Get Waivered: A Resident-Driven Campaign to Address the Opioid Overdose Crisis

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INTRODUCTION

The emergency department (ED) plays an important role in care for patients with opioid use disorder, who are often marginalized from traditional primary care sources.[1] During training, emergency medicine residents frequently address primary health care needs of patients with opioid use disorder and offer overdose reversal and treatment of substance-use-related sequelae. Although the ED is a crucial point of contact for access to opioid use disorder treatment, a wide gap persists between evidence-based care and common practice.

In the last decade alone, the rate of ED presentations of patients with opioid use disorder–related complaints increased by nearly 100%. During the same period, the rate of hospitalizations for opioid use disorder–related complaints increased by just over 60%.[2] According to a report by the Agency for Healthcare Research and Quality, Massachusetts saw the highest rates of opioid use disorder–related ED visits.[3] As residents undergoing residency training in this state, we appreciated a critical gap in our ability to care for this increasing population of patients.

Despite increasing numbers of patients afflicted by opioid use disorder, ED clinicians receive little guidance on what constitutes effective treatment and instead are instructed to focus on decreasing access to prescription opioids. For example, they are advised to use opioids judiciously, adhere to specific dose limits, check the prescription drug monitoring program, and set realistic pain control expectations. Prescribing changes may reap long-term benefits related to opioid use disorder prevention but do not address care for patients who already have opioid use disorder and are seeking treatment. What solutions can we offer this patient population?

Medication for addiction treatment with methadone or buprenorphine has been shown to increase retention in treatment and social function and reduce illicit opioid use, risk of overdose, and death. Although several hospitals nationwide, including Yale New Haven Hospital in Connecticut, Highland Hospital in Oakland, and Massachusetts General Hospital in Boston, have developed and embedded medication for addiction treatment programs within their EDs, this practice remains far from the norm and these medications are not commonly initiated in the ED. In a recent national survey, 92% of responding emergency medicine providers worked in EDs that could not provide medication treatment to patients struggling with opioid use disorder.[4]

Despite demonstrated benefit of ED buprenorphine initiation, only 1% of emergency physicians have obtained the required Drug Enforcement Administration (DEA) X waiver necessary to prescribe it.[5] Therefore, we organized a resident-driven campaign, Get Waivered, to increase the number of waivered emergency physicians in the Massachusetts General Hospital ED.

MEDICATION THERAPY WITH BUPRENORPHINE

Buprenorphine, a partial opioid agonist, is 1 of 3 Food and Drug Administration–approved medications to treat opioid use disorder.[6] It alleviates withdrawal symptoms and reduces cravings without causing the euphoric effects of heroin or full opioid agonists. The sublingual formulations are most commonly coformulated in a 4:1 ratio combination with the antagonist naloxone to reduce the potential for misuse.[7] Buprenorphine's partial agonist quality results in a lower risk of respiratory depression and therefore fatal overdose.[8]

Clinical trials have demonstrated the superiority of medication therapy for individuals with opioid use

disorder. In a meta-analysis, buprenorphine was superior to placebo in retaining people in treatment in all of 14 placebo-controlled comparisons.[9] Clark et al[10] demonstrated a 50% lower rate of relapse with medication for addiction treatment than with behavioral treatment alone.

In a study of 33,923 Medicaid patients with opioid use disorder, maintenance buprenorphine was found to be effective across multiple outcomes, including reducing all-cause mortality, improving physical and mental health, and decreasing illicit drug use. Patients treated with buprenorphine experienced a 75% reduced mortality compared with those treated with psychosocial interventions alone.[11]

Buprenorphine treatment can be started in hospitals as a bridge to long-term outpatient prescribing. Leibshutz et al[12] found that 72.2% of patients initiating buprenorphine treatment before inpatient discharge entered into treatment versus 11.9% of those who were tapered off buprenorphine before discharge.

