the CSF. Xanthochromia is a result of red blood cell (RBC) breakdown, develops within 6-12 hours after aSAH and has a 93% sensitivity and 95% specificity when present for aSAH.[9,10]

Despite advanced imaging techniques (i.e., CTA, MRI/MRA, diagnostic angiography) becoming more readily available, the presence of an aneurysm on CTA after a negative NCHCT does not confirm rupture.

LP can yield false-negative results, partially if performed too early after symptom onset or if the blood is localized in a small area of the subarachnoid space.[11] Mark 2015 reported 49 of 58 patients undergoing LP had either visible xanthochromia or a CSF RBC count greater than 2000x10^6/L which safely identified an aneurysmal cause of subarachnoid hemorrhage.[12] Both LP and CTA are great diagnostic tools when evaluating aSAH; however, LP remains the best test in diagnosing a ruptured aneurysm since the treatment for an unruptured aneurysm is different.

Holy crap…that is a big bleed…what comes next?

So, you have cracked the case! You have identified the patient has an aSAH. Now what? As you begin to mobilize the cavalry (neurosurgery, neurology, neuro-ICU, neuro-interventional radiology) the ED provider must remember these key management considerations:

ABC's ALWAYS COME FIRST…

Blood pressure control

Blood pressure control is the single most important thing the ED physician can do in the setting of a ruptured aneurysm. Failure to adequately control the BP may lead to aneurysm re-rupture which drastically worsens bother neurological and mortality statistics. BP elevation in the setting of a ruptured aSAH is often due to pain and sympathetic activation.[13] Analgesics may be effective in blood pressure control; however, anti-hypertensive medications may be necessary. The treatment of blood pressure is a balancing act. It is important to maintain adequate cerebral perfusion pressure (CPP) by preventing hypotension and lower the risk of aneurysm re-rupture by preventing hypertension.

An elevated blood pressure after a ruptured cerebral aneurysm can be treated with a dose of labetalol; however, clinicians should be cautious of its' bradycardic effects. The ideal agent of choice is a continuous titratable infusion with nicardipine or clevidipine with a systolic blood pressure goal of <120mmHg – 140mmHg.[13] After the aneurysm is secured, blood pressure goals are liberalized (SBP <200mmHg) to reduce the likelihood of vasospasm and delayed cerebral ischemia.[7,13]

Anti-coagulation reversal

Some patients may present with aSAH and concomitantly take anti-platelet or anti-coagulation agents for various reasons (i.e., atrial fibrillation, coronary artery disease, cardiac stents). In the setting of most intracranial bleeding, more specifically aSAH, it is important to discontinue all anti-coagulants and reverse them with the appropriate agents. Patients taking anti-platelets (i.e., aspirin, clopidogrel, ticagrelor) should be given desmopressin (DDAVP) and a transfusion of platelets should be considered.[14] For those taking the vitamin K antagonist, warfarin and found to have an elevated international normalized ratio (INR), 4-Factor Prothrombin Complex Concentrate (4-PCC) or K-Centra, should be used as a reversal agent.[15] The newer direct oral anticoagulants (DOACs) apixaban and rivaroxaban should be reversed with Andexxa or 4-PCC if the former is not available. If patients are taking dabigatran the appropriate reversal agent would be Pradaxa.[15] There should be a discussion with your neurosurgical team surrounding the appropriate reversal agent.

Antiepileptics

Seizures may be most frequent at the onset of aSAH.[7] Several studies reported seizure activity in 6-26% of patients after aSAH.[16] Seizure prophylaxis should be initiated and continued at least until after the aneurysm has been secured. The agent of choice is levetiracetam, with a loading dose upon arrival and a maintenance dose as patients transition to the intensive care unit (ICU). Seizure activity in the setting of an unsecured aneurysm increases the risk of aneurysm re-rupture carrying a high rate of mortality.[16] Historically, phenytoin has also been used for seizure prophylaxis but recent data suggest that phenytoin is associated with worse neurologic and cognitive outcomes and should be avoided.[17]

External Ventricular Drains

An external ventricular drain (EVD) or ventriculostomy, is an invasive monitoring and therapeutic device that is inserted by a neurosurgeon. Placement of an EVD most frequently occurs in the ICU setting; however, there are cases where an increase in ICP and a decline in the patient's mental status because of acute obstructive hydrocephalus (AOH) necessitates emergent placement in the ED. This device is carefully placed into the third ventricle by way of Kocher's point (11cm posterior from the nasion and 3cm from the midline with a trajectory towards the ipsilateral medial canthus and a line extending coronally from the ipsilateral tragus).[18] An EVD is used to decrease ICP by diverting CSF from the intracranial compartment to an external drainage system. It is also used to quantify the ICP via a pressure transducer, which allows providers to swiftly treat any ICP elevations. This apparatus is closely managed by the neuro-intensivists and neurosurgical team.

During EVD placement, the ED attending has a critical role to play. BP management is paramount as spike in blood pressure during EVD placement may precipitate re-rupture of the aneurysm. For this reason, pain control, sedation and BP management are essential, in addition to airway control if necessary. ED management of these parameters allows the neurosurgeon to focus on proper placement of the ventricular drain.

Re-rupture

Re-rupture of an aneurysm and rebleeding occurs in ~15% of patients and carries a high mortality rate (50%).7 The risk of rebleeding increases over time in the setting of an unsecured aneurysm but highest in the first 24 hours. Factors associated with rebleeding include noxious stimuli, agitation, rapid drainage of CSF during ventriculostomy placement, agitation, hypertension and seizure activity.19 Only aneurysm securement is effective in definitively preventing rebleeding and should be performed as soon as possible.

Delayed Cerebral Ischemia (DCI) & Vasospasm

Vasospasm is the leading course of morbidity among patients who survive their initial SAH.[20] The volume of blood located in the subarachnoid space can irritate the large arteries that reside there. This irritation can lead to vasospasm and decreased blood flow through the vessel causing ischemia to the downstream neuronal tissue. Nimodipine, a dihydropyridine calcium channel blocker, has a selective affinity for the calcium channels present in the smooth muscle cells of cerebral blood vessels. The vasodilation induced by nimodipine improves neurologic outcomes, likely through a neuroprotective mechanism. DCI may occur after 3-14 days with a peak around days 7-10.[13,19] Serial neurological examinations, transcranial Doppler and diagnostic angiography are methods used for DCI surveillance.

