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Thank you
I would first like to start in the same vein as Dr. Cushman’s last message. Echoing his thanks for everything that you have done during this extraordinary time. A call for help from our patients and communities went out. In response, emergency medicine was first on the front-line providing care for our patients, families and even our colleagues. It was also extraordinary to see all the other assistance that came from other services throughout the hospital. In many ways, this is how health care should be.

Our profession can be very challenging. New York ACEP has done a tremendous amount of work over the last year to continue to help improve the environment for which we care for patients. This work would not be possible if not for those involved with New York ACEP committees, the board and numerous other activities. I would like to extend a special “thank you” to all that have contributed their time. Take a moment to review the list of accomplishments. It is truly amazing what you have been able to accomplish, and I am proud to be a part.

The Challenge
For New York ACEP members that may not yet be as involved, this is your challenge. Take a moment to review the list of last year’s efforts by your colleagues (referenced above). I am certain there will be something that sparks your interest. On last count, we have 3,303 members – the second largest chapter in the nation. The list of accomplishments are directly supported by a relatively small fraction of this number. Just imagine if we had 10%, 20% or 50% more involvement. Shoot, imagine twice the number…

So many of our efforts focus on the legislative challenges that we face. Similar to many things, you are your best – and sometimes only – advocate. It is somewhat surprising how much of our effort is merely just basic education. So many do not know what we, and our patients, face daily. If you want your practice environment to improve, you need to get involved. If you want the ability to provide better care for patients, you need to get involved. If you want a better New York ACEP, you need to get involved.

If you are like me, you may be planning to get involved “later” or “when I have time”. Later is now. Now is that time. Take a moment to plan this next year. Review the list of New York ACEP committees – we always need committee members. Reach out to a fellow member that is already involved – find out about potential opportunities and pick one. At a minimum, block your calendar for March 9, 2021 – our New York ACEP Advocacy Day in Albany (pending COVID cooperation). We generally have around 30-40 members attend and meet with members of our legislative bodies (and I welcome the logistical challenge to accommodate twice the number of attendees).

Jump in and help guide your own fate. Take the time to invest in this portion of your future. I guarantee your investment will pay dividends in ways that you cannot imagine.

Keith E. Grams, MD FACEP
Chair, Emergency Medicine
Rochester Regional Health

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Frequent Flier Files

Those unfamiliar to our specialty may think in Emergency Medicine, there is no continuity of care. We, and our “frequent fliers”, would beg to differ. Most emergency departments have a cadre of high utilizers of varying size and shape; we call them different names: high utilizers, frequent fliers, professional patients, doctor shoppers, drug seekers. The terminology can be derogatory and demeaning, at times jocular, but often revealing our frustration with either the patients themselves or the system that has failed them. High utilization is often a symptom of a diseased health care delivery system and we would do ourselves a favor to better understand the disease when we bear witness to its manifestations.

High Emergency Department (ED) utilization is a complex and multifactorial phenomenon. Even its definition is fraught—do we define it by a certain number of ED visits within a specified time-frame (e.g. four ED visits in one year)? Against the utilization patterns of a larger population (e.g. top decile)? Do we count patient visits when they result in hospital admission or exclude them, as some studies have done? Beyond definitions, the data regarding this population is scant and disorderly. Authors have suggested multiple buckets of high utilization in trying to study it. Though multiple models have been described, most align with three main drivers: social determinants of health, behavioral health and complex chronic conditions.

Social Determinants
- Poverty
- Homelessness
- Food Insecurity
- Poor Access to Primary Care
- Race

Behavioral Health
- Substance Use Disorders
- Personality Disorders
- Mood Disorders
- Anxiety

Complex Chronic Conditions
- Iatrogenic Utilization
- Poor Adherence
- Poor Health Literacy

Clearly, these buckets intersect in many ways and many of the patients may straddle these buckets, complicating the classification. Homeless ED patients are more likely to be diagnosed with a substance use disorder (which, in typical circular fashion, may have contributed to their being homeless), which may in turn exacerbate a chronic condition (e.g. seizure disorder). Patients with multiple chronic conditions (concomitant CHF and COPD) may present to the ED in response to dyspnea exacerbated by anxiety (behavioral health) about dying alone (social isolation). Interventions have been geared toward addressing each of these drivers, but the unifying causation is a lack or paucity, of effective prevention and care coordination.

The focus on high utilization, not surprisingly, has stemmed from the costs associated with it. The Agency for Health Research and Quality published 2014 data related to “super-utilizers” across multiple payors and found that “although super-utilizers constituted a relatively small proportion of all patients seen in the ED (2.6% to 6.1%, depending on the payer-age group), they accounted for a large share of all ED visits (10.5% to 26.2%).” They defined “super-utilizers” as those with four or more visits for privately insured patients aged 1-64 years or Medicare patients aged 65 years and older; or six or more visits for Medicaid or Medicare patients aged 1-64 years. ED visits resulting in admission or transfer to a higher level of care were excluded. Their data further revealed that super-utilizers accounted for a disproportionate share of aggregate ED charges. For example, only 3.7% of all Medicaid ED patients were super-utilizers, but they accounted for almost 19% of the aggregate ED charges for that population.

If according to the above, only a small percentage of patients are super-utilizers, why does it feel like there are so many of them? Despite their small numbers, these patients account for a high proportion of ED visits. A literature review by LaCalle and Rabin found that frequent users accounted for 4.5% to 8% of all ED patients, who are in turn responsible for contributing 21% to 28% of all ED visits. Among Medicare patients aged 65+ years in the AHRQ dataset, 4.5% were super-utilizers, but they accounted for 16.2% of all ED visits in this payer-age group. Similarly, among patients covered by MediCare who were under 65 years old, 6.1% were super-utilizers, but they accounted for 26.2% of all ED visits.

Despite small absolute numbers, the impact of high utilization is significant, both in terms of workload and cost. It is therefore no surprise that EDs, hospitals, health systems and municipalities have sought to find workable solutions to this issue. In 2011, Atul Gawande wrote about “hot spotters” or those “neediest” patients generating a large proportion of medical costs. A population studied in Camden, NJ revealed that just one percent of the 100,000 people who made use of Camden’s medical facilities accounted for 30% of its costs.” Similar findings have been noted elsewhere, to differing degrees. While one study concluded that hot-spotters, defined as those with four or more ED visits or hospitalizations in the study period, account for a minority of utilization-related costs, it found that “hot-spotters represented nine percent of the high-cost population and accounted for 19% of their overall costs,” confirming a disproportional impact.

One approach to high utilization mentioned by Gawande involved increasing the medical costs to the user, such as higher deductibles or higher co-pays, based on a “skin-in-the-game” argument. When a large self-insured health system instituted this strategy, insured
retirees whose out-of-pocket medical costs rose dramatically began to avoid preventive appointments and procedures and were less likely to fill their medications as prescribed. In the end, these patients generated greater costs as they only sought care as a last resort, once they had already experienced deterioration or complications.

Most other solutions have centered on providing multidisciplinary case management to these patients in an effort to positively impact their health in a sustainable way, thereby reducing their episodic utilization. Incorporating social work and case management services to identify, target and intervene on high utilizers seems logical. These services are delivered by multidisciplinary teams that may include nurses/nurse educators, social workers, health coaches, community health workers or peers and patient navigators. Teams are often embedded in emergency departments and serve all comers presenting with predetermined inclusion criteria; other models are based in primary care practices and intervene on their own patient panels. Such teams work to identify drivers of episodic care including poor health literacy or inconsistent compliance with treatment plans and prescribed medications, at times related to a lack of access to primary care.

Barriers to primary care may be identified and addressed by case management teams, including issues related to insurance/affordability or even transportation. A team based in a primary care clinic in New Jersey was puzzled about their patients’ high 911 utilization despite their offering a 24-hour call number and their having urged patients to program the call number into their cell phone speed dials. When their health coaches discovered that many of the patients did not know how to program a number into their phones, the coaches started doing it for the patients, and only then did the number of 911 calls fall.

Teams often focus on those patients most at risk: those with behavioral health challenges including substance use disorders, those with chronic conditions prone to exacerbation including heart failure or COPD, or those with pre-existing patterns of high utilization. Case management may involve disease-specific education at the point of contact in the ED, arranging post-visit follow up appointments with primary care or appropriate specialties, establishing home care services and performing post-visit and reminder calls to support transitions of care.

The data on the solution approaches has been scarce with mixed results and some have questioned the cost-effectiveness of such interventions. Earlier this year, a study published in NEJM involving patients with very high use of health care services concluded that readmission rates were not lower among patients randomly assigned to case management than among those who received usual care.vi On the other hand, according to an article in Health Affairs, “three separate randomized trials conducted in Philadelphia—the poorest big city in the United States—found that this improves the quality of health care and reduces total hospital days by two-thirds, returning $2.47 annually for every dollar invested by Medicaid.”vii A 2017 RCT looking at the effectiveness of a case management program titled “Bridges to Care” or B2C, found that those in the intervention group “had significantly fewer ED visits (a reduction of 27.9%) and significantly more primary care visits (an increase of 114%), compared to patients in the control group. In a subanalysis of patients with mental health comorbidities, they found recipients of B2C services had significantly fewer ED visits (a reduction of 29.7%) and hospitalizations (30%), and significantly more primary care visits (an increase of 123.2%), again compared to patients in the control group. The B2C program reduced acute care use and increased the number of primary care visits among high ED utilizers, including those with mental health comorbidities.”viii

But perhaps the best argument for these interventions is not a financial one. Kanzaria and Hoffman argued that cost-effectiveness aside, hot spotters are emblematic of the failure of healthcare in our country, given that “this group had markedly poor clinical outcomes, with substantially increased need for acute care services and (despite this) far greater than average mortality.”ix High utilization is the result of a dysfunctional care delivery system where too many are left behind, with potentially catastrophic consequences. Case management may be expensive and time consuming, but maybe this is just the right way to take care of our most vulnerable patients.

References
Sentinel Injuries and Missed Opportunities

Most pediatric patients that seek care in the emergency department (ED) are evaluated by general emergency medicine physicians in community settings or emergency departments that see fewer than 14 pediatric patients per day. Therefore, it is critical that all emergency physicians are competent and comfortable with recognition of child abuse. Failure pick up on...so may have devastating consequences and significant impact on morbidity and mortality. We will first review two pediatric cases in detail and then discuss the pitfalls in delay of diagnosis and ways to improve recognition of sentinel injuries and signs of abuse in pediatric maltreatment cases.

**Case 1**

A 57-day old male presents to the pediatric emergency department for evaluation after a period of apnea. The father reports that the patient woke up from his nap and when he placed him down to change his diaper the infant’s face turned red, his eyes were open and the infant “stopped breathing.” He reports this lasted about 10 seconds while he appeared to be trying to cry. After ten seconds the baby let out a loud cry, started arching his back and taking a breath every 5-10 seconds and then went limp a few times. In total the father estimated this occurred for 2-3 minutes. The infant subsequently had a bowel movement, went limp again for a few seconds and then returned to his baseline. When EMS arrived, they stated the right leg was shaking for a minute or two. The parents report one leg was shaking when EMS was trying to place the pulse oximetry probe on his leg but have not noticed any other abnormal movements. Vital signs were within normal age appropriate limits in the ED. A review of history reveals the infant was born full term at 38 weeks after a spontaneous vaginal delivery and has been feeding on formula normally without any fever, vomiting or recent trauma. Full review of systems is negative. The infant was well appearing in the ED and after a brief period of observation the infant was diagnosed with a brief resolved unexplained event (BRUE) and the parents were instructed to follow up with his pediatrician. The family was given discharge paperwork and during discharge vitals was noted to have a temperature of 38.1C rectally. The provider discussed doing further testing given the presence of a fever in this age, however the family refused after multiple discussions and planned to follow up with a pediatrician the next day.

Two days later the child returned with intermittent tremor and uncontrolled movement of both right upper and right lower extremities. While in the ED the patient had 4-5 episodes of left sided gaze deviation with right-sided jerking motions each lasting several minutes, consistent with seizures. The family again denied fever, vomiting, difficulty with feeding or recent trauma. Imaging of the brain demonstrated diffusion restriction in the left occipital and right frontal lobes likely representing recent infarct and bilateral subacute subdural hematomas along both occipital convexities (Images 1 and 2). Skeletal survey showed subacute healing right third-sixth rib fractures consistent with non-accidental trauma (NAT). Ophthalmology evaluation was positive for retinal hemorrhages. The child was admitted to trauma service and was ultimately discharged in the care of foster parents on two antiepileptics for seizures and a gastric tube for poor feeding related to injuries due to non-accidental trauma and abusive head trauma.

**Case 2**

A 2-year-old male brought in with a chief complaint of “evaluation, status-post fall down stairs.” The mother states that this morning the child woke up with a swollen and bruised right eye and facial swelling. The mother states “I’m guessing he fell over a gate and down a wooden spiral staircase because around 2:00 AM he was crying and on the other side of a locked gate.” Upon clarification the mother states that when she went to wake the child up this morning she noticed that he had bruising and swelling all over his face and his right eye was bruised and swollen shut. Mom states that she does not know how it happened. The mother also states he has an appointment scheduled with hematologist for “easy bruising” after he had a large bruise last week to his suprapubic area and there is a family history of Von Willibrand disease. On review of medical history, the child was born at 36 weeks gestation and has mild speech and motor developmental delays. He had no issues with bleeding during a circumcision or prior tymanostomy tube placement. Vital signs were unremarkable other than tachycardia to 170 beats per minute. His physical exam demonstrated diffuse swelling and ecchymosis noted to forehead, left side of face and behind the pinna of both ears (Image 3). There was also bruising noted to the top of the right earlobe, bogginess of entire scalp and swelling to a large portion of his head. No bruising was noted inside mouth and the frenulum was intact. Significant right eye ecchymosis was noted and the eye was completely swollen shut and there was bruising along the inferior mandible bilaterally (Image 4). His abdomen is soft but noted to be tender over the suprapubic area overlying an approximately 10 cm area of ecchymoses above genitals (Image 5). There was also bruising to the thighs, entire back and lower legs bilaterally. A non-accidental trauma evaluation was initiated. CT scan
of head demonstrated very extensive scalp swelling and extensive swelling in preseptal regions. A CT scan of abdomen and pelvis and skeletal survey were both negative. He was admitted to trauma surgery service with a diagnosis of non-accidental trauma and large subgaleal hematoma that required monitoring of hemoglobin and hematocrit levels. During his hospitalization his workup by hematology was negative for underlying bleeding or clotting disorders.

Upon review of records it was noted that the child had been seen in the ED one month prior with chief complaint of “head injury, status post fall.” At that point the mother reported that he had fallen from her lap several days prior to visit and sustained a bruise to his face. He was sent to the ED by Child Protective Services (CPS) after school staff contacted CPS for concerns of bruising and possible child abuse. Documentation at the initial visit noted that he was a very active child and bruising patterns were consistent with age and level of activity. It was noted that he had multiple bruises to face, anterior knees and extremities. CPS was not contacted during the visit and the child was discharged back home with the mother. During the time between the two ED visits the child had been admitted to the hospital and was referred to hematology at the most recent visit for “easy bruising.” His injuries were determined to be due to NAT and he was ultimately discharged in stable condition to foster care.

