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International Journal of
Clinical & Pharmaceutical Research (IJCPR)
Research Article | Volume 1, Issue 3 | Pages 39-42

Understanding Practices Followed to Treat Opioid Overdoses in Massachusetts Emergency Departments

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ABSTRACT: Objective: Massachusetts emergency departments (EDs) can play a key role in treating and managing patients with opioid use disorders. The purpose of this study was to understand the practices and protocols followed by Massachusetts EDs in managing non-fatal opioid overdoses and review the treatment options made available to these patients in various ED settings.

Methods: Researchers established a structured interview protocol, reviewed by medical professionals within the field and pilot-tested with two registered nurses. The interview protocol was submitted to and approved by the Institutional Review Board at MCPHS University (IRB060318L). Purposive, convenience, and snowball sampling were used. Researchers interviewed 21 ED personnel from 18 hospitals throughout Massachusetts either face-to-face or over-the-phone for approximately 15-20 minutes.

Results: Many Massachusetts EDs interviewed offer a brief (1 to 4 hour) medical observation period, followed by offering patients naloxone and the opportunity to enter a detox facility. The use of recovery coaches within EDs was offered in some hospitals, but not consistently across all EDs. A few larger hospitals reported offering patients the opportunity to meet with a recovery coach, and to start taking medication-assisted treatment (MAT).

Conclusions: The results suggest a lack of standardized treatment protocols and limited discharge plans exist in EDs across Massachusetts for the treatment and management of patients who present with an acute opioid overdose. A more standardized and robust approach for the treatment and discharge of acute opioid overdose is needed. The continued investigation of ED practices that reduce overdoses and encourage recovery are essential next steps.

Keywords: Opioid overdoses, Treatment options, Massachusetts emergency departments

ARTICLE INFORMATION

Author(s): Francis Melaragni and Carly Levy
Received: 11 June, 2021; **Accepted**: 26 July, 2021; **Published**: 16 Aug, 2021
Paper Id: BMN-IJCPR-2021-3;
Citation: doi.org/10.37391/IJCPR.010302
Webpage-link:
https://ijcpr.forexjournal.co.in/archive/ijcpr-010302.html

1. INTRODUCTION

Massachusetts declared the opioid epidemic a public health emergency in 2013 due to increasing and widespread rates of opioid overdoses, both fatal and non-fatal. The Massachusetts Department of Public Health data indicates there were an estimated 18,054 deaths due to an opioid overdose from 2000 through 2018 [1]. The rate of opioid overdose deaths increased each through 2016 when they reached 2,100 fatalities. In 2017 and 2018 the numbers have declined slightly each year from to 2050 in 2017 and to 2033 in 2018 [1]. There is no evidence-based understanding of why opioid deaths remained flat or declined slightly in Massachusetts in these two years, after increasing steadily for two decades, but, anecdotally, some believe the increased awareness and access to naloxone by first responders and bystanders is the most likely cause. The increased access and distribution of naloxone has been an important initiative undertaken in Massachusetts by many government agencies, non-profit organizations, and community groups. To facilitate access Massachusetts has implemented a standing order for all retail pharmacies in Massachusetts which requires the Naloxone availability in every pharmacy and access to all adults with or without a prescription [2].

Massachusetts mandates that Naloxone be provided, and a detox referral to be offered, to all patients who present with opioid overdose in an Emergency Department. However, recent data shows that detoxification for those with OUD may not be as effective as providing medication assisted treatment [3]. In addition, among the interviews we conducted, it was reported that almost all patients leave the emergency room without accepting treatment at a detox facility, and further, most (16 out of 21) ED's did not discuss or offer medication-assisted treatment.