Disposition and Beyond

Patients with aSAH will always require the highest level of care in an ICU or a dedicated neuro-ICU. There are situations where patients will go directly to the operating room or the interventional radiology suite for securement of the ruptured aneurysm prior to admission to the ICU. Endovascular coiling of aneurysms has gained favor over neurosurgical clipping in recent years due to its safety profile and superior functional outcomes.[2,21] To note, aneurysms associated with intraparenchymal hematomas, broad neck aneurysms not amendable to coiling and patients with diffuse cerebral edema may benefit from open neurosurgical intervention.[2] Patients typically remain in the ICU for up to 21 days to closely monitor for DCI and treated for other systemic sequelae of ruptured aSAH, such as cerebral salt wasting, stress cardiomyopathy, neurogenic pulmonary edema and central fevers.

I am an ER doctor…what do I need to know?

●A good neuro-examination should be obtained upon arrival before any diagnostic or therapeutic interventions.

●A CT is 100% sensitive in detecting SAH within the first six hours, followed by a CTA if bleeding is present, to help identify the aneurysm and guide treatment planning.

●If after 12 hours of headache symptom onset and a negative CT, a lumbar puncture remains a useful diagnostic tool in revealing aSAH.

●Until the aneurysm is secured there is a high risk for re-rupture. To avoid rebleeding the ED provider should:

○ Treat pain aggressively

○ Obtain tight blood pressure control (goal SBP <120-140)

○ Administer anti-seizure prophylaxis

○ Obtain immediate neurosurgical consultation for EVD placement in the setting of acute obstructive hydrocephalus

○ Reverse coagulopathy

●Oral nimodipine should be used to prevent aSAH sequelae such as vasospasm and associated delayed cerebral ischemia but this is rarely a cause of patient deterioration in the emergency department.

Case Conclusion

Our patient was quickly transferred to the ICU where she received an EVD and subsequently underwent coiling of an anterior communicating artery aneurysm. She remained in the ICU for 21 days where close monitoring of her ICP was performed with the EVD in place and delayed cerebral ischemia was surveilled with daily transcranial dopplers (TCDs) and avoided with the use of nimodipine. She went home on hospital day 24 and has made a tremendous recovery.

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NEW YORK ACEP
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- Must be original research with data and analysis
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- Must be resident-driven with author attestation
- Must not be accepted for publication at the time of submission
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NEW YORK STATE OF MIND

Theodore J. Gaeta, DO MPH FACEP
Residency Program Director
NewYork-Presbyterian Brooklyn Methodist Hospital

Impact of the PEARLS Healthcare Debriefing Cognitive Aid on Facilitator Cognitive Load, Workload, and Debriefing Quality: A Pilot Study.

Meguerdichian M, Bajaj K, Ivanhoe R, Lin Y, Sloma A, de Roche A, Altonen B, Bentley S, Cheng A, Walker K; NYC Health+Hospitals: Harlem Hospital Center, New York City; Adv Simul 2022 Dec 12;7(1):40.

BACKGROUND: The Promoting Excellence and Reflective Learning in Simulation (PEARLS) Healthcare Debriefing Tool is a cognitive aid designed to deploy debriefing in a structured way. The tool has the potential to increase the facilitator's ability to acquire debriefing skills, by breaking down the complexity of debriefing and thereby improving the quality of a novice facilitator's debrief. In this pilot study, we aimed to evaluate the impact of the tool on facilitators' cognitive load, workload, and debriefing quality.

METHODS: Fourteen fellows from the New York City Health + Hospitals Simulation Fellowship, novice to the PEARLS Healthcare Debriefing Tool, were randomized to two groups of 7. The intervention group was equipped with the cognitive aid while the control group did not use the tool. Both groups had undergone an 8-hour debriefing course. The two groups performed debriefings of 3 videoed simulated events and rated the cognitive load and workload of their experience using the Paas-Merriënboer scale and the raw National Aeronautics and Space Administration task load index (NASA-TLX), respectively. The debriefing performances were then rated using the Debriefing Assessment for Simulation in Healthcare (DASH) for debriefing quality. Measures of cognitive load were measured as Paas-Merriënboer scale and compared using Wilcoxon rank-sum tests. Measures of workload and debriefing quality were analyzed using mixed-effect linear regression models.

RESULTS: Those who used the tool had significantly lower median scores in cognitive load in 2 out of the 3 debriefings (median score with tool vs no tool: scenario A 6 vs 6, p=0.1331; scenario B: 5 vs 6, p=0.043; and scenario C: 5 vs 7, p=0.031). No difference was detected in the tool effectiveness in decreasing composite score of workload demands (mean difference in average NASA-TLX -4.5, 95%CI -16.5 to 7.0, p=0.456) or improving composite scores of debriefing qualities (mean difference in DASH 2.4, 95%CI -3.4 to 8.1, p=0.436).

CONCLUSIONS: The PEARLS Healthcare Debriefing Tool may serve as an educational adjunct for debriefing skill acquisition. The use of a debriefing cognitive aid may decrease the cognitive load of debriefing but did not suggest an impact on the workload or quality of debriefing in novice debriefers. Further research is recommended to study the efficacy of the cognitive aid beyond this pilot; however, the design of this research may serve as a model for future exploration of the quality of debriefing.

Time to Renitrogenation After Maximal Denitrogenation in Healthy Volunteers in the Supine and Sitting Positions.

West JR, Levine R, Raggi J, Nguyen DT, Oliver M, Caputo ND, Sakles JC; NYC Health + Hospitals | Lincoln, Department of Emergency Medicine, Bronx; West J Emerg Med. 2022 Nov 1;23(6):926-930.

INTRODUCTION: Prior to intubation, preoxygenation is performed to denitrogenate the lungs and create an oxygen reservoir. After oxygen is removed, it is unclear whether renitrogenation after preoxygenation occurs faster in the supine vs the sitting position.

METHODS:We enrolled 80 healthy volunteers who underwent two preoxygenation and loss of preoxygenation procedures (one while supine and one while sitting) via bag-valve-mask ventilation with spontaneous breathing. End-tidal oxygen (ETO2) measurements were recorded as fraction of expired oxygen prior to preoxygenation, at the time of adequate preoxygenation (ETO2 >85%), and then every five seconds after the oxygen was removed until the ETO2 values reached their recorded baseline.

RESULTS: The mean ETO2 at completion of preoxygenation was 86% (95% confidence interval 85-88%). Volunteers in both the supine and upright position lost >50% of their denitrogenation in less than 60 seconds. Within 25 seconds, all subjects had an ETO2 of <70%. Complete renitrogenation, defined as return to baseline ETO2, occurred in less than 160 seconds for all volunteers.

CONCLUSIONS: Preoxygenation loss, or renitrogenation, occurred rapidly after oxygen removal and was not different in the supine and sitting positions. After maximal denitrogenation in healthy volunteers, renitrogenation occurred rapidly after oxygen removal and was not different in the supine and sitting positions.