**Discussion**

The issues brought forward in these two cases are unfortunately not uncommon and highlight both the failure to identify potential sentinel injuries in the ED and misdiagnosis of child abuse related injuries. We have seen several cases over a short period of time of infants diagnosed with a BRUE who have returned with injuries consistent with NAT. Studies have found that up to 11% of diagnosed BRUE (formerly termed ‘apparent life-threatening events’ (ALTE), see below) were related to NAT and abusive head trauma. Since many of the signs and symptoms of NAT can be nonspecific and vague, it is important to always have this on your differential diagnosis, particularly in younger infants. It is also critical that emergency department providers have a clear understanding of the definition of BRUE and the distinction between low risk and high-risk BRUE.

In 2016 the American Academy of Pediatrics released clinical practice guidelines for identification and management of pediatric patients with low risk BRUE diagnosis, replacing the historical diagnosis of ALTE. BRUE is defined as an event occurring in an infant under one year of age with a sudden, brief and resolved event of one or more of the following: 1) cyanosis or pallor, 2) absent, decreased or irregular breathing, 3) marked change in tone and 4) altered level of responsiveness. A BRUE by definition lasts less than one minute and is limited to a single episode. A child diagnosed with BRUE should, at the time of evaluation, be well appearing and have no other likely explanation (no fever, no viral illness, no vomiting or reflux, etc.) for the event.

Infants with BRUE are further subdivided into low-risk and high-risk. To be considered low risk the child must be: over 60 days of age, born at greater than or equal to 32 weeks and corrected GA greater than or equal to 45 weeks, presenting with a first event, have had an event lasted less than one minute, and received no CPR by a trained medical professional. Those falling in the low risk category may be discharged without further workup. Although there are no published guidelines for management of high-risk infants, many providers advocate admission for observation or obtaining additional testing to rule out more serious diagnoses based on the presenting symptoms. Applying the definition of BRUE to the infant described in case one demonstrates he would have met high risk criteria based on multiple factors including age, duration and multiplicity of events, possible shaking of extremities and fever documented at time of discharge. Common alternate diagnoses that should be considered in these patients include gastroesophageal reflux, apnea of prematurity, seizures, NAT, intracranial bleed and infection.2,3,4

The two cases also demonstrate the critical importance of early recognition of sentinel injury. A sentinel injury is often defined as a medically minor injury associated with a high risk of escalating violence, or any injury associated with high rates of physical abuse. In a case controlled retrospective study by Sheets et al. the rate of sentinel injuries among abused infants was compared with those of intermediate concern for abuse and infants that were not abused. Prior sentinel injury in the group with definite abuse was 27.5%, eighty percent of which were bruising, with approximately two thirds of these occurring in infants under three months of age. Failure to identify a minor or early sentinel injury may have devastating consequences including significant morbidity and mortality related to head trauma.

Abusive head trauma is the most common cause of death in child abuse cases. Symptoms may be nonspecific and vague in young infants including vomiting, fussiness, lethargy, abnormal breathing or movements which can contribute to delayed diagnosis. Infants often lack external signs of head trauma with injuries related to coup and contrecoup injury (shaken baby syndrome). In a review of 173 children under three years of age who were diagnosed with head injuries caused by abuse 31.2% had been seen by physicians after the abuse and diagnosis was not recognized. It was determined that 27.8% of these children were reinjured after the missed diagnosis. Younger age infants were most likely to have a missed diagnosis. The most common incorrect diagnoses in this study were viral gastroenteritis, influenza, accidental head injury, and possible sepsis. Failure to promptly diagnose abusive head trauma can have significant impact on outcome and rates of death. A more recent study in 2016 evaluating missed opportunities for identifying infants with abusive head trauma found similar results. Of the 232 children with abusive head trauma, 25% had at least one opportunity to previously identify abuse in a medical setting. The children with prior opportunities in a medical setting were more likely than those who were not seen previously to have chronic subdural bleeding and healing fractures. The most common complaints at visits characterized as missed opportunities included vomiting, prior CPS contact, and bruising.4 In a retrospective review of 37 homicide fatalities in children less than four years of age 19% had health care visits in the month before their death.8

Non-accidental trauma is rarely an isolated incident, and infants who have been abused may be at risk of escalating severity of abuse. An ED visit for a vague complaint of vomiting may be the only opportunity that an infant has for medical evaluation prior to sustaining a lethal injury. Therefore, early recognition of NAT is critical, particularly in the younger and more vulnerable populations. A primary focus of child abuse research in recent years has been development of a clinical prediction tool to help identify children with sentinel injury or
those at increased risk for abuse.

In 2009 a case control study was published with the goal of identifying a clinical decision rule for identification of children at high risk for abuse based on bruising pattern. This study evaluated children under four years of age who were admitted to the pediatric intensive care unit with trauma and evaluated bruising and injury patterns. The rule is often referred to as TEN-4 BCDR (torso, ears, neck, bruising clinical decision rule), and if used as a clinical decision rule has a sensitivity of 97% and specificity of 84% for predicting abuse. Bruising in the TEN regions: torso (including chest, abdomen, back, buttocks, genital and hip region) ears, neck, in any children under age four, or any bruising seen in children under four months of age should raise concern for abuse. This research was consistent with the often noted “babies who don’t cruise don’t bruise” rule of thumb that any bruise should be investigated in a nonmobile infant. The study also identified that a higher number of bruises was more likely to correlate with increased likelihood of abuse. Children who had been abused had as many as 25 bruises (median of 6), compared with median of 1.5 bruises in children with accidental trauma. Out of the 95 patients included in the study the patients with accidental trauma had less than or equal to four bruises.7 The TEN-4 rule can be applied as one tool to help differentiate children with a high suspicion for abuse versus those with a low suspicion for abuse. Additionally, it is important to always consider the developmental stage and age of the child to determine whether an injury is consistent with the history provided.

Child abuse presents with a wide range of diagnoses and social complexity and at this time there is not a single prediction tool that can be used for all patients to identify pediatric maltreatment. The lack of a single clinical prediction tool places more importance on standardized protocols that can be used as screening tools to identify possible cases. These protocols should incorporate red flags in the physical exam, injury pattern, or history, as well as social concerns. It is important that we minimize bias that can occur when we rely on socioeconomic factors or intuition alone. When developing protocols, the risks of increased screening (time, social stressors, CPS involvement, radiation exposure etc.) must be weighed against risk of possibly missing a critical sentinel injury. It is important that we move away from a biased method of using gestalt to identify children at risk for abuse and move towards universal electronic health record screening tools and a standardized approach.10

In December 2016 our hospital initiated a pediatric maltreatment protocol to assist in identification and management of suspected child abuse. Although it is a work in progress, it has been critical to standardizing care, reducing bias, and establishing consistent medical and social evaluation and follow-up. This was developed with collaboration of a multidisciplinary team including a child abuse specialist, pediatric surgery, trauma surgery, emergency medicine, pediatrics, and nursing leadership. A screening tool that is universally used for all pediatric patients is important to help identify red flags in history, physical exam and potential injuries. Our protocol has implemented a mandatory screening tool through our electronic health record for all pediatric patients across the institution, where a positive result triggers a discussion among nursing, social work and medical providers. Part of this discussion involves a collaborative decision to launch the protocol and improves overall communication between physicians, providers, nursing, social work and child protective services. Our protocol involves a standardized order set based on age and suspected injuries and includes imaging, laboratory tests, and consults. A SANE (sexual assault nurse examiner) provider is called in for each of these maltreatment cases to complete forensic evidence collection and evaluation. The number of pediatric maltreatment cases that we evaluate continues to steadily increase each year in part due to improvement in education, provider recognition, and standardization of care.

Conclusions

It is easy to identify missed opportunities in hindsight, particularly in cases where patients return and have a poor outcome. However, it is important to reflect upon and learn from these cases to improve recognition in future cases. Review of the initial visits in the two cases demonstrate red flags for both presentations. In case one the child had several features that were inconsistent with a low risk BRUE, and also had the red flag of parents refusing recommended evaluation once the child developed a fever. In the second case the child was seen multiple times by medical providers for bruising and had been referred to a hematologist before non-accidental trauma was identified. These cases reinforce the importance of a careful history and physical exam in identifying sentinel injuries and early signs of child abuse.

When evaluating an infant with nonspecific symptoms it is critical to perform a careful head to toe physical exam and obtain a detailed history including age and developmental milestones of the child. Abusive head trauma should always be considered on the differential diagnosis. Considering the significant potential risks of radiation, we should not obtain imaging on every young infant who presents with vomiting, irritability, or suspected BRUE. However, maintaining a high level of suspicion and having a lower threshold for obtaining head imaging in infants with red flags, other physical exam findings, or features of high-risk BRUE features may help identify child abuse injuries earlier and may help save a life.

Key Points

- Early identification of sentinel injuries may have significant impact on reducing morbidity and mortality in child abuse cases.
- Use of the TEN-4 bruising clinical decision rule and knowledge of the developmental abilities of the infant or child may help identify NAT.
- Abusive head trauma is the most common cause of death in pediatric NAT and should be on the differential diagnosis for all infants presenting with high risk BRUE or other nonspecific symptoms (vomiting, lethargy, irritability).
- A multidisciplinary approach and implementation of a standardized protocol incorporated into EHR can help minimize bias and improve identification of non-accidental trauma.

References


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Image 1: Head imaging obtained during second ED visit.

Image 2: Bruising along the pinna and behind ear should raise concern for non-accidental trauma often from either a direct force to the area or being pulled by the pinna.

Image 3: Bruising of the chin and neck is often due to strangulation or choking injury, or a child being held up by the chin.

Image 5: A 10 cm x 7cm ecchymoses to suprapubic area below the umbilicus. Bruising in the region is considered a positive in the TEN-4 BCDR.
Sexual Assault Care in the Emergency Department

Sexual assault is highly prevalent in the United States. With only 45 Department of Health (DOH) Designated Sexual Assault Forensic Examiner (SAFE) Centers of Excellence in New York State, it is important that emergency departments (EDs) are prepared both clinically and administratively to care for sexual assault survivors at any given moment.

Sexual assault care is multifaceted. Providers play a key role in providing medical care, psychological and emotional support, evidence collection, documentation and, if the case goes to trial, expert testimony. As such, it is critical that ED clinicians—providers and nurses alike—are knowledgeable about the process for conducting a forensic exam on a patient who reports sexual assault.

Prior to the forensic exam, a primary RN and provider will care for the patient and perform a medical screening exam and subsequent treatment. Once the patient is deemed medically stable, a sexual assault forensic exam will be offered. When possible, the exam should be conducted by clinicians specifically trained in sexual assault care (specifically, a SAFE). If a SAFE is not available, a clinician deemed competent by the organization to perform forensic evidence collection can conduct the exam. Training for evidence collection can be done through lectures, online learning modules or didactic training. The most important part of the patient’s care is to make them feel safe in their environment and to restore some control to the individual. The patient may participate in the entire exam or refuse any step based upon their level of comfort. Consent for forensic evidence collection must be obtained prior to the exam.

In New York State, if a patient presents to an ED that is not a DOH designated SAFE center, the facility must offer to transfer the patient to a SAFE Center of Excellence. However, patients may refuse transfer for any reason. Transferring a sexual assault patient can delay care, increase emotional and monetary costs and utilize valuable EMS resources. Additionally, facilities outside of the patient’s own community have limited knowledge regarding local resources for follow-up care, and law enforcement jurisdiction may change depending on the location of the receiving facility. At Northwell Health, we implemented the Mobile SAFE program. Our program is built upon a group of on-call SAFE clinicians who go to the patient in the ED for evidence collection. They arrive at the ED within an hour of the patient’s arrival, thus avoiding patient transfer or delay in care. Our clinicians are equipped with a state-of-the-art Mobile Colposcope called EVA-Sane. This device has the ability to record high-quality images and video, ensure chain of custody tracking and enhance examinations using high-contrast filters to highlight redness and assist in identifying areas that are suspected of bruising.

If a SAFE clinician is available to see the patient, he/she will complete the entire evidence collection kit and maintain the chain of custody. The evidence collection kit contains 15 steps ranging from a non-invasive oral swab to cervical and vaginal swabs. Steps 1-13 can be completed by an RN or provider. Steps 14-15 must be completed by a provider who has been deemed competent to perform evidence collection. Drug Facilitated Sexual Assault Kits (DFSA) may be used in situations where drugs and/or alcohol were used to inhibit the patient’s ability to consent for sexual activity. Some examples of when to use the Drug Facilitated Sexual Assault Kit (DFSA) include, but are not limited to, if a patient recalls having a drink, but does not remember the rest of the night, does not recall any of the events during intercourse or states that they feel they were “drugged.”

In 2018, the regulations for evidence storage changed from a 30 day retention period to 20 years. The evidence should be stored in a locked refrigerator with a target temperature of 32-36 degrees Fahrenheit and checked daily.

Patients presenting to the ED after a sexual assault may experience rape trauma syndrome, a form of post-traumatic stress disorder. Rape trauma syndrome consists of three phases: the acute phase, the outward adjustment phase and the resolution phase. If patients experience rape trauma syndrome, they will typically present to the ED in the acute phase as it occurs immediately after the assault and can last several days to weeks after the event. The outward and resolution phases take place later on in the healing and grieving process.

According to the Rape, Abuse & Incest National Network (RAINN), patients may experience three emotional reactions during the acute phase: expressed, controlled and shocked disbelief. Symptoms will vary with each patient. An expressed reaction is when a survivor is emotional, agitated, hysterical or experiencing crying spells or anxiety attacks. A controlled reaction is when the survivor appears as if everything is fine and nothing has happened. They can be in a state of shock and appear calm. Lastly, the shocked disbelief reaction occurs when the survivor reacts with a sense of disorientation. The patient may experience challenges concentrating, making
decisions or doing activities of daily living. Additionally, they may also have difficulty recalling the assault. New York State requires that health care facilities offer emotional support to patients in the form of a rape survivor advocate before, during, and after the examination. If the patient declines to have an advocate present, social work and case management can provide support, in addition to the aid of the immediate care team.

