

ASHP BEST PRACTICES AWARD

Development and Implementation of Emergency Department Pharmacist Driven Opioid Use Disorder Treatment Initiatives

Natalija M. Farrell, PharmD, BCPS, DABAT
Jessica L. Taylor, MD
Ludy O. Young, MEd, LADC I
Jessica Kehoe, BSN, NP
Sandy Gonzalez, MA
Patricia M. Mitchell, RN
David Fett, PharmD, BCPS
Danielle D. Margetak, PharmD, BCPS
Monique Payne-Cardona, PharmD, BCPS
Bryan J. Gendron, PharmD, BCPS
Danielle Kebabjian Lindale, PharmD, BCCCP
Elena Serpico, PharmD, BCCCP
Anne Marie Guthrie, PharmD, BCCCP
Rosa Auterio-Williams, MS, LADC I, CADC
Dawn Thomas, LADC II
Sebastian Hamilton, PharmD, MBA
Lauren M. Nentwich, MD

Boston Medical Center
Boston, MA



Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have direct or indirect interest in the subject matter of this presentation:

Natalija Farrell, Jessica Taylor, and Jessica Kehoe are supported by a grant from the Massachusetts Department of Public Health Bureau of Substance Addiction Services to develop Opioid Urgent Care Centers (RFR #163274). The other authors have no other disclosures.

Contact: Natalija.Farrell@bmc.org @NatalijaFarrell



Introduction

Health-Care Facility

- 514-bed academic medical center and safety-net hospital
 - Level I Trauma Center, Comprehensive Stroke Center
 - 10th busiest Emergency Department (ED) in the USA
- Pharmacy services
 - Inpatient, outpatient, and ambulatory care
 - 24/7/365 ED coverage
- Grayken Center for Addiction
 - Inpatient and outpatient addiction services
 - Faster Paths substance use disorder (SUD) bridge clinic
 - Project ASSERT emergency linkage and support

Background

- The opioid epidemic is one of the most severe public health crises, and opioid overdose fatalities increase annually
- Methadone and buprenorphine are 1st line treatments for opioid use disorder (OUD)
 - ↓ all-cause and overdose mortality
 - ↑ engagement in treatment programs
 - ↓ illicit opioid use
 - ↓ ED and inpatient utilization
- Less than 20% of patients with OUD receive MOUD
- Patients encounter multiple barriers to accessing medications for OUD (MOUD) including but not limited to stigma, failure to stock buprenorphine at pharmacies, and insufficient number of X-waivered providers and opioid treatment programs (OTP)
- EDs represent a high impact touch point to provide care for patients with OUD
 - Following a non-fatal opioid overdose, up to 9% of patients die from an opioid overdose within 1 year
 - 20% of fatal overdoses occurred within 1 month of non-fatal opioid overdose or ED visit related to opioids

Purpose

- A multidisciplinary quality improvement (QI) work group consisting of ED physicians, ED nurses, ED pharmacists, addiction medicine physicians, and licensed alcohol and drug counselors (LADCs) was formed to improve the treatment of patients with OUD presenting to the ED through provision of harm reduction services and initiation of MOUD
- QI initiatives were evaluated using the Model for Improvement framework from the Institute of Healthcare Improvement and multiple plan-do-study-act cycles were conducted between April 2018 and July 2021.

Description of the Program

Naloxone Distribution

- Grant funded by the state until it was not renewed in July 2018
 - All of the grant funded naloxone were used by August 2018
- Coordination with the Board of Pharmacy and our outpatient pharmacy to develop a retrospective reimbursement process, which went live in September 2018
 - ED pharmacy manager collected all naloxone prescriptions and brought them to the outpatient pharmacy liaison for processing on a weekly basis
 - 88% of prescriptions were covered by insurance
 - 16% were provided at no cost to the patient due to lack of insurance (registered as “unknown”) or insurance co-pay
 - Expanded this process to OBAT, Faster Paths, and Project ASSERT to increase access to naloxone at time of visit
- The state supplied 240 individual boxes of naloxone in April 2020 to help programs transition to the new, medical insurance reimbursement of naloxone dispensed to ED discharge patients
 - Most of the naloxone was distributed to Project ASSERT
- In August 2020, we successfully began billing patient’s medical insurance company for naloxone take home kits
 - Coordination with the billing department confirmed insurance payment for ED naloxone dispenses
- In September 2021, we developed a policy that allows ED pharmacists to order naloxone take home kits for discharge patients at risk of overdose or upon patient request