COVID-19 Vaccine Controversy: A Cross-Sectional Analysis of Factors Associated With COVID-19 Vaccine Acceptance Amongst Emergency Department Patients in New York City.

Guzman CP, Aron J, Egbebike J, Greene MC, Reisig C, DeFilippo M, Bollman EB, Stefan BR, Chang BP, Wagh A, Firew T; Columbia University Irving Medical Center, New York City; J Am Coll Emerg Physicians Open. 2022 Nov 17;3(6):e12830.

OBJECTIVE: Understanding variables associated with coronavirus disease 2019 (COVID-19) vaccine confidence and hesitancy may inform strategies to improve vaccine uptake in clinical settings such as the emergency department (ED). We aim to identify factors contributing to COVID-19 vaccine acceptance and to assess patient attitudes surrounding offering COVID-19 vaccines in the ED.

METHODS: We conducted a survey of a convenience sample of patients and patient visitors over the age 18 years, who were native English or Spanish speakers. The survey was conducted from March through August 2021 at 3 EDs in New York City. The survey was administered via an electronic format, and participants provided verbal consent.

RESULTS: Our sample size was 377. Individuals with post-graduate degrees viewed vaccines positively (Prevalence Ratio [PR], 1.63; 95% Confidence Interval [CI], 1.07-2.47). Of the various high-risk medical conditions associated with adverse COVID-19 infection outcomes, diabetes was the only condition associated with more positive views of vaccines (PR, 1.37; CI, 1.17-1.59). Of all participants, 71.21% stated that they believed offering a COVID-19 vaccine in the ED was a good idea. Of unvaccinated participants, 21.80% stated they would get vaccinated if it were offered to them in the ED.

CONCLUSION: EDs can serve as a safety net

for vulnerable populations and can act as an access point for vaccination.

ED-Home: Pilot Feasibility Study of a Targeted Homelessness Prevention Intervention for Emergency Department Patients With Drug or Unhealthy Alcohol Use.

Fazio D, Zuiderveen S, Guyet D, Reid A, Lalane M, McCormack RP, Wall SP, Shelley D, Mijanovich T, Shinn M, Doran KM; NYU School of Medicine, New York City; Acad Emerg Med. 2022 Dec;29(12):1453-1465.

BACKGROUND: Housing insecurity is prevalent among emergency department (ED) patients. Despite a surge of interest in screening for patients' social needs including housing insecurity, little research has examined ED social needs interventions. We worked together with government and community partners to develop and pilot test a homelessness prevention intervention targeted to ED patients with drug or unhealthy alcohol use.
METHODS: We approached randomly sampled patients at an urban public hospital ED, May to August 2019. Adult patients were eligible if they were medically stable, not incarcerated, spoke English, had unhealthy alcohol or any drug use, and were not currently homeless but screened positive for risk of future homelessness using a previously developed risk screening tool. Participants received a three-part intervention: (1) brief counseling and referral to treatment for substance use delivered through a preexisting ED program; (2) referral to Homebase, an evidence-based community homelessness prevention program; and (3) up to three troubleshooting phone calls by study staff. Participants completed surveys at baseline and 6 months.
RESULTS: Of 2183 patients screened, 51 were eligible and 40 (78.4%) participated; one later withdrew, leaving 39 participants. Participants were diverse in age, gender, race, and ethnicity. Of the 32 participants reached at 6 months, most said it was very or extremely helpful to talk to someone about their housing situation (n = 23, 71.9%) at the baseline ED visit. Thirteen (40.6%) said their housing situation had improved in the past 6 months and 16 (50.0%) said it had not changed. Twenty participants (62.5%) had made contact with a Homebase office. Participants shared ideas of how to improve the intervention.
CONCLUSIONS:This pilot intervention was feasible and well received by participants though it required a large amount of screening to identify potentially eligible patients. Our findings will inform a larger future trial and may be informative for others seeking to develop similar interventions.

Using Ultrasound To Determine Optimal Location for Needle Decompression of Tension Pneumothorax: A Pilot Study.

Nelson M, Chavda Y, Stankard B, McCann-Pineo M, Nello A, Jersey A; North Shore University Hospital, Manhasset; J Emerg Med. 2022 Oct;63(4):528-532.

BACKGROUND: Chest injury can result in life-threatening complications like tension pneumothorax, in which rapid deterioration can occur without decompression. Traditionally, the second intercostal space (ICS) along the mid-clavicular line is taught as the site for decompression. However, this has been questioned due to high rates of treatment failure. The fifth ICS on the mid-axillary line (MAL) is hypothesized to have a shorter distance from skin to pleura based on recent studies.
OBJECTIVE: The purpose of this study was to use point-of-care ultrasound (POCUS) to compare chest wall thickness at these two locations. The primary objective was to evaluate the distance from skin to pleura line at the second ICS along the mid-clavicular line and the fifth ICS along the MAL. Secondarily, we aimed to evaluate inter-rater reliability of the two assessments.
METHODS: This was a single-center, observational, pilot study. POCUS was performed using a linear transducer. Measurements of skin to pleura line were obtained at the right second ICS and fifth ICS. These measurements were then repeated by a blinded second ultrasonographer. Intraclass correlations (ICCs) for each measurement site were calculated to determine the inter-rater reliability.
RESULTS: Ninety-three percent of volunteers had a smaller chest wall distance at the fifth ICS-MAL. The median distance at the second and fifth ICS was 2.28 cm and 1.80 cm. The ICC for second ICS was 0.75 (95% CI 0.54-0.87), and 0.90 for the fifth ICS (95% CI 0.81-0.95), both indicating good reliability.
CONCLUSION: TThe data support that patients have a smaller chest wall distance at the fifth ICS vs. the second ICS. We support performing needle decompression at the fifth ICS and believe POCUS can be used to determine the optimal location for decompression.

Improvement of Procedure Documentation Compliance With the Implementation of a Visual Aid.

Choe B, Mathews K, Kenny J, Podlog M, Ng N, Husain A, Basile J, Hahn B; Staten Island University Hospital, Northwell Health, Staten Island; J Emerg Med. 2022 Nov;63(5):692-701.