Patients may experience pain following the event. If oral medications are prescribed, delay administration until after oral swabs are obtained. Consider IM/IV routes to prevent loss of evidence. Sexually transmitted infection (STI), pregnancy and HIV prophylaxis should always be offered to the patient. STI regimens such as Azithromycin 1 gram PO to prevent Chlamydia, Ceftriazone 250mg IM for Gonorrhea and Flagyl 2 grams PO for bacterial vaginosis trichomoniasis can be given. If there has been any alcohol consumption within the last 48 hours, do not give Flagyl. A prescription for Flagyl can be sent home with the patient and taken once the alcohol has metabolized. HIV prophylaxis should be offered and made available for each patient. For pregnancy prevention, providers may offer Plan B or Ella (ulipristal acetate); any other emergency contraceptive that is available on formulary is also acceptable. Ulipristal is effective up to 120 hours after intercourse and is the preferred drug for women with a high BMI. The need for Hepatitis B treatment depends on whether or not the patient has been vaccinated. If the patient’s vaccination status is unknown, the ED may administer the Hep B vaccine. Treatment with hepatitis B immune globulin (HBIG) may be needed depending upon the patient’s vaccination history and the HBV status of the assailant.

Documentation should consist of exact details of the event in the event that the case results in prosecution. Prior to the physical exam, patients should undress with a sheet beneath them to capture any evidence. Describe injuries by location, type of injury, size in inches or centimeters, shape and color. Ideally, images should be captured and scanned into the medical record. Clinicians should avoid words and phrases such as, “alleges, claims, in no acute distress, no evidence of rape or sexual assault.” Whenever possible, the patient’s description of the event should be transcribed verbatim in quotations.

In order to remain compliant with evolving New York State regulations, Emergency Medicine leaders should be aware of New York State Executive Law Section 631 (13) ensuring direct reimbursement by the Office of Victims Services (OVS) to providers of sexual assault forensic health examination services. This regulation prohibits providers from directly billing the patient for forensic rape exam services. Providers are required to inform the survivor orally and in writing of their right for the Forensic Rape Exam (FRE) services to be billed to their private insurance or to OVS directly. Additionally, the patient must be made aware that they may decline to provide their private insurance information, should they believe that doing so would put their safety or privacy at risk. The provider must not bill victims for FRE services under any circumstances, regardless of whether the patient chooses to bill OVS or private insurance. If the patient chooses to utilize private insurance, the provider may not bill OVS for any balance due. Services covered for reimbursement under this program include: forensic rape services, facility services related to the FRE, labs and pharmaceuticals related to the FRE. Unrelated services, such as sutures and inpatient admissions, are not covered under the regulation.

Sexual assault care continues to evolve to support survivors during a very difficult time in their lives. Reviewing clinical and administrative processes annually to maintain compliance with actively changing New York State regulations is imperative to continue to deliver the highest quality care to sexual assault patients. Sexual assault programs with thoughtful approaches to patient care through training and consideration for the patient’s well-being reassure survivors that clinicians are dedicated to providing them with the best possible outcomes.

References


3. NYS Sexual Assault Victim Bill of Rights.
**Emergency Telehealth**

**I had the pleasure of speaking with Dr. Erica Olsen about Emergency Telehealth. Dr. Olsen is the Director for Virtual Health Services in the Department of Emergency Medicine at Columbia University Medical Center. She is knowledgeable on the many roles for telehealth and how it is connected to emergency medicine throughout the continuum of care. I learned a lot from our talk, and hope our New York ACEP membership will feel the same. Thank you Dr. Olsen for taking the time to speak with me.**

**Tell us about your role(s) in the world of telehealth?**

I would say that I currently have three main roles in telemedicine. I am the Director for Virtual Health Services in the Department of Emergency Medicine at Columbia University Medical Center, which means I develop and implement telehealth initiatives in collaboration with the NewYork-Presbyterian Healthcare System as it pertains to Emergency Medicine (EM). This encompasses everything from pre-hospital care initiatives such as Virtual Urgent Care to services used within the Emergency Department (ED), as well as beyond the ED visit once patients go home [remote patient monitoring and follow-up care]. My second role in telehealth is as Chair for the SAEM Telehealth Interest Group, which is an exciting way to connect with many innovative colleagues at a national level to specifically focus on telehealth as it relates to academic emergency medicine and research. Lastly, I would point out that by virtue of being a healthcare consumer, we all now have a role in telemedicine as it permeates our traditional healthcare delivery systems.

**How and when did you develop an interest in telemedicine?**

My appreciation for the power of telemedicine began seven years ago while working at the VA Hospital in Buffalo, NY. Prior to my time in Buffalo I had spent most of my training and career in the New York metropolitan area where medical facilities were abundant and physically accessible. It was very humbling to observe what some veterans went through in order to get to their appointments at the VA as well as the ED. It is easy for me to say “come back in two days for a wound check”. This was often a mountain to climb for some patients. Many had acquired significant physical disabilities and financial hardships, and others simply lived several hours away though we were still considered to be their closest VA location. Instead of trekking to us, we were able to tell patients to go to their local VA clinics, which were more abundant than the large tertiary care centers. Through the local clinic we would conduct a telehealth visit and decide the next best course of action, preventing many avoidable ED visits, saving the patient time and effort. It was efficient and smart, and just made a lot of sense. This model took a burden off a special population suffering health care disparities for a variety of reasons, often related to geography.

**Can you tell us how you got involved in your current role?**

When I returned to the New York City area I sought an opportunity where I could build upon my prior experience. I wanted to continue to understand how telehealth can serve us all and minimize health disparities and be used in different sectors. I wanted to understand how telehealth would fit in an urban setting. Socioeconomic disparities exist in Washington Heights, the community I serve and telemedicine has a lot to offer.

**Can you expand on the ways telehealth works in the ED setting?**

We can break it down into three categories: Pre ED, Within the ED and Post ED.

**Pre ED:** Virtual urgent care/direct to consumer programs/paramedicine programs

**Within ED:** Triage models, express care models, consultant care. For consultant care this is seen commonly for behavioral health/tele-stroke needs. It can also be used for medical education.

**Post ED:** Remote patient monitoring and coordination of care to assist in the management of chronic conditions in conjunction with our primary care colleagues.
Pre ED: This often takes the form of virtual urgent care and paramedicine programs. For example, a patient calls, EMS responds and the EMT or paramedic calls the telemedicine doctor. They see the patient together and there is the potential to keep the patient home.

Within ED: This is commonly done as consulting services, such as tele-stroke and tele-psychiatry. This can also be good for kids at sites without pediatric trained staff and you can get a consult with a PEM physician from the ED. Also, telemedicine has been implemented into the frontend processes in EDs to assist in the medical screening exams and tele-triage. In this model the physician can help identify patient issues that may have been missed, initiate orders and request consults. In addition, there are programs that integrate virtual patient visits with patients into an EM shift.

Post ED: This can be a way to monitor patients post discharge. This was extremely helpful during COVID-19, to follow up on patients who required home oxygen, monitored with pulse oximetry. During COVID-19 we saw a lot of the home management was addressing fears and anxiety. Telemedicine in this context was helpful for patients and avoided unnecessary return ED visits.

What do you think is the greatest value of EM telemedicine?

Most EM physicians can relate to the feeling of working a shift and not knowing what will come through the door, but know we will take care of whatever situation arises. I would say that Emergency Medicine and Telehealth technology share something in common; the ability to flex and respond to rapidly changing circumstances. Though I have seen many valuable services provided via telehealth, I would again highlight the recent value of having crisis-driven-transformation of virtual urgent care during the COVID-19 pandemic whereby patients could speak directly with EM physicians instead of presenting to the ED for many things that could be managed from home. A very large part of the care rendered was patient education: reviewing COVID-19 disease information, reviewing specific patient health histories and circumstances and disseminating up to date information to the public on an ongoing basis such as COVID-19 testing policies. These are all things that would have resulted in ED visits prior to the advent of telehealth technology and all of this can now be managed safely, effectively and appropriately, virtually.

What skills do you need to be a successful telehealth practitioner?

While there are many teachable skills that can be learned, in order to conduct an excellent telehealth visit the practitioner needs to hone their “webside manner”. This is everything from how to look into the camera, how to wear your ID badge, how to establish rapport and the tips and tricks for obtaining a good medical examination. I would argue that experience in the ED matters and one’s ED experience facilitates their developing a good “webside” manner. Also, ED experience sets you up to be able to make the quick decision you make during a telehealth visit.

Do you need special training or certification to practice telehealth?

At this point in time this is not the case, but telehealth fellowships will play a role in the future.

Do you believe this field facilitates better work-life integration?

Yes. The shift ends exactly on time, there is no sign-out, and if working from home, there is no commute. This obviously facilitates planning. And depending on what is offered you can have a blend of shifts and remote work. But it is also a job where you need to be alone, to focus on the patient and in EM we are trained to work in teams. This is different, however, it brings the reward of getting to speak with your patient, 1:1 with no interruptions. In general the patients are happy with this medium. They are happy to spend the time with the doctor without taking the time to go to the ED.

For our junior members, or those looking to transition into a telehealth role, how can someone engage with telehealth?

Join a professional society or interest group. I also recommend getting involved in a project; perhaps something that demonstrates a novel use of telehealth. Or speak with your departmental leadership about the big picture outlook on their level of telehealth engagement. Another avenue is to work with medical education, teaching opportunities and research. There is much work to be done and plenty of ways to get involved.
Top Five Tips for Junior Clinical Researchers

Introduction
Embarking on a career in clinical research can be a daunting challenge for academic emergency physicians. Many obstacles await the budding clinician-researcher, including obtaining funding, navigating regulatory bodies, collecting and analyzing data and publishing manuscripts. While formal educational programs exist to help junior researchers acquire the “hard skills” required for research (e.g., research ethics, statistics, and study design), often the difference between success and failure lies in the acquisition of the “soft skills” of research. In addition, the emergency department (ED) presents unique obstacles to clinical research. In this short piece, we discuss five key tips for junior researchers in emergency medicine.

1. Seek out appropriate mentors.
The importance of effective mentorship at the outset of a research career cannot be overstated. Mentors can help junior researchers in many ways, such as advising on execution of the research plan, providing general career advice, coaching around a particular skill (e.g., statistical analysis) and helping them network within the research community. Receiving advice from someone with content expertise in your area of interest is invaluable. For example, if performing research on acute stroke, it is critical to reach out to more experienced researchers in this field and begin to build a professional relationship. Leveraging your local network as well as state and national networks, such as New York ACEP and National ACEP, can help introduce you to a diverse group of mentors who can support you in your path to research independence. Mentors can be within emergency medicine, in other medical specialties or even outside of clinical medicine entirely. The best mentor-mentee relationships are mutually beneficial. Junior researchers should be cognizant of what they can do for their mentors, focusing on both tangible and intangible benefits.

2. Assemble a cohesive and dedicated team
It is nearly impossible to execute meaningful clinical research as a team of one. Thus, it is imperative to assemble a team of people who are interested in the research studies, possess the appropriate skill set and can work together in a cohesive fashion. This team can include research assistants, medical students, residents, co-faculty, support staff to help navigate the IRB process, a statistician to help devise the analysis plan, an analyst to carry it out, and, of course, a mentor to guide and oversee the process. Once the team is in place, thinking about how to create and sustain motivation is critical. Individuals are generally motivated to work hard and cooperate when the purpose of their efforts – the “why” – is clear. Everyone should understand the importance of this research and the overarching goal. Investing time in clearly and regularly explaining the “why” will give everyone on the team a lasting sense of purpose. For example, if your team of research assistants is collecting data for a study on clinician “burn out,” make sure they understand exactly what the term means and why it is such a significant problem in healthcare today.

3. Communicate your study to all clinicians
Once the prospective clinical research has begun, it is vital to increase awareness of the study among the clinicians working in the department. Clinicians should not only be aware of the research, but also familiar with the protocol and inclusion criteria and open to enrolling patients into the study. Regular announcements at weekly departmental conferences and faculty meetings are an effective way to communicate the relevant information to ED clinicians. If your ED staff includes advanced practice providers, such as physician assistants, you should engage this group early on. Consider meeting with nursing leadership if the study protocol could impact nursing workflows in any way. It is often better to err on the side of over-communication rather than risk having some people feel overlooked. If conducting research in the academic setting, consider appointing a “resident champion” to liaise with the residents, solicit feedback and improve lines of communication. Strategically placed signage can also help remind clinicians of ongoing studies.

4. Celebrate wins, big and small
To keep your research team engaged and committed, it is critical to set specific short-term and long-term goals. Examples of specific goals include obtaining grant funding, receiving IRB approval, commencing enrollment and reaching enrollment targets. Higher visibility goals include presenting the research at departmental, regional or national conferences, as well as publishing the research in a peer-reviewed journal. Expressing gratitude is another simple way to keep members of your team feeling appreciated. When a research milestone is met, consider organizing meals for the entire team to encourage team-building and camaraderie. Each successful patient should be viewed as an opportunity to share a small “win” with
the rest of the team and acknowledge their efforts. Including the names of the research assistants in the “Acknowledgements” section of a manuscript, if they do not meet co-author criteria, can also be deeply appreciated.

5. Consider dedicated research training

The skillset required to conduct clinical research involves novel techniques and knowledge that are not generally taught in medical school or residency curriculum. The nuances of study design, coordination, and data analysis are vital to the successful execution of research. Just as subspecialists in emergency medicine (e.g. ultrasound, critical care and toxicology) have undergone requisite formal training, clinical researchers can receive dedicated training through formal educational programs for emergency physicians. These programs can be in the form of short-term courses that span several weeks or months. Such courses are valuable not only for the formal training that they provide, but also for the unscheduled conversations and networking that can lead to informal knowledge acquisition. Two examples are the Emergency Medicine Basic Research Skills (EMBRS) course offered by ACEP and the Advanced Research Methodology Evaluation and Design in Medical Education (ARMED) course offered by SAEM. Another investment, albeit more substantial, would be to pursue a multi-year research fellowship that provides both informal and formal exposure to clinical research. Many such emergency medicine research fellowships exist and can be found online.3

Summary

Though pursuing a career in clinical research can seem like a steep mountain to climb, the sense of accomplishment that comes when you reach the summit can be a reward in itself. Learning how to successfully conduct research requires the acquisition of both formal and informal skills. Clinically impactful research helps us grow and improve our specialty as a whole and can improve the quality of care we can offer our patients by helping us better understand who they are, what ails them and how we can better care for them. We hope the five key tips above are helpful for junior researchers navigating this exciting landscape.

