At Death’s Doorstep: Negotiating End-of-Life Care in the Emergency Department
Emily Zametkin, MBBS; Andrew Mittelman, MD; Alexa Gips, MD; Alison Jaworski, MD
Boston Medical Center Emergency Medicine Residency, Boston Medical Center

Among the most vulnerable patients we treat in the emergency department (ED) are those in the later stages of chronic disease, many of whom will die within the next year. These patients present unique challenges for providers, as it can be especially difficult to understand the complex circumstances surrounding each patient visit - a precursor to providing effective care. Providers must quickly recognize why patients present on a given day, assess goals of care, explore patient-centered options for disposition, and manage symptoms.

While outpatient services, the health literacy of patients, and institutional frameworks vary widely across the country, a discussion of a few basic principles can inform and improve our ability to care for critically ill patients. With that in mind, we aim to (1) better understand why patients come to the ED at the end of life; (2) address the existing barriers and opportunities for providing palliative care within the ED; and (3) outline symptom management strategies for emergency medicine (EM) physicians.

Death and dying are difficult topics to talk about, especially when alarms are going off and we are being pulled in many different directions. But during these brief visits, we play a critical role in identifying where patients are in the process of contemplating disease and mortality. Learning how and where our patients want to die offers us a glimpse into the lives they have lived and what they value most.

Why Is This Patient in the Emergency Department?

An ideal palliative care (PC) plan is developed in the outpatient setting, is discussed over time and reaffirmed at multiple doctors’ appointments, and mobilizes outpatient resources to avoid hospitalizations. Having access to outpatient PC and hospice services is critical for the support and education of patients and caregivers. These services have been associated with lower rates of inpatient admissions and death in the hospital, but not with treat-and-release ED visits. In fact, ED visits are extremely common for patients at the end of life. A large study of older adults with chronic health conditions in the United States found that 75% presented to an ED in the last six months of life, with 51% of those patients presenting within a month of dying. Of those presenting in the last month of life, 77% were admitted to the hospital and 68% of the admitted patients died as inpatients.

While symptom management is the primary motive for most of these visits, a myriad of social, economic, psychological, and epidemiologic factors also contribute. Some patients and their families may wish to remain at home but do not have the ability to obtain quality home care at the end of life. Patients living in poverty and who are uninsured are often severely restricted in the types of services they can access outside of the hospital, and therefore may require admission to obtain the care they need. Others do have in-home hospice, but family members are still primarily responsible for managing dyspnea, pain, and delirium and may not be fully prepared or equipped for this. Watching a loved one die while attempting to limit suffering is often too overwhelming for caregivers, and patients themselves may worry about being a burden to others during this difficult transition. Reduced performance status, loneliness, frailty, and psychological distress also drive patients to come to the hospital. The ED serves as a gateway to
A Note from the Editor

Welcome to the seventh issue of the EM Advocate. Started by residents in 2013, the EM Advocate is a publication written by Massachusetts EM residents for Massachusetts EM residents. Topics can include clinical reviews, scientific advances, interesting cases, emergency medicine subspecialty issues, grass roots activism, public or hospital policies, etc.

The content included in this seventh publication of the EM Advocate reflects the real-life patient experiences that we are witness to every day in emergency departments across Massachusetts. The submissions are both reflections on and reactions to these encounters. They draw attention to inequalities and inefficiencies in our healthcare system and reveal how advocacy begins at the local level.

Are you interested in writing for the EM Advocate? Please contact your MACEP resident representative for ideas, opinions, and details about article submission. We look forward to hearing from you!

Liam Mahoney, MB, BCh, BAO
Lead MACEP Resident Representative

END-OF-LIFE CARE CONTINUED FROM COVER
services and a refuge for patients and families. The ED is perceived as a place to gather resources and to address financial and insurance concerns. All these factors prompt additional visits to the hospital.6,7

Interestingly, in the Coping with Cancer trial, a prospective, multi-site cohort study of cancer patients and their informal caregivers, there was a statistically significant association between financial hardship and intensive end-of-life care. Patients who had depleted their life savings were more likely to receive intensive care in their final days.8,9 This is likely because with limited access to support services at home and a need for informal caregivers to work, patients must seek care in the hospital. Being hospitalized puts patients at higher risk of receiving more intensive care at the end of their lives.

