

THE IMPLEMENTATION OF AN ALARM MANAGEMENT PROGRAM IN THE POST ANESTHESIA CARE UNIT (PACU)

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BACKGROUND INFORMATION:

According to the Joint Commission Sentinel Event Alert titled “Medical Device Alarm Safety in Hospitals” constant alarms can desensitize hospital workers, who then sometimes ignore critical alarms. They report that this causes an average of at least 24 deaths a year. Over a 3 year period the Joint Commission identified 98 clinical alarm related events in which 80 patients died, 13 experienced permanent loss of function and 5 events led to unexpected additional health care and an extended hospital stay. The Joint Commission has identified alarm management as a new National Patient Safety Goal.

OBJECTIVES OF PROJECT:

The goal was to educate the PACU nurses regarding the significance of alarm management and the current evidence-based practice recommendations to decrease the incidence of insignificant or false alarms in the PACU.

PROCESS OF IMPLEMENTATION:

A literature review was performed to identify current evidence-based practice recommendations. Baseline data was collected for 3 consecutive months via direct observations of compliance with recommended alarm management strategies (208 observations) as well as data regarding alarm type (advisory, warning or crisis) and if the alarm is a true alarm (223 incidences). Staff’s baseline knowledge of alarm management principles was assessed utilizing a pre-test. Staff education occurred over the following 2 week period. The next week a post test was administered to determine if knowledge increased. The entire PACU staff (16 nurses) participated in the pre-test while 14 participated in the post-test since there were 2 staff resignations. Additional audits in the clinical area were conducted for 3 months (120 observations) to identify if compliance with the recommended alarm management interventions was sustained. Data regarding alarm type and if the alarm was a true alarm (101 instances) was also collected during this 3 month period.

STATEMENT OF SUCCESSFUL PRACTICE:

- Mean scores increased from pre-test of 77.6% to post-test of 91%.
- For patients in PACU more than 24 hours ECG electrodes changed daily increased from 80% to 98%.
- Customizing alarm parameters for HR, RR and BP increased from 31% to 91%.
- Customizing alarm parameters for oxygen saturation increased from 46% to 95%.
- Advisory alarms initially comprised 80% of our alarms, decreased to 75% post intervention.

IMPLICATIONS FOR ADVANCING THE PRACTICE OF PERIANESTHESIA NURSING:

- With focused educational efforts PACU nurses can increase their knowledge regarding alarm management.

- Compliance with recommended practice improved in terms of changing ECG electrodes daily and customizing alarm limits for HR, RR, BP and oxygen saturation.
- We will continue our efforts to develop interventions to decrease our incidence of false advisory alarms.