Improved Management of High Risk Alcohol Withdrawal

Rohn S. Friedman, Joanne Devine, John Marshall, Geena Eglin, David Feinbloom

BIDMC

Introduction/Problem

- Alcohol dependent patients make up about 20-50 percent of the total population admitted to the hospital. During their stay, alcohol dependent patients may develop alcohol withdrawal symptoms significant enough to need pharmacologic intervention.
- Alcohol dependent patients are at an increased risk of medical comorbidities as well as longer, more complicated hospital stays.
- At Beth Israel Deaconess Medical Center (BIDMC), we had observed that some patients did not receive enough medication fast enough to prevent more serious withdrawal, then often received too much medication producing intoxication and complications, resulting in unnecessary ICU stays and prolonged hospitalization.

Aim/Goal

A new treatment protocol was initiated to stratify alcohol withdrawal patients into high-risk versus standard-risk with a more aggressive proactive treatment for the high-risk patients. We compared the results for 23 high risk patients in the new protocol with a historical comparison group of 31 high risk patients who had been treated with the standard protocol .

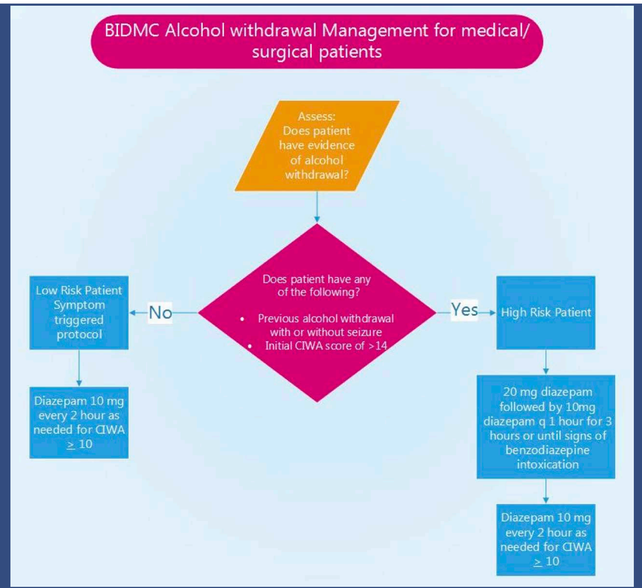
The Team

- Rohn Friedman, MD, Vice-Chair, Psychiatry BIDMC
- Joanne Devine, PMHCNS-BC CARN
- John Marshall PharmD, BCPS, BCCCP, FCCM, BIDMC Clinical Pharmacy Coordinator
- Geena Eglin, PharmD Candidate MCPHS
- David Feinbloom, MD, Medical Director, Medication Safety and Information Management Silverman Institute for Healthcare Quality and Safety

The Interventions: POE Order Set

- Patients are assessed for presence of symptoms of alcohol withdrawal
- If symptoms present,
  - High risk: EITHER history of alcohol withdrawal seizure or DT's OR CIWA>14
  - Standard risk
- High risk: 20 mg diazepam po, then 10 mg po q 1h x 3 doses or until showing signs of mild intoxication (nystagmus, ataxia, dysarthria, or sedation). When 50 mg is reached or intoxication is produced, the nurse will contact the ordering provider who will determine if the patient can be safely transitioned to the symptom-triggered, "Standard-Risk" protocol or if the patient needs a higher level of care
- Standard risk: 10 mg diazepam po q2h prn CIWA **≥ 10**

Stratified Protocol



For more information, contact:

Rohn Friedman, MD, Vice Chair/ rfriedma@bidmc.harvard.edu

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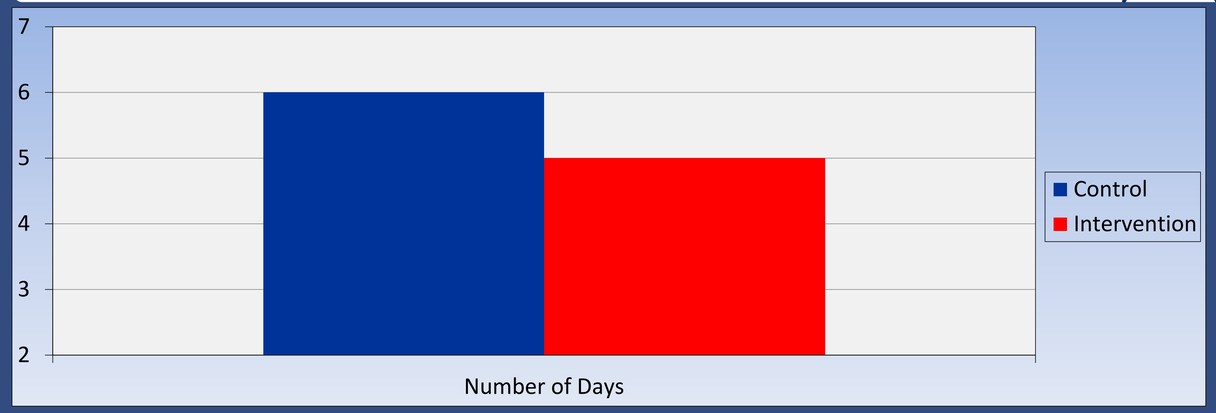
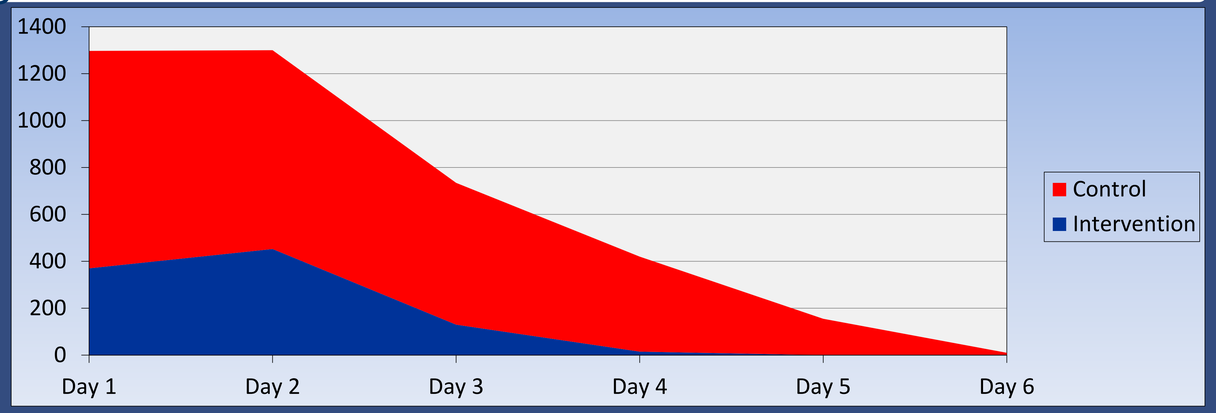
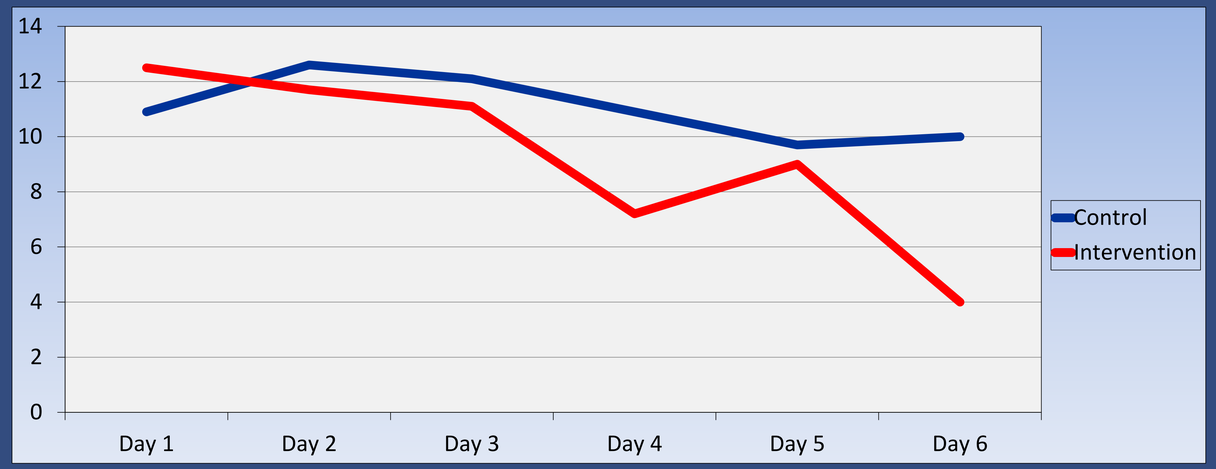
Results/Progress to Date



Mean Hospital Length of Stay



Total Daily Dose of Benzodiazepines



Mean CIWA Score Per Day

Lessons Learned

- High-risk patients treated with the new benzodiazepine loading protocol followed by a standard symptom-triggered protocol (BZD) led to lower total dose of benzodiazepine, lower average CIWA scores, and shorter overall hospital length of stay as compared to the high-risk patients receiving the symptom-triggered protocol

Next Steps

- We plan to continue to use the stratified withdrawal protocol with proactive benzodiazepine loading for high risk patients

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