

provide practical guidance regarding long-term care for these patients. Research to expand our options for nonopioid pain relief in patients with cancer may lead to a wider array of lower-risk choices for managing chronic pain. The recent announcement from Food and Drug Administration

 An audio interview with Dr. Loren is available at NEJM.org

Commissioner Scott Gottlieb, charging the scientific community with developing evidence-based guidelines for prescribing opioids for patients with specific condi-

tions, represents a call to action for the oncology community. Although many cancer survivors live with chronic health issues caused by their treatment, opioid addiction should not be one of them.

Disclosure forms provided by the author are available at NEJM.org.

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DOI: 10.1056/NEJMp1812850

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Emergency Departments — A 24/7/365 Option for Combating the Opioid Crisis

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Emergency departments (EDs) administer lifesaving interventions all day every day and all night every night. In addition to rapidly resuscitating and stabilizing patients with acute illness and injury, emergency physicians are charged with identifying the appropriate level and type of care within the health care system — from intensive care to treatment in an outpatient clinic — for patients who are seen in the ED. The ED is less well known for its role in the identification of chronic diseases, including hypertension and diabetes, and subsequent treatment initiation and referral. Many emergency physicians no longer blink at starting patients on treatment for such conditions and then making a handoff to a primary care provider or federally qualified health center.

When it comes to opioid use disorder (OUD), however, there has been reluctance among emergency physicians to initiate treatment with buprenorphine, despite the

preponderance of evidence from well-designed clinical trials supporting opioid-agonist treatment. Most recently, a randomized trial conducted by Yale School of Medicine investigators, including one of us (G.D.), demonstrated the feasibility and efficacy of ED-initiated buprenorphine treatment in 329 patients who were enrolled with OUD and who presented to the ED seeking treatment (34%) or were identified by screening (66%), including 9% after an overdose. Patients who were assigned to a brief psychosocial intervention, started on buprenorphine treatment in the ED, and linked to the hospital’s primary care center for 10 weeks of continued treatment were twice as likely to be engaged in formal addiction treatment at 30 days as those who were given a referral to treatment alone or a brief psychosocial intervention and a facilitated referral to community-based treatment services.¹ ED-initiated buprenorphine was also found to be cost-effective.²

The lack of uptake of buprenorphine treatment despite compelling evidence may be attributed in part to factors such as misconceptions or stigma associated with addiction and concerns about diversion of medications, increased ED length of stay, and the potential precipitation of an influx of people seeking treatment (see table). Additional impediments to access to buprenorphine and treatment continuity — such as prior-authorization requirements, financial barriers, and lack of access to transportation — exist in all clinical settings, and addressing these barriers at the systems level will be of paramount importance for optimizing the quality and timeliness of care and reducing disparities. The health care system’s increasing reliance on the ED has also contributed to the belief that resources, including time, space, and personnel, are already stretched too thin to tackle another problem.

The fact is, however, that many

patients with OUD are already treated in the ED after presenting with urgent conditions such as opioid overdose or less urgent problems such as withdrawal or injection-site abscesses. ED visits for opioid overdose increased by 30% between the middle of 2016 and the middle of 2017,⁴ most likely fueled by the overabundance of potent synthetic opioids such as fentanyl and its analogues. This trend, coupled with the fact that patients with OUD have a disproportionately higher risk of death in the next year than other ED patients, suggests that the benefits of initiating treatment in the ED are likely to be substantial. Changing physician behavior can be challenging, however. Current ED interventions for patients with OUD typically include administration of a cocktail of therapies such as nonsteroidal antiinflammatory medications, antiemetics, and alpha-2 agonists such as clonidine to treat symptoms of withdrawal; treatment of infections; and observation after an overdose, followed by release. But symptomatic treatment with nonopioid medications is generally ineffective. Patients therefore often become more irritable as their symptoms worsen, increasing the possibility of violence toward ED staff. More important, these methods do not address the underlying OUD. Initially treating withdrawal with buprenorphine would allow ED staff to have a meaningful discussion with the patient regarding treatment shortly after administration.

Even with decades of research demonstrating the effectiveness of opioid-agonist treatment, a minority of patients are benefiting from these medications. A recent analysis of more than 17,000 people who had an ED visit for a nonfatal opioid overdose in Massachusetts be-

tween 2012 and 2014 found that only 1 in 3 received medication for OUD and roughly 5% died within 1 year. All-cause and opioid-related mortality were significantly lower among patients who received buprenorphine or methadone.⁵

What's more, physicians' concerns regarding appropriateness and ease of administration of buprenorphine are not supported by evidence. The so-called 72-hour rule in the Code of Federal Regulations allows physicians "to administer narcotic drugs for the purpose of relieving acute withdrawal symptoms when necessary while arrangements are being made for referral to treatment" for up to 3 days. Buprenorphine carries relatively few risks as compared with other medications and procedures typically used in the ED. Integrating clinical pathways for ED-initiated buprenorphine and referral to continued treatment has the potential to improve clinical care and reduce length of stay for patients who present with an overdose of, or withdrawal from, short-acting opioids or those who request treatment to within the national benchmarks of 60 to 90 minutes for urgent care discharges.