Tied intimately with socioeconomic status is education, both the educational attainment of the patient and their family members, and access to medical information that is appropriate for that level of education. Patients and families should be provided with timely, honest, and clear information from healthcare providers about diagnoses, prognosis, and treatment. Unfortunately, physicians are often ineffective at communicating this information. In one study, 81% of study participants with incurable cancer reported believing that their cancer was curable. There was 155% increase in the odds of believing that incurable cancer was curable in patients who did not complete high school compared to those with more than a college education.10

Race and ethnicity have also been associated with decreased use of outpatient hospice services and increased rates of in-hospital deaths. There are well-documented differences across race and ethnicity in the access to and utilization of PC services. Possible barriers to hospice use by black Americans include prevailing attitudes towards hospice, factors relating to the health care system or provider, cultural and religious beliefs, opinions about treatment and geographic differences. There may be distrust of the medical system, inequitable outreach to minority groups by providers, preference for hospital death, and low agreement with hospice philosophy.11

As inpatients, blacks and Hispanic patients were as likely as white patients to receive PC consults but were less likely to receive primary PC as outpatients.3 Racial differences have been noted in preferences relating to care. In one study, fewer blacks or Hispanics wanted life-shortening medication in exchange for comfort. All races studied preferred to die at home but blacks and Hispanics were more likely to want to die in the hospital.3,12,13

White patients were more likely than black patients to prefer symptom-directed care over life-prolonging care and to have DNR orders in place. Black patients tended to receive more aggressive care in the last week of life (as defined by mechanical ventilation, ICU admission, and resuscitation) regardless of whether they had a DNR order.14 This last finding prompts us to evaluate how our own racial biases as providers may affect the care we deliver to our patients, regardless of their stated wishes.

Cultural beliefs and individual values also have a profound impact on the most intimate choices that are made at the end of life. Some patients may have higher levels of stoicism and reluctance to report symptoms based on their conception of the meaning of suffering or their socially-constructed roles within the family unit. Fatalistic views, associated with some cultures and religions, dictate not only how decisions should be made but if they should be made at all.15 Shared decision making among family members takes precedence in some cultures, while others value autonomy or even paternalism.
These socioeconomic, racial and cultural differences are highlighted not to promote prejudice but rather to explore some of the nuances surrounding palliative and end-of-life care. Similarities across race and culture also exist: the majority of patients prefer to die at home, do not want to receive medications with uncomfortable side-effects, and do not want to be intubated for an extended period of time.\(^9\)

Recognizing the complex motives behind goals of care and the rationale for presenting to the ED near death helps us better serve our patients and their families. While we are responsible for providing accurate and understandable information about patients’ medical conditions, we are also responsible for respecting patients’ rights to choose where and how they would like to die, even if that means continuing aggressive care up until the point of futility.

**Challenges to Providing Palliative Care in the ED**

There are many challenges to providing quality palliative care in the ED, many of which are intrinsic to the environment in which we practice. Ideally, we would have time to sit with our patients in privacy, assess the nature of their symptoms, discuss their hopes and fears, and frequently reassess the adequacy of our treatments. Anyone who has worked in a busy ED knows that the volume of patients, the noise and distractions, and the feeling of being pulled away make these types of patient interactions nearly impossible. In a semi-structured interview of ED and PC directors, the following factors were identified as barriers across hospitals: ED culture of aggressive care, limited knowledge by providers, limited palliative care staffing, and medicolegal concerns.\(^6\) In another study of EM physicians and residents, lack of trust, lack of follow up, and interruption to work flow were additionally mentioned.\(^17\)

Since we are unlikely to radically change our work environment in the near future, we can instead focus on the things that we can control. Sitting down, asking everyone present in the room to identify themselves and their relationship to the patient, asking clearly about advanced directives, and being honest about prognosis are ways to incorporate salient PC into our practice. The incentives to delivering palliative care in the ED include improved patient and provider satisfaction, the opportunity to provide more patient-centered care, decreased healthcare costs, and avoidance of unnecessary tests and admissions for little to no benefit.\(^16\)

As illustrated above, patients towards the end of life not only present to address physical symptoms but also come to the ED for psychological, economic, and logistical support. Having a dedicated team, comprised of experienced social workers and case managers, can be tremendously helpful when treating complex patients with a variety of needs. Ideally, ancillary providers are willing to have difficult conversations with patients, have excellent working knowledge of resources available in the outpatient setting, and are familiar with common barriers patients face when accessing care.\(^5\)

In the absence of additional providers to support ED physicians in PC, more realistic models have been developed to incorporate PC into the practice of EM. These include relying on traditional consultations from the ED to PC specialists, creating protocols and measurable goals around the delivery of PC in the ED, and encouraging EM physicians to become trained in PC.\(^18\) More immediately, steps can be taken to identify champions in the ED, provide education to providers, find local resources within the community, and perform needs assessments.\(^18\)

**Acute Symptom Management**

In the meantime, it is important to be ready to treat the physical symptoms of our patients quickly and effectively. The complex symptomatology that is associated with end-of-life care frequently needs a multi-pronged approach that requires continual reassessment of interventions.\(^19\)

Nearly half of dying patients experience pain, and EM physicians need to be mindful of less-commonly encountered types of pain.\(^20\) Terminally ill patients are at higher risk of experiencing unusual types of pain, and extra attention needs to be paid to the characterization, as management varies by type.\(^20\) Nociceptive pain, described as sharp temperature fluctuations, is caused by compression or stretch of the internal organs; it is treated according to conventional analgesia practice (e.g., acetaminophen > weak opioid > strong opioid). Bone pain, usually described as “gnawing”, is effectively managed with NSAIDs and bisphosphonates.\(^20\) Neuropathic pain, usually described as “burning” or “stabbing”, is more receptive to gabapentin, valproate, or diazepam with the added possibility of localized nerve blocks.

