New York American College of Emergency Physicians

Empire State EPIC

Thank You From Envision Physician Services

This holiday season, we are grateful for the emergency medicine teams working on the front lines of patient care. We know the holidays can be a busy and challenging time, especially when you're away from family. We value your passion and hard work, especially during the holiday season when you make so many sacrifices to care for patients in our communities across New York and New Jersey.

May your holiday season be filled with joy. We hope each of you can spend time with loved ones and recharge for the New Year.

Celebrating Discovery and Career Growth

We invest in our physicians, supporting their professional growth through mentoring and national leadership programs. Clinicians have time and resources to pursue their specific passion in emergency medicine, from education and quality initiatives to patient satisfaction and clinical research.

"To me, being a group led by physicians and advanced practice providers means our clinicians are making the decisions, that we're giving them the tools they need. As leaders, we're there to make sure nothing gets between the patient-clinician relationship."

— JEFFREY S. RABRICH, DO, MBA, FACEP, FAEMS
Senior Vice President, Emergency and Hospital Medicine

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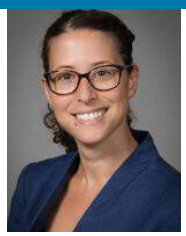
PHYSICIAN SERVICES

PRESIDENT'S MESSAGE



Nicole Berwald, MD FACEP
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Value of Connection

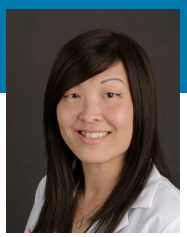
I am excited about Emergency Medicine. I hope you are too. Just a few weeks ago, I attended ACEP 2023 in Philadelphia. The ACEP national conference rejuvenates my passion for our specialty. I attribute so much of this to the spirit of emergency physicians, quick witted, curious and industrious. I find being in the company of a few thousand EM docs invigorating. For those who attended ACEP 2023, I hope you had a similar experience, making new connections and spending time with old friends, colleagues and mentors.

For me, the national conference is a balance of work and play. Prior to the start of the conference, I participate in the ACEP council. The council is the deliberate body of ACEP; a group that decides where they want ACEP leadership to focus their efforts. During this meeting I learn what leaders throughout the country are experiencing, their challenges and needs. This forum offers an opportunity for us to work together and stand united for emergency physicians and their patients. Of no surprise, many EM physicians across the country share similar concerns, which I am hopeful will lead to shared successes as we work to improve workplace violence, boarding, scope of practice and overall well-being.

The days following the council meeting were equally inspiring through the research forum, clinical and administrative lectures and new, exciting technology in the exhibit hall. Like my experience at council, the highlight of the academic conference comes from the time spent with my colleagues. I never tire of the mutual sharing of our varied clinical experiences from which my career is further developed and enhanced.

Along with the good, I am reminded of other more somber realities. Through my many conversations with a diverse group of my colleagues on a variety of themes, one thing was clear; emergency medicine is not for the faint-hearted. At times it can be difficult to remember why we do this job. It is easier on the days that we make a meaningful connection, change a life, or save a life. But not every day brings the same sense of accomplishment. But we must remember that we make a difference. We make a difference in the lives of the patients we treat and the teams we lead. I often ask myself how New York ACEP can better support you and your day-to-day needs. ACEP and New York ACEP are here to support you, and I want to ensure that you have access to resources that touch on clinical and personal needs (Clinical Policies, Policy Statements, Life as a Physician-Wellness). Keep doing what you're doing. You are the safety-net, and the world is a better place for what you do.

SOUND ROUNDS



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Significance of Mitral Valve Prolapse on Cardiac Point of Care Ultrasound (POCUS) in the Emergency Department

Case

A 77-year-old female with a medical history of hypertension and hyperlipidemia presented to the Emergency Department (ED) after a syncopal episode with pressure-like chest pain radiating to the left arm. She had similar chest pain intermittently for months, but began having palpitations, shortness of breath and lightheadedness the morning of presentation. While walking her dog, she had a syncopal episode and EMS was called. On arrival to the ED, vital signs were normal without hypotension or tachycardia. The EKG demonstrated a LBBB and ST depression in lead II, similar to a prior one from two years ago.

ED cardiac point-of-care ultrasound (POCUS) revealed mild left ventricular sigmoid hypertrophy and mitral valve prolapse of both anterior and posterior valves with mitral regurgitation (Figures 1A and 1B). There was normal systolic left ventricular function without segmental wall motion abnormalities or pericardial effusion. There were no anterior or lateral lung B-lines demonstrating pulmonary vascular congestion. The serum troponin level was mildly elevated and remained stable on repeat evaluation.

Consultation with cardiology was initiated due to the ED POCUS findings of mitral valve prolapse and increased suspicion for cardiac dysrhythmia, such as rapid atrial fibrillation, contributing to the patient's syncope. In conjunction with cardiology recommendations, the patient was initiated on anticoagulation due to suspicion for atrial fibrillation and was admitted to the cardiology service. The patient subsequently underwent cardiac catheterization which showed non-obstructive coronary disease. Inpatient echocardiogram showed a myxomatous mitral valve with moderate prolapse of both leaflets and moderate mitral regurgitation consistent with ED POCUS. She was started on an optimized cardiac medication regimen, including aspirin, atorvastatin and metoprolol. She remained chest pain free and hemodynamically stable during the hospital course and was discharged home with cardiology follow up the next day. This case highlights the crucial role of POCUS in helping to identify the underlying cause of syncope and diagnosing symptomatic mitral valve prolapse.

Discussions

Mitral valve prolapse (MVP) is classified as primary, from spontaneous tissue disease such as myxomatous degeneration or secondary, when due to an underlying disorder like Marfans or other connective tissue disease. Furthermore, MVP causes primary mitral regurgitation (MR), due to mitral valve leaflet pathology, as opposed to secondary mitral regurgitation from left ventricular dysfunction.[1,2]

MVP often presents with symptoms that can mimic more common cardiac pathologies, like acute coronary syndrome (ACS). Although historically associated with a range of symptoms—such as chest pain and palpitations—most MVP patients are asymptomatic.[3,4] When symptoms do occur, they usually stem from significant MR or cardiac arrhythmias.[3,4] The condition is often identified either through echocardiography prompted by unrelated medical evaluations or auscultatory findings, rather than symptoms alone. Given its varying presentation it is an important differential diagnosis in patients who present to the ED with respiratory distress, chest pain and syncope.

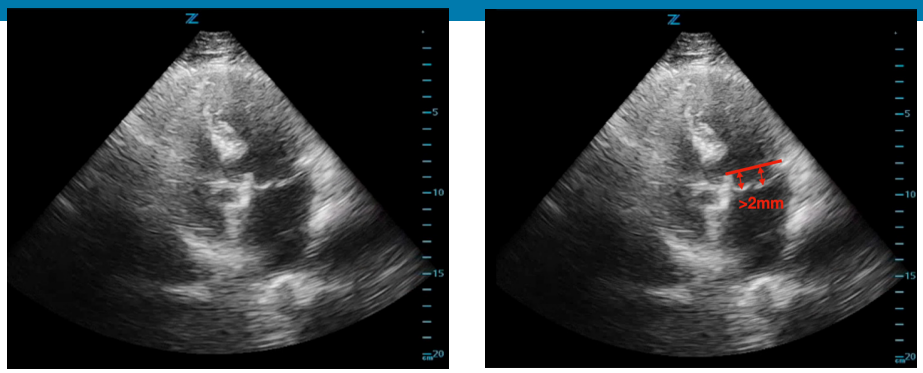
Clinically, MVP is diagnosed via specific echocardiographic criteria, including thickened and redundant mitral leaflets that billow in systole at least 2 mm below the plane of the mitral annulus, towards the atrium. MR may or may not accompany these findings.[5] It's important to clarify that myocardial ischemia does not cause MVP. However, during a myocardial infarction, a ruptured papillary muscle may lead to mitral valve leaflets sagging into the left atrium causing mitral regurgitation.

In our case the patient was at high risk for ACS given her age, history and symptomatology. However, cardiac POCUS revealed another underlying issue providing an alternative differential diagnosis to ACS that could explain her syncopal episode, dyspnea and chest pain. This underscores the utility of POCUS to evaluate patients with non-specific cardiac symptoms, such as chest pain or shortness of breath, though it doesn't eliminate the need for a coronary catheterization.

In conclusion, our case underscores the potential of cardiac POCUS as a versatile diagnostic tool in the emergency setting. This case emphasizes the need for emergency physicians to be proficient in the use of POCUS not only for ruling out life-threatening conditions but also for recognizing other structural abnormalities like MVP that could significantly influence clinical decision-making.

Indications

- Cardiac Murmur
- Chest pain
- Palpitations
- Shortness of breath
- Tachycardia



Figures 1A. B-mode ultrasound image of the apical four chamber view with mitral valve prolapse and Figure 1B. Mitral valve prolapse (red arrows) with mitral leaflets ≥2 mm below the mitral annular plane into the left atrium.

Technique

- Place the patient in a supine position. Consider having them lay on their left side to bring the heart closer to the chest wall.
- Use a phased array probe that allows for adequate penetration between the ribs. The mitral valve is best captured in either the apical four chamber or parasternal long axis view. Please refer to New York ACEP EPIC volume 32:02:14, pages 6 – 8.
- Use color flow Doppler to assess for the presence and severity of mitral regurgitation. Variables such as the angle of insonation, depth and sample size are crucial for an accurate assessment. MVP is defined as systolic billowing of one or both mitral leaflets ≥2 mm below the mitral annular plane into the left atrium. This is often seen in a long-axis view, either parasternal or apical four-chamber (figure 2).
- Moderate mitral regurgitation features a broad and sizable jet that takes up a portion of the left atrium. In severe MR, the doppler jets reach the base of the left atrium or fill more than 40% of its area

Pitfalls and Limitations

- Diagnostic ability and accuracy may be limited by body habitus.
- A thin and short regurgitant jet in the mitral valve can be physiologic and have no clinical significance.
- In the four-chamber apical view, the mitral leaflets may seem to sit behind the annulus even in healthy individuals, owing to the mitral annulus's saddle shape and its ventricular apex movement during systole.[6]
- Ischemia can cause a "simple override" of the anterior leaflet where the anterior leaflet passes below the posterior leaflet without crossing the annulus. Distinguishing simple anterior leaflet override from MVP is crucial as each requires a different treatment strategy.[7]

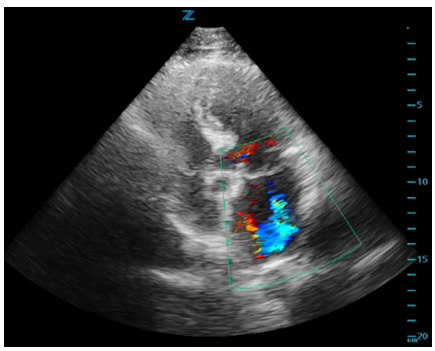


Figure 2. Ultrasound image of the cardiac apical four chamber view demonstrating mitral valve regurgitation with color flow Doppler.

- M-mode echocardiography is outdated and should not be used for diagnosing MVP. Normal motion at the base may mask or mimic MVP.

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PRACTICE MANAGEMENT

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ED Medical Director Staffing Survey

Two of the core objectives of New York ACEP are "to establish guidelines for quality emergency care" and "to evaluate the social and economic aspects of emergency medical care". In order to do so, it is important to understand the current practice patterns across New York State. Specifically, the strategic vision of the current leadership team is to further understand how the utilization of Emergency Departments (EDs) in New York State has been impacted by the pandemic and its downstream consequences and to understand the utilization of Advanced Practiced Clinicians in the ED.

For these reasons the New York ACEP Practice Management Committee designed a survey targeted to all Emergency Department medical directors throughout the state. The survey asked for census and staffing details for 2020, 2021 and 2022. The survey also asked questions related to staffing patterns, shift length, maximal coverage, admission percentage and average number of boarders.

We received 55 responses, each appearing to represent unique Emergency Departments. This represents 29% of the 190 Emergency Departments in New York State. The responses varied throughout the state, though the highest number of responses originated from New York City.

The only demographic information collected was the region of the state. That data is shown in Figure 1.

85% of medical directors reported boarding 5+ patients on average. 22% reported 30+ boarders and 9% reporting more than 45 boarding patients on average.