Medication therapy with buprenorphine has been shown to increase rates of addiction treatment follow-up when initiated in the ED. In a randomized clinical trial involving 329 patients with opioid use disorder treated at an urban teaching hospital, ED-initiated buprenorphine treatment versus brief intervention and referral significantly increased engagement in addiction treatment, reduced self-reported illicit opioid use, and decreased use of inpatient addiction treatment services. Seventy-eight percent of patients in the buprenorphine group versus 37% in the referral group were engaged in addiction treatment at 30 days postrandomization.[13]

In an assessment of a similar ED-initiated buprenorphine referral pathway when ED patients deemed appropriate for medication therapy were initiated into treatment with a single dose of buprenorphine, more than 70% were still engaged in treatment at 30 days.[14] Moreover, Schwarz et al[15] found that ED utilization was significantly reduced by buprenorphine therapy, with a 17.5% decrease in ED usage per subject during a 1-year period.

Most significantly, although both require long-term management in outpatient settings, buprenorphine, unlike methadone maintenance, allows ED providers to initiate treatment of opioid use disorder in the ED. This can be done through 2 mechanisms: in-ED administration and prescription.[16] Prescribing buprenorphine for maintenance therapy requires that providers obtain a DEA X waiver. This necessitates completing an approved 8-hour course. Currently, only 1% of all emergency physicians have this waiver.[4]

An exemption to this law can be leveraged that allows ED providers to administer buprenorphine in the absence of a waiver. Administration of up to 72 hours of treatment per provider with buprenorphine on an emergency basis is allowed for patients while ongoing treatment is arranged for them. Not more than 1 day's worth of medication may be administered or given to a patient at one time, necessitating multiple return visits to the same ED in a 72-hour period.

GET WAIVERED: A RESIDENT-DRIVEN CAMPAIGN TO INCREASE ACCESS TO MEDICATION THERAPY FOR OPIOID USE DISORDER

As residents seeking to treat patients with opioid use disorder in 2015, we found little formal guidance on the best approach to caring for these patients in the ED. We also noticed an increase in patients seeking treatment for opioid use disorder. We contacted nationally recognized addiction specialists and learned of the aforementioned evidence in regard to medication for addiction treatment for opioid use disorder.

The requirement to have a waiver to prescribe buprenorphine in our department was a barrier we faced and is one potential barrier to introducing medication for addiction treatment to the ED at scale. Although emergency physicians may be able to use the emergency exemption to sidestep this requirement, patients often need longer than the 12 to 24 hours afforded by a single buprenorphine dose to bridge to outpatient treatment. Thus, the success of a department's efforts to treat opioid use disorder patients may partially depend on having a critical number of emergency physicians who have obtained a waiver.

Further investigation showed programs seeking to increase treatment for opioid use disorder in the ED, including increasing the number of waivered providers, in nascent stages across the nation, using traditional methods such as grand rounds, bedside teaching, and dedicated speakers at national emergency medicine conferences. Despite this, the national rate for waivered physicians in the ED remained poor, as mentioned above. We sought a novel approach to increase the number of waivered physicians in our ED.

One of our residents had training in a field of study known as behavioral economics, which focuses on the science of human behavior change. With efforts initiated by this resident and collaborators trained in behavioral economics from the Harvard Kennedy School, we decided to implement a novel approach to increase the number of waivered emergency physicians in our ED.

Process

The field of behavioral economics has shown growing promise as a tool to positively influence physician behavior in regard to areas such as prescribing, hand hygiene, and use of evidence-based order sets.[17,18] A critical concept in this discipline is the intention-action gap, which exposes the crucial distinction between a decisionmaker intending to do a specific action—in this instance, deciding to obtain a waiver—and ultimately carrying out the numerous cumulative behaviors required to complete the action.

The behavioral approach to closing this gap involves undertaking a process called behavioral mapping, which progresses through every decision and behavior that flows from it required to complete that action, as well as identifies behavioral barriers to completing the desired action. Next, interventions called nudges are used, which are any addition to, or modification of, the environment or message provided to decisionmakers designed to change their behavior in a predictable way.[19]

Working with an interdisciplinary team of emergency medicine residents, web designers, and public policy experts trained in behavioral economics, we set out to increase the number of physicians in our ED who obtained DEA X waivers by using a behavioral economics approach to our Get Waivered campaign. We constructed a 2-phased approach aimed at having faculty members voluntarily complete the waiver training program.