An important etiology of distress comes from dyspnea, seen in more than half of dying patients. Large airway obstruction (often caused by radiation strictures or localized edema) may combine with small airway obstruction (due to fluid overload secondary to CHF, ascites, or renal failure), lung stiffness (secondary to fibrosis), and neuromuscular failure (secondary to malnourishment, nerve palsy, and generalized weakness). Accompanying metabolic acidosis and anxiety further increase the ventilatory requirement. Start with patient positioning to minimize respiratory obstruction and anxiety, and consider non-pharmacologic interventions that are ‘high-yield’ for end stage cancer patients, such as drainage of effusions. If applicable, optimize comorbid causes of dyspnea (e.g., diuretics in CHF). The sense of “air hunger” can be targeted with morphine, lorazepam, or other opiates or benzodiazepines, which will reduce both pain and anxiety.\(^19\)
Closer to the end of life, respiratory secretions accumulate as the patient is unable to naturally clear them. The secretions produce both visible mucus production and audible “rattling” sounds which can be very distressing to family members. Anticholinergics, such as glycopyrrolate or a scopolamine patch, are effective, but need to be started early before accumulation begins.

In dying patients, confusion is a frequent manifestation of toxic-metabolic derangements. This confusion can be alarming for both the patient and their family members, and the exact cause of altered mental status is not readily identifiable in up to half of cases. Providers should consider many of the conventionally common causes of altered mental status, noting that mental decline may be occurring more abruptly in patients with compromised physiology. Reversible causes include metabolic disturbances such as dehydration, hypercalcaemia, hyponatremia, and hypoglycemia. More challenging etiologies include hypoxia and infection. Providers need to consider the goals of care before addressing potentially reversible causes such as kidney/ liver failure or cerebral hemorrhage. The altered mental state caused by drug effect must be weighed against the possibility of unmasking further pain if the drug is withheld. Broadly speaking, haloperidol is the first line drug and can be easily titrated every 30 minutes. Important exceptions include AIDS delirium and hepatic encephalopathy, which should be treated with benzodiazepines rather than dopamine antagonists.

Nausea and vomiting can be challenging to control, especially given that the etiology is often unclear and frequently multifactorial. Triggers may include metabolic derangements, medications, anxiety, changes in vagal tone and vestibular dysfunction. Medications such as benzodiazepines, haloperidol, steroids, and anticholinergic agents can all be useful, though they are unlikely to work in every patient.

While managing symptoms, it is essential to engage the patient and/or their family in decision-making. Many of the causes of pain and anxiety are multi-factorial in nature and treating each symptom risks exposing the patient to new symptoms as a side effect of treatment. As the patient’s condition evolves, the focus of their symptomatology may similarly evolve. Frequent reassessment is needed to appropriately manage these patients in alignment with their goals of care.

Final Thoughts

While the ED is often viewed by the general public as a place of acute illness and heroic measures, those of us who work there know that many of our patients have longstanding disease and may require heroism of a different type. Just as we recognize how social, cultural, and socioeconomic factors influence the delivery of health care, we must also recognize their role in contributing to access and the goals of potential palliative care patients. Committing ourselves to the delivery of compassionate, comprehensive care to patients nearing the end of life is a critical component of emergency medicine.

For more information on this topic, we recommend the following resources:

Fast Facts – Palliative Care Network of Wisconsin
Center to Advance Palliative Care
ACEP Palliative Medicine Section

4 Smith, A. K. et al. Half of older Americans seen in emergency department in last year of life; most admitted to the hospital, and many die there. *Health Aff.* (Millwood) 31, 1277–1285 (2012).
Old Love
Eric Devries, MD
Boston Medical Center Emergency Medicine Residency

I don’t remember much of what happened that day. It was busy, an overwhelming state of chaos in an already overwhelming emergency department. I was called to the trauma bay – another medical resuscitation.

She was 80. She was alone.

We worked on her for a brief period of time. She had been found on the ground. No one knew what had happened. Her heart had already stopped. We got her back briefly. Just enough time for her husband to show up from home. He was in a wheelchair. He was 80 as well. He could barely walk.