Across the 53 sites reporting yearly data: the number of patient visits grew each year from 2020 to 2022. There were 2.02 million visits reported in 2020, which was up to 2.23 million in 2021 and 2.37 million in 2022.

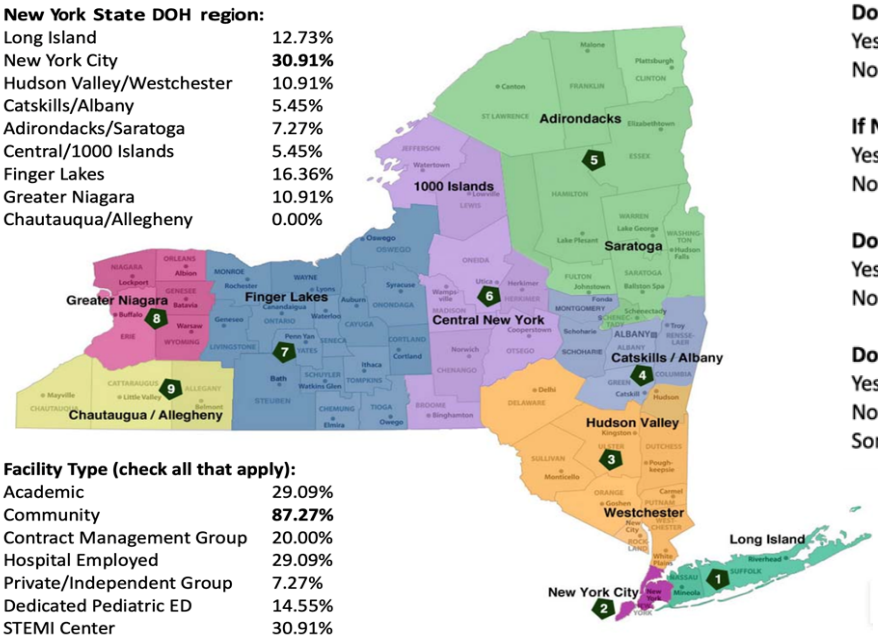
The medical directors also provided answers on the utilization of APPs (Advanced Practice Providers i.e.: Nurse Practitioners and Physician Assistants) in the Emergency Department. 21% of Emergency Departments reported 0% rate of independent encounters of patients with NP/PA. 17% reported 1-10%, 17% reported 10-20%, 27% reported 20-30% and 17% reported >30%.

The most common length of shift reported was 12 hours, followed by 10 then 8 hours. With many sites having multiple shift lengths. The data is shown in a graph below.

We collected two data points, maximal staffed time and minimal staffed times and requested those numbers of attending physi-

Figure 1

New York State DOH region:	
Long Island	12.73%
New York City	**30.91%**
Hudson Valley/Westchester	10.91%
Catskills/Albany	5.45%
Adirondacks/Saratoga	7.27%
Central/1000 Islands	5.45%
Finger Lakes	16.36%
Greater Niagara	10.91%
Chautauqua/Allegheny	0.00%



Facility Type (check all that apply):	
Academic	29.09%
Community	**87.27%**
Contract Management Group	20.00%
Hospital Employed	29.09%
Private/Independent Group	7.27%
Dedicated Pediatric ED	14.55%
STEMI Center	30.91%
Stroke Center	41.82%
Trauma Center	14.55%
Urban	29.09%
Rural	14.55%

Does Your ED Have Nursing Staffing Ratios?	
Yes	41.82%
No	**58.18%**

If No, Does Your Site Have a Patient Cap for Nursing?	
Yes	28.89%
No	**71.11%**

Do You Feel Your Nurse Staffing Levels Are Adequate?	
Yes	16.36%
No	**83.64%**

Do You Have a Dedicated Nursing Team To Manage Holds?	
Yes	7.41%
No	**59.26%**
Sometimes	33.33%

cians, APPs and residents. There were four sites that reported no use of APPs. There were no sites that reported use of only APPs and no physicians. The maximal number of physicians working simultaneously ranged up to eight. 13/55 (24%) were 24/7 single attending coverage sites. 11/55 (20%) reported a maximum of two attending physicians, another 13/55 (24%) reported a maximum of three. Only two responses reported a maximal (or minimal) staffed time with the number of APPs exceeding the number of physicians. For the 51 sites reporting APP utilization, the ratio of physician to APP at the maximal staffed time was on average 1.3.

39/55 emergency departments (71%) reported that the lowest staffed time is a single attending physician, with 28/55 (51%) reporting zero APP use at the minimal staffed time.

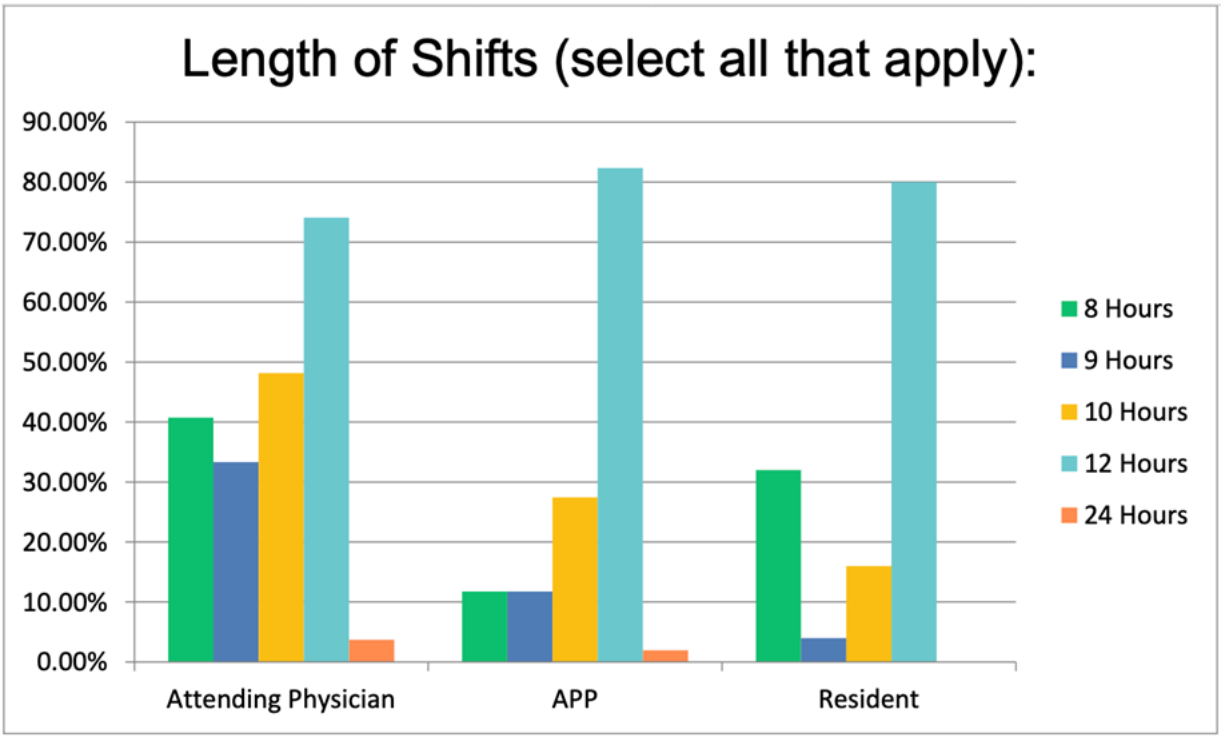
24 respondents reported the use of residents, of which eight reported a maximum of one resident working at a time; all of which reported minimal staffing of zero residents. For the other 16 sites reporting data the ratios of attending physicians to residents varied widely.

We asked several questions regarding nurse staffing, the most notable being that 84% of medical directors do not feel the nurse staffing ratios are adequate and only 7.4% reported full time dedicated nursing teams to manage ED holds.

New York ACEP will continue to advocate for all Emergency Physicians and patients and these statistics help illustrate the diversity in practice environments throughout the state of New York. We appreciate all who participated in the survey.

Length of Shifts (select all that apply):

	8 HOURS	9 HOURS	10 HOURS	12 HOURS	24 HOURS
Attending Physician	40.74%	33.33%	48.15%	**74.07%**	3.70%
APP	11.76%	11.76%	27.45%	**82.35%**	1.96%
Resident	32.00%	4.00%	16.00%	**80.00%**	0.00%



EDUCATION

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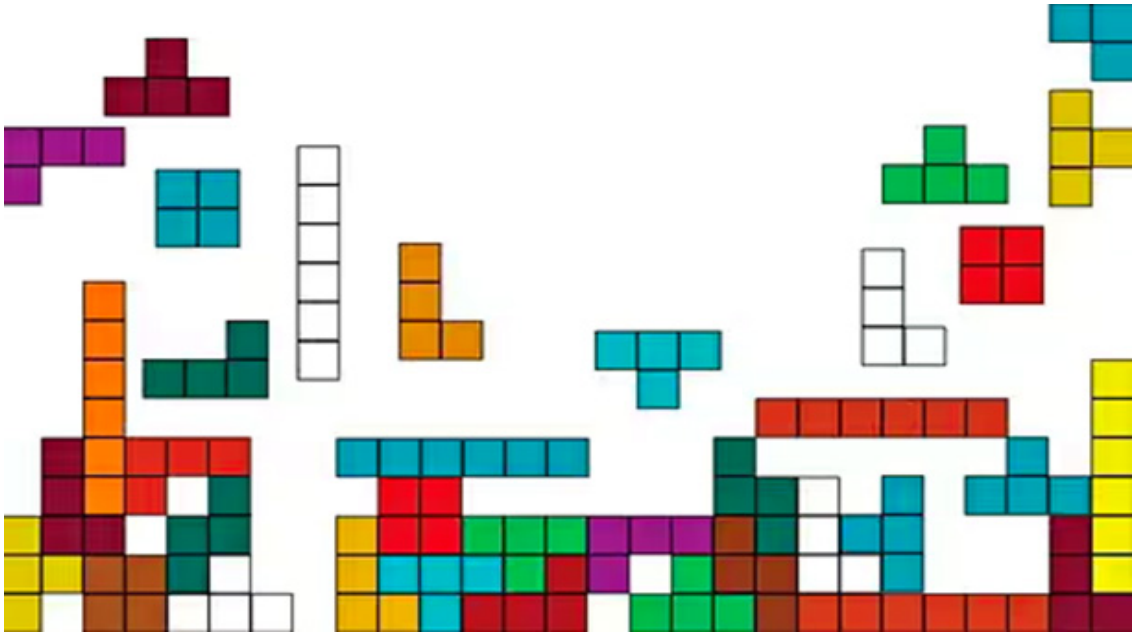
From Shifts to Success: Navigating Resident Scheduling



Emergency medicine (EM) residents have demanding clinical schedules. They are expected to work hard and invest much time into their education, but it is also important to allocate time for rest, exercise and quality time with family and friends. These can be rejuvenating and are crucial for maintaining physical and mental well-being. Creating an effective clinical schedule for residents requires careful consideration of various factors. Compliance with ACGME duty hour regulations is paramount. These regulations are in place to ensure safe and effective patient care, while also providing residents with a balanced educational experience. The ACGME regulations state that duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities and all moonlighting. In most settings, shifts should last 12 hours or less and residents must have at least one day (24 hours) in seven free from all educational and clinical responsibilities, averaging over four weeks. EM residents (except for PGY1 residents) are generally allowed to engage in moonlighting, if it does not interfere with their ACGME educational program.

Scheduling should strictly adhere to these guidelines to prevent overwork and fatigue, which can compromise patient safety and resident well-being. A well-structured rotation schedule ensures residents gain exposure to a diverse range of clinical experiences. Rotations should cover essential areas such as trauma, critical care, pediatrics, urgent care and core emergency medicine, providing a comprehensive training curriculum.

In our program, prior to making a schedule, residents submit their requests of days that they need to be off. These requests are taken very seriously to ensure they do not miss the activities that are important to them. The clinical schedule is built around their requested days off.

