



Reducing Restraints in the Intensive Care Unit: An Interdisciplinary Approach

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sentara nurse



Background

- ❖ Restraints in use since 1794
- ❖ 200 Years of Restraint Use
- ❖ 1998 Hartford Courant published articles about mental health patient deaths in restraints
- ❖ National Quality Forum (NQF) issues warning of the potential physical harm caused by restraints
- ❖ Regulatory agencies: Joint Commission, DNV, Centers for Medicare and Medicaid Services (CMS) strictly enforce restraint provisions (Section 482.13(e): Standard Restraint & Seclusion)
- ❖ Restraint use became the standard of care for intensive care patients requiring mechanical ventilation



Problem Identification

Sentara RMH ICU was above the 90th percentile for restraint use as compared to the National Database of Nursing Quality Indicators (NDNQI). Administration tasked intensive care unit (ICU) leadership to reduce restraint utilization.

This project was approved by the Sentara RMH Institutional Review Board

Methodology

Inclusion Criteria: All patients, 18 years and older, admitted to the ICU requiring mechanical ventilation were included in the quality improvement study

Intervention Time Frames:

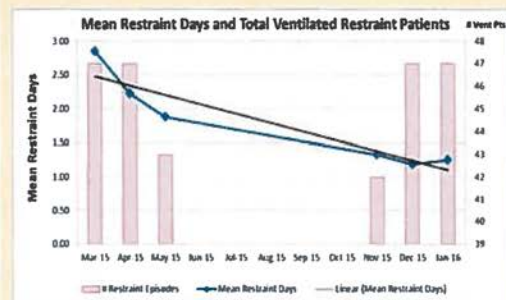
Pre-Intervention	Intervention Implementation	Post-Intervention
March 1, 2015- May 31, 2015	June 29, 2015	November 1- January 31, 2016

Interventions:

- ❖ Interdisciplinary rounds
 - ❖ IDR Checklist revised to include the below components
- ❖ Pharmacotherapeutics
 - ❖ Light sedation (RASS 0 to -1)
 - ❖ Benzodiazepine use
 - ❖ Pain Management
 - ❖ Home Medication Review
- ❖ Delirium Management
 - ❖ CAM-ICU
 - ❖ Early Treatment
- ❖ Mobility
- ❖ Necessity/Algorithm
 - ❖ Q2H Review/Daily IDR Discussion
- ❖ Unplanned Extubation (UE)
 - ❖ Education
- ❖ Leadership Support
 - ❖ Daily presence at IDRs
 - ❖ Real-time Feedback

Results and Implications

- ❖ 273 patients were included in the quality improvement study.
- ❖ A Sample t-Test was used for data analysis
- ❖ Pre-data for restraint hours and ventilated patients was 2.33.
- ❖ Post-data was 1.26, providing a mean of restraint days $p < .001$.



- ❖ This data supports that restraint usage declined for mechanically ventilated patients in the post intervention period.
- ❖ UE rates were unchanged pre and post intervention.
- ❖ ICU Nurse Leaders should implement evidence-based interventions using an interdisciplinary approach to reduce restraint
- ❖ The outcomes of this quality improvement initiative supports that current evidence-based measures, when implemented appropriately, can reduce restraint utilization.
- ❖ Creating a culture of change that incorporates values, attitudes, and promotes interdisciplinary collaboration and shared vision to achieve optimal patient care.