MOUD

- Removed MOUD from autoverify in the ED and stocked these medications in the ED automated dispensing cabinets in July 2018
- Created an ED-specific medication guideline for the treatment of OUD in September 2018
- Formal education on MOUD began in September 2018 for ED pharmacists, nurses, and providers
 - ED providers received education at their monthly educational conferences and weekly clinical pearls
 - ED provider X-waiver status increased from <5% to >90% through incentives
 - ED pharmacists provided education daily at the morning and evening nursing huddles
 - ED pharmacists provided additional education to staff at time of order or at staff request
- In September 2018, Faster Paths began accepting walk-in appointments for patients discharged from ED, who received MOUD
- Buprenorphine-naloxone take home kit policy to facilitate linkage to our Faster Paths bridge clinic began in January 2020
 - Meets outpatient pharmacy labeling requirements
 - Contents include naloxone 4 mg spray x1 and buprenorphine-naloxone 8-2 mg films x4
 - Medication handouts and Fast Paths brochure
 - Discharge counseling by ED pharmacists
- Faster Paths bridge clinic began applying “72 hour rule” for methadone with rapid linkage to local OTPs in April 2021
 - Developed a process for secure storage, continuous counts, wasting, and audits of methadone administered
- Faster Paths expanded to 7 days/week coverage in September 2021 after first piloting it in August 2021

Experience with the Program

Table 1. Annual ED Naloxone Take Home Kit Distributions

	9/1/17 - 8/31/18	9/1/18 - 8/31/19	9/1/19 - 8/31/20	9/1/20 - 8/31/21
Naloxone Kits, n	193	233	393	397

Figure 1. Monthly Total Administrations of MOUD in the ED Shewhart Control Chart

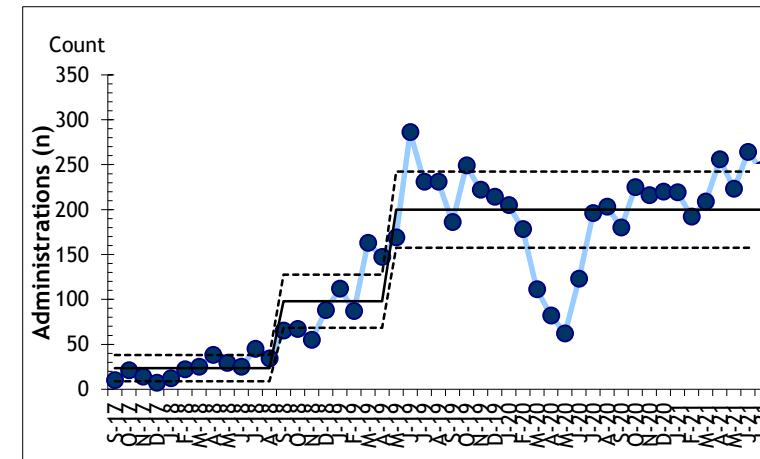


Figure 2. Monthly ED Discharge Buprenorphine-Naloxone Prescriptions and Take Home Kits Shewhart Control Chart