Times are changing, and momentum toward offering buprenorphine in the ED is building. In pockets throughout the country, emergency physicians overwhelmed by the current opioid epidemic have stepped forward to offer innovative solutions. Prompted by evidence from the Yale study, emergency physicians in Oakland, California, Camden, New Jersey, and Syracuse, New York, have started programs that use the ED proactively to address the opioid epidemic by welcoming people with OUD and initiating treatment with buprenorphine. They are also working with hospitals to open clinics that continue ED-initiated

treatment and provide supports to help overcome patient- and system-level barriers to care. Emergency physicians have also demonstrated that beyond starting patients on buprenorphine, it is feasible to adopt harm-reduction strategies such as overdose education and naloxone distribution for people at highest risk for overdose. To date, EDs that have expanded their services for people with OUD and partnered with community resources have not seen a mass influx of new patients.

Newer initiatives, such as clinical decision pathways and quality measures for patients with OUD, developed by health systems in collaboration with stakeholders including hospital administrators and community providers, will improve the integration of ED-initiated buprenorphine into more EDs. The American College of Emergency Physicians (ACEP) and the National Institute on Drug Abuse are actively promoting initiation of buprenorphine in the ED, offering resources on their websites such as assessment tools, treatment algorithms, and discharge instructions for home induction, as well as videos to help providers motivate patients to consider treatment. Although the 8-hour training requirement for prescribing buprenorphine remains a substantial barrier, many training courses are free and are now offered at venues that appeal to emergency physicians, such as the ACEP annual meeting. However, policy changes that would reduce barriers for emergency physicians to prescribe a time-limited course of buprenorphine to last until patients could attend a referral appointment would accelerate the adoption of buprenorphine initiation in EDs throughout the country.

Engaging patients with OUD in opioid-agonist treatment with

Concerns, Realities, and Solutions Regarding Opioid Use Disorder and Buprenorphine Treatment in the ED.*		
Concern	Reality	Solution
Addiction is a moral failing; patients keep coming back to the ED time and time again.	Addiction is a chronic and relapsing disease that can be effectively treated with opioid-agonist therapies. Emergency physicians often see a skewed sample of patients not in treatment.	Provide patient-specific feedback to ED providers on success stories regarding engagement in treatment.
Providing buprenorphine to patients will lead to diversion.	There is less diversion of buprenorphine than of other opioids. Buprenorphine bought off the street is often used to reduce withdrawal symptoms. Every buprenorphine pill taken is one less opportunity for overdose, complication of injection drug use, or death.	Offer limited supplies, preferably 2–7 days' worth of treatment, until an appointment with a community provider or program can be arranged.
Initiating buprenorphine treatment is complicated, and the ED is already crowded and chaotic.	Buprenorphine is safer and more predictable than many medications used in routine ED practice. Treatment can be accomplished in less time than an urgent care visit.	Integrate protocols electronically into the ED workflow from triage to discharge that engage all providers in order to facilitate a simplified and streamlined process. Identify a cadre of champions available to support new prescribers.
Initiating buprenorphine will increase length of stay.	Initiating buprenorphine will reduce length of stay and reduce the potential for violent behaviors and injury to staff. Buprenorphine markedly reduces withdrawal symptoms in 20–30 minutes.	Streamline protocols and educate staff to achieve times of 60–90 minutes from presentation to discharge, in keeping with urgent care criteria.
There is a lack of referral sites for patients who have initiated buprenorphine treatment.	Most communities have treatment resources of which the ED staff are unaware.	Partner and develop relationships with community resources and local health departments to permit efficient referral and feedback. Hire an ED staff member such as a health promotion advocate, which is helpful and cost-effective. ³
Patients will return repeatedly for redosing.	Repeated visits for redosing have not been demonstrated at sites that consistently offer buprenorphine.	Develop treatment plans that are similar to those for other chronic diseases, such as sickle cell disease. Treat withdrawal with buprenorphine and referral.
Patients will flock to the ED for treatment.	Patients with OUD are already in the ED. Sites with ED-initiated buprenorphine do not report an uptake of patients seeking treatment.	Initiate treatment protocols at triage to promote rapid assessment, treatment, and referral.
Many patients don't want treatment anyway.	Some patients, often after an overdose, are not ready for treatment after a brief psychosocial intervention, but discussion may lead to a change in motivation in the future. The ED visit is often a missed opportunity to engage patients who may be contemplating a positive change but need guidance and support.	Introduce harm-reduction strategies such as overdose prevention and naloxone distribution. Establish rapport to facilitate improved outcomes.
Obtaining a waiver to prescribe buprenorphine is too burdensome.	The training required to obtain a waiver can be done all online or as half-day courses coupled with half-day online services. Most training is free and similar to other required learning and counts toward CME requirements for specialty certification, recertification, and licensing in many states.	Identify resources online and at institutions using the SAMHSA and ASAM websites. Offer faculty development days or group learning events.