We began by constructing behavioral maps of the processes and actions related to obtaining a waiver. Through informal interviews of attending physicians with whom we had rapport sufficient for us to believe they would be open about their barriers, including those associated with stigma, we identified specific behavioral barriers that blocked completion of the action of obtaining their waiver. We then sought to implement behavioral economics–inspired interventions termed *nudges* to address each barrier identified.

Barriers and Nudges

We uncovered 3 key behavioral barriers that impeded completion of the DEA X waiver process for our faculty and residents. Our team of behavioral economists worked to intuit the key psychological or situational factors behind each of these barriers and developed approaches that could be used to address them. These may be common themes and relevant approaches for stakeholders interested in making similar changes at their institutions.

Barrier 1: Absent Social Norm

Behavioral economics defines social norms as the values, actions, and expectations of a culture or group. They offer often implicit guides to our behavior; and in particular, descriptive norms make people aware of what "most other people are doing." These norms can reinforce and amplify an individual's underlying motivations.[20] The lack of consistent social norms around treating opioid use disorder and subsequently getting a waiver undercuts the motivation of many attending physicians in our department to obtain a waiver. We targeted this barrier, using 6 specific nudges, including recruiting influential faculty members to be the first group of those waivered, creating a Get Waivered Month, and holding a white coat pinning ceremony, which was covered in a local news story and social media for those who had completed their waiver process (Figure).

Barrier 2: Hassle Bias in Obtaining a Waiver

Seemingly irrelevant details that make a task more effortful introduce hassle bias, and can make the difference between following through on an action and putting it off, sometimes indefinitely.[21] Our group identified that many of the behaviors required to obtain their a DEA X waiver introduced hassle bias, including accessing the online course and submission site after course completion and scheduling the in-person portion of the course. We targeted this barrier by using 3 specific nudges, including coordinating all schedules for interested participants, creating an easy-to-follow Web site, and presenting information about the waiver process at resident and faculty conferences (Figure).

Barrier 3: Lack of Salience in Treating Opioid Use Disorder

Salience refers to the fact that individuals are more likely to focus on items or information that are more prominent and ignore those that are less so. This creates a bias toward undertaking behaviors that are striking and perceptible.[22] In the ED, the long-term benefits of proceeding with an action such as initiating a patient's medication for addiction treatment may be hidden and are therefore not always factored in at decisionmaking. Moreover, an emergency physician may be hard-pressed in daily practice to remember stories of patients with opioid use disorder who have been treated successfully and are in recovery. Thus, because they are not regularly exposed to positive outcomes from opioid use disorder treatment, emergency physicians may come to develop an impression that patients cannot be treated effectively or recover. This worldview may alter their willingness to expend the effort to undergo extra training to