Currently, there are three types of medication-assisted treatment (MAT): methadone, buprenorphine, and naltrexone. A few larger hospitals in Boston have implemented the practice of offering buprenorphine to those who present with a non-fatal overdose. The basis for this treatment offering stems from a 2017 study done at Yale University Medical Center (aka- the Yale Study), which provided evidence that emergency department-initiated buprenorphine with continuation in primary care was found to increase engagement in addiction treatment and reduce illicit opioid use at 30 days [4]. Moreover, a study conducted in Baltimore in between 1995-2009 showed that the increased availability of MAT was associated with a 50% decrease in fatal overdoses

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[5]. However, a 2012 national survey conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA) reported that of the 2.5 million Americans suffering with opioid abuse disorder fewer than 25% received MAT [5]. While MAT has been shown to be effective, it is not widely used. This underutilization can be attributed to many treatment barriers, including lack of insurance coverage, minimal physician awareness, and the negative stigma associated with opioid use disorder (OUD).

One of the most significant underlying problems fueling this healthcare epidemic is the stigma and shame that individuals who develop opioid use disorder face. The idea that opioid-use disorder is fundamentally different from other illnesses has shaped the way in which the condition is treated. Like other diseases, opioid-use disorder can be treated with one of the three FDA approved medications methadone, buprenorphine, and, or naltrexone. Unfortunately, the majority of those with an opioid use disorder are not receiving the treatment which could assist them in resuming a normal life. Massachusetts has made it a top priority to change the negative views of the public toward opioid addiction. In 2015, the Commonwealth launched the "State Without StigMa" campaign to educate both the general public and healthcare providers on how the stigma associated with OUD prevents people from seeking treatment.

Treatment-seeking individuals with OUD are often hindered by treatment cost and waiting lists for buprenorphine-prescribing physicians. A recent study indicated only 46,500 or about 5% of the nation's doctors have waivers to prescribe buprenorphine, the leading medication used to treat opioid addiction [6]. In Massachusetts the Drug Enforcement Agency indicated there are approximately 48,000 licensed and registered prescribers of opioids. Of these 48,000 prescribers of opioids it is estimated that fewer than 4,000 have also taken the additional steps needed to prescriber buprenorphine.

2. METHODS

2.1 Study Design

A literature review and in-depth interviews with ED personnel were conducted regarding current practices implemented in EDs for the treatment of acute, nonfatal opioid overdose. Researchers established a structured interview protocol, which was reviewed by medical professionals within the field.

2.2 Selection of Participants

Researchers interviewed 21 ED healthcare professionals, each from a different hospital throughout the Massachusetts. Purposive sampling was used to interview those who had extensive knowledge of current practices at their respective hospitals and were most likely to be familiar with the protocols followed to treat opioid overdose. Researchers recruited directors of emergency medicine, physician assistants, and nurses who may have experience treating opioid overdoses. Additionally, existing participants recruited other colleagues within the field to participate in the study. Researchers contacted potential participants via email correspondence or phone call. Interviews were conducted face-to-face or over-the-phone and lasted about 15-20 minutes. Interviews were recorded electronically and transcribed with participants' consent. Interviews that were not recorded relied on inter-rater reliability. Participation in the study was voluntary and subjects were not compensated for their time. Survey data was analyzed and compiled to support a manuscript. Data gathered across each institution was compared and emerging themes were identified. The interview protocol is included as an Appendix.

3. RESULTS

Seventeen (17) or eighty one percent (81%) of ED providers that were included in the study reported that patients are provided with a naloxone prescription or with the actual drug itself upon discharge. Additionally, nine (9) or 42% of providers reported that waivered prescribers work in their ED. However, only 4 or 19% of all 21 providers surveyed reported that MAT was prescribed to those presenting with a non-fatal opioid overdose in the ED. Thirty eight percent (38%) of providers reported that peer recovery coaches are made available to the patients who present with opioid overdose. While, no Massachusetts ED interviewed provided harm reduction basic therapies, such as clean needles and alcohol swab, a few providers mentioned the use of a "buddy-system" and the importance of discussing the need to not use alone as a key part of the patient discharge process.

The study found that some of the larger Massachusetts hospitals are providing more expanded and robust services to opioid overdose patients treated. Providers from three different hospitals reported "bridge clinics" where patients can go directly after being discharged from the ED for access to medication-assisted treatment, recovery coaches, and support groups. In some cases the bridge clinics had limited hours. One provider reports that these limited hours often results in an interruption of care with patients often not returning.