He and I spoke outside of the emergency department. I said things such as “she’s very sick”, “we’re only keeping her alive with strong medicines”. He said nothing – glassy eyed through it all.

“Can I see her?” He eventually whispered.

I wheeled him through the double doors of our trauma room.

He focused, his eyes clearing as he saw her.

And he brought 60 years of unspoken memories out in a single statement.

He said “I love you” from his wheelchair. The worn fingers on one hand curled around a well used cane, the other reaching out and taking her lifeless hand. His statement hit the room like the line of bass at a rock concert.

Typically concerts and trauma rooms are places of movement. Only our reaction was a stillness that translated into deep silence owned by two old lovers. A silence powerful enough to quench the persistent pull of our chaotic environment. Monitors were turned off. Pressors stopped. The ventilator disconnected.

Not a sound was made until I knelt down beside the old man, tears in my eyes, and whispered “she’s gone”.

My hand registered the ever so slight slump of his shoulders my statement produced.

We left the two hand-in-hand, quiet tears hitting the ground.

Standing at the Frontlines: A Review of the Governor’s Newest Opioid Legislation
Lucinda Lai, MPhil, MD
Harvard Affiliated Emergency Medicine Residency

It was January of intern year: six months in, six months left to go. Even though I still felt brand new, I had worked enough overnight shifts in the emergency department (ED) to have taken care of a few of the same patients more than once. They were people struggling with opioid use disorder (OUD), brought into the ED over and over again for problems related to addiction. They were people, but as a stressed-out intern just trying to survive the busy night shift, I mostly saw them as a list of problems to be dealt with: an abscess that needed to be drained, back pain that I was never going to cure but that I had to make sure was not actually a serious infection of the spinal cord, a fever that needed to be ruled out for endocarditis, an earnest request for rehab that would probably end up waiting for hours for the social worker to find a moment to talk to them. Because it’s my name on the track board next to theirs, for as long as they remained the ED, our fates were tied. I took it as my job to fix their problems and move them quickly out of the department. But because things never happened quickly enough, and because I never truly fixed their problems, I often walked away at the end of my shift feeling the weight of my failure and the bare aloneness of personal incompetence.

I hadn’t realized just how withdrawn into cynicism I had become until the afternoon of January 16, 2018, when I sat in the benches of the Massachusetts State House and witnessed dozens of members of the community testify to that exact same feeling of utter helplessness in the face of the opioid epidemic. It was the day of the legislative hearing for House Bill 4033, “An Act relative to combating addiction, accessing treatment, reducing prescriptions, and enhancing prevention”, the newest set of proposals put forth by Governor Charlie Baker in an effort to address the widespread problem of opioid addiction. I listened to testimony from family members of young people who are now dead from one overdose too many, a police chief who believes in transporting people to rehab instead of jail, business owners, lawyers, teachers, doctors, non-profits, and patient advocates. Over and over again, their stories taught me that blast radius of addiction is so much bigger than just what I deal with in the ED.

For over an hour, Governor Baker and Health and Human Services Secretary Marylou Sudders stood before the members of legislative committee and pitched their bill, the major themes
of which include creating new pathways for people to access addiction treatment, enable more schools to educate young students about the risks of opioids, and find ways to more directly align the health care system with the needs of patients struggling with addiction. The new bill would build upon many of changes established by the 2016 “STEP” Act, which made Massachusetts the first state in the country to put a seven-day limit on initial opioid prescriptions, created a statewide mechanism for tracking opioid prescriptions, and required that substance abuse evaluations be offered to any patient who was being treated for an opioid overdose.

There are many aspects of the new bill that emergency physicians testified in strong support of, including increasing access to the life-saving reversal agent naloxone through a statewide standing order to every pharmacy in Massachusetts, reducing prescription fraud by mandating conversion to secure electronic prescriptions for all controlled substances by January 2020, integration of MassPAT to existing electronic medical records instead of requiring two separate log-in’s, expanding the range of medical professionals who would be authorized to perform substance abuse evaluations, enhancing the state’s authority to make sure that treatment facilities they meet certain minimum requirements before being licensed by the state, and mandating the acceptance of MassHealth insurance so that our poorest and most vulnerable patients do not get passed over in favor of private pay patients. Emergency physicians also supported the establishment of a commission to review the professional credentialing of recovery coaches. They supported clarification of the partial fill law to ensure that patients within the appropriate time frame would not have the remainder of their prescription invalidated and would not incur additional co-pays or deductibles that would otherwise discourage them from taking the partial fill option. One aspect of the new bill that the Massachusetts College of Emergency Physicians opposed was Section 41, which would establish a commission to apply disciplinary action against prescribers who do not check MassPAT, given that sufficient legislature already exists to assure physician compliance with requirements for use of the Prescription Drug Monitoring Program.