BACKGROUND: Emergency department (ED) providers face increasing task burdens and requirements related to documentation and paperwork. To decrease the mental task burden for providers, our institution developed an infographic that illustrates which forms are necessary for complete documentation of nonemergent invasive procedures.
OBJECTIVES: Our study aims to analyze the effect of a nonelectronic health record-based infographic, paired with direct feedback, on compliance with nonemergent invasive procedure documentation performed in the ED.
METHODS: This was a retrospective, observational study of all procedure documentation performed in the ED with a pre-/post-test design. The study included two 8-month study periods, 1 year apart. The preimplementation period used for comparison was January 1, 2019-August 31, 2019, and the postimplementation period was January 1, 2020-August 31, 2020. All invasive procedures that required documentation in addition to a procedure note were included in the study. The primary outcome was the percentage of compliance with documentation requirements.
RESULTS: During the pre- and postimplementation study periods, 486 and 405 charts with nonemergent procedures were identified, respectively. In the preimplementation period, 278 (57%) procedures were compliant with all documentation, vs. the postimplementation period, where 287 (71%) procedures were compliant ($p < 0.001$).
CONCLUSION: Implementing an invasive procedure documentation infographic and direct feedback improved overall documentation compliance for nonemergent invasive procedures.

Arlene S. Chung, MD MACM FACEP
Residency Director, Department of Emergency Medicine,
Maimonides Medical Center
Project Coordinator, New York ACEP Opportunities for Women in Leadership (OWL)

Opportunities for Women in Leadership (OWL)

The Opportunities for Women in Leadership (OWL) Program is a longitudinal mentorship program supported by New York ACEP with the goal of promoting the advancement of women in Emergency Medicine. In line with the organization's commitment toward diversity and inclusion, the program aims to provide leadership education, establish local and regional mentorship networks and create sponsorship opportunities for six New York ACEP members at different career stages. What follows are the accomplishments of the participants over the course of the year, written jointly by each mentor-mentee pair. For more information about the OWL Program, please contact nyacep@nyacep.org.

Mentee: Dorothy Y. Shi, MD
Mentor: Penelope Lema, MD FACEP

I did not know what to expect when I applied to OWL as I had never been part of a formalized mentorship program. After meeting with Penny and the rest of the OWL team, it was evident to me that I was going to be part of a unique learning experience. From evidence-based teaching to personal anecdotes shared by both mentors and mentees, I was guided on how to navigate my role as a junior faculty member to gain more leadership experience. During our monthly sessions, Penny helped me learn more about myself and how to develop a niche within my sub-specialty experience of emergency ultrasound and within the department. I was able to submit an ultrasound article for publication in NYACEP EPIC and provided the tools to navigate ultrasound billing and reimbursement. I acquired many strong female mentors, all of whom were so supportive and interested in helping women faculty and residents advance both professionally and personally. During the year, I also became pregnant with twins and received so much warmth and practical advice from everyone on how to pilot through the next phase of life while balancing professional responsibilities.

Most importantly I felt validated in prioritizing what was best for myself despite pressures from society to quickly ascend the professional ladder.

Thank you to all of the inspirational women of the OWL group. I am excited to see the program continue!

Mentee: Stacey Frisch, MD
Mentor: Catherine T. Jamin, MD

During the second year of my medical education fellowship, I had the wonderful opportunity to participate in the OWL program, which proved to be a transformative experience for me. The program encompassed several lectures on topics relevant to professional growth and leadership as well as mastermind groups, where mentors and mentees in the program could learn from one another. Engaging in meaningful discussions, exchanging ideas, and receiving constructive feedback from my peers created an atmosphere of collaboration and support.

What truly made my experience exceptional was the unwavering support and mentorship provided by my mentor, Dr. Cat Jamin. We met multiple times throughout the year and her job search advice and tips for professional development have been invaluable to me. Her belief in my abilities and willingness to advocate for me was both humbling and empowering. Thanks to her support, I secured my dream job that aligns perfectly with my career aspirations.

Overall, I feel much more confident in my career path and I am incredibly grateful to the OWL program and all of the fantastic mentors and mentees who made this experience possible.

Mentee: Leidy Johana Gonzalez, MD
Mentor: Irina Sanjeevan-Caveza, MD

The OWL program was a lovely surprise and a unique experience to be part of. It has taught me different areas of growth throughout the year. Specifically, it has improved my sense of confidence and helped me to better identify my career interests and life priorities.

I started as a PGY2 in the program, feeling very self-aware of many circumstances that later on started to change in perspective. I learned that being an IMG and having the experiences I've been through is actually a strong asset for my career and possible future in global health. It was a great pleasure to see and learn from all the amazing and strong women I met via OWL and I hope I can continue learning from them and someday empower other women as much as they do. For now, I'm trying to contribute my little grain of sand where and when I have the chance.

Mentee: Shelby Parker, MD MPH EMT-P
Mentor: Lauren M. Maloney, MD NRP FP-C CIC NCEE

Shelby: I started the OWL program just as I was entering my second year of residency - I had big goals for this year and it was a wonderful opportunity to be paired with a mentor who could give me support and guidance as I worked to achieve them. I was paired with Dr. Lauren Maloney, who is an EMS physician in New York, and I couldn't have asked for a better mentor! She gave me great advice about the EMS fellowship application process, and we were even able to meet up in person at the EMS physician conference in Tampa this year where she helped me make some great career connections.

Not only did I have a great mentor in Dr. Maloney, but also in the other amazing female mentors and mentees within the program. Thanks to Dr. Arlene Chung, I was able to secure an away rotation at Gallup Indian Medical Center in my home state of New Mexico, allowing me to gain early exposure to a rural/tribal healthcare service where I might like to work some day. I also received excellent guidance from the group about how to stop over-committing and politely say 'no' to opportunities that do not directly advance my career goals, and doing so paved the way for me to obtain my current position as Chief Resident during my final year of residency.

Lauren: As a mentor, it has been amazing to see the community of support embrace not only the mentees but the mentors as well. It's crucial that mentorship is a two-way street - so much to be learned and appreciated in either direction. Getting to pay forward advice that has helped me immensely most certainly leaves my heart quite happy!

Mentee: Jennifer S. Love, MD
Mentor: Brenna Farmer, MD MBA MS

Participation in the OWL program this year came during a year of many transitions (finding a job in NYC, giving birth to a second child) and helped ground me into a community of female physicians in New York. My favorite part of the OWL program was the monthly meetings where each mentee reviewed their monthly achievements, future goals, and questions to the group. I love how the group took the time and space to celebrate each mentee in the program-- so often we only see our deficiencies and forget to take time to reflect on all our accomplishments. I also enjoyed witnessing the collaborations and teamwork that grew in the group -- one mentee secured a dream job with her mentor, another team of mentees & mentors co-authored a publication, and a book club idea sprang from the meetings. I deeply appreciated the connectedness that was cultivated among all of the women in this group -- that I can reach out to many of them with future questions, research ideas, and work-life balance consultations. My mentor and I brainstormed ideas on how we can teach and grow some of the topics into our specialized toxicology niche for women in tox. I look forward to continuing to support the OWL program as a member of NY ACEP and NYC physician in the future.