* ASAM denotes the American Society of Addiction Medicine, CME continuing medical education, and SAMHSA the Substance Abuse and Mental Health Services Administration.

either buprenorphine or methadone is essential to addressing the opioid epidemic. For patients who present with opioid overdose, an ED visit represents a critical, time-sensitive point at which initiating lifesaving treatment is possible. Furthermore, EDs are the only venues that are federally mandated, under the Emergency Medical Treatment and Active Labor Act (EMTALA),

to care for all patients regardless of their insurance status and ability to pay. Therefore, they serve a segment of the population that is disproportionately vulnerable and disenfranchised, including people who might not be able to receive treatment elsewhere. We believe that striving to consistently and effectively deliver evidence-based treatment for OUD — by thinking of the ED as

an integral part of the response to the opioid crisis and the health care system as a whole — could help change the trajectory of the epidemic.

Disclosure forms provided by the authors are available at NEJM.org.

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DOI: 10.1056/NEJMp1811988

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Ramping Up the Response to Ebola

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Before 2014, it seemed unimaginable to many experts that Ebola would rip through dense urban areas, ultimately sickening nearly 30,000 people and killing more than 13,000.¹ Four years later, Ebola is again spreading in urban areas, this time in the Democratic Republic of Congo (DRC). Though there are clear signs that global preparedness for epidemics has been strengthened, efforts to contain the DRC outbreak have not been sufficient. Additional human and financial resources are needed to prevent this outbreak from becoming a major epidemic.

There are several strengths and capabilities in the DRC that were not available to the Ebola response in West Africa in 2014: the DRC has experience in containing Ebola outbreaks; a new investigational Ebola vaccine has been administered to more than 24,000 people²; and the World Health Organization (WHO) is playing a strong leadership and operational role in confronting the outbreak.

Yet efforts to stop the spread of disease haven't succeeded. Since September, the incidence of Ebola has more than doubled, according to WHO situation reports. The majority of people with recently identified Ebola were not on existing lists of contacts of people with previously identified cases — which indicates a high degree of unrecognized transmission in the community. The virus has

spread to 11 DRC health zones, and the WHO has deemed the risk of further regional spread to be very high. There has been some breakdown in disease-control efforts because of security conflicts. In one of the epicenters of the outbreak, Beni, response was interrupted after armed civil conflict and a community-wide strike that followed it. As in previous Ebola outbreaks, some containment efforts have also encountered community resistance.

The WHO recently convened an emergency committee to determine whether the outbreak should be declared a Public Health Emergency of International Concern (PHEIC) — a designation applied to only four past outbreaks. The committee decided that the outbreak did not yet constitute a PHEIC but said that it “remains deeply concerned by the outbreak and emphasized that the response activities need to be intensified” and that otherwise the situation is likely to “deteriorate significantly.”³ Given the rapidly growing case numbers, limited ability in the field to conduct contact investigations, and high potential for cross-border spread, we believe that declaration of a PHEIC seems warranted now. It would increase both political attention and the financial resources flowing to the control effort. But leaders need not wait for such a declaration before they deepen their commitments:

in recognizing the urgency of the concern expressed by the emergency committee, they can act now.

Containment is not possible without bolstering efforts to detect all cases, conduct thorough case investigations, monitor case contacts, and rapidly isolate anyone with symptoms. Tracking down case contacts is also essential for supporting ongoing ring-vaccination efforts. Another urgent need is for enhanced infection-control protections at health facilities, which have become an important locus of transmission. More than 10% of Ebola cases have occurred in health workers. Vaccinating health workers, strengthening infection-control practices, and increasing workers' capacity to recognize and report potential cases of Ebola are all essential.

At this point, “intensified” efforts, as requested by the emergency committee, will require additional seasoned responders with cultural competency, including local language skills, technical expertise, and experience in managing complex outbreaks. Given the highly dynamic nature of this outbreak, additional experienced personnel are needed in the field to lead response operations and develop and implement strategies as dictated by changing information. Though some case-investigation activities are ongoing, the high proportion of Ebola cases being