The most heated debate, however, centered around the proposal to expand the existing civil commitment process under Section 35 by applying Section 12(a) transport provisions to people with substance use disorders. This would allow medical professionals or police officers to involuntarily hold patients in a treatment facility for 72 hours. Though there are certain, rare cases where it could potentially be beneficial to hold a patient against their will because they represent such extraordinarily high risk of death with their next opioid use, the current language of this provision essentially mandates emergency physicians to authorize restraint and transport to a treatment facility for all overdose patients, such that it would be “gross negligence” should we choose not to. This provision does not account for the fact that there is already a shortage of treatment beds for patients who are voluntarily seeking treatment. Such a provision would exacerbate the problem of ED boarding of behavioral health patients, to the point that patients would linger in the ED for multiple days before their 72-hour clock even started. Such a provision may exert a chilling effect on our patient population, discouraging people with substance use disorders from seeking treatment in a ED for fear of being held and transported to a detox facility against their will. Besides the issue of infringing upon civil liberties, the idea of mixing populations of patients voluntarily seeking treatment with those who were brought against their will to the same treatment facility would threaten the recovery process for those who actually want to be there.

Almost every testimony that afternoon made reference to the ED as the gravitational center of the epidemic: the place where many of today’s addicts were given their first prescription of painkillers and the first stop for every overdose that gets picked up by emergency medical services (EMS). We as emergency physicians stand at the front line of this epidemic and play a key role both in the prevention and treatment of addiction. Standing at the front can feel incredibly lonely at times, but perhaps that is only because we don’t often get the chance stop, look around, and see all the important work that is being done outside of our department doors. It’s legislation like this that will expand the tools and resources to help us help our patients break out of the cycle of addiction. Because our patients are more than just the sum of their problems. They are more than just a list of tasks to be checked off. They are people with families and communities that are fighting for them, too.
I am here early, and there is a dead man in the middle of the room.

The body bag is zipped halfway round, and all I can see is the edge of a muscular shoulder and a few stray dreads. The cleaning woman has already done the floors; they are clean and white, spotless. Around the room, everything stands at attention: the cabinets, stocked and labeled; the hubs for oxygen and the hubs for suction; the mayo stand with its tower of IV kits; the airway cart, topped with tidy rows of tubes in descending order of size.

In the center, it is just me and the dead man. I am listening to pop music through my headphones. I turn down the volume for him.

One of the newer hospitals I’ve worked at has a viewing room attached to their Emergency Department. For obvious reasons, this is a nice thing to be able to offer families, but we don’t have one. Our trauma rooms are multipurpose, transitioning from operating theater to church within minutes. Like all the dances we do, this, too, is synchronized. Housekeeping is called, the room is cleaned, the body is prepared. Gun shot victims like this one all go to the Office of the Chief Medical Examiner, which means that evidence can’t be disturbed, which means that families have to deal with leftover tubes and lines. I suspect this is one the least traumatizing parts of having your loved one violently killed, but, of course, I can’t say for sure.

I move closer to the man.

One secret we don’t tell people is that sometimes we put the body bag on the stretcher before the patient even arrives: unzipped, waiting, welcoming. We don’t do this often, and we don’t do it unless it’s obvious. Sometimes, though, it’s easier. People are heavy when they’re dead.

The man is twenty-five or thirty-one or thirty-eight. There are two bullets or five bullets or seventeen. They punctured his pericardium or his pleura or his peritoneum.

Maybe he was in a fight. Maybe he wasn’t. Maybe he was with his friends, or maybe he was going to pick up his kids. Maybe he was very alone. Maybe he was very in love.

I zip the bag up a bit further, rest my fingers for a second on his not-yet-cold shoulder. The song changes. I take a deep breath, start moving through my checklist, ready the room, ready myself. People are heavy when they’re dead, and I can’t carry him with me all these upcoming hours.

I close the door to the trauma room. I start my shift.

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Advanced Pain Management in the Emergency Department
Friday, June 8 – Saturday, June 9, 2018
Massachusetts Medical Society, 860 Winter Street, Waltham, MA 02451

This two-day symposium will provide and evidence-based overview of current state of emergency department pain management and discussion of advances, challenges, and controversies of managing acute and chronic pain in the ED. Symposium will include a series of lectures, interactive small group sessions, panel discussions, and practical sessions.

Learning Objectives:
- Develop a set of recommendations (framework) for effective, efficient and safe pain management for ED practitioners;
- Describe a patient-centered approach to management of acute painful conditions in the ED by utilizing targeted analgesia with various pharmacological interventions;
- Analyze alternatives to and cost of various analgesic modalities in the ED;
- Discuss involvement of patients in decision-making about analgesia in the ED by discussing risks and benefits;
- Highlight challenges and benefits of utilizing PDMP’s;
- Discuss the management of patients with chronic non-cancer pain;
- Describe safe and effective administration of opioid and non-opioid analgesics in different clinical scenarios.