Shifts are scheduled, whenever possible, in a manner consistent with circadian principles. Similar shifts are grouped together to create blocks of workdays. This can help reduce the back-and-forth between different shift types. All residents have a fair distribution of shifts, including desirable and less-desirable ones. Adequate rest days are scheduled between blocks of demanding shifts. Residents are asked about their preferences when night shifts are scheduled. Some prefer to work all their required night shifts consecutively while others prefer not to work more than three nights in a row. Fair shift trades are allowed between residents and physician assistants (PAs) to allow both to optimize their schedule.

Dedicated time for educational activities, such as didactics, workshops and simulations, are integrated into the schedule. In our program, educational activities are scheduled on Wednesday. One way to ensure all residents are available to participate is to have residents not work Tuesday night and Wednesday morning so that they may be rested and

EDUCATION

available for didactic conferences and workshops.

Planning for unexpected events, such as sudden illness or personal emergencies, is essential. Having protocols in place to address these situations ensures continuity of patient care and resident education. Our department has a sick call schedule as a contingency plan for unexpected absences or emergencies. Sick call is usually covered by residents on off-service rotations, such as ultrasound, toxicology or administrative rotation. If a resident misses more than two days due to sick call activation, they will be given time to make up these days during their emergency department (ED) block.

Regularly evaluating the effectiveness of rotations and making necessary adjustments based on feedback and performance metrics is crucial for continuous improvement. This process helps refine the schedule to better meet the educational needs of residents. In our program we review all rotations and schedules during our yearly retreat, where all rotations are discussed in detail. Residents may also bring up any concerns they may have during the monthly Resident Issues meeting, where residents and residency leadership meet to discuss specific issues that need to be addressed.

Creating a schedule that meets the needs of both the department and the residents requires a balance of fairness, flexibility and adherence to regulations. It is a dynamic process that requires careful consideration of various factors including residents' well-being and educational needs. An effective scheduling framework for EM residents encompasses a comprehensive approach that balances clinical exposure, educational opportunities and resident well-being. By adhering to these key requirements, residency programs can cultivate a nurturing and enriching environment that prepares residents for a successful and fulfilling career in emergency medicine. It is imperative that institutions and programs remain dedicated to meeting these scheduling needs to ensure the optimal training of EM residents.

References

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- CORD best practices https://escholarship.org/uc/item/5vc7f6c6

Calendar

December 2023

13 Education Committee Conference Call, 2:45 pm
13 Professional Development Conference Call, 3:30 pm
13 Academy of Clinical Educators, Zoom Lecture, 4:00 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
21 EMS Committee Conference Call, 2:30 pm

January 2024

1 Academy of Clinical Educators, Zoom Lecture, 4:00 pm
10 Education Committee Conference Call, 2:45 pm
10 Professional Development Conference Call, 3:30 pm
11 Practice Management Conference Call, 1:00 pm
17 Government Affairs Conference Call, 11:00 am
17 Emergency Medicine Resident Committee Conference Call, 2:00 pm
17 Research Committee Conference Call, 3:00 pm
18 EMS Committee Conference Call, 2:30 pm

February 2024

7 Academy of Clinical Educators, Zoom Lecture, 4:00 pm
8 Practice Management Conference Call, 1:00 pm
14 Education Committee Conference Call, 2:45 pm
14 Professional Development Conference Call, 3:30 pm
15 EMS Committee Conference Call, 2:30 pm
16 Board of Directors Conference Call; 12:00 pm - 1:30 pm
21 Government Affairs Conference Call, 11:00 am
21 Emergency Medicine Resident Committee Conference Call, 2:00 pm
21 Research Committee Conference Call, 3:00 pm

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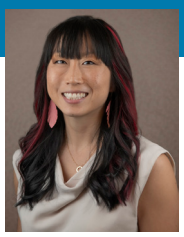

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Passing the Baton: Leadership Transitions & Lessons Learned

Change is an inevitable part of every career in emergency medicine. In a specialty exemplified by the mission of *anyone, anywhere, anytime,* adaptability to change can be seen as both a core skill and a desired personality trait. At the same time, transitions into new roles can also be one of the most challenging times in our professional lives. Emergency physicians who regularly encounter medical students, residents and fellows recognize the rights of passage associated with graduation from medical school, progression through residency training and setting forth as an attending emergency physician. Many resources have been dedicated to these early professional transitions. However, our careers continue to evolve and change throughout our lives and successfully navigating that path remains important as we progress in responsibility and leadership roles over time. Here we share lessons learned from our recent leadership transition of Program Director in our department with the hope our experiences may help you make the next leap in your own career.

Lesson Learned #1: Have a plan

There are many reasons why leadership changes occur but it is important to recognize they will inevitably happen. Proper succession planning will minimize distraction and should be done well in advance. Even if there is no clear internal candidate, steps can be taken to ensure thorough documentation of processes and decision-making transparency to avoid information-hoarding and allow for others to more easily assume the role. External searches should be strategic and inclusive. It is important to describe the role, maximize the reach of the search and ensure the candidate evaluation process is fair and unbiased.

In our case example, I (ASC) had accepted a new position as the Vice Chair of Academic Affairs for a different institution and so our department had the need for a new Program Director. Throughout my years as the Program Director, I had taken the time to create a large electronic repository of policies, meeting notes and other documents that was contemporaneously shared among the other members of the residency leadership team. Importantly, we engaged in discussions about potential succession planning well in advance of my decision to leave. This included the two of us (ASC, JC), other members of the residency leadership team and our department Chair. We ultimately decided that Dr. Cueva was the best candidate for the position and did not pursue an external search.

Lesson Learned #2: Announce with intention

Many people are affected by any leadership transition. Identification of key stakeholders and the determination of the order in which they will be notified is important. Announcements should also be tailored to each constituency group. Multiple staggered messages on different platforms may need to be released at different times. Although many times the timing of a transition is not entirely flexible, when possible it should be done at a time that will be the least disruptive.

The two of us (ASC, JC) and our department Chair met regularly to strategically determine the best course of action with regards to the announcement of the Program Director transition. The most important group that needed to be notified were the current residents and pains were taken to ensure they did not find out prior to being told personally by us (ASC, JC). We informed them during a live Wednesday resident conference. A follow-up email was sent later that afternoon to the remaining faculty and staff in the department. Importantly, we timed the transition such that it occurred prior to recruitment season for the residency program, so as to avoid a perceived 'bait and switch.'

Lesson Learned #3: Continue support and then let go

The transition process itself does not happen overnight. Ideally allow for several weeks to months for time for the identified successor to offload prior responsibilities and take on new ones. Remember that the successor should also be given the freedom to leverage their new responsibilities and influence in their role.

We (ASC, JC) allowed for a three-month transition period from the time of announcement to the official transition date. Immediately after the announcement, I (JC) functionally took over many of the daily responsibilities of running the residency program. I was able to make definitive decisions that would impact the program in the future, even though the timing of those decisions were prior to the official start date of my new role. The two of us (ASC, JC) set up regular meetings to transfer any remaining documents or information and to touch base regarding issues as they arose.

In closing, change is common, inevitable and can be a challenging time for both the individuals involved and those around them who may be affected. Proper planning, clear communication and ongoing support during the transition process can help to minimize disruptions and allow for future success.

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New York EM Residency Spotlight

Good Samaritan University Hospital

Demographics

Program Director: David Levy, DO

Program Coordinator: Dawn Sperling

Program Coordinator E-mail Address: dawn.sperling@chsli.org

Hospital Capabilities: STEMI, Stroke, Trauma

Total Number of EM Residents: 27

Residents Train Each Year: 9

Inagural Resident Class Year: 2005

Fellowship Offered: Pediatric EM, EM Ultrasound, Administration & Leadership, Observation Medicine

Benefits Offered: Membership Dues Coverage, Cellular Phone, Lab Coat(s), In-House On-Call Meals, Discounted Housing, Dental Insurance, Health Insurance, Vision Insurance, Life Insurance, Disability Insurance, Professional Liability Coverage

Other Benefits: Travel stipend, Free parking, PEERprep, Board review, Annual national conference attendance, CME $ ($900 PGY1 & 2) $1900 (PGY3)

Website Link: www.gsemresidency.com

Most Unique Program Feature: Good Samaritan University Hospital is an ACS Certified Level 1 Trauma Center and has the volume and acuity to reflect that designation. Uniquely, there are no other residencies at GSUH that compete with us for the care of our patients. Invasive procedures in the ED are all performed by our EM residents. This is different than many of the EM programs, which have to share procedures with residents from other specialties, such as surgery or anesthesia. By being an unopposed program, the Good Sam EM Residents become proficient and skilled in the ED procedures very early on in their training.

What is your favorite aspect of the program? My favorite aspect of the residency program is the comradery amongst the residents and attendings at Good Sam. We work in a very dynamic and busy environment, so the support we give and receive from each other is a valued part of our shared experiences in the ED. We spend a lot of time together both working professionally in the hospital and socially outside of the hospital. It is a treasure when you realize your experience at Good Sam is unique and that once you are part of the Good Sam family, you always will have so many people supporting you and being part of your life and career even after you graduate.

KAUSHAL SHAH, MD FACEP

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Wednesday, June 12, 2024
Scholarly Productivity for Clinical EM Faculty
Michael Gottlieb, MD RDMS FACEP

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Sophia Lin, MD
Director of Emergency Ultrasound
Assistant Professor of Clinical Emergency Medicine and Clinical Pediatrics
Weill Cornell Medicine

Adrian Aurrecoechea, MD MPH
Director of Social Emergency Medicine
Clinical Assistant Professor of Emergency Medicine
SUNY Downstate Health Sciences University and NYC Health + Hospitals/Kings County

An Introduction to Social Emergency Medicine

In September 2023, I had the privilege of speaking with Dr. Adrian Aurrecoechea about social emergency medicine. Dr. Aurrecoechea is the Director of Social Emergency Medicine at SUNY Downstate Health Sciences University and New York Health and Hospitals Kings County.

Portions of the interview have been edited and condensed for clarity.

Lin: Can you tell us more about how you define social emergency medicine (SEM) and what practicing SEM entails?

Aurrecoechea: While some physicians believe their "black cloud" or "white cloud" affects volume, I would argue that what actually brings someone to the ED on any given day are social determinants of health. Many ED visits are inevitable, but some are avoidable. Often patients present to the ED when they can't access another medical provider they need to access such as a specialist. They present to the ED when they don't understand when they need to go to the hospital versus when they should go to a primary care provider (PCP) for a chronic issue. They may also present when something in the environment triggers a health problem or causes an injury and they're forced to come to the ED because they don't know where else to go for care.

When we've evaluated a patient and discharged them on medications, they may not be compliant with medications because of cost and access. Or they may not understand the need for medications and the need for taking these medications as prescribed because of health literacy. They may not be able to adhere to a medication regimen because of a lack of stable housing or because they're having difficulty having their basic needs met and no amount of medication prescribing from the ED is going to fix this. As a result, all the work we've done with that patient in the ED may end up being futile. If we want patients to do what we've instructed is the right thing for their health, we have to consider what might be preventing them from doing the right thing.

Emergency physicians can address these social determinants of health through advocacy within the department and hospital and working with local governments to improve the health of communities. When we become involved in social determinants of health research or try to influence local and national policies that affect our patients, we can collectively influence the flow into our EDs and improve the health of our patients.

Lin: Why is SEM important and relevant to EM physicians?

Aurrecoechea: SEM is a school of thought in emergency medicine (EM). Every EM physician practices SEM to an extent and on a spectrum. Borrowing from ACEP's description, SEM is when an emergency provider "incorporates social context" into the practice of EM. With SEM, we think about the social context and incorporate what we're able to do for patients in the emergency department (ED). We work with local communities to affect the social factors that bring people to the ED.

Lin: How did you develop your niche and interest in SEM?

Aurrecoechea: Many medical students who choose EM, especially those who choose to train in a public safety net hospital in traditionally underserved communities, do so because it's a unique setting where society intersects with the medical system. An ED visit is one of the few moments when a person living within the context of their society and environment interacts with the medical system and becomes a patient in a hospital, often for the first time. For many patients, this is their only interaction with the medical system. This gives the emergency physician a good sense of what's going on in the community and how local laws and local factors affect a community. These things determine who needs the ED and I found this fascinating.