Links

1. https://www.acep.org/embrs/
3. https://www.saem.org/resources/services/fellowship-approval-program/research-fellowship

Calendar

September 2020

9 Education Committee Conference Call, 2:45 pm
9 Professional Development Conference Call, 3:30 pm
10 Practice Management Conference Call, 1:00 pm
16 Government Affairs Conference Call, 11:00 am
16 Emergency Medicine Resident Committee Conference Call, 2:00 pm
16 Research Committee Conference Call, 3:00 pm
17 EMS Committee Conference Call, 2:30 pm
17 National Physician Suicide Awareness Day

October 2020

8 Practice Management Conference Call, 1:00 pm
9 Board of Directors Meeting, 11:00 am - 3:00 pm
14 Virtual Emergency Medicine Resident Career Day, 8:00 am - 1:00 pm
14 Education Committee Conference Call, 2:45 pm
14 Professional Development Conference Call, 3:30 pm
15 EMS Committee Conference Call, 2:30 pm
21 Government Affairs Conference Call, 11:00 am
21 Emergency Medicine Resident Committee Conference Call, 2:00 pm
22 Research Committee Conference Call, 3:00 pm
25 ACEP Council Meeting
26-28 ACEP2020

November 2020

4 Virtual Resident Research Conference, 8:00 am - 12:00 pm
11 Education Committee Conference Call, 2:45 pm
11 Professional Development Conference Call, 3:30 pm
12 Practice Management Conference Call, 1:00 pm
18 Government Affairs Conference Call, 11:00 am
18 Emergency Medicine Resident Committee Conference Call, 2:00 pm
18 Research Committee Conference Call, 3:00 pm
19 EMS Committee Conference Call, 2:30 pm

December 2020

9 Education Committee Conference Call, 2:45 pm
9 Professional Development Conference Call, 3:30 pm
10 Practice Management Conference Call, 1:00 pm
16 Government Affairs Conference Call, 11:00 am
16 Emergency Medicine Resident Committee Conference Call, 2:00 pm
16 Research Committee Conference Call, 3:00 pm
17 EMS Committee Conference Call, 2:30 pm
18 Board of Directors Meeting, 12 Noon - 1:30 pm
This document is based off the Greater New York Hospital Association (GNYHA)’s Mass Casualty Incident Response Toolkit. This is meant to be a guideline for emergency departments to use in determining the initial response in the face of a mass casualty incident. This is not meant to replace the need for hospital-specific preparation and training in anticipation of such an event.

Introduction
Prepare as if you have “15 ‘til 50”: concept introduced by the California Department of Health, this encourages departments to prepare as if they have 15 minutes until 50 patients arrive in their ED. While this may not ultimately reflect the reality, this model emphasizes the importance of rapid preparation in the event of a surge.

Incident Management Team
Identify your hospital’s Incident Management Team, including both patient care and non-patient care teams. If no management team is pre-decided, can consider utilizing current departmental roles and transitioning them to MCI staffing roles.

Eight Major Areas of Immediate Action
See Charts 2 and 3 for details as well as suggested departments and/or individuals responsible for the below actions.

1. ED director or physician-in-charge notify OR, blood bank, radiology

2. Identify liaisons for multiple key departments especially ICU, OR, General Medicine: these individuals will be in the ED arranging for prompt triage up to their respective areas, and will be the individuals communicating with the unit leaders upstairs, i.e., OR liaison will be physically in the ED communicating with OR unit leader.

3. Patient identification, registration and tracking
   - Activate your EMR’s abbreviated registration process, avoiding paper registration as much as possible
   - Develop an unidentified patients’ naming convention (Example: last name, first name = abbreviated hospital name, assigned item such as flowers; DOB = 1/1/estimated birth year; gender = female, male, unknown. Identified patient name example: GenHosp1, Lily; 1/1/2001; female)
   - Name the incident: consider including an MCI identifier and/or the date and time closest to the hour when the first patient arrived as the incident name, in order to facilitate future development of patient registers related to the disaster. Incident name example: Pulse Nightclub 6-12-2016
   - Pre-print names for unidentified patients, once identified patients should get a new wristband with their actual name and the alias given when arrived
   - Consider developing in advance disaster medical packets, which can include labeled blood tubes, IV start kit and catheters, request forms for blood products, and wristbands with pre-printed names

<table>
<thead>
<tr>
<th>MCI Leadership Team</th>
<th>Adapt from Current Role as…</th>
<th>Role Description</th>
</tr>
</thead>
</table>
| Incident Commander           | Director on Call, if able to report | • Orchestrates response plan  
|                              |                              | • Contact with EMS, other outside services                                     |
| Deputy Incident Commander    | Attending MD                 | • Contact chief resident on call to activate residency call-in-tree  
|                              |                              | • Contact OR, medicine & ICU liaisons                                          |
| Liaison Officer              | Charge RN                    | • Active nursing alert system  
|                              |                              | • Coordinate with law enforcement, press                                       |
| Triage Supervisor            | Senior MD with Triage RN     | • Confirm PPE availability, decontamination procedures/equipment                |
| Treatment Supervisor         | Attending MD                 | • Contact blood bank, pharmacy and central sterile to ensure adequate medications, fluids, and other supplies |
| Safety Officer               | Head of Security             | • ED lock-down procedures. Secure hospital entry/exit pathways?  
|                              |                              | • Consider how to manage walk ins vs EMS arrivals                               |

Chart 1: MCI Leadership Team
4. Hospital Security
• Designate entry points to the ED for ambulances, private vehicles bringing patients, as well as patients arriving on foot. Limit entry points where possible.
• Assign additional hospital security personnel to the ED and install visible security personnel to provide direction at each entrance.
• Communicate enhanced security procedures to current staff as well as staff arriving at next shift and/or coming to assist with response.

5. Identification of inpatient, ICU and OR capacity
• Rapidly discharge, downgrade, or transfer of patients from the floors and ICU to increase capacity. Consider creating capacity by transferring inpatients to inpatient hallways.
• Coordinate with PACU to transfer patients to surgical floors.
• Identify alternative spaces for critical patients awaiting ICU bed.
• Cancel elective cases, complete current procedures.
• Activate ORs and set up for assumed cases.

6. Access to major medications
• Dispatch critical life-saving and time-sensitive medications to ED.
• Override protocols for Pyxis medication dispensing.

7. Establish a communication pathway for off-duty and incoming staff to receive updates and assignments.

8. Decontamination Considerations
• If MCI involves decontamination needs, keep in mind that patients must be decontaminated prior to entering clinical areas in order to protect staff and other patients.
• Activate individuals trained in decontamination, consider including with mass notification system.

<table>
<thead>
<tr>
<th>Clinical Department</th>
<th>Key Response Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical/Intensive Care</td>
<td>• Rapidly discharge, downgrade, or transfer of patients to identify and create ICU capacity.</td>
</tr>
<tr>
<td></td>
<td>• Send senior staff person as liaison to ED to direct patient flow to ICU.</td>
</tr>
<tr>
<td></td>
<td>• Identify alternative spaces for critical patients awaiting ICU beds.</td>
</tr>
<tr>
<td>Trauma Surgery/OR Liaison (designated surgical provider)</td>
<td>• Cancel elective cases, finish current procedures.</td>
</tr>
<tr>
<td></td>
<td>• Identify OR space beds.</td>
</tr>
<tr>
<td></td>
<td>• Activate ORs and set up for assumed cases.</td>
</tr>
<tr>
<td></td>
<td>• Coordinate with PACU to transfer ED MCI patients to surgical floors.</td>
</tr>
<tr>
<td></td>
<td>• Sort ED MCI surgical patients into cohorts based on specialty, bundle procedures by injury type.</td>
</tr>
<tr>
<td>Anesthesia</td>
<td>• Deploy anesthesiology/perioperative staff in other areas of hospital to assist with triage of ED MCI patients to ORs.</td>
</tr>
<tr>
<td>Nursing</td>
<td>• Designate nurses to report to ED and assist with patient care and triage, including alternate care locations for less acute patients.</td>
</tr>
<tr>
<td></td>
<td>• Assign nurses to monitor and document patient information until handoff to OR, ICU, or other inpatient areas.</td>
</tr>
<tr>
<td>Radiology</td>
<td>• Position one or more radiology technicians in ED to perform examinations with portable equipment.</td>
</tr>
<tr>
<td></td>
<td>• Consider bringing radiologists to ED to read scans at bedside.</td>
</tr>
<tr>
<td></td>
<td>• Consider use of ultrasound as adjunct to or to replace XR/CT.</td>
</tr>
<tr>
<td>Blood bank</td>
<td>• Bring pre-determined cache of blood products to ED upon notification of MCI.</td>
</tr>
<tr>
<td>Laboratory</td>
<td>• Postpone all elective and non-essential tests.</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>• Mobilize hospitals to conduct rounds for rapid patient discharge.</td>
</tr>
<tr>
<td></td>
<td>• Identify triage leaders to re-assess patients brought to inpatient floors.</td>
</tr>
<tr>
<td>OB/Gyn, Pediatrics, PICU</td>
<td>• Deploy pediatric and OB/Gyn clinicians to support care of children and pregnant patients.</td>
</tr>
<tr>
<td>Respiratory Therapy</td>
<td>• Designate one or more therapists to support ED ambulances.</td>
</tr>
<tr>
<td>ED Providers</td>
<td>• Create kits for red-labeled patients (i.e., kits for chest tubes, RSI, transtracheal and pelvic binders, IV start kits).</td>
</tr>
</tbody>
</table>

Clinical Management
“Do the most good for the greatest number of patients.”
During a MCI, it is important for patients to move in a single direction as much as possible: ED for triage and stabilization ➔ OR, ICU, inpatient floor, discharge, or transfer to another facility.

Triage
• Separate patients into Green, Yellow and Red categories and send patients to the appropriate areas of the ED (see disaster floor plan).
• Designate personnel for continuous re-triage once patients sent to appropriate areas – note changes in mental status, motor exams, etc. Consider using mark on tag or forehead to designate changes.

Immediate Clinical Actions
• Review the following immediate actions with frontline providers: intubating those with vitals who are not breathing, insert interosseous transfusions (IOs) and beginning critical medications, bleeding control, separating and organizing patients by trauma type (i.e., head, chest, extremity wounds), and keeping patients warm.
• Consider using ultrasound and other bedside imaging techniques (portable digital xray with radiologist tied to the machine performing wet reads in read time), as CTs are a common bottleneck.

Disposition
• Cohort surgical patients into cohorts by injury type (i.e: head injury, chest injury, abdominal injury, extremity injuries).
• Priorities for OR according to Assistant Secretary for Preparedness and Response: 1) unstable patients with abdominal injuries, 2) chest injuries not responsive to chest tubes or decompression, 3) neurology cases should be evaluated on a case-by-case basis, and 4) vascular injuries in which a limb may require amputation if bleeding cannot be controlled without surgery.
• Delayed surgery for non-life-threatening injuries such as broken bones: consider transfer to other facilities to await surgery, or admission to inpatient floor to await surgery once surge passes.
• Consider “damage control” surgeries to stabilize major injuries, especially for high-velocity firearms and explosive devices, with subsequent surgeries in the following days.
<table>
<thead>
<tr>
<th>Non-Clinical Department</th>
<th>Key Response Actions</th>
</tr>
</thead>
</table>
| **Emergency Management** | • Gather initial intelligence  
• Activate disaster code, MCI plan or surge protocol  
• Activate appropriate HICS sections, and complementary emergency plans and procedures  
• Stand up Hospital Command Center  
• Notify hospital and health systems leadership |
| **Administrative leadership** | • Notify all staff of disaster/emergency activation and staffing expectations  
• Prepare to assist with non-clinical functions such as patient decompression, family reunification, secondary triage, and media management |
| **Admitting/Registration** | • Establish patient registration and tracking procedures  
• Activate EMR’s disaster registration process (abridged process by which associated can enter minimum necessary patient information)  
• Identify personnel to assist with clerical tasks (i.e., making calls, sending pages) during response |
| **Bad management** | • Support rapid patient discharge and rapid turnover of rooms |
| **Pharmacy** | • Send one or more staff to ED to ensure adequate medication supplies |
| **Materials Management/Central Sterile** | • Deploy pre-stocked and pre-positioned “disaster supply” carts and educate staff on location of carts |
| **Transport** | • Bring carts, wheelchairs, gurneys, pre-filled disaster carts and other essential supplies to ED-established entrances  
• Dispatch transporters to inpatient units to assist in rapid discharge and downgrade  
• Establish and maintain unidirectional flow of critical patients from ED to Radiology to OR/ICU |
| **Environmental Services** | • Surge staff to inpatient spaces followed by ED to help maintain rapid equipment cleaning and disinfection for room turnover |
| **Hospital Police/Security** | • Initiate lockdown procedures, including reducing the number of entrances/exits  
• Secure hospital’s perimeter and assign personnel to all entrances exits  
• Establish alternative traffic routing for emergency and non-emergency vehicles |
| **Social workers, chaplains, patient care representatives** | • Assist with family reunification, identification of patients, support families |

**Chart 3: Clinical Departments and Key Response Actions**

**Set Up Disaster Floor Plan**
- Designate area for red-tagged (emergent/critically ill/ESI level 1 and 2) – likely to be cared for by a combination of ED, surgery and ICU providers
- Designate area for yellow-tagged patients (Urgent/delayed/level ESI 3) – determine who will be caring for these patients – likely a combination of ED and medicine providers
- Designate area for green-tagged/lower acuity patients to wait to be seen (non-emergent/walking wounded/ESI level 4 and 5), – consider staffing hospitalists, orthopedic surgery
- Designate area for patients expected to pass for provision of palliative care (expectant)– determine who will staff this area (anesthesia, palliative care)
- Designate area for black tagged patient (deceased) - patients who have been pronounced dead when mortuary space is full
- Designate waiting area for discharged patients who are unable to yet leave the hospital and/or are there for family members
- Anticipate the second surge: an average of 4-6 people for every patient sought to find loved ones at local hospitals

**Reference**
RESPONSE AIDS CHECKLIST: GUIDE OVERVIEW

Many facilities have developed response aids to assist personnel with specific aspects of the MCI response plan. This guide is a set of pre-scripted messages and checklists for four departments:

- Emergency Department
- Operating Room
- Critical Care
- Radiology

Response aids shared here were adapted with permission from tools and processes developed by NYC Health + Hospitals/Bellevue, Mount Sinai West, and Mount Sinai St. Luke’s Hospital.

PRE-SCRIPTED MESSAGES WITH PRE-DEFINED RECIPIENT GROUP

These pre-scripted messages include information about activating the facility’s Hospital Incident Command System (HICS):

- Level A MCI Text Message (NO COMMANDER CENTER ACTIVATION)
  “Please be advised we have a HICS Alert 1 Activation due to a Level A MCI notification. “Type of incident” has occurred. Please stand by for further information.”

- Levels B – D MCI Text Message (COMMAND CENTER ACTIVATION)
  “Please be advised we have a HICS Level 2 Activation, and the Command Center has been activated due to a Level B/C/D MCI notification. We may receive up to X critical and X non-critical patients. [Provide ETA if given.] Officers and Section Chiefs report to the Command Center.”

PRE-SCRIPTED MESSAGES WITH PRE-DEFINED RECIPIENT GROUP

PRE-DEFINED RECIPIENT GROUP

The text messages are sent via a mass notification system to a pre-programmed MCI Team that includes the Chief of Department, Assistant Chief of Department, Emergency Management and Security, as well as Administrator for the following areas:

- Emergency Department
- Trauma
- Infection Control
- Respiratory Therapy
- Cardiac Surgery
- Anesthesia
- Psychiatry-Child Psych
- General Medicine
- Pathology-Blood Bank
- Cardiology
- Pediatrics and Pediatric Emergency Department
- Orthopedics
- Neuro-Surgery
- Pharmacy
- Radiology
- Social Work
- Child Life
- Admitting
- Patient Information Desk
# EMERGENCY ROOM

**PROTOCOl**

- Upon receipt of an MCI notification by ED personnel, the Hospital Operator (24/7 function) is alerted and tasked with sending out the pre-scripted message to the pre-defined recipient group.
- For a Level B–D MCI notification, the Emergency Management Director (or designee) will physically go to the ED to assess the situation with the ED Director to decide if the internal HICS activation level needs to be raised or lowered.
- All departments notified above know what actions need to be taken based on the MCI level and HICS activation level included in the pre-scripted message.