Mentee: Sarah Lee, MD
Mentor: Arlene Chung, MD MACM FACEP

I started my final year of residency with high hopes and big aspirations. I wanted to leave my mark in the program as a standout conference chief resident who elevated resident education, promoted program wellness, and supported my co-residents both in and out of work. I also wanted to soak up as much learning as I could in my last year, both clinically and in career navigation. I was overjoyed to participate in the OWL program because I knew I would have the chance to learn from inspirational and accomplished women who had all been in my shoes before. Throughout the year, I was able to meet with my endlessly patient OWL mentor as I grappled with the first real job search of my whole life as well as finding the delicate balance between my clinical work and chief duties.

Over Thai food and coffee, Arlene would ask me the same question periodically over the course of months: "What do you want to do when you grow up?" Each time, my answer felt like it would change. But with each OWL session during the year, I felt I was slowly finding pieces of self-discovery, building a vision of what I pictured for myself in the future. At the crossroads between two jobs, I received invaluable advice from the entire OWL group of leaders that helped me make my final decision.

With Arlene's mentorship and the guidance of OWL, I have met my goals of lecturing both regionally and nationally at ACEP. I feel deeply fulfilled by my last year and the legacy I am leaving behind as I graduate into the next steps of attending-hood.

Save The Dates

Virtual Emergency Medicine Residency Education Series

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ALBANY UPDATE

Reid, McNally & Savage

New York ACEP Legislative & Regulatory Representatives

It has been a busy Spring and early Summer for New York ACEP with the end of the legislative session here in Albany. We have detailed information on all of these happenings below but first want to thank the current New York ACEP President, Dr. Nicole Berwald, New York ACEP President-Elect Dr. Jeffrey Rabrich, New York ACEP Secretary-Treasurer, Dr. Penelope Lema and the Board of Directors. We also want to thank and congratulate Executive Director JoAnne Tarantelli on her retirement and thank her for all her guidance and assistance throughout the years! She has been an amazing partner as we work to achieve New York ACEP's governmental affairs objectives here in Albany. We also want to welcome the incoming Executive Director, Katelynn Ethier, who participated in our June lobby day this year.

End of Session

During the less than six-month regular session, legislators passed a significant number of individual bills despite the late state budget.This year New York ACEP was successful in:

- Defeating legislation to establish independent practice for physician assistants.
- Passing authorization of the Community-Based Paramedicine Demonstration Program.
- Passing legislation that authorizes physicians to prescribe non-patient specific orders that a registered professional nurse may perform.
- Working to advance legislation to address hospital violence and spoke a number of times with the bill sponsors of S4909 (Sepulveda)/A474 (Cruz) seeking amendments to address the violence in Emergency Departments. While the bill did not pass either house this year, progress was made and we will continue this effort into next session.
- Working with other specialties to introduce a bill next session regarding Practitioner Identification and Advertising in order to address the growing confusion in the healthcare sector.

Unfortunately, despite strong efforts by New York ACEP working in collaboration with the Medical Society of the State New York (MSSNY) and several physician specialty societies, both houses passed "Wrongful Death" legislation (S6636 Hoylman/A6698 Weinstein), a regressive liability bill that will expand the possible damages in a wrongful death action and greatly increase New York State's already outrageously high liability insurance premiums. The bill authorizes an award in a wrongful death action to include compensation for grief or anguish, the loss of love or companionship, loss of services and support and the loss of nurture and guidance. New York ACEP is working with MSSNY and other physician specialty societies to urge the Governor to veto this bill, as she did in 2022.

As we alerted you late last month, Executive Order 4 was allowed to expire. The Governor issued Executive Order 4 in September 2021 and extended it continuously until the most recent extension in Executive Order 4.22 which extended the Executive Order until June 22, 2023. The Executive Order was originally introduced with the stated intent to address critical workforce shortages in the healthcare industry. The Executive Order had eliminated physician supervision for a number of professions including physician assistants.

Other legislation of interest to New York ACEP is outlined below.

Bills That Passed Both Houses

Non-Patient Specific Orders A Registered Professional Nurse May Perform (A6030-C Paulin/ S6886-A Rivera)

This bill authorizes physicians to prescribe non-patient specific orders that a regwistered professional nurse may perform including electrocardiogram tests to detect signs and symptoms of acute coronary syndrome, administering point-of-care blood glucose tests to evaluate acute mental status changes in persons with suspected hypoglycemia, administering tests and intravenous lines to persons that meet severe sepsis and sepsis shock criteria and pregnancy tests.

This bill was signed Chapter 193 of the laws of 2023 on 7/19/2023.

Community-Based Paramedicine Demonstration Program (S6749-B Rivera/ A6683-B Paulin)

Establishes a community-based paramedicine demonstration program to operate with the flexibility authorized under Executive Order Number 4 of 2021 and in the same manner and capacity as currently approved for a period of two years.

This bill was signed Chapter 137 of the laws of 2023 on June 22, 2023.

Wrongful Death (A6698 Weinstein/ S6636 Hoylman-Sigal)

Provides for the types of damages that may be awarded to the persons for whose benefit an action for wrongful death is brought.

This bill has not yet been sent to the Governor.

Physician Coursework/Training in Nutrition (A5985-A Rosenthal/ S4401-A Webb)

Requires the department of health to develop, maintain and distribute to practicing and licensed physicians in the state a resource library related to continuing medical education and training opportunities regarding nutrition.

This bill has not yet been sent to the Governor.

Immunity from Liability for Organizations Which Establish Physician Committees to Refer Physicians Suffering Addiction or Mental Illness to Treatment (A6017 Paulin/ S3449 Rivera))

Grants immunity from liability to organizations which establish physician committees the purpose of which is to confront and refer to treatment physicians who are thought to be suffering from addiction or mental illness.

This bill has not yet been sent to the Governor.

Temporarily Authorizes Certain Applicants for Licensure as A Nurse or Physician to Practice (A6697-B Fahy/ S7492-B Stavisky)

Allows certain applicants for licensure as a nurse or physician who are currently licensed and in good standing in another state or territory to be granted authorization to practice in this state for a limited period of time pending a

determination on licensure.

This bill was signed Chapter 136 of the Laws of 2023 on June 22, 2023.

Extends Provisions for Emergency Technician Re-Certification Program (A7426 Stern/ S7463 Mannion)

Extends provisions relating to providing for an emergency technician 5-year re-certification program.

This bill was signed Chapter 166 of the Laws of 2023 on June 30, 2023.

