

DECREASING THE INCIDENCE OF ADVISORY ALARMS IN THE POST ANESTHESIA CARE UNIT (PACU)

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Background Information: It has been reported in the literature and acknowledged by The Joint Commission that constant alarms can desensitize hospital workers who may not hear, or who ignore, the noise. This alarm fatigue has led to patient deaths. In 2014 we introduced the concepts related to alarm management to the PACU nurses with strategies to decrease the number of inactionable or false alarms. The bedside monitors in our PACU display three (3) types of alarms, advisory alarms (usually equipment disconnect), warning (such as low blood pressure or heart rate) and crisis (such as ventricular fibrillation). Data collected at that time revealed that advisory alarms comprised approximately 80% of the monitor alarms in our PACU. Sometimes, patients who were about to be discharged from the PACU were intentionally disconnected from the monitor, but the monitor or parameter was not turned off.

Objectives of Project: The goal was to identify common types of advisory alarms and to determine and address barriers identified by the staff to eliminate these unnecessary alarms.

Process of Implementation: Initially data was collected via direct observation over three weeks to identify the most prevalent advisory alarms in the PACU. Three (3) common types were blood pressure cuff disconnect, oxygen saturation probe off and patient discharged from PACU (disconnected from monitor, but alarms still on). A written survey was developed which elicited if alarm fatigue posed a safety issue, the perceived noise level in the unit and the perceived noise from the bedside monitor. There were also two (2) brief scenarios developed to determine the reason a patient would intentionally be disconnected from the bedside monitor, but the monitor/alarms would not be turned off.

Reminder signs have been posted in the PACU. For two (2) weeks we rounded within the PACU and individually reminded each nurse to turn off the monitor/alarm parameters if the patient has been intentionally disconnected from the monitor. Further re-education was performed during the next staff meeting. The survey was again administered. Data was collected over a three week period.

Statement of Successful Practice:

- Blood pressure cuff and oxygen saturation disconnect and patient disconnected from monitor, but alarms on decreased from 63% of the advisory alarms to 30% in the PACU.
- Staff reports that alarm fatigue poses a safety issue in our PACU and that unnecessary alarms pose a safety risk to our patients.
- Initially, the perceived noise level was within the range of 3 to 8 out of 10 with a mode of 6 decreasing to a range of 3 to 6 with a mode of 5.
- The overall noise in the PACU attributed to alarms was perceived as 50%, decreasing to 21.3%.

- Approximately 60% of the staff reported that they don't turn the alarms off when the patient is disconnected from the monitor because they forget. This decreased to 13% after the re-education. Less than 15% reported that they do turn alarms off, increasing to 80% post intervention.
- Remonitoring five (5) months post intervention has revealed that advisory alarms now comprise 48% of the total alarms in the PACU, which has decreased from our baseline of approximately 80% in 2014.

Implications for Advancing the Practice of Perianesthesia Nursing: With education and reinforcement PACU nurses can change their practice to decrease the amount of unnecessary alarms.