## DEPARTMENT-SPECIFIC MCI CHECKLISTS FOR UNIT LEADERS

**ED**

**OBJECTIVE:** To safely manage a rapid influx of patients during a mass casualty event.

**INSTRUCTIONS:** Follow checklist, initial, and indicate time when each item is completed.

<table>
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<th>INITIAL</th>
<th>TIME</th>
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!!! RECEIVE NOTIFICATION OF MASS CASUALTY INCIDENT !!!

- **Make overhead page:** Call all staff together for a huddle – DON’T BEGIN HUDGDE YET! “All staff report immediately to the Charge Nurse Station for a huddle. This is not a drill.”
- **Gather the MCI Supply Bag & Radios:** Direct a staff member to collect items and bring them to the huddle.

**MCI Supply Bag Location:** ____________________________  
**Radio Location:** ____________________________

- **Call Page Operator and activate MCI page** (select one below):
  - Alert – Request “Alert” when ED is aware of an unconfirmed or ongoing mass casualty incident with an unknown potential to exceed hospital clinical capacity.
  - Respond – Request “Respond” when the ED has received notification of a confirmed imminent threat or ongoing mass casualty incident that may exceed hospital clinical capacity unless additional staff/resources immediately respond to the hospital (use “respond” for all EMS MCI alerts).

**Notify additional key departments of the MCI**
- **Admitting** (Activate surge beds/prepare census)  
- **Blood Bank** (Ready blood product for ED/OR)  
- **Operating Room** (Ready ORs/pause elective cases)

**Phone #:**  
**Phone #:**  
**Phone #:**

**Confirm Emergency Dept. Leadership is aware of the mass casualty incident:**
- **Director or Director on Call** (pager #: ____________)
- **Emergency Dept. Nursing Dir. is aware of event** (pager #: ____________)

**Confirm Sr. Admin/Nursing Supervisor is aware of MCI**
- **Business Hours, Days (M-F)**  
  **Phone #:**  
  **Phone #:**

- **Non-Business Hours**  
  **Phone #:**  
  **Phone #:**

**Confirm Emergency Dept. Leadership is aware of the mass casualty incident:**
- **Director or Director on Call** (pager #: ____________)
- **Emergency Dept. Nursing Dir. is aware of event** (pager #: ____________)
## DEPARTMENT-SPECIFIC MCI CHECKLISTS FOR UNIT LEADERS
### EMERGENCY ROOM

**INSTRUCTIONS:** Follow checklist, initial, and indicate time when each item is completed

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- Repeat Overhead Page: Call all staff together for huddle and follow Huddle Agenda

### HUDDLE AGENDA

- Begin Huddle (brief all staff on incident)
  - What we know about the incident
  - How many expected patients, if known, or based on EM5 notification
  - Review key initial actions
    - Create capacity by discharging patients who can be rapidly discharged
    - Create capacity by identifying patients who can immediately be admitted to inpatient unit
    - Inpatient teams and transporters to ED to assist in rapid disposition
    - Begin use of disaster patient tracking procedures
    - Security to initiate ED lock-down procedures
    - Breaks held until further notice, no staff leaves until further notice

- Confirm roles; distribute resources: give key personnel vests, Job Action sheets, and radios
  - Unit Leader: ____________________________ (Charge RN)
  - Deputy Unit Leader: ____________________________ (Attending MD)
  - Liaison Officer: ____________________________ (RN)
  - Safety Officer: ____________________________ (Security/RN)
  - Safety Officer: ____________________________ (Security/RN)
  - Admin Supervisor: ____________________________ (Head BA)
  - Logistics Supervisor: ____________________________ (SA/Handler)
  - Treatment Supervisor: ____________________________ (Senior MD)
  - Triage Supervisor: ____________________________ (Senior Triage)

- Direct Staff to work: advise everyone to get to work and to listen for another huddle.

- Hospital EOP Activation – 10-minute rule: If no response from leadership after 10 minutes, then activate the hospital Emergency Operations Plan

- Report ED status & number of patients to Incident Commander/Hospital Leadership:
  - Command Center Phone #: ____________________________

- Request a recall of off-duty staff as needed:
  - Direct Liaison Officer to activate the nursing alert system
  - Direct Deputy Unit Leader to have senior resident alert the Chief-on-Call
  - Direct Deputy Unit Leader to alert Director-on-Call

- HAZMAT/WMD Event consideration:
  - Review Personal Protective Equipment and special response such as decontamination and isolation techniques

- Review your Unit Leader Job Action sheet

### ONGOING ASSESSMENT AND RESPONSE MANAGEMENT

- Close the loop on any open/assigned items
- Huddle with ED staff as needed to maintain effective communications and situational awareness
## DEPARTMENT-SPECIFIC MCI CHECKLISTS FOR UNIT LEADERS

### OPERATING ROOM (OR)

**OBJECTIVE:** To safely manage a rapid influx of patients during a mass casualty event

**INSTRUCTIONS:** Follow checklist, initial, and indicate time when each item is completed

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#### RECEIVE NOTIFICATION OF MASS CASUALTY INCIDENT!!!

- Refer to Department Emergency Operations Plan/OR Mass Casualty Procedure
- Confirm OR Unit Leader, Deputy Unit Leader, and OR Liaison assignments:
  - Unit Leader (Primary): ________________ (Alternate): ________________
  - Deputy Unit Leader: ________________
  - OR Liaison (to go to ED): ________________

- Alert staff in ORs to pause cases, if safe, and to hold all elective cases:
  - Temporarily hold elective cases; do not resume cases until the Emergency Department confirms they will not receive trauma cases from the event
  - If situation warrants, direct OR staff to finish current surgical procedures as soon as possible and prepare to receive trauma cases

- Send OR Liaison to Emergency Department (ED) to assist with triage:
  - Send an experienced practitioner to the ED to act as liaison between ED & OR
  - Maintain open communications between the OR Unit Leader and OR Liaison

- Activate call-in tree; recall staff as needed:
  - Assign an individual to activate the call-in tree
  - Use clerical personnel to make calls or use automatic paging system, if available

- Ensure adequate supplies:
  - Coordinate with anesthesia techs, blood bank, central sterile/materials management, and pharmacy personnel to ensure adequate supplies of fluids, medications, disposables, and other supplies

- Assign staff to operating rooms and determine current/future OR status and capacity:
  - Set up for trauma/emergency cases
  - Determine OR staffing and capacity over the next 0–2, 2–12, and 12–24 hours

- Consider assembly of Stat Teams to deploy to areas/assign to cases:
  - Staff teams with anesthesia, surgical, nursing, respiratory personnel as needed

- Notify PACU to decant by accelerating transfer of patients to units (floors/ICUs)

- Report OR status to Incident Commander(s) / Hospital Command Center(s):
  - Command Center Phone #: ________________ PACU Phone #: ________________

- Review your UNIT LEADER Job Action Sheet

### ONGOING ASSESSMENT AND RESPONSE MANAGEMENT

- Close the loop on any open/assigned items
- Huddle with ED staff as needed to maintain effective communications and situational awareness

## DEPARTMENT-SPECIFIC MCI CHECKLISTS FOR UNIT LEADERS

### CRITICAL CARE (CC)

**OBJECTIVE:** To safely manage a rapid influx of patients during a mass casualty event

**INSTRUCTIONS:** Follow checklist, initial, and indicate time when each item is completed

<table>
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#### RECEIVE NOTIFICATION OF MASS CASUALTY INCIDENT

- Refer to Department Emergency Operations Plan/CC Mass Casualty Procedure
- Make overhead page: Call all staff together for a huddle – DON’T BEGIN HUDDLE YET “All staff report immediately to the ICU middle for a huddle. This is not a drill.”

- Gather the MCI Supply Bag & Radios: Direct a staff member to collect items and bring them to the huddle
  - MCI Supply Bag Location: ________________
  - Radio Location: ________________

- Repeat overhead page: Call all staff together for a huddle and follow huddle agenda
<table>
<thead>
<tr>
<th>HUDDLE AGENDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Begin Huddle (brief all staff on incident)</td>
</tr>
<tr>
<td>- How many expected patients, if known</td>
</tr>
<tr>
<td>- Review key initial actions</td>
</tr>
<tr>
<td>- Identify open beds, create capacity by doubling up patients within rooms as needed</td>
</tr>
<tr>
<td>- Create capacity by identifying patients who can transfer to other units (i.e. Stepdown)</td>
</tr>
<tr>
<td>- Prepare for incoming patients by inventorying, gathering, and requesting supplies and clean equipment (IV pumps/poles, transport monitors, rapid transfusers, extra bedside modules/cables)</td>
</tr>
<tr>
<td>- Maintain roster of patients transferred out and/or admitted</td>
</tr>
<tr>
<td>- Manage nursing ratio, which may change in order to meet demands of the disaster</td>
</tr>
<tr>
<td>- Communicate needs and status to the Unit Leader who will contact the hospital command center</td>
</tr>
<tr>
<td>- Nurse Manager – confirm calling in staff</td>
</tr>
<tr>
<td>- No staff to leave until further notice, no breaks until further notice</td>
</tr>
</tbody>
</table>

| Confirm Critical Care Unit Leader and Deputy Unit Leader assignments |
| - Unit Leader: (primary): ___________________ (alternate): ___________________ |
| - Deputy Unit Leader: ___________________ |
| - Unit Liaison (respond to ED/see details below): ___________________ |

<table>
<thead>
<tr>
<th>DEPARTMENT-SPECIFIC MCI CHECKLISTS FOR UNIT LEADERS CRITICAL CARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSTRUCTIONS: Follow checklist, initial, and indicate time when each item is completed</td>
</tr>
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<table>
<thead>
<tr>
<th>ITEM</th>
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<tbody>
<tr>
<td>Critical Care Liaison to ED to communicate with the Clinical Leadership Group (CLG)</td>
</tr>
<tr>
<td>- Critical Care MD covering the emergency department will communicate Critical Care Unit status with the ED Deputy Unit Leader (ED Attending MD)</td>
</tr>
<tr>
<td>- Exchange contact information – Unit Leader to be available at ext.:</td>
</tr>
<tr>
<td>- Maintain open communications between the CLG and Critical Care Unit Leader, establish a schedule for recurring check-ins</td>
</tr>
<tr>
<td>Assign nurses to patients based on acuity and disaster</td>
</tr>
<tr>
<td>- Assign nursing assistant to prepare available rooms</td>
</tr>
<tr>
<td>- Assign unit secretary to direct families to outside waiting room</td>
</tr>
<tr>
<td>Activate call-in tree; recall staff as needed</td>
</tr>
<tr>
<td>Report unit status &amp; number of patients to Incident Commander/Hospital Leadership:</td>
</tr>
<tr>
<td>- Command Center Phone #: ___________________</td>
</tr>
<tr>
<td>- Review your UNIT LEADER Job Action Sheet</td>
</tr>
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<table>
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</thead>
<tbody>
<tr>
<td>- Close the loop on any open/assigned items</td>
</tr>
<tr>
<td>- Huddle with CC staff as needed to maintain effective communications and situational awareness</td>
</tr>
</tbody>
</table>
### DEPARTMENT-SPECIFIC MCI CHECKLISTS FOR UNIT LEADERS
#### RAD

**OBJECTIVE:** To efficiently image and diagnose a rapid influx of trauma patients during a mass casualty incident.

**INSTRUCTIONS:** Follow checklist, initial, and indicate time when each item is completed.

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#### RECEIVE NOTIFICATION OF MASS CASUALTY INCIDENT!!!

- **Confirm Radiology Unit Leader and Deputy Unit Leader assignments:**
  - Unit Leader: (Primary): ___________ (Alternate): ___________
  - Deputy Radiology Unit Leader: ___________

- **Activate call-in tree; recall staff as needed:**
  - ER Resident notifies ER Attending Radiologist, Chief Resident(s), IR house staff, and Lead Tech
  - ER Attending radiologist will notify attending leadership
  - Chief Resident(s) will notify additional resident physician staff
  - Lead Tech will notify his or her supervisor

- **Activate call-in tree; recall staff as needed:**
  - Assign an individual to activate the call-in tree
  - Use clerical personnel to make calls or use automatic paging system, if available

- **ED Radiology Resident to communicate with a member of Clinical Leadership Group (CLG):**
  - Radiology resident covering the emergency department will communicate acute radiological findings with the Deputy Unit Leader in the ED
  - Maintain open communications between the CLG and Radiology Unit Leader
  - Exchange contact information – Radiology to be available at ext.: ___________

- **Tech Supervisor assign staff to X Ray and CT Scanner rooms and determine current/future status and capacity:**
  - Determine Department staffing and capacity over the next 0–2, 2–12, and 12–24 hours

- **Lead Tech alerts staff at the front desks and technologists to pause cases, if safe, and to hold all non-emergent imaging for inpatients and outpatients:**
  - Temporarily hold non-emergent imaging; do not resume non-emergent imaging until the Emergency Department confirms they will not receive trauma cases from the event
  - If situation warrants, direct radiology technologists to finish scanning these patients as soon as possible and prepare to receive trauma cases

- **Lead Tech ensures adequate supplies:**
  - Coordinate with diagnostic and interventional radiology techs and nurses, central sterile materials management, and pharmacy personnel to ensure adequate supplies of fluids, contrast material, disposables, and other supplies

### DEPARTMENT-SPECIFIC MCI CHECKLISTS FOR UNIT LEADERS
#### RAD

- **Report OR status to Incident Commander(s) / Hospital Command Center(s):**
  - Command Center Phone #: ___________
  - PACU Phone #: ___________

- **Review your UNIT LEADER Job Action Sheet**

**ONGOING ASSESSMENT AND RESPONSE MANAGEMENT**

- **Close the loop on any open/assigned items**
- **Huddle with ED staff as needed to maintain effective communications and situational awareness**
The Opportunities for Women in Leadership (OWL) Program is a longitudinal mentorship program supported by New York ACEP with the goal of promoting the advancement of women in Emergency Medicine. In line with the organization’s commitment toward diversity and inclusion, the program aims to provide leadership education, establish local and regional mentorship networks, and create sponsorship opportunities for six New York ACEP members at different career stages. This inaugural year of the program was funded through a national ACEP Chapter Grant award. What follows are the accomplishments of the participants over the course of the year, written jointly by each mentor-mentee pair. For more information about the OWL Program, please contact nyacep@nyacep.org.