Residents only $99 for both days or $50 to attend one day! For more information and to register, go to [www.macep.org/advancedpain-management](http://www.macep.org/advancedpain-management)
Fighting Burnout Through Political Advocacy: Making a Difference
Nathan Kunzler, MD; Alister Martin, MD, MPP
Harvard Affiliated Emergency Medicine Residency

Acknowledging and mitigating the effects of burnout is one of the most pressing challenges facing residency training in emergency medicine. Long hours, difficult cases, and time demands for non-clinical duties all contribute to symptoms of burnout. Burnout contributes physical and emotional exhaustion, detachment from others and feelings of ineffectiveness. Detachment can lead to devaluation of the work that we do every day and potentially to a more generalized depression. Detachment from our patients can lead to violation of the oaths that we take on graduation day from medical school.

Trainees stuck in this cycle must be asking themselves “why am I working so hard if I can’t envision significant improvement in the future”? Burnout also can prevent us from recognizing that there is a problem and seeking help to effectively deal with it. Caring for patients in an emergency department can be challenging to begin with but developing an empathic relationship with these patients, and particularly with our patients who struggle with opiate addiction, can seem impossible for the burnt out physician.

As emergency medicine residents, we come into contact with a large group of patients who suffer with opioid use disorder on almost every shift. Addiction for these patients is often chronic. We see them in the emergency department frequently following overdoses and at moments when the patients will tell you themselves that they are at rock bottom. From the perspective of the healthcare workers that look after these patients, it can often feel like what we do does not help. We have limited resources available to us from the ED and no silver bullet solutions to many of their common problems. Other issues with access to treatment stems from the fact that opiate related presentations to the ED occur most often during off hours when (addiction specialists are often not available). Until recently, resources available for dealing with the opiate epidemic have been scarce. Many would argue that they remain inadequate to deal with the scope of the problem. Few dual-diagnosis beds exist for the treatment of complex and multi-factorial dependence which increases the likelihood for adverse events. Frustration with these problems can accumulate during residency which leads to feelings of helplessness for both clinicians in the ED and the patients we treat. Both the administration within our emergency department and the EM residency recognized the need for a novel approach in dealing with this problem.

Where to Begin?

As members of our Residency’s Social Emergency Medicine and Health Policy Academy, we recently initiated steps to address this problem. In the emergency departments associated with our institution, we noticed an increase in the number of patients presenting with opioid addiction who primarily came to us seeking treatment for opioid dependence. Historically they were offered a sympathetic apology, a list of detox centers the lend of a phone to make calls with.

With no signs of an abatement in the seemingly ever-rising tide of opioid epidemic in Massachusetts, we felt there was more we should be doing. Our path was initially fraught with error as we created many increasingly complex algorithms in an attempt to address the complex facets of dealing with opiate addiction. Multiple flow charts were produced that were so specific that they actually contributed to the complexity of the problem. Rather than simplifying and streamlining the care of these patients, it made encounters with them even more complex. The end result did little to alter the trajectory of addiction for our patients.

We Paused and Re-evaluated our Priorities

With our second attempt at an intervention we began by interviewing experts. We abandoned our previous efforts which were convoluted and complicated an already complex issue. Instead we began to listen. One expert we consulted was an addiction specialist at our institution who completely shifted our paradigm. We quickly learned that the detox and abstinence model used with alcohol dependence were ineffective for the treatment of opiate use disorder. Medication Assisted Therapy (MAT) with drugs such as buprenorphine and methadone treat. Both the administration within our emergency department and the EM residency recognized the need for a novel approach in dealing with this problem.

Burnout continued on page 9
patients to come along to the training session to share stories of their own struggles with addiction. Patients consistently identify empathetic providers, coordinated treatment pathways, and most importantly, medication assisted therapy as integral to their road towards recovery.

Hopefully this intervention will also help to benefit the emergency physicians who completed the #GetWaivered training by helping to reduce their burnout and reduce feelings of futility so often experienced when dealing with opiate crisis.

When we started our campaign only one out of forty-four attendings had obtained a DEA waiver. By the end of our resident-led campaign, thirty-six out of forty-four had obtained their waiver or completed the waiver training session. It took us months of work, many meetings, phone calls, late night research sessions, and countless informal discussions with our co-residents and faculty but we are finally beginning to see the needle move on this important issue at our institution. As more attendings and residents receive waivers, our ability to commence patients on MAT increases. We no longer have to approach the bedside with dread and frustration and can now offer evidence-based care for our patients at this most difficult time in their lives.

