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Operational Excellence

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### Implementation of Trauma Service Guideline for the Use of PHENObarbital in the Management of the NON-ICU TRAUMA Patient at Risk OR Experiencing Severe Alcohol Withdrawal

Joseph Rappold  
*Maine Medical Center*

Julianne Ontengco  
*Maine Medical Center*

Stephen Tyzik  
*Maine Medical Center*

Suneela Nayak  
*Maine Medical Center*

Ruth Hanselman  
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*Maine Medical Center*



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## Authors

Joseph Rappold, Julianne Ontengco, Stephen Tyzik, Suneela Nayak, Ruth Hanselman, and Amy Sparks

**Project:** Implementation of Trauma Service Guideline for the Use of PHENObarbital in the Management of the NON-ICU TRAUMA Patient at Risk OR Experiencing Severe Alcohol Withdrawal

**Last Updated:** 7/18/2019

**Executive Sponsor:** Joe Rappold, MD

**Facilitator:** Julie Ontengco, DNP

Maine Medical Center  
MaineHealth

**Team Members:** Trauma Service Providers (attendings, residents, NP/PA staff), Trauma Program Staff, Trauma/ICU Pharmacists

Plan

**Problem/Impact Statement:**

The trauma service admits a large proportion of patients with the secondary diagnosis of alcohol use disorder. Acute alcohol withdrawal is a severe and potentially life threatening complication. As a service, we were seeing an increase in the number of patients transferring to the ICU related to concerns for acute alcohol withdrawal. Best practices were unclear, and there was significant variability among providers in regards to alcohol withdrawal prophylaxis practices as was the treatment of acute alcohol withdrawal. The approved use of phenobarbital for these clinical situations had been limited to the care of the patients in the ICU, however because of perceived success with the ICU protocol, we had begun to see utilization of phenobarbital creeping outside the ICU despite lack of approved policies and nursing education. The absence of a formal protocol and competencies, led to conflicting orders / recommendations associated with overlapping use with the standard CIWA protocol (monitoring orders and medication management). This ultimately led to unplanned transfers to the ICU, which in turn contributed to a longer than expected lengths of stay.

**Scope:**

Trauma patients, at risk for or experiencing acute alcohol withdrawal, in NON-ICU patient care areas.

**Goal/Objective:**

To create and implement a Trauma Service Guideline for the safe use of PHENObarbital in the management of the NON-ICU patient at risk for alcohol withdrawal.

**Baseline Metrics/Current State:**

See Outcomes Data Section for Pre-implentation data

**Root Cause Analysis:**

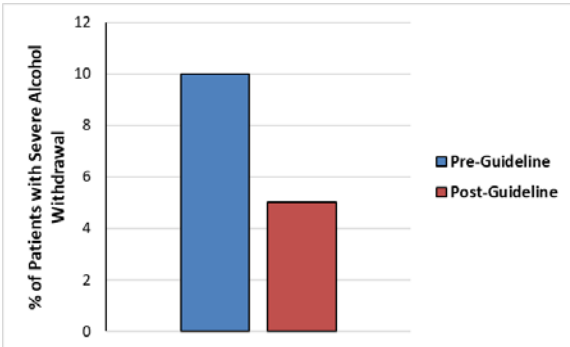
- Reporting from the trauma registry demonstrated a greater than expected number of trauma patients transferred to the ICU resulting from acute alcohol withdrawal.
- Trauma patients are known to be high risk
  - Prophylaxis patterns were highly variable across providers
  - Inconsistent clinical decision documentation
  - Lack of education and comfort at all level in regards to acute alcohol withdrawal risk assessment and prophylaxis

Countermeasures			
Action	Owner	Completion Date	Status
Draft proposed guideline document with multidisciplinary team input	Trauma Program Staff	7/1/18	Complete
Draft disseminated and supported by stakeholders (Trauma Service providers, RNs)	Trauma Program Staff, Trauma Service Providers and RNs	9/1/18	Complete
Implement order panel	Trauma Program Staff	10/1/18	Complete
Educate Trauma Service providers and nursing	Trauma Program Staff	10/15/18	Complete
Feedback gained from Trauma Service providers and nursing	Trauma Program Staff	4/15/19	Complete

**Outcomes**

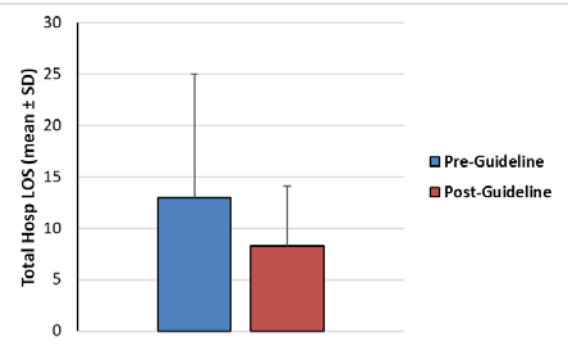
We see a decrease in the amount of patients with severe alcohol withdrawal post-guideline implementation (10% to 5% Figure A). In addition, we are seeing a decrease in the total hospital length of stay (LOS) for these patients (Figure B).

**A)**



Guideline	% of Patients
Pre-Guideline	10
Post-Guideline	5

**B)**



Guideline	Total Hosp LOS (mean ± SD)
Pre-Guideline	13 ± 12
Post-Guideline	8 ± 6

- Next Steps**
1. Further Analyze data
    1. Acute alcohol withdrawal diagnosed in the NON ICU trauma patients
    2. Unplanned transfers to the ICU for treatment of acute alcohol withdrawal
    3. ICU LOS
    4. Overall hospital LOS
  2. Prepare for publication

Do

Study

Act