Mentee: Maha S Salama, MD
Mentor: Ninfa Mehta, MD
This year has been about career development for me. Being part of the OWL program allowed me to acquire many strong female mentors, all of which were strong role models for me. Throughout this past year I worked on my chief resident duties with conference, balancing administrative duties with clinical duties in my last year as an emergency medicine resident. I was able to attend more conferences this year including presenting at international conferences which allowed me to start building my portfolio for my academic career. I look forward to continuing my career with a fellowship in Critical Care. The OWL program taught me a lot about what it takes to be a female leader in our field of emergency medicine and I hope to use what I’ve learned to help me as well as future female leaders in both emergency medicine and in critical care. Both of these fields are male dominant and I hope to be a strong female leader in both fields, so that future emergency medicine residents and critical care fellows can have a strong female role model to look up to.

Mentee: Lauren J Curato, MBS DO
Mentor: Nicole Berwald, MD
The OWL Program came at an exciting time in my career: I had just transitioned from my first attending job at a community hospital to an academic institution. I did not know what to expect when I applied to OWL; I had never been part of a formalized mentorship program and this was a new endeavor for New York ACEP. What I discovered in our group of mentors and mentees was a network of successful women leaders in emergency medicine who were eager to share their experiences and advice through both structured topic-driven sessions and off-the-cuff personal anecdotes. Dr. Nicole Berwald and I were paired and met at the New York ACEP Scientific Assembly at The Sagamore in July 2019. We scheduled monthly calls thereafter where she provided me with suggestions for how to navigate my new work environment, encouraged my involvement in educational and operational activities, taught me the importance of “there’s no harm in asking” and sparked my interest to get more involved in New York ACEP. Dr. Berwald and the entire OWL team have modeled effective mentorship; I hope to pay it forward.

As a mentor, I have benefited from one-on-one mentoring throughout my career, both as the mentor and mentee. I was fortunate once again to realize the value of this learning and development partnership. In addition to this traditional mode, the OWL Program provided a unique experience beyond that of the typical mentor-mentee dynamic by incorporating group sessions that promoted vertical and horizontal mentorship. The diversity of this group’s experience provided support for the novice members as well as the most senior participant. I hope to see this program continued.

Mentee: Anna Van Tuyl, MD
Mentor: Angela Mills, MD
It was at the very first meeting of the OWLS group, that I began to learn one of the most meaningful lessons of my career from this group of impressive and accomplished women. As one of the oldest members of the group, I came to the meeting with reservations and trepidation about being a “mentee.” I was keenly aware that my mentor and many of the other mentees in the room were not only younger, but also more advanced in their careers. My career has taken a more circuitous path and therefore I have always felt as though I had “fallen behind,” my colleagues with similar aspirations. There was a faint sense of embarrassment at my perceived lack of accomplishment. What I began to understand at that first meeting and have since come to embrace is that emergency medicine allows physicians the space to create their own journey. There is a unique flexibility in our specialty that allows us to be creative about molding our careers to the idiosyncrasies and unexpected twists and turns of our lives. There is no standard track and this is one of the wonderful things about our specialty; everyone incorporates their unique story into their work. In the past few months, with the help of this group, I have evolved past the impulse to justify my career path and I can appreciate that all of the experiences that brought me to this point are an asset and not a hindrance. Thank you to all of the inspirational women of the OWLS group!

Mentee: Monica R Saxena, MD JD
Mentor: Penelope C Lema, MD
I started the OWL program at the beginning of my final year of residency. I had come to medical school as a second career after working as a legal consultant for the United Nations in Cambodia advocating for Khmer Rouge survivors. From this experience I had interests in working in global health and with under served populations especially low income communities of color. In residency I developed a passion for point of care ultrasound and saw it as a powerful tool to be used in populations with limited access to care.

Through the OWL program I had expo-
sure to women and men who had walked the path I was starting to navigate. I listened and I learned. As such, this year I continued to advocate for underserved populations in the United States (https://abcnews.go.com/Health/border-patrol-denies-undocumented-immigrants-free-influenza-vaccine/story?id=67237256) and matched into an ultrasound fellowship at Stanford University. I plan to continue my advocacy by researching how ultrasound can be used to improve diagnosis and treatment in communities with limited access to care.

I am very grateful to the OWL program for the support that made me realize I didn’t have to divide my interests in Emergency Medicine but could forge my own career path.

Mentee: Elaine Rodriguez, MD MPH
Mentor: Livia M Santiago-Rosado, MD FACEP

The OWL program was intriguing to Livia since its inception, but in her mind, as a potential mentee. When she was approached about becoming a mentor in the program, it seemed upside down. Perhaps the idea of “formal” mentorship was appealing despite being firmly in mid-career and having achieved positions of leadership, since such opportunities were limited during her training and early career, and she has felt like the rough-around-the-edges scrappy kid figuring things out on her own. The scheduled frequent interactions, the insightful educational topics presented, and its structured coaching presented a new view, or perhaps a whole new window into the trajectory of a career, allowing us to acknowledge that success and longevity are products of the lessons learned, the work done, the relationships made, the path forged. Livia not only received the rewards of being a mentor to Elaine, for this year and for life. She also received the benefit of feeling supported, and yes, mentored, by the design of the OWL program itself.

Livia was matched with Elaine, a senior resident who was feeling lost as to what her niche would be. During the course of the year, Elaine became a first-time mother, introducing new dimension and complexity to the decisions she would face. Elaine drew direction from the OWL program not only from having Livia as a mentor that provided her support and guidance, but from the opportunity to partake in meetings that would be “therapeutic” for her. The meetings that OWL held throughout the year would cover topics that directly affected her day to day as a physician, and would also offer a safe space to seek guidance from female leaders within Emergency Medicine.

From their mentor/mentee relationship, to an increase in confidence to pursue a career in Academic Medicine, the OWL program has been an amazing and rewarding experience for both Livia and Elaine.

Mentor: Kaushal H Shah, MD FACEP

Kaushal and I met several times throughout the year - typically for meals or coffee. It was a great time to go over how my projects were going and what I should focus on to help move my career forward. Kaushal recommended me for several speaking engagements and I was able to give an hour long talk at Columbia EM resident conference about GI bleeds, anticoagulants and the science of interruptions. One of the big things I learned throughout the experience was to keep my focus and to avoid getting spread too thin by taking on every opportunity.

Developing a one and three-five year plan helped inform some of the tough decisions I had to make. Learning how to prioritize and focusing on projects that help me move toward my goal of eventually becoming a program director was one of the biggest lessons I learned from the experience.

Mentee: Annemarie M Cardell, MD
Mentor: Kaushal H Shah, MD FACEP

Congratulations
Exemplary Commitment to Physician Well-Being Department Award

Edward W. Gilmore Lifetime Achievement Award
Samuel F. Bosco, MD FACEP

Exemplary Commitment to Physician Well-Being Residency Program Award

Advancing Emergency Care
Stuart G. Kessler, MD FACEP

Physician of the Year
Louise A. Prince, MD FACEP

Michael G. Guttenberg Outstanding Contribution to EMS
Michael T. McEvoy, PhD CCRN NRP

Lifetime Researcher
Benjamin W. Friedman, MD MS FACEP

Established Researcher
Bernard P. Chang, MD PhD FACEP

Rising Star Researcher
Anthony E. Rosan, MD MPH

Congratulations

2020 Award Recipients

Columbia University Department of Emergency Medicine

Weill Cornell Medicine
Emergency Medicine

Maimonides Medical Center
Southside Hospital Northwell Health

The United States has been severely hit by COVID-19, more so than any other nation, accounting for approximately one-third of all global confirmed cases. In the initial stages, New York City became the global epicenter of the pandemic. Amidst the devastation that wrecked New York City’s health system is a harsh reality – racial minorities are being disproportionately impacted. As of June 12, 2020, age-adjusted hospitalization rates for non-Hispanic American Indian or Alaska Native and non-Hispanic black persons were nearly five times that of non-Hispanic white persons. Hispanic or Latin persons have a rate approximately four times that of non-Hispanic white persons. Age-adjusted mortality rates per 100,000 people are just as appalling: African American had 92 deaths and Hispanic/Latin individuals had 74 deaths compared to 45 deaths reported for Caucasian Americans as of June 10, 2020. While these statistics are damning, health disparities seen in minorities are not new and have only been highlighted further during the COVID-19 pandemic. Health Disparities, as defined by Health People 2020, adversely affect groups who have systematically experienced greater obstacles to health based on their racial or ethnic group, religion, gender identity, sexual orientation or other characteristics historically linked to discrimination or exclusion. Social determinants of health (SDoH), which include racial inequalities, account for anywhere from 40-80% of all health outcomes, compared to traditional clinical care, which comprises approximately 20%. Despite this, the United States is the only developed country that spends more on health care than on social services. Therefore, it should be of no surprise that Black and Hispanic Americans, along with American Indians, have higher infant mortality rates; and premature deaths from stroke and heart disease are highest among Black Americans. Additionally, chronic diseases, such as asthma, diabetes, hypertension, obesity and pre-term births are more prominent in minorities.

There is no singular cause for racial inequalities seen in healthcare, but a contributing factor is implicit racial biases amongst healthcare providers towards people of color and/or specific ethnic background. Implicit biases may be universal amongst all individuals and subtle, but they do hinder any chance in developing a trusting patient-provider relationship, which is vital, particularly in the emergency setting. As the safety net of society, emergency departments (ED) serve as an interface between medicine and society. Our patients come to us when they have nowhere else to go, and as emergency providers, we are often defined by our ability to be their advocates, more so than the procedures we perform. However, the high volume and fast-paced nature of emergency medicine usually affords us only one chance to make a positive impression on our patients, and this interaction is paramount for us to provide the best care and address their needs. When we unknowingly fail and let our prejudice enter the equation, it is the patient who suffers. If a provider believes that their Black American and/or Hispanic/Latin patients are less intelligent, more likely to engage in risky health behaviors, or unlikely to accept responsibility for their own health, and thus less able to adhere to treatment recommendations, it impacts the providers’ decision in doing a more or less thorough diagnostic workup. They may potentially spend less time explaining diagnoses and treatment with certain minority patients. Furthermore, a dominant or condescending tone decreases the likelihood a patient will feel heard and valued, and failing to provide an interpreter when needed, or offering limited empathy and positive emotions, causes people of color to become less trusting of the healthcare system; compounding the disparity.

The impact of racial/ethnic biases extends well beyond patient outcomes. Since implicit biases often exist outside of conscious, they are difficult to acknowledge and control, a fact that likely has allowed health disparities to persist into various sectors of healthcare, such as diversity and promotion of under-represented minorities, along with lack of emphasis in medical education and training. A recent study by Fang et al. demonstrated that minority faculty in academic medicine are less likely to be on tenure track or to received NIH awards, and thus less likely to be promoted compared to their white counterparts, despite the fact that their representation has steadily increased over time. Additional-
ally, the concept of racial inequalities in medical school curricula has been dominated by biological perspective rather than focusing on alternative approaches such as the sociopolitical aspect.\(^\text{10}\) The combination of these issues perpetuate the vicious cycle of racial disparities within healthcare and has a domino effect on medical education and training, as attending physicians, nurses and senior colleagues play the largest role in the learning process, more so than textbooks or simulations. Take for example, an attending physician, who has the power to impact a student or resident’s grade/evaluation and, more importantly, oversees all his or her decisions, thus shaping his or her understanding of “appropriate” medicine. If there continues to be a lack of minorities represented and/or promoted to leadership positions within academic medicine, it will worsen the growing concern of being able to adequately provide culturally competent care and training to our medical students and residents in an increasingly diverse patient population. Also without increased minority faculty, it will be nearly impossible to provide unbiased bedside teaching and uncover specific implicit biases that may already exist within students or residents. A systemic review done in 2015 highlighted this fact when it demonstrated that although health profession students may have similar levels of racial/ethnic bias to those of practicing providers, it has less of an impact on health outcomes. This suggests that implicit bias becomes more pronounced as professionals progress through their training and career, likely from following in the footsteps of their peers and colleagues.\(^\text{8}\)

The United States is currently in the midst of two pressing issues: the COVID-19 pandemic, and social injustice with the recent murders of George Floyd, Breonna Taylor and Ahmaud Arbery. Although these issues are being addressed individually, they both are an endemic that highlights racial inequalities that are a daily reality plaguing the patients and communities that we serve for decades. At its roots, emergency medicine is a specialty born of societal needs to provide equal care for all patients, regardless of their socioeconomic or racial status. Therefore, we must unify as a specialty collectively to address these racial inequalities within the medical profession. At Columbia University Medical Center Department of Emergency Medicine, members of the Social EM group are actively working on initiatives to reduce health disparities and advance anti-racism efforts. Through a multi-faceted approach, we hope to promote health equity by creating pipeline programs that increase diversity within health professions, collaborate with public health colleagues that lead to policy change and research opportunities, and formalize a social medicine curriculum that places greater emphasis on better recognizing and understanding SDoH, including racial inequalities which can be incorporated into medical education and training. We hope that such an approach may be adapted by other institutions in the near future to help address these pressing issues.

References
CONCLUSIONS: The study findings suggest that transport home via ambulance after hospital discharge could be predictive of a high risk of recidivism independent of established read-

Impact of Provider-In-Triage in a Safety-Net Hospital.
Shah R, Leno R, Sinert R; Department of Emergency Medicine, Kings County Hospital, Brooklyn; J Emerg Med; 2020 Jun 25.

BACKGROUND: Increasing emergency department (ED) utilization has contributed to ED overcrowding, with longer ED length of stay (EDLOS) and more patients leaving without being seen (LWBS), and is associated with higher morbidity and mortality rates. Previous studies of provider in triage (PIT) have shown decreased LWBS, but variable improvements in EDLOS.

OBJECTIVES: We evaluated the impact of PIT implementation in an urban safety-net hospital on commonly reported ED throughput metrics.

METHODS: This before-and-after study was performed at an academic urban safety hospital. We implemented a PIT team that screened ambulatory ED patients for early discharge or expedited workup. The PIT intervention was implemented three days a week from January through April 2019. As controls, we compared throughput metrics from when PIT was unavailable (Group 2) and from one year prior (Group 3).

RESULTS: There were significantly (p < 0.001) lower rates of LWBS in Group 1 (4.8%, 95% confidence interval [CI] 4.1-5.8%) compared with 2 (7.3%, 95% CI 5.5-9.7%) and 3 (7.8%, 95% CI 6.9-9.0%). Door-to-doctor times were significantly (p < 0.001) lower for Group 1 (148 min, interquartile range [IQR] 88, 226 min) compared with 2 (187 min, IQR 95.5, 266 min) and 3 (215 min, IQR 131, 290 min). EDLOS was significantly (p < 0.001) shorter for Group 1 (337 min, IQR 215, 468 min) compared with 2 (385 min, IQR 271, 516 min) and 3 (413 min, IQR 299, 538 min).

CONCLUSIONS: We found significantly lower LWBS rates, shorter EDLOS, and shorter door-to-doctor times after PIT implementation. Compared with previous studies in a variety of settings, we found that PIT significantly improved LWBS and all throughput metrics in a safety net setting.

