Cutting Cravings with Naltrexone

Category of submission (select as many as apply):

Resident/Fellow

IOM Domains that this project addresses (select as many as apply)

Patient Centered

Effective

Equitable

Please share how you defined your project. Consider addressing the questions below. (Max 500 Words)
What was the identified Quality Gap? - What was the improvement target? - What was the timeline of the project? - Who were the stakeholders? - What was the stakeholders' input? - What was the method for collecting stakeholder input? - What was the potential for significant impact to the institution? - What was the potential for significant impact to society?

Alcohol use disorder (AUD) causes significant morbidity and mortality in the United States. Emergency medicine clinicians are well-versed in treatment of acute alcohol intoxication and alcohol-associated complications such as withdrawal, but prevention of alcohol use is often ignored. Medications for treating AUD, such as Naltrexone, are under-prescribed and the use of these medications in EDs is virtually non-existent. In response to increased rates of alcohol-associated visits at our ED in the wake of the COVID-19 pandemic, we implemented a program to increase Naltrexone prescriptions for AUD in our ED from July 2021-June 2022. After collaborative input from clinicians, nurses, pharmacy staff, and our institution's addiction medicine team, we implemented a team-based approach where both EM clinicians and nursing staff screen patients for AUD. If patients are determined to meet the eligibility criteria by the clinician, they are provided with oral (PO) or intramuscular (IM) Naltrexone. When possible, the ED pharmacy team also provided a 30 day supply of oral naltrexone for eligible patients. Patients were counseled to follow up with their primary care team, or referred to a primary care clinic associated with our hospital system if they did not have established primary care. By reducing the prevalence of active AUD, this project has the potential to impact a large percentage of our patients, reducing everything from hospital admissions to morbidity to mortality.

Please describe how you measured the problem. Consider addressing the questions below. (Max 500 Words)
What data sources were used? - Was a numeric baseline OUTCOME measure obtained? - What defined the sample size? - What counterbalance measures were identified? - What numeric baseline COUNTERBALANCES were obtained? - Was the outcome measure clinically relevant? - Was the outcome measure a nationally recognized measure?

Previous studies have shown that initiation of Naltrexone can result in decreased alcohol use and increased rate in formal alcohol addiction treatment. A retrospective analysis of our electronic medical record revealed the baseline rate for naltrexone prescriptions in our ED was 0.25 prescriptions/month from January 2020-December 2020. Our team collaborated with ED

pharmacists and our institution's addiction medicine team to develop an approach with the aim to increase the rate of Naltrexone prescriptions to 1.3 prescriptions/month.

Please describe how you analyzed the problem. Consider addressing the questions below. (Max 500 Words)
What was one factor contributing to the gap? - Were multiple factors contributing to the gap? - Was a structured root cause analysis undertaken? - What was the appropriate QI method or tool used for root cause analysis? - Was a root cause analysis performed prior to identifying potential solutions? - What was the rationale for selecting intervention(s)? - Did the project use a QI method or tool for selecting intervention(s)?

A fishbone diagram approach identified that limited Naltrexone prescriptions in the ED were due primarily to lack of education and awareness for both clinicians and patients. Based on this information, our team implemented a multi-pronged education strategy that included providing information at educational conferences for residents and faculty, as well as utilizing our institution's existing digital information hub to educate physicians about Naltrexone use. Over the course of the year, physicians and ancillary staff also received regular educational reminders via emails, social platforms and on shift teaching by senior residents about the progress and continuation of the project. Our educational materials included: 1) eligibility and exclusion criteria, 2) formulations available at our ED (PO and IM), 3) dosing, 4) availability and consultation of our Addiction Care Team, and 5) follow up infrastructure for patients newly initiated on naltrexone. From the patient perspective, limiting factors were that the patient must be contemplative and willing to engage in pharmacotherapy. In addition, poor medical literacy and misinformation of naltrexone often hindered patients' willingness to trial Naltrexone for alcohol use disorder. These factors are often further compounded by other facts including lack of consistent medical care, unstable housing, financial insecurity and concurrent mental health illness.

Please describe how you improved the problem. Consider addressing the questions below. (Max 500 Words)
What was the implementation of intervention(s) (date/time of go live)? - Was the target measure re-measured afterwards with comparison graph? - Was a structured plan for managing change used? - Was the project counterbalance re-measured with a comparison graph? - Was the counterbalance adversely affected? - Is the improvement in target outcome measure shown? - Was a statistical significance demonstrated in the outcome measure?

Since launching the project in July 2021, our team has increased Naltrexone prescriptions 34-fold (PO or IM) from 0.25 to 8.7 prescriptions/month; the diagram below shows the rate of oral and intramuscular prescriptions on a monthly basis. On discharge, patients were referred to an affiliated primary care clinic or counseled to follow up with their own primary care team for continued care. Patients were also provided with a naltrexone information sheet to augment education provided in the emergency department.

Please describe the control phase of your project. Consider addressing the questions below.
What were the lessons learned from the project? - Was there communication to stakeholders of the summary of the project, and lessons learned? - Was a process owner identified? - Did the process owner acknowledge ownership of ongoing monitoring? - What control measures were identified? - What was the reaction plan for deficiencies identified in the control measure? - Was there at least

one year of sustained monitoring demonstrated? - Was the project successfully diffused in scholarly form (i.e. poster, manuscript, etc)?

Through physician and patient education, EDs can serve as a beacon for initiating treatments for alcohol use disorder. Since the start of the project in July 2021, we have been able to increase the rate of naltrexone prescriptions by 3,400%. In the initiation phase, the collaboration among ED clinicians, nursing, pharmacy and Addiction Medicine at our hospital has helped grow this project. Our resident and faculty-led team will continue to educate current and new team members about Naltrexone use. Over the next year we plan to work in conjunction with the Addiction Medicine team to investigate patients' rate of follow-up with primary care physicians and ongoing utilization of Naltrexone therapy after initiation. We also plan to further study the rate of ED visits for acute alcohol intoxication, alcohol withdrawal and other alcohol associated complications in patients who were initiated on Naltrexone in the ED.

Attachments

Naltrexone for Alcohol Use Disorder