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The Adverse Impact of Covid-19 on Individuals with OUD Highlights the Urgent Need for Reform to Leverage Emergency Department–Based Treatment

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The coronavirus pandemic is having detrimental impacts on individuals with opioid use disorder. Social isolation, decreased access to medications or illicit drug supply, and reduced access to harm-reduction strategies all compound the challenges facing a vulnerable population with comorbid conditions. The ED continues to offer access to care 24/7/365 and is a proven setting for initiating treatment with buprenorphine for individuals with OUD, providing overdose education and naloxone distribution and referral to community resources. Through reforms such as eliminating the burdensome regulatory requirement for obtaining a [DATA 2000 waiver](#) to prescribe, allowing longer prescriptions for buprenorphine, and requiring naloxone distribution, we can overcome barriers to treatment. Accelerating adoption of quality measures for ED-initiation of buprenorphine and referral for ongoing treatment and other reforms are urgently warranted.

Amid an opioid epidemic that has resulted in more than 446,000 overdose deaths during 1999–2018 with 46,802 reported in 2018 alone,¹ the Covid-19 pandemic has the potential to make these numbers even worse. We know that the emergency department offers 24/7/365 access to care and that with large increases in ED visits for opioid overdose and drug-related reasons, the ED is on the frontline of these concurrently escalating epidemics.² Drug-related visits to U.S. EDs doubled from 2006 to 2014,³ with rates of opioid overdose increasing 30% from 2016 to 2017.⁴ Alarming, an increasing number of reports from national, state, and local media suggest an increase in opioid-related mortality in communities across the U.S. from early May 2020.^{5,6} We know that individuals

treated in the ED for an overdose or substance use disorder have a 6 times higher fatality rate compared to all adult ED visits.⁷ Finally, we know that the ED is the primary health system contact for many individuals with OUD and that ED-initiation of buprenorphine is effective in engaging patients with untreated OUD in treatment 30 days post ED visit.^{8,9}

Yet, despite decades of evidence that opioid agonist therapy with methadone and buprenorphine reduces mortality, increases retention in treatment, and decreases illicit opioid use and transmission of infectious disease such as HIV and Hepatitis C, most individuals with OUD remain untreated.¹⁰⁻¹² The practice of ED-initiated buprenorphine is improving, but widespread adoption still lags. In a recent study of clinicians at four geographically diverse academic EDs only 3.5% (9/258) had completed X-waiver training and only 20% indicated a high readiness to initiate buprenorphine.¹³ The consequence of inaction is real. In a study of 17,568 individuals in Massachusetts with a non-fatal overdose,¹⁴ the 1-year mortality was 4.7% (95% CI, 4.4 to 5.0 deaths) per 100 person-years. Yet, in the 12 months after the OD, only 11% (2040/17,568) were treated with methadone and 17% (3022/17,568) with buprenorphine. Importantly, those patients who were treated with methadone and buprenorphine had a significant reduction in mortality with adjusted hazard ratios of 0.47 [CI, 0.32 to 0.71] and 0.63 [CI, 0.46 to 0.87] respectively. Key factors that limit the initiation of medications for the treatment of OUD include stigma at the patient, provider, and community level; pervasive myths about medication's role and effectiveness; substantial gaps in general medical training; and federal regulations that limit medication provision and delivery, including the requirement for DATA 2000 waiver training.^{2,10,13}

The Covid-19 pandemic has exacerbated the stress upon the most critical link in access to care — the hospital-based ED. The EDs are focused on preparation and care of patients with Covid-19 and have suspended many quality and performance improvement initiatives. Access to outpatient addiction providers has been limited by community social distancing policies making EDs the sole point of entry for care and access to treatment for OUD in many communities. Social isolation, the effects of Covid-19 on the respiratory system, and use of illicit opioids from unknown sources may have contributed to increases that have been noted in May 2020 in fatal and non-fatal opioid overdose, though importantly, data for fatal overdoses have a significant lag in reporting. Interruptions in opioid treatment and/or illicit drug supply may precipitate more individuals to present with withdrawal or other opioid-related illnesses. This vulnerable population with OUD is also more likely to be homeless, to smoke tobacco, marijuana, or vape and have fewer options for care.¹⁵⁻¹⁷ In addition, they are more vulnerable during the pandemic due to stigma and discrimination, poor health knowledge, lack of access to harm-reduction services, and continued craving of drug use over general health.¹⁸ These emerging data highlight the urgent need for a more aggressive approach to avoid wiping out recent improvements by leveraging the ED visit as an opportunity to initiate treatment without delaying access.

The first clinical trial testing medications for opioid use disorder from an ED setting was published in 2015 demonstrated that individuals with ED-initiated buprenorphine with referral to primary care were twice as likely (78%) to be engaged in formal addiction treatment at 30 days, and significantly reduced their past 7-day illicit opioid use compared to those receiving a referral only, or a brief intervention with referral.⁸ Subsequently, other hospitals have successfully implemented ED-initiated buprenorphine programs,¹⁹⁻²³ but despite the evidence in support of buprenorphine

and the alarming rise in opioid-related visits and deaths, the number of EDs initiating buprenorphine does not reflect the severity of the opioid epidemic. Barriers to implementation include a lack of training and experience in treating OUD with buprenorphine, concerns about ability to link to treatment, and competing priorities for ED time and resources, along with a misunderstanding and stigma toward patients with OUD. These barriers can be overcome by training, implementation of streamlined protocols that are integrated within the EMR and targeted feedback to ED staff on patient outcomes in a quality improvement framework.^{2,13}