Our knowledge as EM specialists makes us well-suited to work towards the well-being of entire populations. This motivated me to advocate for marginalized communities and improve the context our patients live within. As a medical student going into EM, I became interested in public health from clinical shifts in the ED. I found that people are really affected by their social context. This is what drives who ends up coming to the ED, who goes to the primary care doctor and who sorts out their issues on their own at home. I sought a public health degree to acquire tools that would enable me to focus on identifying and treating social determinants of health through health programs, clinical guideline implementation and working with departmental and hospital administration. I wanted to influence policy writing, lobby for policy changes and research how to improve society at the community level. Through my interests in public health and population health, I was drawn to SEM because it fit well with what I wanted to do both inside and outside the ED.

Lin: Tell me more about where you practice EM and how you incorporate SEM principles into your clinical practice.

Aurrecoechea: I practice EM in East Flatbush, Brooklyn, New York at King's County Hospital and SUNY Downstate Medical Center. If we consider Brooklyn, New York as its own city, not as a borough of New York City, it would be the third most populous city in the US. In the ED, I serve a diverse, international population. There's variation in the social determinants of health affecting community members. In my patients, there's a wide mix of incomes, education levels, legal status in the US and languages spoken. There's also diversity in sexual orientation and gender identification. I serve a large Caribbean community. Some people are established in the US, some are here temporarily or visiting the US. Many of my patients speak Haitian Creole, many speak Spanish.

The community I serve is affected by local violence. We see a lot of trauma in the ED, mainly from gunshots and stabbings. This community is historically underserved. A lot of people are low-income, some receive government subsidies, some do not. A large portion of our patients are homeless. There's a wide spectrum of health literacy affecting what patients understand about their own health and medicine. We also see patients who struggle with substance misuse - alcohol, crack cocaine, cannabis, synthetic compounds. I practice in a very unique environment and for me, it's an opportunity to make an impact in patients' lives by addressing some of the social factors that influence why they come into the ED.

I really love the community I work in. The community and our patients are warm and welcoming. They often need help from us as medical providers and are very grateful for the care they receive.

Lin: In your practice, what are the most frequently encountered SEM issues and how are these issues addressed where you work?

Aurrecoechea: One is language barriers. Until recently, we were having challenges providing care to patients who speak Haitian Creole. Through advocacy, we addressed this in the greater hospital system where I work. We now have a live language interpreter for Haitian Creole. Previously, we were using language phones and found this was inadequate. Patients have found it easier to communicate with providers using a live language interpreter, as some things were lost in translation using the phone interpreter and there were sometimes technical difficulties. This is a step towards better language equity for our patients.

Another issue is drug and alcohol misuse. For patients with opiate misuse disorder interested in quitting, we partnered with our psychiatry colleagues and the Department of Mental Hygiene to create a protocol for starting patients on buprenorphine from the ED. Before, we referred patients to outpatient programs for initiating buprenorphine and stopping opiate use and would hope they made it to their appointment. We now have a workflow involving psychiatry seeing patients in the ED and getting them involved in a patient's care earlier. This smooths the transition to outpatient treatment and has really made a difference. We've started a lot of patients on buprenorphine. This transition from oral or snorted opiates to a buprenorphine regimen has changed the way these patients live on a day-to-day basis.

Another issue is food insecurity. We established a program in the summer of 2020 in collaboration with Food Bank for New York City to give food boxes to our patients in need. This program ran for several years and we gave a lot of food to our patients. This is more of a band-aid approach in that it was something we could do in the ED to provide our patients with food immediately but wasn't addressing the root causes of food insecurity. Moving forward, we can create something more sustainable through advocacy in our community and at the local and state government levels to create more food options and pantries in our community.

We also see a lot of incarcerated patients presenting in New York Police Department custody. With this population, we must be especially thoughtful about transitions of care and outpatient follow-up. At one of our hospitals, there's a clinic dedicated to patients who are post-incarceration. This is a fantastic resource for patients who have been incarcerated and gone through the penal system. These patients benefit from a better connection with the health system. A care manager aids patients as they navigate the health system and helps address social issues, health literacy and following up appropriately for specialty care.

Lin: For EM physicians interested in SEM but who have no background or training in this field, what are the first steps they can take to pursue this interest?

Aurrecoechea: There are easy initial steps an emergency physician who doesn't identify as a SEM physician can take in the ED to begin their SEM practice. These steps include making sure discharge instructions are easy to read and in the patient's preferred language, connecting patients needing services with a social worker or case manager and having one more conversation with patients before discharge to explain discharge instructions and ensure understanding with teach-back methods.

Outside of the ED, for EM residents, the first step would be to vocalize your interest to your program director and have them connect you with other attending physicians in your residency who are already doing advocacy work, working with the community or practicing SEM. SEM work can take many different forms - it can be research, advocacy at the community level or within the local, state and national governments. Residents can also involve themselves in the SEM sections of our national organizations - EMRA, ACEP, etc. These organizations also have sections dedicated to advocacy and health policy and can connect you with mentors. Residents can also become informed about the social determinants of health affecting their local community. A lot of communities have a community health needs assessment that has already been done through the hospital, health system or Department of Health. These are done so public health practitioners can understand a community's health needs and social determinants of health. These needs assessments are usually a mix of quantitative and qualitative research and inform others about the social challenges facing a community. Residents can start with these assessments and do more research with colleagues - further clarifying findings, designing and implementing hospital or ED programs addressing these community needs.

Attending physicians in an academic setting can take an approach similar to the approach residents can take. A unifying thread in all of this is collaboration with colleagues. More voices tend to result in better advocacy and increase credibility with the local community and local government. If you don't have access to a structured SEM program, often a good first step is to get out to meet the local community through participation in community events. This is especially useful if you don't live in the community you serve. These events can include health fairs and community festivals. At these events, you can also provide education about health issues and ED visits.

To summarize, a good first step in pursing an interest in SEM is discussing social determinants of health with colleagues. The second step is understanding patients' needs and community needs. Ultimately, implementing programming - doing something about these needs - is the third step and this can take many forms.

Lin: You have already touched on this in your earlier comments, but with what other organizations should an EM physician partner to develop social support programs? Who should an emergency physician reach out to?

Aurrecoechea: If affiliated with a medical school or EM residency, these organizations are natural partners. Collaborating with physicians from other specialties can also be effective. For example, if violence is bringing patients to the ED, then partnering with the trauma surgeons to brainstorm how to help the community avoid some of these visits and advocate for the community can be effective. Nearby schools of public health with resources and interested students/faculty would also be good partners for addressing social determinants of health in the community and ED. Other organizations include food banks and community

organization that provide clothing, shelter and legal support. A way to find these organizations is to search on the internet "community-based organizations" or non-profit organizations in one's local area. In some places, faith-based organizations are very prominent and effective. If this is true for your area, partnering with faith-based organizations doing charity work would also be useful.

Partnering with hospital or health system administration and local government is also effective. Working with these groups often requires research on the challenges affecting the local community. Evidence supporting what the problems are and potential solutions is needed. For example, if you pilot a program in the hospital and collect data showing efficacy, the next step would be to speak with hospital administration to make the program a permanent part of the hospital structure. Working with social work and case management within the hospital is useful when implementing programming and when trying to streamline transitions of care.

Also, there are community boards and leaders outside of local governments who meet to discuss the problems a community is facing and this is another group of people to reach out to. Sometimes these groups are led by religious leaders or local business leaders. Additionally businesses within the community may be interested in collaborating with emergency physicians and hospitals for community advocacy because this is good publicity for the business. I encourage physicians to be creative with available resources and to not automatically rule out any group or organization as potential collaborators. Consider collaborating if the partner organization is well-meaning and cares about the health and outcomes of a community.

Lin: Tell me more about SEM training for residents in your program.

Aurrecoechea: During intern orientation month, interns participate in a one-day session on advocacy and SEM. Interns learn about the basics of SEM, trauma-informed care and social/demographic-specific resources available to our patients at our hospitals. We also guide our new interns on a community leader-guided walk to learn about the neighborhoods where our patients live and work. We visit and interact with leaders from community-based organizations that provide social safety net support to people living in the communities we serve.

Residents in our residency participate in mini fellowships such as global health, ultrasound and SEM. SEM mini fellowship residents attend quarterly meetings led by residents or attendings to discuss social challenges affecting our local community and what we can do to address these challenges. We discuss relevant medical literature - ideally from EM literature - describing protocols and programs that have worked. Some residents also engage in SEM research to meet their residency research requirement. The projects I mentioned earlier - giving out food boxes, bringing in in-person language interpreters, establishing a buprenorphine program - were all resident-led. Resident-led projects are supported by a group of physicians who serve as mentors.

We also regularly have SEM didactics as part of our weekly EM conference. Junior residents are often responsible for these didactics and are mentored by SEM faculty or senior residents in the SEM mini fellowship. Additionally, through involvement in the resident union, Committee of Interns and Residents (CIR), our residents have advocated to hospital administration for things that have led to more resources for our patients. Through CIR, our residents connect with other residents including psychiatry, internal medicine and Ob/Gyn residents who care about the wellbeing of our community, addressing the social needs of our community, social medicine and population health. Our residents interested in SEM have also collaborated with medical students and like-minded residents and attendings from other specialties through the Diversity, Equity and Inclusion division within our medical school.

Lin: What are ways an EM physician can participate in SEM outside of their institution and outside of their local community?

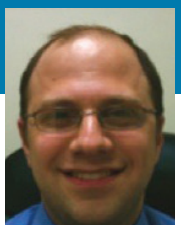
Aurrecoechea: One way to participate outside the institution is through community outreach and engagement. This involves partnering with community organizations and stakeholders to identify social determinants of health impacting patients and brainstorm how to address these challenges. Another way is to advocate for policy change with other EM physicians and health care providers from outside the institution. Advocacy in the form of writing can be op ed pieces, blog posts and writing members of Congress. Advocacy can also be done in person by travelling to local and state governments or to Washington, DC to speak with government leaders.

Working with colleagues from outside one's institution in conducting research to build SEM's evidence base is another way to participate in SEM. Educating colleagues outside of the institution about SEM's importance is something else you can do. Framing discussions as how addressing social determinants of health can prevent unnecessary ED visits is a more digestible way to introduce SEM concepts.

Participating in media outreach is a great way to being attention to challenges facing a community. Doing this can sometimes be difficult as often our employers don't want us to interact with the media without some coaching. But you can connect with hospital administration and hospital public relations or media relations for guidance in preparing to talk with the media about patient care. This guidance doesn't necessarily have to impede your message. Instead, by working with your hospital, you can send a unified message through the media that benefits patients and also shows the hospital in a positive light. Finally, another way to participate and advocate is through political involvement.

Lin: Do you have any final thoughts?

Aurrecoechea: I'm really excited and glad that we're talking about these issues. Hopefully, through this interview, we can influence and inspire people to practice SEM. There's a spectrum in the degree to which EM physicians practice SEM, but every EM physician practices SEM in one way or another. Some practice it a little and some practice it a lot. Ultimately, it's not possible to address the needs of your patients without thinking about their social stressors and social factors bringing them to the ED.



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Conducting Medical Research Involving Vulnerable Populations

Vulnerable populations are at risk of experiencing inequalities. They may be marginalized or excluded from general research protocols. The Belmont report states that research involving human subjects should minimize risks to participants and maximize benefits to participants and other members of society. We reflect on the complex nature of this vulnerability and discuss steps to protect prospective research participants. Protecting vulnerable and underrepresented members of general populations is essential to promote diverse participation. However, special regulations apply to their participation in research. Participation in research must reflect humanity's diversity so that every segment of society can benefit from research. We highlight the implications for practice and research designed to protect the rights of vulnerable people participating in research studies.

Who are the Vulnerable Populations?

These groups of people can be harmed, manipulated, coerced or deceived by researchers because of their perceived diminished competence, capacity, powerlessness or disadvantaged status. Federal regulations identify children, mentally or physically incapacitated persons, pregnant women and prison inmates as vulnerable populations. Mental illnesses have a variable impact on cognition and decision-making capacity. This implies that vulnerable groups may be unable to protect their rights. They are unable to provide informed consent and require surrogate decision-makers. Some people are more vulnerable than others. Several areas and degrees of vulnerability exist, and multiple vulnerabilities may co-exist. These individuals may have unique healthcare needs.