Regarding Affirmation of a Health Care Practitioner (S2997 Rivera/ A6065 Dinowitz)

CPLR Provides that an affirmation of a health care practitioner may be served or filed in an action in lieu of and with same force and effect as an affidavit (changes the current reference in existing provisions from “physician, osteopath or dentist” to “health care practitioner”).

This bill has not yet been sent to the Governor.

Notice and Review Requirements for Determining Medicaid Reimbursement Rates (S6075 Skoufis/ A5381 Paulin)

Requires notice and additional review for managed care providers of the methodologies and fee schedules and other materials used for determining Medicaid reimbursement rates.

This bill has not yet been sent to the Governor.

Nursing Certificate and Degree Education Programs - Clinical Education (S447-C Stavisky/ A3076-A Lupardo)

Requires nursing certificate and degree education programs to include clinical education and allows for one-third of such clinical education to be completed through simulation experience.

This bill was signed Chapter 134 of the Laws of 2023 on May 15, 2023.

NYS Medical Indemnity Fund Definition and Effectiveness of Certain Provisions (S1324 Krueger/ A4131 Paulin)

Relates to definitions of certain terms relating to the New York State medical indemnity fund and repeals certain provisions relating to claims for qualifying health care costs under the New York State medical indemnity fund. Also relates to the effectiveness of certain provisions relating to the New York State medical indemnity fund.

This bill was signed Chapter 112 of the Laws of 2023 on March 24, 2023.

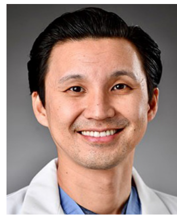
Prohibited Insurance Contract Provisions (S1330 Gounardes/ A2205 Cruz)

Provides that no insurance contract or agreement between a health insurance plan and a health care provider, other than a residential health care facility, shall include a provision that: contains a most-favored-nation provision; or restricts the ability of a corporation, an entity that contracts with a corporation for a provider network, or a health care provider to disclose certain costs, prices or information. Extends the effective date from January 1, 2023, until July 1, 2023.

This bill was signed Chapter 95 of the Laws of 2023 on March 3, 2023.

Leadership Elected

Congratulations are extended to the newly elected Board members.



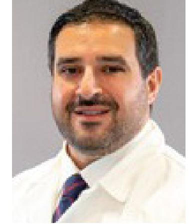
Bernard Chang, MD PhD FACEP
Columbia University Irving Medical Center

Elyse Lavine,MD FACEP
Mount Sinai Morningside

Laura Melville, MD MS
New York-Presbyterian Brooklyn Methodist Hospital

Manish Sharma, DO MBA FACEP
New York-Presbyterian Queens

Robert M. Bramante, MD FACEP
Chairman, Emergency Medicine
Mercy Medical Center
Progressive Emergency Physicians



Making Sense of 2023 MDM Documentation

The move from paper to the electronic medical record (EMR) was a monumental change in the practice of medicine and documentation. Looking back at that change it was like a slow-moving storm that rolled over the country's emergency departments and through healthcare infrastructure and that change currently, and will continue to, roll through our health systems as vendors change, systems change software and upgrades are made. With each twist, addition, upgrade or downtime session we experience changes to how we document in the EMR. If the move to electronic documentation was a slow rolling storm over years, the change with the 2023 Documentation of Evaluation and Management guidelines are a tsunami hitting the physician workforce across the country all at once. The previous guidelines have provided a framework for documentation that the current Emergency Medicine workforce has used for most of our, if not our entire, careers.

We committed to memory, taught and structured EMR templates around the 4+ history of present illness (HPI), 10+ review of systems (ROS), 2+ past medical/ family/ social history (PFSHx), 8+ physical exam (PE) items, and a high level of medical decision making (MDM) for the chart to potentially be coded as level 5 E&M visit. The last part, MDM was somewhat vague but included three essential categories, diagnoses, data and risk.

The tsunami that came to documentation made landfall in January 2023. The 2023 E&M documentation and coding guidelines all but eliminated the requirements for HPI, ROS, PFSHx and PE documentation. Instead, the requirement for this portion of the record is now a medically appropriate history and physical examination (More on the importance of this later). While that is intentionally vague, it is because the new guidelines are focused on the MDM portion of the chart as a means for calculating, coding and communicating the thought process of the physician in patient care. The three essential categories of MDM remain with slight modification. The number and complexity of problems addressed (COPA) - "diagnoses", the amount and complexity of data addressed and reviewed - "data", and risk of complications and morbidity/ mortality of the patient - "risk". Critical care documentation remains essentially the same outside the required timing of critical care beyond the first 74 minutes (for documentation the physician should just clearly document the amount of time spent on critical care during the encounter to allow for appropriate coding). (ACEP MDM Grid)

When looking at the first category, COPA, it is important to recognize the problems and considerations addressed are independent of the final established diagnosis. This allows for the thought process on developing and eliminating a list of differential diagnoses considered. The key here is the high-risk condition does not need to be listed in the final diagnosis. The evaluation, work up or thought process should occur as part of the record. While "rule-out" items cannot be utilized for ICD-10 coding, documenting them can contribute to the complexity of problems addressed. Another important element that counts toward the COPA category is documenting the thought process around eliminating a differential or choosing not to do a test based on a risk score. Examples include not doing a pediatric head CT after utilizing PECARN and the HEART Score for determining the workup in chest pain, among many others. One last item related to COPA documentation, while there are not specific history and physical documentation elements required, a descriptive history including "acute" items, chronic items with "severe" exacerbation or noting systemic systems can contribute to the overall complexity.

The amount and complexity of data category, while more complex as it is broken up into three different sections to be met, has less ambiguity in how it is calculated. To achieve credit for this category in the highest E&Ms, documentation must meet two of three sections in this element. The first section includes tests, documents and independent historians. Two to three of these (with each prior external note or test ordered counting as individual points) need to be noted depending on level from limited to extensive. An important note is the ordering and review of a laboratory test is considered one item, however reviewing tests from outside or another physician can count separately. Of note, consulting the prescription monitoring database is a valid external record counting to this section. To achieve the highest coding the physician must also complete another section in this category, either independent interpretation of tests (not otherwise billed by the physician) and/ or discussing the case with another physician or qualified health professional. The physician should document their interpretation of ECG (if that physician is not billing that interpretation separately), rhythm strip, and/ or imaging should be noted but does not have to be documented as a formal report. The discussion section can include interactive exchange with a physician, qualified healthcare provider, facility (i.e.: hospital or nursing home) staff, or other appropriate professionals involved in the care of the patient (i.e.: lawyer, police, case manager), but does not include the family or informal care providers. For the items of discussion with other providers, review of prior records or use of an independent historian there should be notation of what occurred, information obtained and/ or pertinence to the current situation.