Ultimately the purpose of this piece is not to convince you that you should personally obtain a waiver, prescribe buprenorphine, or work within your department to change the way we treat opioid addiction (although that would be wonderful – please consider us your faithful allies in that work) but rather to remind us all that small, incremental change can have significant effects. We became doctors to help people. Too often in the practice of medicine our good intentions are drummed out of us and we end up feeling totally burnt out. Let this be a call to each of us to combat those feelings by identifying something we care about and somehow work to affect change on that issue. The years ahead always present new challenges and we will certainly need many fresh and enthusiastic emergency doctors to help meet them. We can’t afford to lose anyone to burnout. Let’s take the steps we need to find our purpose and restore our sense of purpose within our profession.

Follow @GetWaivered on Twitter and add your voice to the growing campaign!
Illuminating the Darknet
Peter R. Chai, MD, MMS; Lubabah M. Ben-Ghaly MD; Ethan Tseng MD, MBA; Michael Gilbert; Edward W Boyer, MD, PhD
University of Massachusetts Emergency Medicine Residency

Cryptomarkets are online retailers, much like Amazon or eBay, found on illicit websites around the globe known collectively as the “darknet” (also called the “dark web”). The darknet is a subcategory of the “deep web,” which includes all websites that evade detection by search engines such as Google, and thus are not directly accessible through online searches. A wide variety of illicit goods and services are offered on cryptomarkets, including drugs, stolen personal data, pornography, and (potentially stolen) luxury goods, but the majority of the items posted are illicit substances and related paraphernalia.

Some of the rarer products that turn up in drug-related searches on cryptomarket sites are antidotes, including naloxone and naltrexone. In recent years, public knowledge regarding the life-saving potential of these opioid antagonists has been increasing in the United States thanks to ongoing news coverage of the opioid epidemic. In spite of the increased demand and obvious benefits to society, the ease of legally obtaining either of these antidotes varies widely within the US depending on local laws and regulations. Neither of these drugs are directly available over-the-counter, therefore getting them legally would require a physician’s prescription. Even in states such as Massachusetts, where naloxone can be dispensed by pharmacists, the legal mechanism is through a “standing order” from the state’s Commissioner of Public Health, a registered physician. It is therefore possible that some of the individuals interested in obtaining antidotes like naloxone and naltrexone would turn to illicit routes (including cryptomarkets and local street dealers) to obtain these life-saving drugs.

One prominent meeting ground of the darknet consumer community is on the clear web: the Reddit “r/darknetmarkets” subreddit. The website itself subdivided into “subreddits” based on content. Reddit has on average more than 500 million visits per month and is the fourth most visited website in the United States. While users remain individually anonymous on this website, all discussion is open to the public.

Understanding darknet users’ online activity with regards to opioid antidotes provides insight into how these users view opioid harm reduction. We conducted a qualitative analysis of Reddit forums (subreddits) frequented by darknet users. We used Elasticsearch to aggregate data from the subreddits “r/darknetmarkets” and “r/opiates” from May 2016 until July 2017, culling all posts that contained a reference to naloxone or naltrexone. A total of 1,339 comments containing references to naloxone or naltrexone were pulled from Reddit. Of these, 398 comments referenced naloxone in its application as a deterrent (e.g., in the drug suboxone), or were unrelated to the topic, and were excluded from the final analysis. Of the remaining 941 comments, the most common theme was access, representing 32.5% of all comments. The remaining themes ranked thusly: education (23.9%), harm reduction (20.1%), information-seeking (7.0%), neutral accounts of personal experiences (5.8%), positive personal experiences (5.5%), negative personal experiences (2.8%), and mixed personal experiences (2.3%). Our data show that in online communities of opioid users, discussions referencing naloxone and naltrexone are primarily concerned with issues of access, closely followed by the volume of comments providing information and advice in the utilization of opioid antagonists. There is also a high frequency of conversations regarding harm reduction.

Do you want to write for the EM Advocate?

The EM Advocate is looking for intelligent, creative, and interesting articles to highlight resident thoughts and opinions throughout the Commonwealth of MA. Subject matter can include topics of social responsibility, interesting cases, scientific advances, emergency medicine subspecialty issues, grass roots activism, and opinions regarding public or hospital policies, etc.

Please contact your residency’s MACEP representative (listed on front page of this newsletter) or the EM Advocate Editor (Liam Mahoney, liam.mahoney@bmc.org) for opinions, ideas, and article submission.

We look forward to hearing from you!
A Toast to the New Year
Alexia Gips, MD
Boston Medical Center Emergency Medicine Residency

We’re three hours into the new year, and it is bitterly cold.