Researchers are responsible for making special efforts to ensure the rights of vulnerable populations are protected. Researchers try to balance risks, rewards and ethical principles when acting as gatekeepers for vulnerable populations who may be eligible for research studies. Policies and procedures should be developed that support vulnerable people during research.

Beneficence:

Researchers must maximize potential benefits and minimize potential harm to the research participants. This ensures the study design is scientifically sound and minimizes potential participant risks. This excludes potential participants who are inadvertently at greater risk of harm. It provides a risk-benefit ratio that promotes potential benefits for them, outweighing the risk of participation in any research project.

Equitable Participation:

Recruitment of participants should be equitable. The costs and benefits of the research must be distributed fairly. Research with benefits to participants and evidence that they are willing to participate should be documented if given the opportunity.

On the other hand, researchers must avoid taking advantage of vulnerable populations since, historically, several populations have borne the burden of participating in risky research. These processes should be clear, transparent and equitable. They should not limit their participation to protect these individuals from harm. They should achieve racial and gender balance that is compatible with the research project's objectives. Based on the principle of justice, any benefits derived from the research should be made available to research participants and the community.

Voluntariness and Informed Consent:

Respect for people is the foundation of voluntary participation in medical research. Autonomy is a person's ability to make decisions without inappropriate interference or obstruction. It affirms that autonomous individuals can deliberate and make and live by decisions based on their values regardless of the consequences. It requires ensuring the person's choices are respected whenever possible. However, not all people are capable of self-determination. For such situations, appropriate respect and protection is required. These protections may vary based on circumstances. Informed consent also requires having adequate information about the risks, benefits and alternatives needed to make an appropriate decision. Also, once enrolled, participants can withdraw from the project at any point without penalty. Individuals with impaired capacity should be periodically reassessed to see if they have regained the capacity to decide to continue to participate as a research subject.

Undue Influence and Coercion:

Reimbursement or payment to research subjects can easily pose serious ethical concerns when the payments exceed fair compensation and become an undue influence on disadvantaged people.

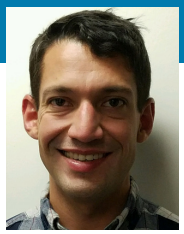
Community Consultation and Collaboration:

It is important to have a community dialogue and collaboration in recruiting participants from vulnerable populations. This may help decrease researcher mistrust and reduce perceived barriers to participation in medical research projects.

Conclusion:

In this review, we have suggested the importance of protecting vulnerable people. Research conducted according to ethical principles facilitates the recruitment and retention of individuals from vulnerable populations.

PEDIATRICS



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Bronchiolitist

With two hours to go on a busy evening shift, a new patient pops up on the board. The line on the EMR reads 9 mo M. CC: Breathing Problem VS: T 37.9 RR 38 HR 148 SpO2 95%. Everyone else is busy, so you decide to pick up the kiddo.

The parents tell you their child was born full term and had no complications at birth; his vaccines are up to date. Parents noticed that two days ago he started with rhinorrhea and nasal congestion and then one day ago began to cough. They feel like his cough has just been worsening and thought he was breathing hard tonight so elected to bring him in. On exam ou find a well-developed baby sitting upright in the parent's lap. He is interactive and curious. On lung exam you note bilateral wheezing and scattered crackles. As you finish your exam you start to come to a working diagnosis.

Bronchiolitis is a clinical diagnosis that, according to the American Academy of Pediatrics, is recognized as "a constellation of signs and symptoms occurring in children younger than two years, including a viral upper respiratory tract prodrome followed by increased respiratory effort and wheezing."[1]

We usually consider the diagnosis in young children presenting with acute respiratory infections who have both upper and lower respiratory tract involvement and present in the typical "RSV season". There is a broad differential to consider including bacterial and viral pneumonias, influenza, reactive airway disease and croup. Other less common conditions to consider include airway foreign bodies and congestive heart failure.

Differentiating bronchiolitis from reactive airway disease in the setting of a concomitant URI is probably the most challenging discrimination to make. Repeated prior episodes of wheezing, formal diagnosis of asthma, personal history of atopy, or a strong family history of asthma or atopy may make one more suspicious for reactive airway disease. Bacterial pneumonia classically presents with a more abrupt onset of high fever and lower respiratory tract signs and symptoms whereas in bronchiolitis fever is typically lower grace (< 38.3) and lower respiratory tract findings occur only after a URI prodrome. Influenza too typically has a higher grade fever and more systemic involvement; lower respiratory tract findings are uncommon however. Croup may also present with URI that progresses to increased respiratory effort and tachypnea. In the case of croup, however, respiratory distress is due to upper airway obstruction rather than lower. Differentiation can be made based on the presence of stridor and characteristic "brassy" cough in croup as opposed to wheezing in bronchiolitis.

An aspirated airway foreign body is a rare cause of wheezing. There may be a history of choking, but not always. Typically wheezing is focal. Onset is classically abrupt and fever is absent in acute aspiration. Pulmonary edema due to congestive heart failure may present as wheezing. A history of progressively poor feeding, diaphoresis with feeding, and poor weight gain may increase suspicion. On exam one may note hepatomegaly or heart murmur.

On further history the parents deny any family or personal history of atopy. They confirm that there has been no high-grade fever and confirm a progression of symptoms typical of bronchiolitis. Prior to the development of URI symptoms a few days ago he had been in his usual state of health with no concerns. The parents also report that at daycare several children have been ill with "a chest cold".

At this point you feel fairly confident with the diagnosis of bronchiolitis but wonder if you should perform additional testing.

Bronchiolitis is a clinical diagnosis and generally does not require ancillary studies to confirm the diagnosis or exclude complications in patients who are not critically ill. Children will commonly have abnormalities on chest x-ray including peribronchial cuffing, atelectasis, or hyperinflation, however their presence has not been shown to correlate with progression to severe disease. X-ray should probably be reserved for cases in which there are clinical features that support an alternative diagnosis.

Viral testing is commonly performed, though strong evidence to support its patient-level utility is lacking. Respiratory Syncytial Virus (RSV) is the most common causative etiology of bronchiolitis, accounting for about 75% of cases. A multitude of other viruses including rhinovirus, metapneumovirus, adenovirus, non-sabre coronaviruses and parainfluenza virus have been implicated as well. However, in most emergency department (ED) settings only RSV testing (sometimes in combination with influenza and SARS-CoV2) is readily available. A negative RSV test does not exclude bronchiolitis.

Some evidence does suggest that RSV, as compared to rhinovirus, has a typical course of illness and so confirmation of infection may allow for more accurate patient counseling. In addition, many inpatient services will "cohort" RSV positive patients as an infection control measure. Confirmation of RSV infection may reduce antibiotic use as well. For these reasons testing is commonly performed in the ED.

In some centers a respiratory virus panel that tests for a multitude of other viral pathogens may also be obtained. In general identification of a specific viral pathogen does little to alter management. In addition, prolonged viral shedding after resolution of an acute infection may result in a positive result that is unrelated to the acute presentation, thus complicating the diagnostic process. Additional discussion of the potential benefits and pitfalls of respiratory viral testing are beyond the scope of this discussion.

In general, additional studies such as blood count and serum chemistries are not helpful except in the setting of critical illness.

You decide to obtain an RSV test, which returns positive. You discuss with the parents that their child has classic RSV bronchiolitis and discuss the typical clinical course. The parents tell you that a friend's child was recently admitted to the hospital for bronchiolitis and wonder if that is necessary for their son.

The clinical severity of bronchiolitis is highly variable. In the vast majority of cases it is a relatively benign self-limited disease. However severe disease may occur and can be complicated by respiratory failure, apnea or dehydration. Disposition decisions should be made based upon the current clinical severity, anticipated clinical course, host factors that affect potential for decompensation, availability of follow-up and caregiver comfort and resources.

A variety of clinical scoring systems have been developed that assess severity of illness and risk of progression, however none has demonstrated definite superiority. When formulating a disposition plan the emergency clinician should consider four essential questions:

1) Is there hypoxia?

2) Is there significantly increased work of breathing or respiratory distress?

3) Is the patient able to maintain adequate oral intake?

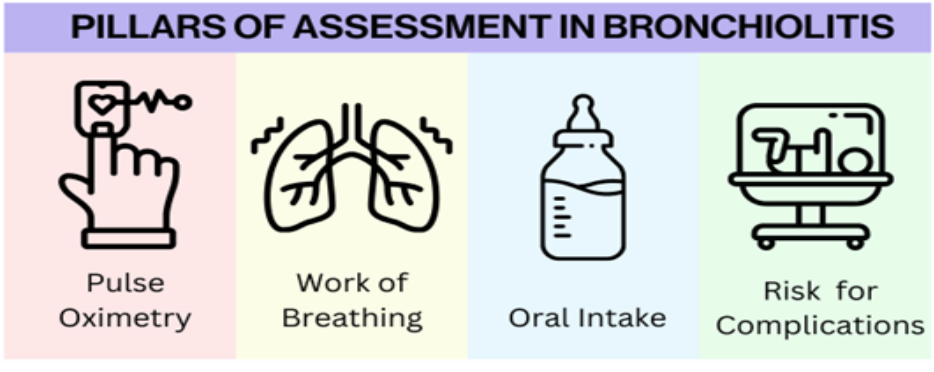
4) Is the patient at high risk for complications or rapid / severe progression of disease?

Inpatient management is generally indicated for children with hypoxia. The exact level at which admission is indicated is not clear. Many providers would be comfortable with outpatient management if the SpO2 > 95%, and would admit if SpO2 < 91. Between 90% and 95% there exists a degree of variability in practice. The AAP guidelines allow for managing those children with SpO2 >90 without supplemental oxygen as a treatment option; whether they should be routinely admitted for monitoring of the oxygen saturation is not clear. Some authors have suggested that infants with isolated hypoxia who are not in respiratory distress may be managed with home oxygen.

Work of breathing is a clinical assessment that requires a careful and attentive physical exam. A large body of literature has documented the inaccuracy of triage respiratory rate; it is imperative that the emergency clinician assess this themself. Some studies have identified tachypnea as a risk factor for progression to respiratory failure. Examination for accessory muscle use must be performed with the child undressed; it is impossible to assess for subtle subcostal or intercostal retractions while a onesie is on. Careful attention should be paid to detect tracheal tugging, grunting, nasal flaring and head bobbing; presence of these signs may portend progression toward respiratory failure.

A reasonably careful feeding history should be obtained: how much has the patient fed in the last 12 - 24 hours, how much would they usually have fed and what is the adequacy of urine output as measured by number and fullness of wet diapers. It is not unusual for children to feed less while ill. Older children who are taking solids may have decreased or ceased solid intake. This may be distressing to parents but is generally well tolerated so long as there is adequate fluid intake. In younger infants, fluid intake may fall off and parents may report providing smaller more frequent feedings. Again, this is generally sufficient. It may be reasonable to observe one or two feedings in the ED to get a better sense of the adequacy of oral intake. Those patients who manifest clinical signs of dehydration or are observed to be unable to tolerate sufficient feeds may require admission for IV or enteral hydration.

The most serious complications of bronchiolitis are respiratory failure and apnea. Several host factors have been described that may be associated with development of either complication. These include prematurity, young age, bronchopulmonary dysplasia, hemodynamically significant congenital heart disease, immunocompromised state. In general, a lower threshold should be had for admission in these special populations. Special attention must be paid to age. Full term children less than eight weeks life or preterm children less than 48 weeks post-conceptual age seem to be at increased



risk for apnea; many emergency clinicians will admit very young children for monitoring even in the absence of other indications.

When arriving at a disposition decision it is imperative to consider the current stage of illness; RSV bronchiolitis tends to follow a predictable clinical course with severity of respiratory symptoms peaking on day 3 - 5. Rhinovirus bronchiolitis seems to have a shorter duration. Wheezing may persist for over a week, and full resolution may take up to 21 - 28 days. Understanding of this clinical course is important for formulating a disposition plan. For example, a child who is borderline in terms of severity, but on day five of illness and can see their pediatrician in 12 hours may be a more suitable candidate for outpatient management than a child who presents with the same severity of disease on day three of illness leading into a three-day weekend.

A careful feeding history reveals the child has been taking smaller bottles, but is doing so more frequently. He feeds once in the ED taking about six oz of formula. The parents feel his urine output is at baseline. He has a pediatrician he can see in the morning and after a long discussion with parents you determine he can be managed as an outpatient. The parents tell you that another friend of theirs has a child with asthma who frequently wheezes and has to get breathing treatments. They wonder if they need to do the same thing since their child is breathing.

