A Performance Improvement Initiative on the Effectiveness of Nonpharmacological Strategies for Managing Delirium in Post-Operative Adult Patients

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Introduction

- Delirium is an acute disturbance of consciousness
- Causes change in cognition and reduced ability to focus.
- Can interrupt recovery and rehabilitation and place psychological burden and economic stressors on the healthcare system.
- Estimated 36.8% of surgical patients have postoperative delirium.
- Cost burden of $38 to $152 billion dollars per year on healthcare services.

Practice Problem

- A clinical agency who specializes in surgical interventions noted an issue with postoperative delirium
- Noted increased length of stay and morbidity by 3 to 5 days.
- The cost for the extra hospital stay was an added burden for the facility, the extra days are not covered by the patient’s insurance if the injury occurred in the hospital and the hospital can be penalized for the whole length of stay.
- Use of one to one observation staff added a million dollar deficit to the budget in the past year.

Practice Recommendations for Implementation

- Hospital Elder Life Program (HELP)
  - Consists of 6 components: orientation, therapeutic activities, vision and hearing protocols, sleep enhancement, and early mobilization.
  - A comparison was done between the HELP and non-HELP with a significant reduction in the HELP group of 35% lower risk of developing delirium incidence (RR 0.65, 95% CI [0.56, 0.78], P<0.001).
  - Use of a validated delirium screening instrument for optimal detection.
  - Diagnostic and Statistical Manual of Mental Disorders (DSM), ICD-10, or Confusion Assessment Method (CAM) algorithm to inform the diagnosis.
  - Daily postoperative screening of older patients for early development of delirium.
  - Medical/geriatric evaluation/consultation
  - Education of staff caring for postsurgical patients to recognize and document signs and symptoms associated with delirium. Ongoing educational programs regarding delirium should be provided for healthcare professionals.

Methods

- The sample population selected were adult patients 18 years and older who spoke English, scheduled for elective surgical procedures. Excluded were patients who were admitted the day before surgery since that may already have a high occurrence rate of delirium.

Design

- Implementing change in a clinical agency requires staff and strategies to promote and facilitate an environment supportive of change.
- The Improvement Model by Deming supports this type of change, it is known as the (PDSA) cycle.
- A small test of change was initiated for eight weeks to find out if non-pharmacological strategies would work.

Materials and Methods

Graphs and Flow Charts

Outcomes: Incidence

100 patients admitted pre test of change= 28 + POD or 28%
100 patients admitted post test of change=16 + POD or 16% (overall 12% decrease POD)

Compliance with CAM tool assessments= use was 95.4% compliance 42/44 or two were incomplete (staff comfort in use of the tool)

Compliance with PCT Assignment tool= 93% compliance or 41/44 or three were incomplete (staff comfort in use of the tool)

Timeline:

- Course planned with Nurse Educator 8/1/17 to 9/15/17
- Print info and equip 9/20/17 to 11/15/17
- Screening tools created, 6/1/17 to 7/15/17
- Competencies created 8/1 to 9/17 for (staff training)
- Competency development 12/17 to 12/31/17
- Final approval with go live date 12/1/17.

Sustainability

- The clinical agency will continue with any modification and re-evaluation.
- Utilize the best practice knowledge about successful interventions made by the improvement initiative and replicate and disseminate it to other units.
- There is a need to have ongoing evaluation after the project team leaves the agency. The VP of Quality Improvement and the manager for education as well as the Patient Services managers will be responsible for ongoing project work. Thoughts: impact on other programs & healthcare policy.

REFERENCES

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