Emergency physicians have long assumed accountability for recognizing and treating chronic conditions that would not be considered time-sensitive “emergencies,” such as uncontrolled hypertension or hyperglycemia, as well responding to mass casualties and disasters. They recognize that the ED is an important safety net and essential venue to care for vulnerable populations. This is especially relevant with Covid-19, where OUD treatment access has become severely limited, and more patients are likely to turn to the ED to seek care. Evidence-based practices for life-threatening conditions are implemented daily in EDs, including for stroke, acute myocardial infarction, and sepsis. Significant resources are expended to implement guidelines that have advanced the standard of care including the 90-minute door-to-balloon time for treatment of ST-elevation myocardial infarction (STEMI), acute stroke door-to-needle time for cerebral reperfusion, and time-sensitive sepsis bundles. These practice changes were driven by the development and implementation of quality metrics alongside national quality improvement collaboratives directed at *hardwiring* process improvements to close major gaps in care.

The evidence for opioid agonist therapy is as robust as many of the commonly accepted guideline recommendations for these time-sensitive conditions. Untreated OUD ranks among the most potentially life-threatening conditions that require treatment in otherwise young and healthy patients. A study²⁴ from Massachusetts reported a 1.1% 1-month and 5.5% 1-year mortality in patients following an ED visit for a non-fatal opioid overdose. The mortality risk of death at 1-year among patients at all ages with a nonfatal myocardial infarction (~ 5.9%)²⁵ is quite similar, yet no emergency clinician would consider not aggressively treating myocardial ischemia according to evidenced-based guidelines; and ED patients are routinely discharged from the ED following non-fatal opioid overdose, overwhelmingly without the initiation of OUD treatment and overdose prevention.

Barriers related to training, burdensome regulatory requirements for obtaining an X waiver, and lack of awareness of adequate referral sites may contribute to the scarcity of initiating treatment for OUD; however, clinicians report that these conditions can be resolved with institutional and electronic medical record support.^{11,26} In Massachusetts, a state law ([Chapter 208](#)) accelerated the development of these supports by requiring “hospitals that provide emergency services to have the capacity to initiate opioid agonist treatment to patients after an opioid-related overdose, and to directly connect the patients to continuing treatment prior to discharge.”²⁷

However, given the numerous federal and state regulatory relief initiatives generated by the current pandemic response, several actions may overcome these barriers in this vulnerable window for patients with OUD. The Drug Enforcement Agency must eliminate any DATA 2000 training requirements to allow emergency physicians to prescribe buprenorphine during this time

period; outpatient opioid agonist therapy providers must be supported in applying telemedicine consultation and partnering with pharmacy's for dispensation protocols to improve patient access to medication; and state Medicaid programs must be provided the support to test the use of telemedicine focused mental health outreach to those with OUD amidst this stressful pandemic. Access to harm-reduction strategies such as needle exchange programs and naloxone must be readily available.

Achieving sustainable improvements in the quality of care for OUD requires systematically changing practice using proven methods and quality improvement tools that motivate change in a data-driven manner using accurate measures and iterative implementation and learning cycles.²⁸ Quality improvement initiatives in emergency care have markedly reduced mortality and morbidity for acute myocardial infarction,²⁹ and the same is possible for OUD. Turning evidence into practice will require public, private, and professional entities to develop scientifically sound quality measures that ensure accountability for higher-quality care as well as target the investment of limited quality improvement resources. With the Covid-19 pandemic, many national quality measurement initiatives have been temporarily suspended to direct health care providers' attention toward the pandemic.³⁰ This pause has created an opportunity to re-evaluate our existing quality measures, identify critical gaps in OUD care processes and outcomes, and redesign a more patient-centered quality measurement and improvement system that expedites the adoption of high-reliability and high-quality health care for those with untreated OUD.³¹ Advancing quality metrics for OUD treatment must consider structural, process, and outcomes measures that promote both treatment and harm reduction in conjunction.³² Structural measures should likely include a minimum threshold of DATA 2000-trained physicians or recognition of an ED-based OUD treatment accreditation process, such as the new American College of Emergency Physicians (ACEP) Pain and Addiction Care in the ED (PACED) Accreditation. Process measures could include the proportion of ED patients with OUD initiated on medications for opioid use disorder, buprenorphine administration and/or prescription, or linkage to outpatient treatment. Similarly, harm-reduction efforts should be supported by process measures consistent with the U.S. Surgeon General's 2018 public health advisory such as the proportion of ED patients with OUD dispensed or prescribed naloxone.³³ Improvements in these structures and processes of care must be closely linked to the measurement of a complement of near-term outcomes such as risk-adjusted rates of ED visitation, nonfatal opioid overdose, withdrawal or complications of injection drug use.

Elevating the treatment of OUD for patients discharged from the ED to become part of usual care is overdue. The use of treatments for patients with OUD must be considered as a core competency. In 2017, ACEP launched an Opioid Initiative as part of the Emergency Quality Network (E-QUAL) that provides a structured approach to caring for patients with OUD within a traditional quality improvement framework. Thus far, more than 500 EDs have signed up, representing an important initial step in accessing resources for best practices. However, with more than 5,000 EDs in the country, voluntary efforts are insufficient. The size and scope of this problem warrants a rapid change in practice. This will require national adoption of quality and accountability measures, mandatory residency education, as well as institutional, regulatory, and legislative support. Treating patients with OUD in the ED with evidence-based medications should not be optional. The Covid-19 pandemic provides an opportunity to accelerate this much-needed practice change to end this quality gap.

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