My new patient doesn’t make anything up: no bogus chest pain, no vague abdominal complaint, nothing to justify in the chart. He’s just cold, he tells me: his feet hurt, his hands hurt, and he is seeking respite from the cruel outdoors. His fingers are hardened and swollen, marked with deep chronic fissures that make him wince as I brush past. On his feet are relatively new snow boots, but his socks are too short for the height of the shoe, and the resultant wounds on his calves bear witness to the daily grind of being alive.

No frostbite, no cellulitis, no acute medical pathology. Diagnosis: poor and homeless in one of the most developed countries in the world. I give him ointment for his hands and legs, a new pair of socks, and one of the gift baskets that our department created for exactly this type of patient.

Anything else? I ask, but his answer is unintelligible.

I’m sorry, what?

This time, I hear him perfectly: do you have any…

I physically recoil; take one big step back.

Wait. What? Do we have any… porn?

His eyes widen. His mouth drops. For a moment, it’s just the two of us, perfectly still, perfectly silent. He asked me for porn. It is at once the most and least believable thing to have happened.

And then:

Pudding! he cries out, the syllables clear and crisp. Pudding, pudding! Do you have any pudding??!!

It is three AM in the Emergency Department. We are from two totally different worlds. Together, we dissolve into laughter.

I apologize and he apologizes; I laugh and he laughs; the space between us disintegrates. I bring him two vanilla puddings and a ginger ale. He stays with us till morning breaks. Soon after the sun rises, we both leave the Emergency Department.

January 1st, 2018, in the United States of America. May we strive to fix these broken systems. In the interim, may we find space for connection, humor, and a little bit of pudding.

MACEP Announces Resident/Fellow Grant Opportunities

MACEP will provide 3 grant awards for up to $2,000 each to those recipients chosen after a review of all submitted applications by a panel of MACEP members. The purpose of these grant awards is to encourage emergency medicine residents to use their energy and creativity to advance the field of emergency medicine in our state and beyond. Residents can apply in areas that are not routinely funded to pursue projects in public policy, international emergency care or to initiate a research study.

Specific requirements include:

1. Public Policy and Emergency Medicine

An application should address a current topic of importance to emergency medicine in Massachusetts.

2. International Emergency Medicine

Applicants should define a project that will advance the field of emergency medicine research in a developing country or similar setting.

3. Emergency Medicine Research

A resident can submit an application for an original research project.

Resident Grant Application deadline is October 15, 2018.

Project descriptions should be concise on what is planned and why this research project would be important. All completed applications should be submitted by October 15, 2018. Applications will be blinded for the review with final decisions to be made by November 15, 2018. In addition, grant recipients should seek IRB approval and inform MACEP when that process has been completed. MACEP is committed to advancing emergency medicine and supporting the future leaders of our specialty.

If you have any questions in regards to the application process please contact Tanya Pearson, MACEP Executive Director tpearson@macep.org or 781-890-4407. More information can be found on MACEP’s website, www.macep.org/residentgrantprogram.
Calendar of Events

MACEP Monthly Board Meeting
**Tuesday, April 24, 2018**
4:30-6:30 pm
Holiday Inn, 265 Lakeside Ave, Marlborough, MA

MACEP Annual Meeting
**Wednesday, May 2, 2018**
9 am-3 pm
Massachusetts Medical Society
860 Winter Street, Waltham, MA
Free to all Massachusetts EM Residents

Advanced Pain Management in the ED
**Friday, June 8 & Saturday, June 9, 2018**
8 am-3:30 pm
Massachusetts Medical Society
860 Winter Street, Waltham, MA
Discounted registration fee for Residents

MACEP Monthly Board Meeting
**Tuesday, June 24, 2018**
4:30-6:30 pm
Holiday Inn, 265 Lakeside Ave, Marlborough, MA

MACEP Monthly Board Meeting
**Tuesday, September 25, 2018**
4:30-6:30 pm
Holiday Inn, 265 Lakeside Ave, Marlborough, MA

MACEP Monthly Board Meeting
**Tuesday, October 23, 2018**
4:30-6:30 pm
Holiday Inn, 265 Lakeside Ave, Marlborough, MA

Please send correspondence to Liam Mahoney, MB, BCh, BAO | liam.mahoney@bmc.org
c/o MACEP, 860 Winter Street, Waltham, MA 02451

2017-18 MACEP Resident Representatives
Boston Medical Center – Liam Mahoney, MB, BCh, BAO
Baystate Medical Center – Jonathan China, DO; Kate Sullivan, DO
BIDMC – Lee Replagle, MD; Ryan Kring, MD
HAEMR – Dana Im, MD; Lulu Wang, MD
UMass Memorial Medical Center – Ethan Tseng, MD; Powell Graham, MD

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For previous issues of the EM Advocate, as well as other resources for Residents, visit us at www.macep.org.