First-Line Vasopressor and Mortality Rates in ED Patients with Acute Drug Overdose.
Clifford C, Sethi M, Cox D, Manini AF; Department of Emergency Medicine, Elmhurst Hospital Center, Queens, NY; J Med Toxicol; 2020 Jul 11.

INTRODUCTION: While emergency department (ED) visits for acute drug overdose are at an all-time high, the importance of vasopressors to treat circulatory shock in this patient population remains unclear. This study investigated the association between first-line vasopressor and mortality, for both push-dose and infusion, in this patient population.

METHODS: From a prospective cohort of consecutive ED patients with drug overdose at two urban teaching centers over five years, we performed a secondary data analysis of patients with circulatory shock, defined as hypotension requiring either vasopressors, high-dose insulin euglycemia therapy, or both. The first-line vasopressor (push-dose and infusion) was analyzed for associations with the primary outcome (in-hospital mortality) and secondary outcomes (24-hour mortality, ICU LOS). Subgroup analysis of beta-calcium-channel blocker overdose was performed to evaluate impact of antidotal therapies. Data analysis included multivariable regression.

RESULTS: Fifty-five patients with circulatory shock were analyzed, in whom there was 20% 24-hour mortality, 42% in-hospital mortality, 730-minute mean vasopressor duration, and 53.4-hour median ICU LOS. On multivariable analysis, there was significantly decreased adjusted odds of in-hospital mortality with first-line push-dose phenylephrine (aOR 0.06, CI 0.01-0.55), and significantly increased adjusted odds of in-hospital mortality with first-line push-dose epinephrine (aOR 60.8, CI 6.1-608). Of the first-line infusions, norepinephrine had the lowest odds of in-hospital mortality (aOR 0.80, CI 0.2-3.1).

CONCLUSIONS: In ED patients with undifferentiated drug overdose and circulatory shock, the first-line vasopressor is associated with in-hospital mortality. First-line push-dose phenylephrine was associated with the lowest odds of in-hospital mortality. Future randomized studies are warranted for validation.

Retrospective Cohort Study of Rates of Return Emergency Department Visits Among Patients Transported Home by Ambulance.

BACKGROUND: Emergency Medical Services (EMS) is an important resource that interacts with our most vulnerable patients during transport home after hospital discharge. EMS providers may be appropriately situated to support the transition of care to the home environment.

OBJECTIVES: This study aimed to determine whether patients transported home by ambulance experience higher rates of return emergency department (ED) visits and readmission compared with similar patients transported home by other means.

METHODS: This was a retrospective cohort study conducted at a U.S. tertiary care academic hospital. Patients aged 65 years and over transported home via ambulance after hospital discharge between January and March 2012 were included. Rates of 72-h and 30-day ED revisits and 30-day hospital readmissions were calculated. Odds ratios were calculated and revisit rates between groups were compared.

RESULTS: There were 207 patients aged 65 and over transported home by ambulance. Matched controls were found for 162 patients. Compared with the matched controls, the exposed group experienced a statistically significant higher rate of 30-day ED returns (18.519% vs. 10.494%; odds ratio [OR] 1.939; p = 0.043). The exposed group also experienced a higher rate of 72-h ED returns (2.469% vs. 0.617%; OR 4.076) and 30-day readmissions (12.346% vs. 6.173%; OR 2.141), though results did not reach statistical significance.

CONCLUSION: The study findings suggest that transport home via ambulance after hospital discharge could be predictive of a high risk of recidivism independent of established read-

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mission risk factors. Programs that expand the role of EMS to include post-transport interventions may warrant further exploration.

Impact of Triage Liaison Provider on Emergency Department Throughput: A Systematic Review and Meta-Analysis.


INTRODUCTION: Emergency department (ED) overcrowding is linked to poor outcome and decreases patient satisfaction. Strategies to control Emergency department (ED) overcrowding has been subject of research.

STUDY OBJECTIVES: The objective of this systematic review and meta-analysis was to investigate the impact of triage liaison providers (TLPs) on the ED throughput.

METHODS: We searched PubMed, EMBASE, and Web of Science up to April 2019 for studies done in the United States. Primary outcomes were number of patients left without being seen (LWBS) and patients’ emergency department length of stay (ED-LOS). ED-LOS data was pooled using mean difference with random effect model. Risk Ratio (RRs) for LWBS was calculated with random effect model with 95% confidence interval (95% CI).

RESULTS: Twelve studies encompassing 329,340 patients were included in the meta-analysis. Implementation of the TLP system using attending physicians was associated with a decrease in risk of LWBS 0.62 (95% CI 0.54, 0.71). The change in ED-LOS after implementation of TLP was too heterogeneous to pool the data with the mean ΔED-LOS ranging from -82 to +20 min. Stratification of studies by disposition, admitted versus discharged, did not decrease the heterogeneity.

CONCLUSION: Implementation of TLP can decrease the rate of LWBS however this review is inconclusive about the effect of TLP on ED-LOS due to the high heterogeneity observed in the literature.

Relation Between Pediatric Emergency Department Activity and Patient Complexity.

Hahn B, Chacko J, Klinger R, Giunta Y; Department of Emergency Medicine, Staten Island University Hospital, Northwell Health, Staten Island; South Med J; 2020 Jun;113(6):281-284.

OBJECTIVES: Potentially projecting pediatric emergency department (ED) volume trends is a matter that has been researched extensively. It is vital to understand the relation between patient complexity and department volumes to properly staff and allocate resources within the ED. Multiple studies have analyzed ED volumes based on disease severity; however, the degree of illness was determined by triage classification. This study proposed a novel method of evaluating the relation between pediatric ED patient complexity centered on Current Procedural Terminology (CPT) code and day of the week.

METHODS: This was a retrospective study of pediatric patients presenting to the ED between January 1, 2010 and December 31, 2015. This study looked at the relation between individuals with CPT codes who were evaluated in the pediatric ED on a particular day of the week and evaluated in the pediatric ED either the day before, the day of, and the day after a legal holiday.

RESULTS: A total of 81,698 (54%) male and 70,002 (46%) female patients were analyzed. No relation was noted between ED patient complexity, based on their CPT code, and the day of the week (P = 0.41). Individual, non-statistically significant differences between the day of the week and pediatric ED volumes were identified, however.

CONCLUSIONS: We identified no relation between pediatric ED patient complexity, assessed by CPT code, and the day of the week. Furthermore, a more multifactorial and granular analysis may be necessary to model resource constraints by type and time of day to more effectively manage ED resources. CPT-based modeling may benefit superimposed financial analyses of demand-capacity management.

Brief Resolved Unexplained Event: Not Just a New Name for Apparent Life-Threatening Event.

Gerber NL, Fawcett KJ, Weber EG, Patel R, Glick AF, Farkas JS, Mojica M; Division of Pediatric Emergency Medicine, Department of Emergency Medicine, New York Presbyterian-Weill Cornell Medical Center, New York; Pediatr Emerg Care; 2020 May 28.

OBJECTIVES: This study aimed to evaluate patients who presented to the pediatric emergency department with an apparent life-threatening event (ALTE) to determine if these patients would meet the criteria for brief resolved unexplained event (BRUE), a new term coined by the American Academy of Pediatrics in May, 2016; risk stratify these patients to determine if they meet the BRUE low-risk criteria; and (3) evaluate outcomes of patients meeting the criteria for BRUE.

METHODS: We conducted a retrospective chart review of patients who presented to a large urban academic center pediatric emergency department with an ALTE from January 2013 to May 2015 (before the publication of the BRUE guideline). Children ≤12 months of age were identified by the International Classification of Diseases, Ninth/Tenth Revision. Two physician reviews were performed to determine if patients met the ALTE diagnostic criteria. Data were then extracted from these charts to complete objectives.

RESULTS: Seventy-eight patients met the diagnostic criteria for ALTE. Only one of those patients met the diagnostic criteria for BRUE, but not for low-risk BRUE. This patient underwent an extensive inpatient evaluation and was eventually discharged after monitoring with a benign diagnosis. Most patients did not meet the criteria for BRUE because the event was not unexplained.

CONCLUSIONS: Only one patient who presented to the ED with ALTE met the criteria for BRUE, and this patient did not meet the low-risk criteria. This study corroborates previous research on BRUE and continues to highlight the importance of conducting a thorough history and physical examination on all patients presenting to the ED with concerning events.

Ondansetron Prescription Is Associated With Reduced Return Visits to the Pediatric Emergency Department for Children With Gastroenteritis.


STUDY OBJECTIVE: We determine whether an ondansetron prescription for pediatric patients with vomiting or gastroenteritis is associated with decreased return visits to the emergency department (ED), and whether
alternate diagnoses are more frequent on return visits in patients prescribed ondansetron.

**METHODS:** This is a retrospective cohort study of patients six months to 18 years of age, presenting to a pediatric ED or its affiliated urgent care centers between 2012 and 2017 with an International Classification of Diseases, Ninth Revision or International Statistical Classification of Diseases and Related Health Problems, Tenth Revision diagnosis of gastroenteritis, gastroitis, vomiting, or vomiting with diarrhea. Multivariate logistic regression analysis was used to measure the association between an ondansetron prescription and the odds of 72-hour return visits. Rates of alternate diagnoses on return visits (appendicitis, intussusception, intracranial mass, meningitis, and diabetic ketoacidosis) were compared between patients who were prescribed ondansetron for home use and those who were not.

**RESULTS:** A total of 82,139 patients were studied, with a median age of four years. An ondansetron prescription was given to 13.4% of patients on discharge. The 72-hour return visit rate was 4.7%. Patients receiving an ondansetron prescription had decreased odds of 72-hour return visits (adjusted odds ratio 0.84; 95% confidence interval 0.75 to 0.93). The subgroup of patients specifically receiving a diagnosis of gastroenteritis had decreased odds of 72-hour return visits (adjusted odds ratio 0.82; 95% confidence interval 0.72 to 0.95). There was no significant difference between groups in the diagnosis of appendicitis on return visit (odds ratio 0.97; 95% confidence interval 0.37 to 2.18).

**CONCLUSION:** An ondansetron prescription is associated with reduced 72-hour ED return visit rates for children with vomiting or acute gastroenteritis and is not associated with masking alternate diagnoses.

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Interobserver Agreement in the Assessment of Clinical Findings in Children with Headaches.


**OBJECTIVE:** To determine the interobserver agreement of history and physical examination findings in children undergoing evaluation in the emergency department (ED) for headaches.

**STUDY DESIGN:** We conducted a prospective, cross-sectional study of children aged 2-17 years evaluated at three tertiary-care pediatric EDs for non-traumatic headaches. Two clinicians independently completed a standardized assessment of each child and documented the presence or absence of history and physical examination variables. Unweighted κ statistics were determined for 68 history and 24 physical examination variables.

**RESULTS:** We analyzed 191 paired observations; median age was 12 years, with 19 (9.9%) children younger than seven years. Interrater reliability was at least moderate (κ ≥ 0.41) for 41 (60.3%) patient history variables. Eleven (61.1%) of 18 physical examination variables for which κ statistics could be calculated had a κ that was at least moderate.

**CONCLUSIONS:** A substantial number of history and physical examination findings demonstrated at least moderate κ statistic values when assessed in children with headaches in the ED. These variables may be generalizable across different types of clinicians for evaluation of children with headaches. If also found to predict the presence or absence of emergent intracranial abnormalities, the more reliable clinical findings may be helpful in the development of clinical prediction rules or risk stratification models that could be used across settings for children with headaches.

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Ultrasound Identification of Retrobulbar Hematomas by Emergency Physicians in a Cadaveric Model.

Carlin E, Palmieri A, Bajaj T, Nelson M; North Shore University Hospital, Department of Emergency Medicine, Manhasset; West J Emerg Med; 2020 Apr 13;21:622-625.

**INTRODUCTION:** Retrobulbar hemorrhage (RBH) is a rare complication of facial trauma that can lead to dangerous orbital compartment pressures and must be rapidly recognized to prevent permanent vision loss. Point-of-care ultrasound (POCUS) offers a rapid modality for evaluating a wide variety of ocular pathologies, and prior case reports demonstrate the ability of clinicians to recognize RBH using ultrasound. This study aimed to assess the ability of clinicians at various stages of training to identify a RBH using POCUS in a cadaveric model. Clinicians also were assessed for self-reported comfort using ultrasound for ophthalmology before and after the study.

**METHODS:** Participants included 17 physicians who evaluated 10 eyes (from five cadavers) that were independently randomized to have either a modeled RBH or no hemorrhage. Participants’ final diagnosis of each eye was recorded (RBH present or not), and participants also completed pre- and post-activity surveys.

**RESULTS:** The overall sensitivity and specificity to correctly diagnose retrobulbar fluid was 87% and 88%, respectively. Sensitivity and specificity were higher after excluding clinicians in their early phase of training. Additionally, self-reported comfort level with ocular ultrasound was significantly improved by this activity.

**CONCLUSION:** Emergency physicians at a variety of training levels can correctly identify a cadaveric model of retrobulbar hemorrhage. Use of this cadaveric model can improve exposure of clinicians to the appearance of a rare but vision-threatening ocular pathology such as RBH.

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Homeless Shelter Entry in the Year After an Emergency Department Visit: Results From a Linked Data Analysis.


**STUDY OBJECTIVE:** Housing instability is prevalent among emergency department (ED) patients and is known to adversely affect health. We aim to determine the incidence and timing of homeless shelter entry after an ED visit among patients who are not currently homeless.

**METHODS:** We conducted a random-sample survey of ED patients at an urban public hospital from November 2016 to September 2017. Patients provided identifying information and gave informed consent for us to link their survey data with the New York City Department of Homeless Services shelter database. Shelter use was followed prospectively for 12 months after the baseline ED visit. We examined timing of shelter entry in the 12 months after the ED visit, excluding patients who were homeless at baseline.

**RESULTS:** Of 1,929 unique study participants who were not currently homeless, 96 (5.0%) entered a shelter within 12 months of their baseline ED visit. Much of the shelter entry occurred in the first month after the ED visit,
subsequent months. Patients in our sample who entered a shelter were predominantly men and non-Hispanic black, and commonly had past shelter and frequent ED use.

CONCLUSION: In this single-center study, 5.0% of urban ED patients who were not currently homeless entered a homeless shelter within the year after their ED visit. Particularly if replicated elsewhere, this finding suggests that ED patients may benefit from efforts to identify housing instability and direct them to homelessness prevention programs.

Use of Physician-Estimated and Patient Self-Reported Weights to Guide Initial Fluid Resuscitation in Emergency Department Patients With Suspected Sepsis.

Lessing JK, Ford WJH, Steel PA, Clark S, Sharma R, Arbo JE; Division of Emergency Medicine, Joan and Sanford I. Weill Department of Medicine, Weill Cornell Medicine, New York; J Intensive Care Med; 2020 Apr 22

BACKGROUND: Knowledge of patient weight is required to guide initial intravenous fluid therapy for patients with sepsis-associated hypotension or elevated lactate. Previous studies have shown patients are better estimators of their weight than medical providers are; critically ill patients, however, may be unable to provide this information.

