

Truman Medical Centers

Truman Medical Centers (TMC) is a not-for-profit two acute-care hospital health system in Kansas City. The TMC health system includes TMC Hospital Hill, TMC Lakewood, TMC Behavioral Health, the Jackson County Health Department, and a number of primary care practices throughout Eastern Jackson County.

TMC is the primary teaching hospital for the University of Missouri-Kansas City Schools of Medicine, Pharmacy, Nursing, and Dentistry and specializes in chronic disease management, orthopedics, family medicine, women's health, and trauma services.

Background

Naltrexone is an opioid receptor antagonist used as a first-line maintenance medication in patients with alcohol and/or opioid use disorder¹. Naltrexone is a competitive antagonist that displaces opiate molecules as well as blocks access of narcotics to opiate receptor sites resulting in decreased euphoric effects and prevention of cravings².

Naltrexone comes in an oral tablet form given once daily and a long-acting injection form given intramuscularly once monthly.

The American Psychiatric Association recommends naltrexone not be used in patients who have hepatic failure and must be used cautiously in patients with hepatic impairment.

Purpose

The objective of this study was to evaluate the appropriateness of naltrexone initiation in hospitalized patients with alcohol and/or opioid use disorder.

Study Limitations

- Retrospective chart review
- Inconsistency of clinical documentation
- Small sample size

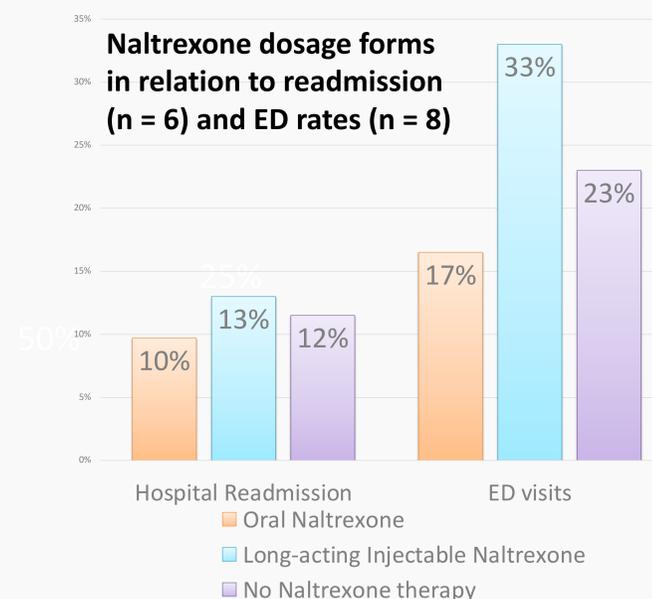
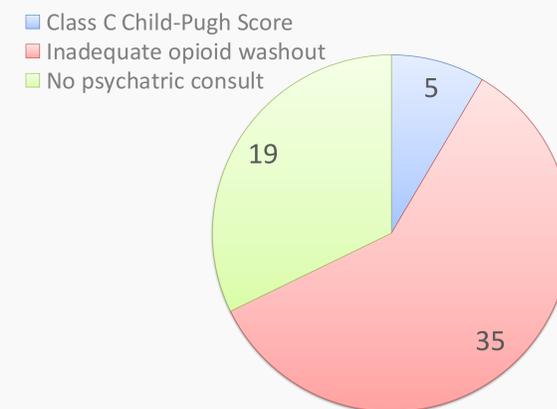
Methods

- A list of patients with naltrexone orders placed by physicians from Aug 8, 2019 to Mar 1, 2020 were obtained from the facility's electronic record system. Investigators included all orders, excluding outpatient orders, for a randomized, non-interventional, retrospective analysis.
- Investigators collected data regarding patients' naltrexone indication, liver function tests, urine drug screens, readmissions, return visits to the emergency department (ED), and psychiatric service consultations.
- Reasons for inappropriate initiation included if naltrexone was administered to a patient with a Class C Child-Pugh Score, there was not a complete seven-day opioid washout, or naltrexone was ordered without placing a psychiatric consult per the hospital's approval for use requirement.
- The primary outcome was the percentage of appropriate naltrexone initiation in inpatients with alcohol and/or opioid use disorder.
- Readmission rates and ED visits involving alcohol and/or opioid use were then evaluated along with the formulation of naltrexone prescribed at initial discharge.

Results



- Investigators reviewed 144 inpatient naltrexone orders placed during the seven-month study period. Reasons for inappropriate naltrexone initiation (n = 59) were as follows:
 - 5 patients (3.5%) had Class C Child-Pugh Score
 - 25 patients (17%) had inadequate opioid washout period
 - 10 patients (7%) had unknown opioid washout period
 - 19 patients (13%) of orders had no psychiatric consults
- Six patients were readmitted for alcohol and/or opioid use within 30 days of discharge and eight patients visited the ED for alcohol and/or opioid use within 30 days of discharge.
- Naltrexone formulations at initial discharge:
 - 103 (71.5%) patients were discharged on oral naltrexone
 - 15 (10.4%) patients were discharged on long-acting injectable naltrexone
 - 26 (18%) patients were discharged with no naltrexone therapy



Conclusion

- Over 40% of naltrexone orders were initiated incorrectly.
- This medication use evaluation highlights both clinical and operational targets to ensure optimal patient outcomes while avoiding preventable drug related problems.
- A formal protocol for naltrexone is recommended followed by immediate re-education that targets both operational and clinical aspects of naltrexone initiation and monitoring.
- Further investigation into naltrexone dosage formulation and its correlation to rates of readmission and ED visits should also be evaluated.

References

1. Reus VI. The American Psychiatric Association Practice Guideline for the pharmacological Treatment of Patients with Alcohol Use Disorder. January 2018. Accessed March 19,2021.
2. Naltrexone. IBM Micromedex. Accessed: March 19, 2021. <https://www.micromedexsolutions.com/micromedex2/librarian/PFDefaultActionId/evidencexpert.DoIntegratedSearch?navitem=topHome&isToolPage=true#>

Disclosures

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

Melia McDaniel: Nothing to disclose
Yunhsuan Patricia Hoover: Nothing to disclose
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