

Enhancing Patient Safety Through Reduction of Restraint Use in the ICU

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Structured Abstract

LOCAL PROBLEM

The problem to address at Baptist Medical Center (BMC), located in downtown San Antonio, Texas, is how to reduce the use of restraints in the surgical intensive care unit (SICU) and medical intensive care unit (MICU). Issues that make it necessary to reduce restraint use at BMC are increased agitation, risk for delirium, post-traumatic stress disorder, pressure injuries, increased length of stay (LOS), risk for physical damage to the restrained area, and death. Factors contributing to the problem are the perception of nurses and physicians that restraints reduce the risk of self-extubation. The director of quality improvement and the certified nurse educator (CNE) report that problems surrounding the use of physical restraints at BMC seemed to relate to the lack of education on alternative interventions. Improving clinical practice and promoting quality care through assessment of relevant clinical research resulting in the implementation of evidence-based alternatives will aid in reducing the number of restraints used in the ICU.

PROJECT PURPOSE

The purpose of the project is to evaluate research to identify best clinical practices to reduce restraint use in the ICU with corresponding implementation of an evidence-based restraint management bundle (RMB) protocol.

METHODOLOGY

The Iowa Model of Evidence-Based Practice is the framework used to guide the change project to reduce the use of restraints at BMC. Stakeholder meetings took place initially with the staff and administrators, the hospital supported this project, and research was conducted for best alternatives prior to education and implementation. Face-to-face educational training for staff utilizing a printed version of a PowerPoint presentation, and an educational tri-fold pamphlet for family members to include patient safety, caring for your family members in the ICU, and important facts to know were all components of this project. Pre and Post nursing questionnaires were presented to the nursing staff to assess the knowledge of caring for patients in restraints before and after implementation of the RMB. A binder is reviewed each day with the RMB to daily assess if the patient needs restraints.

RESULTS

To introduce, support, and implement evidence-based quality improvement projects in the context of opposing healthcare priorities such as Joint Commission and COVID-19 generated challenges with completing the full implementation of this project. This project was implemented on February 17th and ended on March 17th. A pre and post nursing survey

questionnaire about restraints was completed by nursing staff. Of a sample size 75 nurses combined in SICU and MICU 25.3 % of nurses completed the pre-questionnaire and 32% completed the post- questionnaire. Anecdotal comments by the nursing staff were taken into consideration. There was minimal compliance with staff to fully complete both forms of the RMB. Physician “buy-in” was also minimal. Findings from data collected from the patient restraint log indicated that 61% patients were in soft wrist restraints and had ET tubes. Thirty four percent of patients had other invasive lines, unrestrained, visitors and or heavy sedation. Baptist Medical Center restraint log showed a total of 143 patients restrained for December, 166 patients restrained for January, 84 patients restrained for February from the “go live date” and 51 patients for March. There was a decrease in number of patients restrained due to a low census and not being evaluated for the entire month of March.

IMPLICATIONS FOR PRACTICE

The findings will be presented to the chief nursing executive and task force. In the beginning stages of this DNP project, the nursing staff and proposed task force were enthusiastic about the quality improvement project designed to reduce the use of restraints and to enhance patient safety and comfort. However, many barriers to adoption of the RMB were encountered which included support by the organization, resistance to change by seasoned nurses, and lack of “buy-in” from physicians. Continued education for nurses and physicians might facilitate a positive impact on quality patient care, outcomes, enhanced knowledge, and compliance; this would also encourage a change in nursing culture. Although this project did not show a significant decrease in the number of patients restrained or use of alternative measures, there was a measurable increase in restraint use knowledge attained by staff. Compliance from staff, “buy-in” from physicians, and having ample time to implement this quality improvement project is needed. Methodist and University hospitals, located in San Antonio, are actively working on a restraint reduction plan for intubated patients. University hospital is already releasing patients from restraints prior to extubation per their CNE. Members of the task force suggested to collaborate with the Batz Foundation to make this a city-wide initiative. There was national evidence-based studies to support various restraint reduction alternatives; one of the models include the Sentara restraint usage audit tool which was adapted for this project. This project will be an ongoing process, but implementation will likely be delayed until after the COVID-19 pandemic due to staffing issues and visitor policy changes. There is evidence to support that a restraint management policy and protocol in the ICU setting is valid and reliable, which will enhance positive patient outcomes.

Keywords: intensive care unit, restraint prevention or intervention, safety bundles, restraint protocol, evidence-based practice

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