Three providers reported partnerships with local police departments to provide at-home next day follow-up with patients post discharge. Law enforcement, Emergency Medical Services (EMS), and/or addiction specialist will visit patients, and, or their family to encourage the patient to get treatment or make use of harm reduction methods.

4. DISCUSSION

While all the ED personnel interviewed would strongly prefer to offer more robust services the study found that most Massachusetts ED operations provide limited services and discharge opioid overdose patients once medically stable. In addition, most Massachusetts ED's do not provide any follow-up services either directly or through collaboration with community partners. Almost all ED's interviewed offer or provide opioid overdose patients doses of opioid reversal agent naloxone, a clinical assessment of ABCs (airway, breathing, circulation), and the opportunity to have a discussion with a clinical specialist. As mandated by the state of Massachusetts, patients are also offered a detox referral and a Substance Use Disorder Evaluation, although several participants stated many patients decline these offerings.

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According to the ED personnel interviewed, most of the patients treated leave without accepting further treatment, and many reported patients leaving within 1-2 hours upon arrival, most often against medical advice. While most Massachusetts emergency rooms followed these limited practices, many supported the idea of providing additional services including providing recovery coaches and access to buprenorphine. The limitation to providing additional services that most participants reported were a combination of competing needs and lack of resources to address this need.

Studies have demonstrated that upon discharge, patients who receive emergency department-initiated buprenorphine are more likely to stay in treatment than those who are offered a referral [7, 8]. A randomized control trial followed 329 opioid dependent patients who were placed into three treatment option groups: screening and referral to treatment; screening, brief intervention, and facilitated referral to community-based treatment services; and brief intervention, ED initiated treatment with buprenorphine/naloxone, and referral to primary care for 10-week follow-up [9]. After 30 days, participants in the buprenorphine group were more likely to be engaged in treatment than those in the referral or brief intervention group [9]. In our study only 19% reported that their institutions prescribe buprenorphine directly. Potential barriers to prescribing in the ED, such as a lack of institutional policies and protocols, need to be further evaluated.

Three ED providers reported bridge clinics available for patients immediately upon discharge. Although more data is needed to assess the outcomes of these patients, bridge clinics are able to offer access to MAT as well as therapy and counseling; a valuable tool for treatment that cannot be provided in the ED on a long-term basis. If made available, statewide 24-hour bridge clinics may provide more adequate treatment connection and recovery rates for patients suffering from OUD. Additionally, state-mandated levels of care, similar to Rhode Island's model, may help to keep quality of care consistent throughout Massachusetts. Rhode Island has established very detailed recommendations and requirements for hospitals and EDs [10]. Hospitals can be certified as a Level 1 to Level 3. Rhode Island mandates that all hospitals must follow a minimum of Steps 1-7 of Level 3 Care: 1. Follow the discharge planning standards as stated in current law, 2. Administer standardized substance use disorder screening for all patients, 3. Educate all patients who are prescribed opioids on safe storage and disposal, 4. Dispense naloxone for patients who are at risk, according to a clear protocol, 5. Offer peer recovery support services in the ED, 6. Provide active referral to appropriate community provider(s), 7. Comply with requirement to report overdoses within 48 hours to RIDOH, 8. Perform laboratory drug screening that includes fentanyl on patients who overdose [10].

5. LIMITATIONS

This study was limited by location and sample size. The study interviewed physicians in Massachusetts emergency departments only. In addition, only twenty one emergency room healthcare providers were interviewed for this study. Expansion of the location and sample size may produce differing results, and should be considered for future studies on the topic.

6. CONCLUSION

In conclusion, there is a need for significant improvement within the ED to treat patients who present with an opioid overdoses in Massachusetts. Providing buprenorphine directly in the emergency room has proven to be very beneficial for long-term recovery and treatment adherence rates [7, 8]. However, there are many barriers that prevent hospitals and EDs from implementing this into the current practices. Such barriers may include lack of waivered physicians, lack of availability in treatment centers to continue maintenance therapy, and lack of patient readiness to receive help. Further research is needed to study these barriers and how they are affecting opioid use disorder patients.