The risk category provides more physician discretion and is based on the usual behavior and thought process of the physician or a similar physician. While examples are available for moderate and high-risk including things like prescription drug management, social determinants of health, decision regarding hospitalization and parental controlled substances, it should be noted this list and the general list of examples is not exhaustive of potential risk items in all clinical situations. Even procedures or injuries considered minor in most populations can be high risk in patients with co-morbidities. As for the social determinants of health qualifier, the existence, alone, of one is not a risk qualifier.

The physician should document how the existing social determinant limits diagnosis or treatment. Some procedures noted to include risks are torso radiographs due to radiation exposure, IV fluids and non-IV contrast CT imaging in the moderate level. An ACEP publication has noted IV contrast administration is likely high risk (ACEP MDM FAQs). Decisions regarding major surgery or high-risk procedure include the common things we would think of in emergency medicine; CPR, central/ arterial access, thoracostomy, and intubation among others but it also includes procedures like IO placement, displaced fracture care, and intermediate/ major joint reductions. Most of us are not accustomed to documenting the complexity of our thought process, especially when an action or order is not performed. However, this is critical in this category as risk is defined by the consideration and decision process. Examples include consideration of admission for an asthmatic patient who receives treatment and subsequently improves and has good follow up not requiring hospitalization or the family who prefers to take an elderly patient home to avoid a hospitalization. The key is your thought process must be in the record. Other examples include the decision based on the physician's assessment and risk benefit analysis on not ordering certain tests, controlled substances, or further workup.

None of this changes or absolves you of the medico-legal aspects of documentation. Specifically documenting family history may not change your MDM billing, however if it is pertinent to the complaint and if not noted that can create a situation of medicolegal risk. This is where the medically appropriate history and physical documentation become important. Despite the HPI/ ROS/ PMFSHx/ PE documentation not counting towards billing, these items can be critically important in the defense of a case. Additionally, lack of documentation of the thought process can potentially create questions as to the thoroughness of workup and treatment of the patient.

Overall, while changing and adjusting has been a challenge and has shifted coding distribution in many practices, the move away from a list of clicks and checks is probably better for patient ongoing care. It brings us away from being data entry clerks. As physicians, we now are not only getting credit for doing but for showing our work and thought process. For now, we will continue to adjust to this before further changes come as the documentation regarding split shared services is next up for change in 2024 after a one-year delay in implementation.

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New York EM Residency Spotlight

NYC Health + Hospitals / South Brooklyn Health Ruth Bader Ginsburg Hospital

Demographics

Hospital/Institution: NYC Health + Hospitals/South Brooklyn Health Ruth Bader Ginsburg Hospital
Formerly known as Coney Island Hospital

Program Director: Jordan Jeong D.O. , Residency Director
Associate Chair for Education Department of Emergency Medicine

Program Coordinator: Greg Pearlman

Program Coordinator E-mail Address: pearlmag@nychhc.org

Hospital Capabilities: STEMI, Stroke

Total Number of EM Residents: 20

Residents Train Each Year: 4-6

Inagural Resident Class Year: 2015

Benefits Offered: ROSH Review, Dental Insurance, Health Insurance, Vision Insurance, Life Insurance

Other Benefits: CIR Resident Union

Website Link: https://coneyem.com/

Instagram Link: @coney_em

Most Unique Program Feature: Our hospital and program provides care to a very unique subset of cultures. We see a very diverse population, however we predominantly serve Russian, Eastern European, and Hispanic populations. This provides unique pathology and also has its own social implications, providing a strong training in cross cultural competency and communication. This diverse community provides the opportunity to learn medicine on a social basis, and make real change within the community.

What is your favorite aspect of the program? From day one of residency, you are thrown into true emergency situations as the doctor. As an intern you are responsible for even the most critical patients. With a strong support network made up of our attendings and other residents, from day one you are given attempts at all procedures and immediately begin to build upon your critical thinking skills. Ultimately, this provides you with four years of training, caring for the sickest of patients, mastering a variety of procedures, and greatly building upon your medical knowledge.

What is your program known for? We cover one of the largest areas in Brooklyn and, as a public city community hospital, we provide care to a wide array of patient populations. A large portion of our patient demographic is the elderly population. As a result, we often see worse pathology that coincides with the older age groups. Our program in particular has taken on various initiatives to help improve patient care within our ED and in transitioning them to the definitive care they require. We have developed a variety of ED protocols which include improved stroke care and STEMI care in the ED to which have now become some of the most efficient in the country. We are in the process of creating protocols for sepsis and GI bleeds as well.

What are you most proud of with your program? We are most proud of how close our program has become and the camaraderie that we develop during residency. We develop close relationships with our attendings and co-residents which ultimately leads to a driven environment for both learning and well-being. Attendings help guide each resident's learning towards specific interests. As a smaller program, all suggestions towards improvements or modifications are taken seriously. We truly feel supported in every aspect of our learning and growth. Our program also focuses heavily on wellness. Our attendings make an effort to build wellness into our core curriculum and conferences which really means a lot to us.

What makes your program an excellent place to complete a residency? We are a close-knit group of coworkers and friends that live in one of the busiest cities in the world. We are an active group of people that are always learning and always caring about our well-being. There are a lot of activities near Coney Island and even more in the New York Area. Residents are close with each other and attendings, wellness is an important focus in the residency.

UNSUNG HEROES
in New York State Emergency Departments

DESIGNATE YOUR HONOREE
for New York ACEP's 2023 Unsung Heroes

By designating a physician on your staff, you gain recognition for their efforts and your organization. New York ACEP will promote honorees and their Departments in local, regional, and statewide public relations efforts, as well as through the New York ACEP website.

About the Award: A New York State Emergency Medicine Unsung Hero goes beyond simply being the embodiment of what it means to be an emergency physician. They are a stalwart of the emergency department, who is deeply committed to the mission of the emergency department, their colleagues, co-workers and patients. The unsung hero is always willing to help a colleague — within the clinical environment or not. They are the trusted individual who is known to bring comfort and a smile to the faces of all those around.

Promote Your Department

Department Director submission of the designated honoree required.

Jeffrey S. Rabrich, DO FACEP FAEMS
Senior Regional Medical Director
Envision Physician Services

Katelynn Ethier
Executive Director
New York ACEP

Meet Your New Executive Director

As many of you know, our Executive Director of 37 years, JoAnne Tarantelli, retired at the beginning of July. JoAnne took the organization from a handful of emergency doctors to the second largest ACEP chapter in the country. We are grateful to JoAnne for her many decades of dedication to New York ACEP and wish her great happiness in her retirement. In preparation for the transition, the board of directors appointed a search committee and with the help of an executive search firm the committee reviewed dozens of applicants and met with the top candidates for the position. The board selected Katelynn Ethier as our new Executive Director and was excited for her to join us. Those of you who attended the Scientific Assembly at the Sagamore in July were hopefully able to meet her and get to know her. I had the opportunity to sit down for a chat with her to allow her to share a little about herself with the membership.