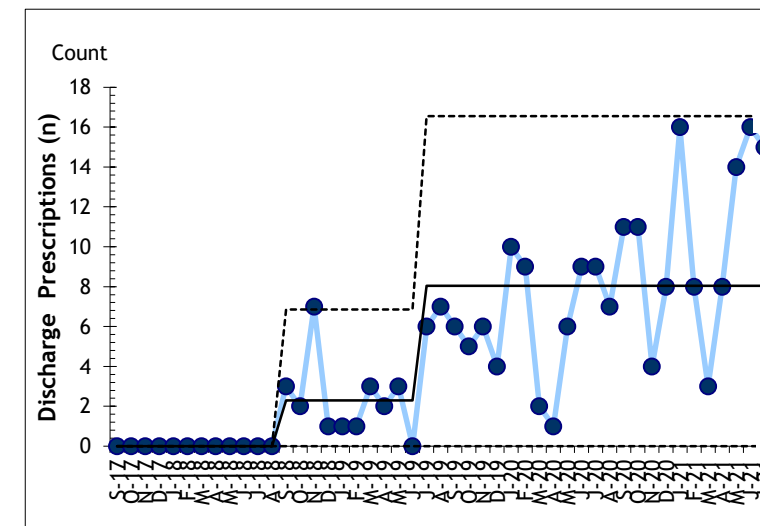
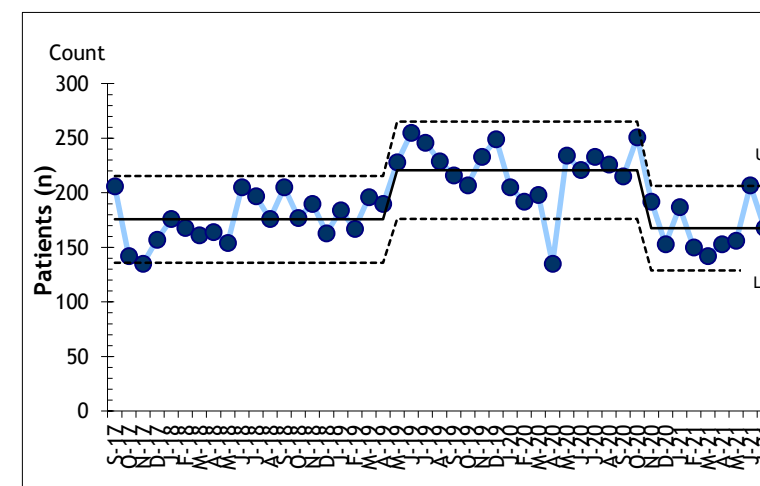


Figure 3. Monthly ED Visits Related to OUD (ICD-10 Codes Containing T40 or F11) Shewhart Control Chart



Experience with the Program (continued)

Table 2. Buprenorphine-Naloxone Take Home Kits Versus Buprenorphine-Naloxone Prescription Only

	Prescription Only (n=89)	Take Home Kit (n=78)	p
Follow-up at SUD Bridge Clinic within 7 days, n (%)	38 (42.7%)	60 (76.7%)	<0.001
Naloxone Co-prescription, n (%)	9 (10.1%)	77 (98.7%)	<0.001

Discussion/Conclusion

- Multidisciplinary collaboration successfully increased patient access to MOUD, naloxone, and follow-up at our SUD bridge clinic
 - Despite a national rise in ED visits related to OUD, our significant decrease in these visits suggests our initiatives are helping our community
- ED pharmacists were integral to the development, implementation, and sustained success of this QI initiative
 - Led education initiatives for nurses and providers
 - Prospective verification helped ensure patients received appropriate selection of MOUD, doses, and monitoring
 - Highly utilized resource by ED staff
 - Developed a sustainable and cost-neutral process for naloxone distribution at no cost to patients in absence of grant funding
 - Developed buprenorphine-naloxone take home kits to address local barriers like stigma, potential unavailability at local pharmacies, limited provider time for medication counseling, and lack of 24/7 pharmacies in the area
 - Significantly greater follow-up at Faster Paths and naloxone co-prescribing rates with the ED pharmacist-led buprenorphine-naloxone take home kit transitions of care bundle compared to traditional discharge prescriptions
- ED pharmacist-led MOUD and harm reduction initiatives also provided additional educational and direct patient care experiences for our pharmacy residents and students on rotation
- Demonstrates that pharmacists are essential to improving access to and treatment for OUD

References

- Ann Emerg Med. 2021;50:196-0644(21)00306-1.
- J Emerg Med. 2020;58:522-46.
- Addiction. 2016;111:892-902.
- Am J Public Health. 2015;105:e55-63.
- Addiction. 2021;116:1505-11.
- Ann Emerg Med. 2020;75:20-8.
- Ann Emerg Med. 2020;75:13-7.
- JAMA. 2015;313:1636-44.
- West J Emerg Med. 2020;21:1175-81.

Acknowledgements

Boston Medical Center ED Pharmacists
Boston Medical Center ED Nurses and Providers
Boston Medical Center Project ASSERT
Boston Medical Center Faster Paths Nurses and Providers
Boston Medical Center Addiction Medicine Providers
Boston Medical Center Grayken Center for Addiction
Boston Medical Center Inpatient Pharmacy Department
Boston Medical Center Outpatient Pharmacy Department