Asthma and bronchiolitis are characterized by decreased diameter of the small airways, airflow obstruction and wheezing, though the mechanisms are different. In asthma reversible constriction of the bronchiolar smooth muscle plays a predominant role. In bronchiolitis the decrease in bronchiolar cross-sectional area is due to edema from infection and collection of cellular debris caused by bronchiolar endothelial sloughing; smooth muscle constriction does not play a large role in the pathogenesis of airflow obstruction.

Studies examining the role of bronchodilators have failed to demonstrate benefits other than transient improvement in severity scores. The AAP strongly recommends against use of bronchodilators or steroids in bronchiolitis. It is important to remember these guidelines do not apply to children with recurrent episodes of wheezing, asthma, or pre-existing pulmonary pathology. An approach to children with a history of recurrent wheezing or a high suspicion for reactive airway disease may be individualized based on clinical circumstances and history.

The role of bronchodilators in steroids in recurrent episodes of bronchiolitis is less clear, as clinical signs and symptoms may overlap. It may be worthwhile to consider additional historical factors, such as family, history of asthma, atopy and occurrence of wheezing episodes outside the context of clinical bronchiolitis. If these factors are present, they may prompt a trial of bronchodilator therapy. The utility of steroids for viral associated wheezing is unclear.

One reasonable therapy to provide in the ED is nasal suctioning. Upper airway secretions can contribute to respiratory distress and lead to difficulty with feeding. A trial of nasal suctioning and observation for improvements in work of breathing and feeding may confer significant benefit, especially in younger patients. If successful, patients can be educated and provided with a bulb suction syringe. Additional nasal aspiration devices can also be obtained at a pharmacy.

Absent a high suspicion for secondary or concomitant bacterial infection, antibiotics are not indicated.

After discharging the patient and his family, the patient's nurse comes back to you to ask about what you would have had to do if the child had been more severely ill. "If there's nothing we can really do to treat these kids, what do you do when they're really sick?" he asks.

Hypoxemia in children with bronchiolitis can generally be managed with supplemental oxygen delivered by nasal cannula, blow-by or tent. In the case of severely increased work of breathing non-invasive ventilatory modalities may be beneficial. Continuous positive airway pressure, bilevel positive airway pressure and heated humidified high-flow nasal cannula have all been studied. While high-quality prospective evidence and definitive guideline recommendations are lacking, most emergency clinicians will attempt non-invasive ventilation for infants with bronchiolitis complicated by hypoxemia and respiratory distress who have adequate mental status and no complications. In general, high-flow is employed as first-line therapy given its ease of use and the fact it is generally well-tolerated.

While well-appearing children can be managed without significant use of ancillary studies, those who are critically ill probably warrant additional studies including blood count and serum chemistries. Blood gasses are commonly checked as well. It is reasonable to obtain a chest x-ray to evaluate for complications such as pneumothorax or evidence of bacterial pneumonia.

Your patient is discharged home and follows-up with the pediatrician the next day. When you call to follow up after a few days the parents report the child is doing well and is back to normal except for a mild cough. They thank you for your help and are happy to have had your care!

Wrap Up and Key Points

- Bronchiolitis is a clinical syndrome recognized by signs and symptoms of lower respiratory tract involvement that develops after a characteristic prodrome of upper respiratory symptoms in a child less than two years of age.
- In a typical presentation the diagnosis can be made clinically without routinely obtaining ancillary studies.
- The differential is broad and care should be made to ensure there is not another cause of the patient's presentation that would demand specific therapy.
- Care is primarily supportive. There are no disease-specific treatments. Therapies aimed at reducing airflow obstruction are generally not indicated.
- Careful attention should be paid to assess for complications including hypoxemia, respiratory insufficiency / failure and dehydration.
- Assessment for host factors that may increase risk of progression to more severe disease should be made.
- Disposition decisions should take into account the clinical stage of illness and anticipated clinical course.
- A trial of non-invasive ventilatory therapy is reasonable for many patients with respiratory insufficiency or failure.

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1.Ralston, Shawn L., et al. "Clinical practice guideline: the diagnosis, management, and prevention of bronchiolitis." Pediatrics 134.5 (2014): e1474-e1502.

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UBMD Emergency Medicine

New York
AMERICAN COLLEGE OF
EMERGENCY PHYSICIANS

New York ACEP hosted the annual Resident Research Conference on November 1st at Columbia University Irving Medical Center. The theme of this year's conference was "Emergency Medicine of the Virtual World"

Didactic presentations were led by:

- Down Boatright, MD MBA MHS, NYU Langone Health
- Tsion Firew, MD MPH FACEP, Columbia University Medical Center
- Benjamin W. Friedman, MD FACEP, Montefiore Medical Center
- Lynn Jiang, MD NewYork-Presbyterian Hospital / Weill Cornell Medical Center
- Darval Mirsch, DO FACEP, University at Buffalo

Five original resident-driven research submissions were chosen to present at this year's Research Conference through a blind-review process to provide a seven minute lightning round presentation.

Eli Rogers, MD was selected as the winner of the lightning round presentations with their presentation on *"Prehospital Approach Triage Reduces Time to Stroke Imaging"*

New York EM Residency Spotlight

University of Buffalo

Demographics

Program Director: Christian Defazio, MD
Program Coordinator: Dee McCarthy
Program Coordinator E-mail Address: dmccarthy@buffalo.edu
Hospital Capabilities: STEMI, Stroke, Trauma
Total Number of EM Residents: 48
Residents Train Each Year: 16
Inagural Resident Class Year: 1994
Fellowship Benefits Offered: EMS, Ultrasound, Sports Medicine, Pediatrics
Other Benefits: ROSH Review, Membership Dues Coverage, Lab Coat(s), Dental Insurance, Health Insurance, Life Insurance, Disability Insurance, Professional Liability Coverage
Website Link: https://medicine.buffalo.edu/departments/emergency/education/residency.html
twitter Link: @Maimonides_EM
Instagram Link: @ubemergencymed

What is the most unique feature of your program? The most unique feature of our program is our scholarly tracks. Each resident will choose between Ultrasound, EMS, Sports Med, Academic, Administrative, Pediatrics, Public Health and Telemedicine. During their three years, they will work closely with faculty and residents in this track. They will participate in everything from conferences, research, teaching and service in this field. Many residents use this as a way to prepare for fellowship while others use it as a competitive edge when applying for jobs.

What makes your program an excellent place to complete a residency? We rotate through six different emergency departments, which provide exposure to patients with a broad array of pathologies and socioeconomic statuses. These hospitals include a Level 1 trauma center, a comprehensive tertiary care center that acts as both a stroke and a STEMI center, a comprehensive children's hospital, a Veterans Affairs medical center, a busy community hospital, and a small rural emergency department. Being in different emergency departments adds an extra layer to residency training that allows residents to be ready for any job opportunity.

Elyse Lavine, MD FACEP
Interim Medical Director
Director of ED Trauma Services
Department of Emergency Medicine
Mount Sinai Morningside

New York Councillor: A Recap from the 2023 Council Meeting

I am just returning from a thrilling and eventful trip to the American College of Emergency Physicians Scientific Assembly. I have attended this meeting several times over the years, but my main purpose this year was to attend as a councillor. I applied this summer to be a councillor for New York ACEP, wanting to expand my knowledge base and challenge myself in a new arena. While frankly, I wasn't quite sure the details of that role and responsibility. I came out of the weekend having a deeper understanding of the College's electoral process and the issues or resolutions that emergency physicians want addressed by the College and its representatives.

What is the Council?

The Council is a body composed of emergency physicians who directly represent the 53 chartered chapters of the American College of Emergency Physicians, the Emergency Medicine Residents' Association (EMRA), the Association of Academic Chairs in Emergency Medicine (AACEM), the American College of Osteopathic Emergency Physicians (ACOEP), the Council of Emergency Medicine Residency Directors (CORD), the Society for Academic Emergency Medicine (SAEM) and the College's sections of membership. The Council meets annually, just prior to the ACEP annual meeting. The number of councillors who represent a chapter in a given year is determined by the number of ACEP members in that.

What Does the Council Do?

One aspect of being a councillor is the role of electing the Board of Directors, Council officers and the president-elect of the College. The Council shares responsibility with the Board of Directors for initiating policy and councillors shape the strategic plan of the College by providing comments on behalf of the constituencies they represent. The Council also provides a participatory environment where policies already established or under consideration by the Board of Directors can be debated.

What is a Resolution?

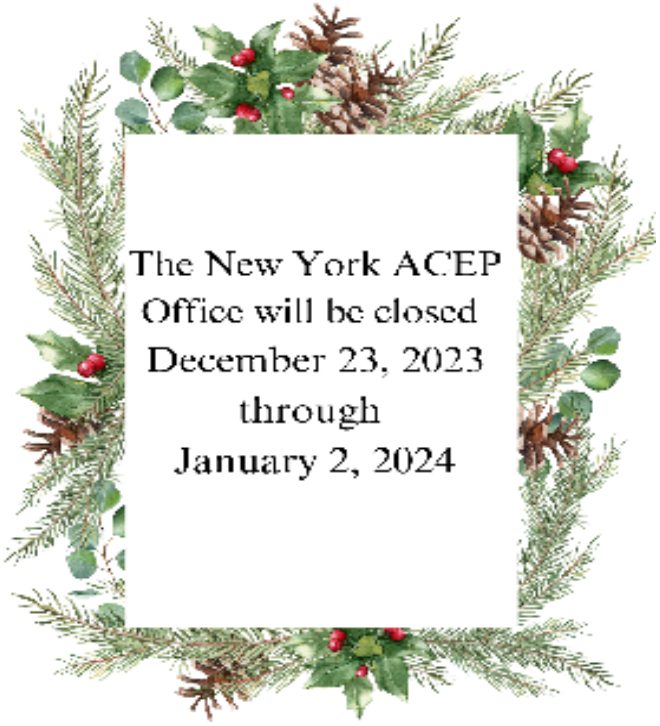
New policies and changes to existing policy are recommended to the Council in the form of resolutions. Resolutions usually pertain to issues affecting the practice of emergency medicine, advocacy and regulatory issues, Bylaws amendments, Council Standing Rules amendments and College Manual amendments. "Resolutions" are considered formal motions that if adopted will become official Council policy and will apply not only to the present meeting but also to future business of the Council. Resolutions must be submitted in writing by at least two members on or before 90-days prior to the annual Council meeting. This is your chance as an ACEP member to introduce a new idea or issue you believe the College should address or take a stance on. This year, New York ACEP introduced four resolutions to the Council and three were adopted.

What happens to a Resolution?

Each resolution is submitted and reviewed prior to the meeting by the councillors. During the Council weekend, there are Reference Committee hearings to gather information from all interested councillors and other College members. The duty of a Reference Committee is to hold hearings, deliberate on various resolutions and proposals and recommend a particular course of action on each to the Council. It may not be possible for each councillor to be fully informed or to have an opinion on every resolution. Therefore, the Reference Committee is designated to investigate and deliberate on the issues and then recommend a specific course of action for the Council on each resolution.

Highlights from the 2023 Council:

There were 62 total resolutions submitted to the Council this year with many adopted, some not adopted and a few referred to the Board for further review. The passion and fervor by those speaking out for or against each resolution was palpable with a diverse group of individuals with vast knowledge and perspective on topics. Resolutions not adopted by the Council for example included a "decriminalization of all illicit drugs" and "Compassionate Access to Medical Cannabis Act – "Ryan's Law."" Resolutions with significant debate included hot topics on gun control, on site physician staffing in emergency departments, and funding for EMS. Overall, the weekend was eye opening and thought-provoking with a real opportunity to not only hear about what emergency physicians find important around the country, but create a direction for the College and its future.

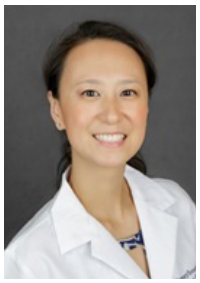


A New York State Emergency Medicine Unsung Hero goes beyond simply being the embodiment of what it means to be an emergency physician. They are a stalwart of the emergency department, who is deeply committed to the mission of the emergency department, their colleagues, co-worker and patients. The unsung 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.