As you know, New York ACEP has essentially only had one executive director for most of our 50 years, so we are really excited for our next chapter. What drew you to New York ACEP when you learned of the opportunity

I have worked in the medical field before in a different capacity, but I am really excited about the work and being a part of the advocacy and change. The opportunity to support who I think is the most important people in our community, healthcare providers, and ensuring that we support our healthcare workers and have healthy physicians and healthy hospitals. I come from a family of nurses, so I've seen some of the challenges from that perspective as well. I've started to interact with the members and learn about their needs as I've gotten started and "why NYACEP". It's your hard-earned money and there are many organizations, so continuing to build on the excellent services and benefits we offer the membership as well as building community is exciting. I think the scientific assembly is a wonderful example of creating community.

What would you like members to know about Katelynn? I understand you are a lifelong New Yorker?

I am a New Yorker and am from "upstate", I live in Saratoga Springs and have been in New York since I was four. I am married, my husband works in the Mental Health Field and we have a dog, Millie. I love living in the Adirondacks and hiking, camping and enjoying the outdoor space.

Before coming to New York ACEP I know you have had a leadership role in another organization and have had some exposure to advocacy. What kind of background are you coming from as I'm sure some of our member may wonder "Where did we find Katelynn?"

I was an executive director for a foundation for a nursing home and a lot of the focus there is on Medicaid and reimbursement rates and funding. My role on the team was to communicate and advocate Medicaid needs with the legislature as well as our donor base. I did a lot of donor relations, and a healthy community requires a nursing home and that benefits the hospitals as well. It was important to ensure the nursing home functioned well so it could take patients who were appropriate for long term care as well as short term rehabilitation which helped allow the hospitals to function efficiently. It's kind of funny that I am now on the other end of this ensuring that hospitals can work toward efficient throughput and help alleviate the boarding issues and other issues in the emergency department. So that's where I have been and I think my work with donor relations has helped prepare me to be well equipped for member relations and meeting the needs of the membership.

It's good that we have had one executive director for so long and we have a stable and well-oiled organization. Change can be good but also can pose challenges. From your perspective, what is it like coming into an organization that has only known one way for so long and have you given thought to the transition and anything we should be looking forward to?

It's really encouraging to come into an organization that has had a staff member for so long as it's a testament to the members, the mission of the organization and the work that's being done. The work is empowering and fruitful and you really get to make a difference. I guess what I am looking forward to is getting to know everyone and get back to the basics of "why are you a member of New York ACEP" to help learn but also identify places where one physician's "why" helps to inform and expand the offering and ensure access for every single member and that every emergency physician wants to be a member. Having access to that piece makes someone want to be a board member or a member of a committee. I am looking forward to identifying what are all those little things that add value for the members.

Everyone in healthcare was affected by COVID, probably the emergency department was one of the places most affected of anywhere. As you know we had a lot of challenges before COVID and even more now, so I imagine you've been doing a lot of homework to get up to speed on the emergency department issues. So, what do you see as the big issues we are facing as we move into the next few years?

I think one of the bigger issues is going to be people who wanted to be doctors as children and went on to become doctors now may feel like deer in the headlights after what happened and may feel compelled to go into some other sort of practice. It's about finding

ways we can bring back the joy of emergency medicine for those people, you know the fun, the fast pace, and the ability to have effective change and outcomes for your patients and be able to help them in their crisis. What I gathered from my first month here is that's what the magic is that draws people to the emergency department. Understanding how New York ACEP can work to bring that back for our members and help maintain it. Likewise for medical students who have experienced only the COVID times, how do we keep them interested in emergency medicine and not wanting to go in another direction. We also need to keep focusing on the programs that foster community and mental health support and helping to ensure that the legislative work is appropriate to support these goals such as safe staffing and reduction in ED boarders. Additionally, we can look to policy that allow us to provide support for women in the ED who may want to be mothers and also want to continue to work in the emergency department as was discussed in a recent OWL's meeting I observed.

Wow, that's a great answer and I think what you just summed up is all the "quality of work life" issues that emergency physicians face every day and how we can make their shifts a little better. I know you recently were able to join us on our leadership lobby day as well and see how hard it can be to advocate for policies to support our work with the legislature. It can be challenging to get our message across, what were you observations?

Absolutely, it was interesting to be in those conversations and see it in a unique legislative year and I look forward to continuing to dig in and build those relationships in hopes that it will foster further conversation with our elected officials.

Is there anything else we didn't discuss that you want the members to know about you?

I am so excited to be here, and so excited to be a part of this next iteration of New York ACEP. From my perspective everything from the last 51 years has been excellent and a forward moving organization and I am looking forward to continuing that momentum and bringing a new flavor to it.

Do you have any hobbies? What do you like to do for fun?

I hang out with my dog Millie a lot, she's a 5-year-old pit bull and is still just like a puppy. We go on trail walks and like to hike. We really just enjoy the Saratoga area.

Well thank you Katelynn for sharing some time with us for the members to get to know you and hopefully you will want to stay with us for 37 years as well!

New York ACEP 2024 Leadership & Advocacy Award

New York ACEP created this Award to promote young physician leadership and to advance political action and advocacy through attendance at the ACEP Legislative Advocacy Conference, April 14-16, 2024 in Washington, DC.

Three awards of up to $1,000 will be provided for young physicians and residents to participate in leadership training at the ACEP Legislative Advocacy Conference.

Resident candidates must be in good standing and in an accredited residency program within New York State. Special considerations will be given to resident candidates planning to practice in New York State.

To learn more about the award requirements, selection criteria and to download the nomination form, please visit nyacep.org

Nominations Due November 15, 2023

Purpose:

To fund young physicians and residents to attend and participate in leadership training at the ACEP Legislative Advocacy Conference.

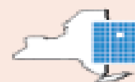
Eligibility:

Young physician candidates must be within their first three years of practice.

Resident candidates must be in good standing in an accredited residency program within New York State. Special consideration will be given to resident candidates planning to practice in New York State.

Award:

A total of three awards will be given, with up to $1,000 reimbursement per recipient.



New York American College of Emergency Physicians
ADVANCING EMERGENCY CARE

Thank you to all who joined another year of community, relaxation and emergency medicine!