Barrier 1: Absent Social Norms: The lack of social norms around treating OUD may decrease motivation to obtain a DEA X waiver.	
Description: Faculty and Residents were often unclear about the department's stance on treatment of OUD.	**Nudges** • Recruited the Chief of the Department to select a group of 5 influential senior faculty members as "Champions" to join him as the first cohort to get their waivers • Created a "Get Waivered Month" • Highlighted the Champions at Faculty and Resident Conference before the first waiver training session
Description: Faculty and Residents could not easily identify whether or not others were choosing to get their waiver.	• Designed honorific golden lapel pins for those who had completed waiver training and held a white coat "pinning" ceremony • Invited local media to cover the first pinning ceremony • Posted photos of groups of faculty members that completed the in-person course on a *Get Waivered* Twitter Page
Barrier 2: Increased Hassle Bias: Seemingly irrelevant details that make a task such as completing the DEA X waiver process more challenging or effortful introduce hassle bias, and can make the difference between following through on an action and putting it off, sometimes indefinitely.	
Description: Faculty members found the process of obtaining a waiver unclear and accessing the online course and submission site after course completion was not straightforward.	**Nudges** • Presented at faculty and resident meetings during "Get Waivered Month" about the program and the process of obtaining a waiver - with a follow-up email that contained instructions on course sign-up. • Created a website that clarified the four distinct steps of obtaining a waiver
Description: Scheduling the in-person portion of the course introduced another administrative hurdle.	• Designated one volunteer to coordinate all class scheduling based on faculty availability.
Barrier 3: Lack of Salience: Individuals are more likely to focus on items or information that are more prominent and ignore those that are less so which creates a bias towards undertaking behaviors that are striking and perceptible. For example, the long-term benefits of proceeding with an action like starting a patient on MAT may be hidden to EPs and are therefore not factored in.	
Description: In our ED, many faculty members and residents could not easily recall stories of patients with OUD who have been treated successfully and are in recovery.	**Nudges** • Invited an MGH primary care physician to an ED faculty conference to tell his personal story of struggling with OUD and eventually recovering using buprenorphine • Recruited a patient with OUD, previously well known to the department, to speak at residency conference of recovery that started after being seen in our ED and starting MAT • Recruited patients with OUD to tell their stories of recovery using buprenorphine and answer questions at each waiver training session

Figure. Barriers and nudges. *OUD*, Opioid use disorder; *MAT*, medication assisted treatment; *EP*, emergency physician; *MGH*, Massachusetts General Hospital.

obtain a DEA X waiver. Making the benefits of our actions in treating patients with opioid use disorder more salient through vivid stories provides an opportunity to increase the motivation to follow through on obtaining a waiver. We targeted this barrier by using 3 specific nudges related to sharing in-person patient stories, including of physicians with opioid use disorder, who used medication for addiction treatment to enter into and stay in recovery (Figure).

Follow-up

Although Massachusetts General Hospital had a preexisting bridge clinic with capacity for next-day evaluation of patients, lack of access to timely follow-up for continued prescribing could pose a significant yet surmountable barrier at other institutions. We recommend exploring the utilities of such prearranged collaborations to decrease barriers to follow-up.

CONCLUSION

Medications for opioid use disorder, such as buprenorphine, decrease all-cause and overdose mortality, but their use remains limited in EDs nationwide.[23] Although creating new ED treatment pathways can be challenging, ED initiation of buprenorphine can help us address the increasing toll of the opioid overdose epidemic. Training residents in these new treatments is relatively straightforward and builds on existing screening and referral interventions. We believe that, with appropriate leadership, these pathways can be implemented in most EDs.

Although the process to obtain a DEA X waiver adds considerable administrative hassle, these challenges are not insurmountable. Our resident-led campaign began with one faculty member who had a DEA X waiver in our department. By the end of our Get Waivered campaign, which spanned 3 months, 38 of 42 attending physicians in our faculty group and 22 ED resident physicians had taken their waiver training course. Currently, 95% of our faculty attending physicians have obtained a buprenorphine waiver, and the National Institutes of Health has featured this program as a model for how ED residents can help build their institutions' capacity to treat opioid use disorder.[24]

Although there is no one solution to overcoming our nation's opioid overdose epidemic, Get Waivered is one concrete example of how residents can seize the opportunity to make evidence-based practice for treatment of opioid use disorder common practice.

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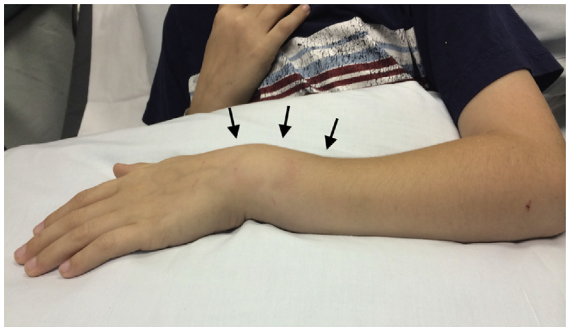

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