APPENDIX

Interview Protocol:

Experience/Knowledge

1. How often does your ED see patients who have experienced opioid overdoses? Can you give me an estimate for the past month? Year? What is the trend?
2. Tell us about the process the ED follows when someone comes in having experienced an opioid overdose. Is the process or protocol documented?
3. Tell me about your approach to patients who have experienced an overdose.

Probe: Are you familiar with or do you follow a Harm Reduction approach? We define harm reduction as: a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use.

Probes: has your ED provided Narcan or a Narcan prescription to those with an opioid overdose? Has your ED provided a new/ clean syringe to those who have overdosed? Does your ED discuss a buddy system or the importance of not using alone?

4. Tell me about the process to follow-up with the patients after discharge? If so, how?

Cognitive Behavioral Therapy

5. Please describe what behavioral health resources might be available to patients who have experienced an overdose?

Probe: What role, if any, do your licenses psychologists or social workers play? Do they attend to every person who has overdosed?

Treatment

6. Does the ED have anyone who is waivered to prescribe Suboxone, buprenorphine, or other MAT therapy? If so, tell me about that process.
   Probes: How many individuals are waivered? If waivered individuals exist, do you provide Suboxone that day? Do you provide a prescription for Suboxone?)
   In the alternative, does the ER have a list of Suboxone prescribers that it can provide to the person who
7. What other services do you provide or offer to the patient?

a. Probes: Do you offer overnight admission? Counseling

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services? Referrals?
8. Is there anything else you want to share about how you manage patients who have substance use disorders?

Attitudes

9. What are your views on the use of MAT? Do you believe this is an effective treatment?
10. What are your views on the use of Harm Reduction Therapy in the treatment of opioid use disorder? Do you believe this is an effective approach?

REFERENCES

[1] Massachusetts Department of Public Health. (2019). Number of Opioid-Related Overdose Deaths, All Intents by County, MA Residents: 2000-2017. Boston (MA): Massachusetts Department of Public Health.

[2] Board of Registration in Pharmacy. (2018). Policy No. 2018-04: Naloxone Dispensing via Standing Order. Boston (MA): Massachusetts Department of Public Health.

[3] Sciences, National Academies of Sciences. (2018). Medication-Assisted Treatment for Opioid Use Disorder. National Center for Biotechnology Information, U.S. National Library of Medicine.

[4] D'Onofrio, G., Chawarski, M. C., O'Connor, P. G., Pantalon, M. V., Busch, S. H., et al. (2017). Emergency department-initiated buprenorphine for opioid dependence with continuation in primary care: outcomes during and after intervention. Journal of General Internal Medicine, 32(6), 660-666.

[5] Boyer, E. W. (2012). Management of Opioid Analgesic Overdose. NEJM, 367(2), 146-155.

[6] Huhn, A. S., & Kelly, E. D. (2017). Why Aren't Physicians Prescribing More Buprenorphine? Journal of Substance Abuse Treatment, 78, 1-7.

[7] D'Onofrio, G., O'Connor, P. G., Pantalon, M. V., Chawarski, M. C., Busch, S. H., et al. (2015). Emergency department–initiated buprenorphine/naloxone treatment for opioid dependence: a randomized clinical trial. Jama, 313(16), 1636-1644.

[8] Love, J. S., Perrone, J., Nelson, L. S. (2018). Should Buprenorphine Be Administered to Patients With Opioid Withdrawal in the Emergency Department? Annals of Emergency Medicine, 72(1), 26-28.

[9] Volkow, N. D., Frieden, T. R., Hyde, P. S., Cha, S. S. (2014). Medication-Assisted Therapies-Tackling the Opioid Overdose Epidemic. NEJM, 370(22), 2063-2066.

[10] Department of Behavioral Healthcare and Hospitals Developmental Disabilities. (2018). Levels of Care for Rhode Island Emergency Departments and Hospitals for Treating Overdose and Opioid Use Disorder. Providence (RI): Rhode Island Department of Health.