Dileep Aiyagari, MD


Erik Blutinger, MD MSc FACEP

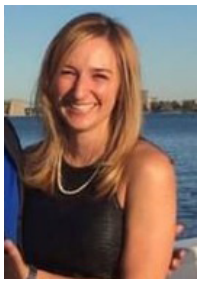

Gregory Collins, DO MPH


Di Coneybeare, MD MHPE FPD-AEMUS


Lee Cormier, MD


Michael Cunningham, DO


Celeenamma Daniel, MD


Brittney Di Bella, DO


Jordan Doyle, MD


Julie Endrizzi, MD


Risa Farber-Heath, DO FACEP


Barry Hahn, MD FACEP


Rajnish Jaiswal, MD


David Janicke, MD PhD FACEP

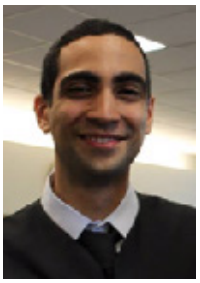

David Javier, MD FACEP


Derek Kennedy, MD

2023 New York State Emergency Medicine Unsung Heroes

Thank You

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-worker 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.



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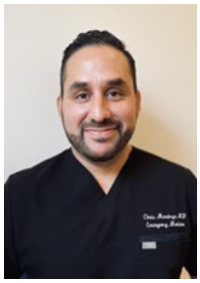
Lisa Lincoln, MD



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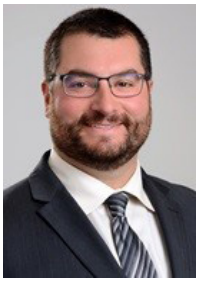
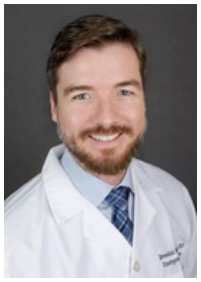
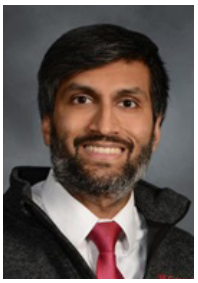
Shivani Mody, DO MSEd



Brian Monaco, MD



Brendan Norwood, MD



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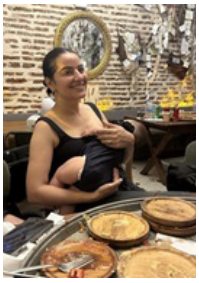

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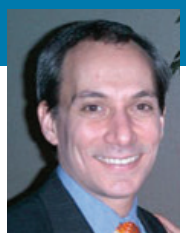

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Residency Program Director
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Elder Mistreatment: Emergency Department Recognition and Management.

Gottesman E, Elman A, Rosen T; Department of Emergency Medicine, Weill Cornell Medical College/NewYork-Presbyterian Hospital, New York; Clin Geriatr Med; 2023 Nov;39(4):553-573.

Elder mistreatment is experienced by 5% to 15% of community-dwelling older adults each year. An emergency department (ED) encounter offers an important opportunity to identify elder mistreatment and initiate intervention. Strategies to improve detection of elder mistreatment include identifying high-risk patients; recognizing suggestive findings from the history, physical examination, imaging, and laboratory tests; and/or using screening tools. ED management of elder mistreatment includes addressing acute issues, maximizing the patient's safety, and reporting to the authorities when appropriate.

Expanding Diabetes Screening to Identify Undiagnosed Cases Among Emergency Department Patients.

Lee DC, Reddy H, Koziatek CA, Klein N, Chitnis A, Creary K, Francois G, Akindutire O, Femia R, Caldwell R; Ronald O. Perelman Department of Emergency Medicine, New York; West J Emerg Med; 2023 Sep;24(5):962-966.

INTRODUCTION: Diabetes screening traditionally occurs in primary care settings, but many who are at high risk face barriers to accessing care and therefore delays in diagnosis and treatment. These same high-risk patients do frequently visit emergency departments (ED) and, therefore, might benefit from screening at that time. Our objective in this study was to analyze one year of results from a multisite, ED-based diabetes screening program.

METHODS: We assessed the demographics of patients screened, identified differences in rates of newly diagnosed diabetes by clinical site, and the geographic distribution of high and low hemoglobin A1c (HbA1c) results.

RESULTS: We performed diabetes screening (HbA1c) among 4,211 ED patients 40-70 years old, with a body mass index ≥25, and no prior history of diabetes. Of these patients screened for diabetes, 9% had a HbA1c result consistent with undiagnosed diabetes, and nearly half of these patients had a HbA1c ≥9.0%. Rates of newly diagnosed diabetes were notably higher at EDs located in neighborhoods of lower socioeconomic status.

CONCLUSION: Emergency department-based diabetes screening may be a practical and scalable solution to screen high-risk patients and reduce health disparities experienced in specific neighborhoods and demographic groups.

Treatment of Factor-Xa Inhibitor-Associated Bleeding With Andexanet Alfa or 4 Factor PCC: A Multicenter Feasibility Retrospective Study.

Singer AJ, Concha M, Williams J, Brown CS, Fernandes R, Thode HC Jr, Kirchman M, Rabinstein AA; Department of Emergency Medicine, Stony Brook; J Emerg Med; 2023 Sep;24(5):939-949.

BACKGROUND: There are no randomized trials comparing andexanet alfa and 4 factor prothrombin complex concentrate (4F-PCC) for the treatment of factor Xa inhibitor (FXa-I)-associated bleeds, and observational studies lack important patient characteristics. We pursued this study to demonstrate the feasibility of acquiring relevant patient characteristics from electronic health records. Secondarily, we explored outcomes in patients with life-threatening FXa-I associated bleeds after adjusting for these variables.

METHODS: We conducted a multicenter, chart review of 100 consecutive adult patients with FXa-I associated intracerebral hemorrhage (50) or gastrointestinal bleeding (50) treated with andexanet alfa or 4F-PCC. We collected demographic, clinical, laboratory, and imaging data including time from last factor FXa-I dose and bleed onset.

RESULTS: Mean (SD) age was 75 (12) years; 34% were female. Estimated time from last FXa-I dose to bleed onset was present in most cases (76%), and patients treated with andexanet alfa and 4F-PCC were similar in baseline characteristics. Hemostatic efficacy was excellent/good in 88% and 76% of patients treated with andexanet alfa and 4F-PCC, respectively (P=0.29). Rates of thrombotic events within 90 days were 14% and 16% in andexanet alfa and 4F-PCC patients, respectively (P=0.80). Survival to hospital discharge was 92% and 76% in andexanet alfa and 4F-PCC patients, respectively (P=0.25). Inclusion of an exploratory propensity score and treatment in a logistic regression model resulted in an odds ratio in favor of andexanet alfa of 2.01 (95% confidence interval 0.67-6.06) for excellent/good hemostatic efficacy, although the difference was not statistically significant.

CONCLUSION: Important patient characteristics are often documented supporting the feasibility of a large observational study comparing real-life outcomes in patients with FXa-I-associated bleeds treated with andexanet alfa or 4F-PCC. The small sample size in the current study precluded definitive conclusions regarding the safety and efficacy of andexanet alfa or 4F-PCC in FXa-I-associated bleeds.

Social Determinants of Health in EMS Records: A Mixed-Methods Analysis Using Natural Language Processing and Qualitative Content Analysis.

Burnett SJ, Stemerman R, Innes JC, Kaisler MC, Crowe RP, Clemency BM; The State University of New York, Department of Emergency Medicine, Buffalo; West J Emerg Med; 2023 Sep;24(5):878-887.

INTRODUCTION: Social determinants of health (SDoH) are known to impact the health and well-being of patients. However, information regarding them is not always collected in healthcare interactions, and healthcare professionals are not always well-trained or equipped to address them. Emergency medical services (EMS) professionals are uniquely positioned to observe and attend to SDoH because of their presence in patients' environments; however, the transmission of that information may be lost during transitions of care. Documentation of SDoH in EMS records may be helpful in identifying and addressing patients' insecurities and improving their health outcomes. Our objective in this study was to determine the presence of SDoH information in adult EMS records and understand how such information is referenced, appraised, and linked to other determinants by EMS personnel.

METHODS: Using EMS records for adult patients in the 2019 ESO Data Collaborative public-use research dataset using a natural language processing (NLP) algorithm, we

identified free-text narratives containing documentation of at least one SDoH from categories associated with food, housing, employment, insurance, financial, and social support insecurities. From the NLP corpus, we randomly selected 100 records from each of the SDoH categories for qualitative content analysis using grounded theory.

RESULTS: Of the 5,665,229 records analyzed by the NLP algorithm, 175,378 (3.1%) were identified as containing at least one reference to SDoH. References to those SDoH were centered around the social topics of accessibility, mental health, physical health, and substance use. There were infrequent explicit references to other SDoH in the EMS records, but some relationships between categories could be inferred from contexts. Appraisals of patients' employment, food, and housing insecurities were mostly negative. Narratives including social support and financial insecurities were less negatively appraised, while those regarding insurance insecurities were mostly neutral and related to EMS operations and procedures.

CONCLUSION: The social determinants of health are infrequently documented in EMS records. When they are included, they are infrequently explicitly linked to other SDoH categories and are often negatively appraised by EMS professionals. Given their unique position to observe and share patients' SDoH information, EMS professionals should be trained to understand, document, and address SDoH in their practice.

Application of a Low-cost, High-Fidelity Proximal Phalangeal Dislocation Reduction Model for Clinician Training.

Lord S, Geary S, Lord G; Albany Medical Center, Department of Emergency Medicine, Albany; West J Emerg Med; 2023 Sep;24(5):839-846.

INTRODUCTION: Patients present to the emergency department (ED) relatively commonly with traumatic closed proximal interphalangeal joint (PIPJ) dislocations, an orthopedic emergency. There is a paucity of teaching models and training simulations for clinicians to learn either the closed dislocated dorsal or volar interphalangeal joint reduction technique. We implemented a teaching model to demonstrate the utility of a novel reduction model designed from three-dimensional (3D) printable components that are easy to connect and do not require further machining or resin models to complete.

METHODS: Students watched a two-minute video and a model demonstration by the authors. Learners including emergency medicine (EM) residents and physician assistant fellows assessed model fidelity, convenience, perceived competency, and observed competency.

RESULTS: Seventeen of 21 (81%) participants agreed the model mimicked dorsal and volar PIPJ dislocations. Nineteen of 21 (90%) agreed the model was easy to use, 21/21 (100%) agreed the dorsal PIPJ model and 20/21 (95%) agreed the volar PIPJ model improved their competency.

CONCLUSION: Our 3D-printed, dorsal and volar dislocation reduction model is easy to use and affordable, and it improved perceived competency among EM learners at an academic ED.

Association of Racial Residential Segregation With Long-Term Outcomes and Readmissions After Out-of-Hospital Cardiac Arrest Among Medicare Beneficiaries.

Abbott EE, Buckler DG, Hsu JY, Abella BS, Richardson LD, Carr BG, Zebrowski AM; Department of Emergency Medicine, Icahn School of Medicine at Mount Sinai New York; J Am Heart Assoc; 2023 Oct 3;12(19):e030138.

BACKGROUND: The national impact of racial residential segregation on out-of-hospital cardiac arrest outcomes after initial resuscitation remains poorly understood. We sought to characterize the association between measures of racial and economic residential segregation at the ZIP code level and long-term survival and readmissions after out-of-hospital cardiac arrest among Medicare beneficiaries.

METHODS AND RESULTS: In this retrospective cohort study, using Medicare claims data, our primary predictor was the index of concentration at the extremes, a measure of racial and economic segregation. The primary outcomes were death up to 3 years and readmissions. We estimated hazard ratios (HRs) across all 3 types of index of concentration at the extremes measures for each outcome while adjusting for beneficiary demographics, treating hospital characteristics, and index hospital procedures. In fully adjusted models for long-term survival, we found a decreased hazard of death and risk of readmission for beneficiaries residing in the more segregated White communities and higher-income ZIP codes compared with the more segregated Black communities and lower-income ZIP codes across all 3 indices of concentration at the extremes measures (race: HR, 0.87 [95% CI, 0.81-0.93]; income: HR, 0.75 [95% CI, 0.69-0.78]; and race+income: HR, 0.77 [95% CI, 0.72-0.82]).