OBJECTIVES: This study compares the accuracy of physician-estimated and patient self-reported weights to subsequent inpatient bed/stretcher scale weights for guiding initial protocol-based intravenous fluid therapy in the treatment of emergency department patients with suspected sepsis.

METHODS: Adult patients presenting with a suspected diagnosis of severe sepsis to a large, urban, academic emergency department had either physician-estimated or patient self-reported weights recorded on presentation. All patients had subsequent inpatient bed/stretcher scale weights recorded on the first day of hospitalization.

RESULTS: Physician-estimated and patient self-reported weights linearly correlated (P < .001) with inpatient bed/stretcher scale weights. Median accuracy error for physicians (5.4% [2.0-10.1]) and patients (3.9% [1.6-6.4]) was not significantly different (P = .28). Physician-estimated and patient self-reported weights accuracy was determined at multiple levels: within 5% (46%, 57%, respectively), 10% (75%, 90%), 15% (90%, 95%), and 20% (100%, 95%) error tolerances, as well accurate estimates within 5 kg (69.2%, 70.0%).

CONCLUSIONS: Both physician-estimated and patient self-reported weights are reliable when calculating initial protocol-based intravenous fluid resuscitation for emergency department patients with sepsis.

Prevalence of Intracranial Injury in Adult Patients With Blunt Head Trauma With and Without Anticoagulant or Antiplatelet Use.


STUDY OBJECTIVE: We determine the prevalence of significant intracranial injury among adults with blunt head trauma who are receiving preinjury anticoagulant or antiplatelet medications.

METHODS: This was a multicenter, prospective, observational study conducted from December 2007 to December 2015. Patients were enrolled in three emergency departments (EDs) in the United States. Adults with blunt head trauma who underwent neuroimaging in the ED were included. Use of preinjury aspirin, clopidogrel, and warfarin was recorded. Data on direct oral anticoagulants were not specifically recorded. The primary outcome was prevalence of significant intracranial injury on neuroimaging. The secondary outcome was receipt of neurosurgical intervention.

RESULTS: Among 9,070 patients enrolled in this study, the median age was 53.8 years (interquartile range 34.7 to 74.3 years) and 60.7% were men. A total of 1,323 patients (14.6%) were receiving antiplatelet medications. The primary outcome was prevalence of significant intracranial injury on neuroimaging. The secondary outcome was receipt of neurosurgical intervention.

CONCLUSION: Patients receiving preinjury warfarin or a combination of aspirin and clopidogrel were at increased risk for significant intracranial injury, but not those receiving aspirin alone. Clinicians should have a low threshold for neuroimaging when evaluating patients receiving warfarin or a combination of aspirin and clopidogrel.

SPECIAL ADDITION
Bibliography of New York State EM COVID-19 Publications


New York ACEP created the Award to promote young physician leadership and to advance political action and advocacy through attendance at the ACEP Legislative Advocacy Conference and Leadership Summit, April 25-28, 2021 in Washington, DC.

Three awards up to $1,000 each will be provided for young physicians and residents to participate in leadership training at the ACEP Legislative Advocacy Conference and Leadership Summit in Washington DC April 25-28, 2021.

If you know a deserving resident or young physician, consider nominating them. Resident candidates must be in good standing and in an accredited residency program within New York State. Special consideration will be given to resident candidates planning to practice in New York State.

Looking for a few good leaders. Is there a deserving resident or young physician candidate in your department?

**Purpose**
To fund young physicians and residents to attend and participate in leadership training at the ACEP Legislative Advocacy Conference and Leadership Summit, April 25-28, 2021 at the Grand Hyatt Hotel in Washington D.C.

**Eligibility**
- Young physician candidates must be within their first three years of practice.
- Resident candidates must be in good standing in an accredited residency program within New York State. Special consideration will be given to resident candidates planning to practice in New York State.

**Award**
Maximum reimbursement of $1,000 per recipient. A total of three awards will be given for both categories.

Read more about award requirements, selection criteria and to download a nomination form online at www.nyacep.org

Deadline: Nominations due by November 15, 2020
COVID-19 Reflections

It seems as it was just yesterday we were in the midst of the scariest clinical environments most of us have ever faced. New York was one of the first in the U.S. to be ravaged by COVID-19 and left a lasting impression on our healthcare workers. Seeing our patients, loved ones and colleagues suffer at the hands of COVID-19 can make the most stoic falter and reflect upon the work we do. At St. Barnabas Hospital in the Bronx, we were in the center of the storm. COVID-19 impacted our community particularly hard and struck close to home with the loss of several of our own colleagues. Working in these conditions brought out a tremendous set of emotions that our department leadership challenged us to express through creative writing exercises. I have included some reflections below from St. Barnabas Hospital Emergency Medicine (EM) residents with respect to their individual experiences.

I have seen the cost of war, though I have never had to pay it. I have lived near it as the son of a man that served during Vietnam, grandson of two WW2 veterans and brother of War in Afghanistan veteran. They all survived, but not without wounds and scars.

One grandfather slowly fell into alcoholism and anger and one became a pastor. My father worked harder, addicted to trying to prevent future loss of life through science. My sister-in-law still says my brother wakes up startled from nightmares every once in a while.

Today marks the 154th anniversary of when Memorial Day was officially declared a national holiday by the Federal Government. To date, there have been over 1.3 million deaths by Americans in combat. By comparison, there have been 97,724 deaths in the United States from Coronavirus, which is about 20,000 less than World War 1. In New York specifically, we have lost around 29,000 lives, which is 4,000 more than the total of the American Revolutionary War. On a day like today, it reminds me of how thankful I am to the service and sacrifice of our veterans and how much I hate the comparison of our current pandemic to war and how healthcare workers are heroes. I am no hero.

At the end of my shift, I go home to my air-conditioned apartment and have warm water to shower and my bed is comfortable. I am not in a foreign land in trenches built by friends no longer with us. I do not worry where the next mortar will hit or if my head is low enough as to not attract the attention of an enemy combatant. I am no hero. But if this is a war, will I have to pay a price? Will I have scars? Will I fall into vices? Turn towards faith? Will this pandemic make me a better doctor, dedicated to preventing future loss of life. Or will what I have seen wake me up at night for years to come?

“I remember friends from wars all but we forgot.
All of them distilled into each wound we caught.
Those wounds are all painful places where we fought.
Battles never left behind, ones we never sought.
What is it that we spent and what was it we bought? ”

Frank Herbert

During my time in the ED the past two months, I observed hundreds of patients struggling to cope with a bear necessity of life: breathing. Something so simple and effortless for most of us, something we do without thinking, without realizing, and something we take for granted. I saw many, many patients who presented with mild symptoms, worried that their congestion or cough would turn into something more. I saw many, but less, who had difficulty breathing on their own, and needed surveillance and extra attention, even admission. Still, they were able to converse and make their needs known- their voices could be heard. I saw still fewer, but relatively many, who did not have the luxury of a voice, their wants or needs unknown- these were the most severe, and they served as the reason why the whole world shut down.

Once they leave our sight and direct care, it is easy to forget about the person we were helping; they become another team’s responsibility and our focus shifts to helping others. So overwhelmed by volume at times, it became easier for patients to become jumbled together and lost to memory. One such patient, needing extra attention however not on the need of collapse, sticks out to me.. A middle aged man, whom when I had last seen was struggling to breathe on his own, get out of bed, or take care of himself. A previously healthy, normal guy. What I really remember, is the depression, etched into his face, the look of despair. With the few words he was able to speak, I vividly remember him telling me his uncle had just passed away due to the deadly virus, and him repeating “I am not going to make it, no one is. I see the reaper”. Such ominous words. Spoken through a mask of oxygen, his necessary lifeline. This man truly thought this was it, there would be no more.

I followed this particular patient’s hospital course. Discharged five days later, he must think it’s a miracle! He returned to the ED a few weeks later, for less grim circumstances. He remembered his previous situation, when everything seemed to be at its worst. Yet his aforementioned words fell on deaf ears; here he was standing before me, in great condition, healthy. Optimism shining. An amazing feeling for us both, to be face to face, having CONVERSATION. Truly a joy. I love being a doctor. This is what we live for, and this is our purpose.

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COVID coronavirus
Call it what you will.
We called it a death sentence
for those without a chance.

COVID coronavirus
Call it what you will.
They call for it a conspiracy.
They call for it a hoax.
But we know it wasn’t a joke.

COVID coronavirus
Call it what you will.
Overtook our ER,
overtook our normalcy,
mandatory PPE,
turned our hospital
into a warzone.

COVID coronavirus
Call it what you will.
I’ll call it what I know:
spirit- breaking
havoc- wreaking

and we still haven’t processed
the damage.

An overflowing ER, room
With machines screaming
“They’re sick”
“They’re getting worse”
Rushing to the bedside,
trying to defeat a virus
that had has a hold on us.

COVID coronavirus
Call it what you will.
We went home
after every shift
Exhausted
Anxious
Awaiting
The pain of the next day

COVID coronavirus
Call it what you will
But it called us in
When we didn’t know
Just how much we were needed
And had no idea
How much it’d take away.

Hui Huang, DO
PGY-4
St. Barnabas Hospital

Wear masks! Wash hands!
We will triumph together;
While six feet apart.
SPECIAL JULY SESSION

In late July, the State Legislature returned to Albany for four days of a remote Legislative Session to address local bills, confirmation of appointees to State bodies and a number of policy issues. The State Capitol remained closed to the public and only a few people were permitted in the chambers. Many legislators participated virtually from home. Although they did not set a date for a return to Albany, lawmakers may need to reconvene in late August or September to address the State’s $13 billion deficit.

Republicans in both houses pushed for a repeal of powers given to Governor Andrew M. Cuomo in March to amend any state law, regulation or rule during the COVID-19 pandemic emergency. However, the State Legislature did not repeal the Governor’s emergency powers during the July Session.

Summarized below is legislation of interest to New York ACEP members considered by the Legislature during the July Session.

Medical Liability Protections (A10840 Kim/ S8835 Sepulveda)
Legislation passed both houses to narrow the medical liability protections put in place in the final 2020-21 State Budget for physicians and health care facilities during the COVID-19 pandemic. This legislation limits the liability protections prospectively to health care workers treating or diagnosing suspected or confirmed COVID-19 patients. The sponsors of the bill did not get a full repeal of the liability protections which they sought up until the final days of the July Session.

New York ACEP strongly opposed this legislation. It will prevent hospitals and other health care facilities from re-developing capacity in case of a second “surge” of the virus. A second surge is possible given the lack of effective treatments and a vaccine as the State reopens, as well as huge spikes in the virus in numerous states. This legislation opens the floodgates to litigation arising from extraordinarily challenging circumstances and “second guesses” the decisions of emergency physicians and all frontline healthcare providers.

This bill was transmitted to the Governor July 24 and signed into law by the Governor August 3, 2020.

Physician Practice Notice of OPMC Complaints (S6678-A Salazar/A7991-A Simotas)
Legislation passed both houses to require all physicians to post information in their practices on how a patient can report a complaint about a physician to the Office of Professional Misconduct (OPMC).

It would also require the OPMC to post information on its website on how patients can file a complaint against a particular physician, including information on reporting instances of misconduct involving sexual harassment and assault.

New York ACEP strongly opposed this legislation as unnecessary and potentially counterproductive to patient care because it could undermine the trust essential to the patient-physician treatment relationship.

This bill has not yet been transmitted to the Governor.

Wrongful Death (A5612 Weinstein)/S4006 Hoylman)
Legislation strongly opposed by New York ACEP to greatly expand the possible damages in “wrongful death” actions did not pass in either house of the Legislature during the July Session. This legislation would significantly increase costs to emergency physicians and hospitals at a time when many are struggling due to COVID-19 pandemic financial strains. One actuarial estimate found that passage of this legislation could further increase premiums by nearly 50%.

This bill has not yet been transmitted to the Governor.

“Good Samaritan” Naloxone Administration (S8259 Harkham/A7812-A Rosenthal)
New legislation was passed during the July Session to allow “Good Samaritans” to administer overdose reversal drugs such as naloxone in stores, restaurants and other public places without being subject to civil, criminal or administrative liability solely by reason of such action.

This bill has not yet been transmitted to the Governor.

Frontline Worker Trauma Advisory Council (A10629-A Rules Gunther/S8608-A Carlucci)
New legislation was passed to establish the Frontline Workers Trauma Informed Care Advisory Council. The bill requires the Commissioner of the Office of Mental Health to establish the Council consisting of, at a minimum, the commissioners or their designees of the following agencies: Department of Health; Department of Aging; Office for People with Development Disabilities; Office for Addiction Services and Supports; Department of Corrections and Community Supervision; Office of Children and Families; Department of Labor; Conference of Local Mental Hygiene Service Directors; and 21 additional members appointed by the Governor, Senate Majority Leader and Assembly Speaker.
The Council’s charge includes:

- Identifying evidence-based tools to track the impact of COVID-19 associated collective trauma and the needs of frontline workers;
- Identifying or developing training opportunities for organizations that employ frontline workers on how to support the mental health and wellness of their employees;
- Identifying evidence-based trauma-informed support resources and learning opportunities for frontline workers;
- Identifying or developing a mechanism to inform and refer impacted frontline workers experiencing symptoms associated with COVID-19 to behavioral health services and supports; and
- Consulting with any organization, government entity, agency or person that the Council determines may be able to provide the information and expertise on the development and implementation of trauma informed care for frontline workers

The Council is charged with submitting a report to the Governor, Speaker of the Assembly and the Senate Majority Leader by December 1, 2020.

This bill has not yet been transmitted to the Governor.

STATE BUDGET DEFICIT

The State is currently facing a $13 billion deficit. The emergency powers granted to the Governor in March include significant authority to adjust or reduce funds as necessary on a periodic basis to ensure a balanced budget. Adjustments are to be done uniformly, across the board or by specific appropriations, as needed. The Division of the Budget (DOB) is required to notify the Legislature 10 days prior to any reduction or adjustment. The Legislature may, by concurrent resolution, reject the proposed action(s) and present an alternative plan. However, failure to present an alternative within 10 days will result in the implementation of the DOB’s plan.

Governor Cuomo has repeatedly urged Congress to provide funds for the State when they return for the August Session. If sufficient funds are not forthcoming, the Governor will impose across the board cuts of 20% or more in education, health care and other sectors. All eyes are now on Washington to determine whether a federal relief package will assist New York and other states with their significant budget shortfalls.

NOVEMBER 3, 2020 ELECTION DAY

On Tuesday, November 3, all 213 State legislators are up for re-election for another two-year term. The Assembly, comprised of 150 members, is expected to retain a supermajority. In the 63-member Senate, Democrats are expected to maintain and perhaps increase their majority hold.
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