CONCLUSION: We found a decreased hazard of death and risk for readmission for those residing in the more segregated White communities and higher-income ZIP codes compared with the more segregated Black communities and lower-income ZIP codes when using validated measures of racial and economic segregation. Although causal pathways and mechanisms remain unclear, disparities in outcomes after out-of-hospital cardiac arrest are associated with the structural components of race and wealth and persist up to 3 years after discharge.

Blueprint for the Development of Resuscitation and Emergency Critical Care Fellowships.

Bracey A, Tichauer MB, Wu GP, Barnicle RN, Lu CJ, Tanzi MV, Pellet AC, Pauzé DR, Weingart SD, Duncan LJ, Wright BJ; Department of Emergency Medicine Albany Medical Center Hospital, Albany; AEM Educ Train; 2023 Sep 15;7(5):e10905.

The volume of critically ill patients presenting to the emergency department (ED) is increasing rapidly. Continued growth will likely further stress an already strained U.S. health care system. Numerous studies have demonstrated an association with worsened outcomes for critically ill patients boarding in the ED. To address the increasing volume and complexity of critically ill patients presenting to EDs nationwide, resuscitation and emergency critical care (RECC) fellowships were developed. RECC programs teach a general approach to the management of the undifferentiated critically ill patient, advanced management of critically ill patients by disease presentation, and ongoing supportive care of the critically ill patient boarding in the ED. The result is critical care training beyond that of a typical emergency medicine (EM) residency with a focus on the unique features and challenges of caring for critically ill patients in the ED not normally found in critical care fellowships. Graduates from RECC fellowships are well suited to practicing in any ED practice model and may be especially well prepared for EDs that distinguish acuity between zones (e.g., re-

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suscitative care units, ED-based intensive care units). In addition to further developing clinical acumen, RECC fellowships provide graduates with a niche in EM education, research, and administration. In this article, we describe the philosophical principles and practical components necessary for the creation of future RECC fellowships.

Urine Toxicology Profiles of Emergency Department Patients With Untreated Opioid Use Disorder: A Multi-Site View.

Cowan E, Perrone J, Dziura J, Edelman EJ, Hawk K, Herring A, McCormack R, Murphy A, Phadke M, Fiellin DA, D'Onofrio G; Department of Emergency Medicine, Icahn School of Medicine at Mount Sinai, New York; J Emerg Med; 2023 Oct;65(4):e357-e365.

BACKGROUND: Opioid overdose deaths in 2021 were the highest ever, driven by fentanyl and polysubstance use.

OBJECTIVE: The aim of the study was to characterize drug use, assessed by urine drug screens (UDSs), in patients with untreated opioid use disorder (OUD) presenting to 28 emergency departments (EDs) nationally and by region.

METHODS: We analyzed UDSs from patients enrolled in the CTN-0099 ED-INNOVATION (Emergency Department-Initiated Buprenorphine Validation) trial between July 12, 2020 and March 9, 2022. Participants were adult ED patients with OUD not engaged in addiction treatment with a UDS positive for an opioid, but negative for methadone. Sites were divided into "East" and "West" regions.

RESULTS: A UDS was available for all 925 enrolled participants, 543 from East and 382 from West. Fentanyl was in 702 specimens (76%) (n = 485 [89%] East vs. n = 217 [57%] West; $p < 0.01$) and was the only opioid in 269 (29%). After fentanyl, the most common opioids were morphine (presumably heroin; n = 411 [44%]; n = 192 [35%] East vs. n = 219 [57%] West; $p < 0.01$) and buprenorphine (n = 329 [36%]; n = 186 [35%] East vs. n = 143 [37%] West; $p = 0.32$). The most common drugs found with opioids were stimulants (n = 545 [59%]), tetrahydrocannabinol (n = 417 [45%]), and benzodiazepines (n = 151 [16%]). Amphetamine-type stimulants were more common in West (n = 209 [55%] vs. East (n = 125 [23%]). Cocaine was more common in East (n = 223 [41%]) vs. West (n = 82 [21%]). The presence of multiple drugs was common (n = 759 [82%]).

CONCLUSION: Most participants had UDS specimens containing multiple substances; a high proportion had fentanyl, stimulants, and buprenorphine. Regional differences were noted. Given the increased risk of death with fentanyl and polysubstance use, ED providers should be providing risk reduction counseling, treatment, and referral.

The Critical Role of the Specialized Social Worker as Part of ED/Hospital-Based Elder Mistreatment Response Teams.

Elman A, Cox S, Gottesman E, Herman S, Kirshner A, Tietz S, Shaw A, Hancock D, Chang ES, Baek D, Bloemen E, Clark S, Rosen T; Department of Emergency Medicine, Weill Cornell Medical College/ NewYork-Presbyterian Hospital, New York; J Elder Abuse Negl; 2023 Sep 10:1-11

The emergency department and hospital provide a unique and important opportunity to identify elder mistreatment and offer intervention. To help manage these complex cases, multi-disciplinary response teams have been launched. In developing these teams, it quickly became clear that social workers play a critical role in responding to elder mistreatment. Their unique skillset allows them to establish close connections with community resources, collaborate with various hospital stakeholders, support patients/families/caregivers through challenging situations, navigate the legal and protective systems, and balance patient safety and quality of life in disposition decision-making. The role of the social worker on these multi-faceted teams includes conducting a comprehensive biopsychosocial assessment, helping to develop a safe discharge plan, and making appropriate referrals, among other responsibilities. Any institution considering developing a multi-disciplinary program should recognize the critical importance of social work.

Reducing Low-Value ED Coags Across 11 Hospitals in a Safety Net Setting.

Walker TR, Bochner RE, Alaiev D, Talledo J, Tsega S, Krouss M, Cho HJ; NYC Health + Hospitals/Lincoln, Department of Emergency Medicine, Bronx; Am J Emerg Med; 2023 Aug 9;73:88-94.

BACKGROUND: Prothrombin/international normalized ratio and activated partial thromboplastin time (PT/INR and aPTT) are frequently ordered in emergency departments (EDs), but rarely affect management. They offer limited utility outside of select indications. Several quality improvement initiatives have shown reduction in ED use of PT/INR and aPTT using multifaceted interventions in well-resourced settings. Successful reduction of these low-value tests has not yet been shown using a single intervention across a large hospital system in a safety net setting. This study aims to determine if an intervention of two BPAs is associated with a reduction in PT/INR and aPTT usage across a large safety net system.

METHODS: This initiative was set at a large safety net system in the United States with 11 acute care hospitals. Two Best Practice Advisories (BPAs) discouraging inappropriate PT/INR and aPTT use were implemented from March 16, 2022-August 30, 2022. Order rate per 100 ED patients during the pre-intervention period was compared to the post-intervention period on both the system and individual hospital level. Complete blood count (CBC) testing served as a control, and packed red blood cell transfusions served as a balancing measure. An interrupted time series regression analysis was performed to capture immediate and temporal changes in ordering for all tests in the pre and post-intervention periods.

RESULTS: PT/INR tests exhibited an absolute decline of 4.11 tests per 100 ED encounters (95% confidence interval -5.17 to -3.05; relative reduction of 18.9%). aPTT tests exhibited absolute decline of 4.03 tests per 100 ED encounters (95% CI -5.10 to -2.97; relative reduction of 19.8%). The control measure, CBC, did not significantly change (-0.43, 95% CI -2.83 to 1.96). Individual hospitals showed variable response, with absolute reductions from 2.02 to 9.6 tests per 100 ED encounters for PT/INR (relative reduction 12.1%-30.5%) and 2.07 to 10.04 for aPTT (relative reduction 12.1%-31.4%). Regression analysis showed that the intervention caused an immediate 25.7% decline in PT/INR and 24.7% decline in aPTT tests compared to the control measure. The slope differences (rate of order increase pre vs post intervention) did not significantly decline compared to the control.

CONCLUSION: This BPA intervention reduced PT/INR and aPTT use across 11 EDs in a large, urban, safety net system. Further study is needed in implementation to other non-safety net settings.

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I don't *understand*
The combined reflection of those left behind to reflect.

I stood in the hallway outside the emergency department entrance, **carefully** as though the slightest breeze from a passerby may carry me away.

"Are you at work? Don't go into to work today, we are sending all the residents home. Brad died." "Are you ok?" My chief's words rang like jet engines in my ears, drowning out monitors, patients, nurses. In my stupor, I was embraced by my attending, who then began to cry in my arms. I looked around, confronted by pitiful stares and well-meaning half smiles as the unreality of those words continued to take root – 'Brad died'. I sat there numbly with my friends, at the workstation of our community campus, trying to process this new reality that my mind has just learned although my heart is unwilling to follow suit. My mind feels like it's caught in a tornado, my heart feels shattered and I can't seem to regulate my emotional incontinence. My mind seemed to search for questions to ask in an effort to control the tears, but there were no answers to be had; in retrospect, I realized that there aren't any that would have offered comfort. The team at our community campus was preparing for sign out, when word came there was a resident brought in by EMS and being resuscitated. They watched remotely, as the track board for "Unidentified Patient" changed silently from 'in progress' to 'expired'. Despite my newfound knowledge, I still didn't *understand*.

We gathered that day, and for several other days, all of us huddled together sad, angry and disoriented. We embraced each other repeatedly through bloodshot, tearful eyes. We debriefed on what had happened, what we knew, and reflected desperately on what we sought to discover, ignorantly hoping it could bring comfort. We told stories of Brad, of his beautiful daughters and his pregnant wife, making promises to each other only we could keep.

I told a story of my first encounter with Brad as a third-year medical student. It was my first time working with him and I was a nervous, though at the same time feeling blissfully inexperienced, overconfident and hopeful I could prove myself to be a worthy co-resident. He offered me a facial laceration, which I gladly accepted. **As befitting as it could be for such an overeager MS-III,** I promptly dropped the needle right into the mouth of the patient. My internal monologue of self-deprecating insults and belittlement was quite the contrary to Brad's outward guidance, support and redirection. Had I been left alone without his support, I know the procedure wouldn't have gone as well as it did. I will never forget that kindness and leadership, having learned so much in a small moment. Now, I reflect on that moment with each opportunity that I have to be in the teacher role.

We shared more stories, but as we did, I found myself more confused, as angry as ever. I STILL Don't *Understand*. These words spun endlessly around my head, trying to rationalize the day's events. How did this happen to him? A husband, a father of two, soon to be three. Recently graduated, embarking on fellowship. Academically and clinically gifted, the best of us. A friend, a mentor, a teacher, intent on passing down skills and knowledge in a way he only could. This is only supposed to happen in a story of someone else, to them, the public, the people in the waiting room. Not us, we save them. It seemed an unwritten rule which I felt convinced was unbreakable. We are made to believe the promise that all the hard work, sacrifice, and sleepless nights will one day be for a purpose. I can't seem to *understand* how or why it could be that Brad will never get to see his purpose and I just can't get my head around the loss of this purpose.

We have all spent so much time reflecting on the events of the last few months. It seems to have pushed us even closer together, galvanizing the relationships between us all. Some of us residents who went to school here feel a bond with Brad just by knowing we attended the same medical school. Some of the attendings that pre-date Brad's start of medical school feels the same. Born and raised in the same family, albeit maybe a different generation, but bonded by blood nonetheless. We feel the same spirit, share the same love but that also means we share the same sorrows.

I believe that each person is hallowed to this world to serve a purpose, where we are expected to contribute more than we are permitted to receive in return. This is quite the ask on each of us. Those diligent enough to fulfill this expectation can leave this world in peace, knowing they left a positive mark at curtain call. We hope to use our 81.4 years of life to get this job done but even so, it may not be enough time. Our brother Brad completed this task in a mere 34 years. He left a mark on every person he met – his colleagues, his patients, his community and most of all, his perfect family.

Brad's love and passion was so pure and with such depth, that his mark was surely made and his worldly expectation fulfilled. He is now peacefully at rest as we remain here, hoping to follow in the best parts of what he left behind.

We are not ok without him here but we are better *together*. I don't think we will ever truly *understand*, but we're trying, and we will do that *together* too.