PREVENTING RESPIRATORY COMPLICATIONS IN HIGH BODY MASS INDEX SURGICAL PATIENTS

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Purpose: Twenty percent of our surgery patients are obese with a Body Mass Index of 35 or greater. Our goal of this Evidence-Based Practice Project is to decrease unexpected ICU admissions for respiratory complications of our adult elective surgery patients that have a BMI of 35 or greater.

Background: Our practice had been little advance notification of our high BMI surgery patients to prepare for their increased respiratory needs. With recommendations from our task force, we worked on getting BMI included on the surgery schedule. A checklist screening tool was developed to screen for sleep apnea by the pre-admit nurse. EBP guidelines were developed focusing on pre-op, intra-op and post operative care of high BMI patients. In-services were held to educate staff.

Methods: Data was collected pre-intervention on 30 high BMI elective surgery patients retrospectively. Post intervention data was collected on 31 patients concurrently by the PACU RNs using a questionnaire that addressed length of stay in PACU, use of CPAP, critical care admissions, and pulse ox in PACU. Data collection has continued as a QI project for the past 9 months doing retrospective chart audits of 25 high BMI patients quarterly.

Results: Immediately post intervention there were no unexpected ICU admissions. For 2009 there was one high BMI patient requiring unexpected ICU admission in our sample groups. Two patients each quarter have had prolonged PACU stays greater than 2 hours due to respiratory difficulty, but these patients were able to go to their assigned medical/surgical unit. PACU length of stay has decreased by 10 min. over the last 6 months.

Discussion: These results represent small improvements in our practice. Continued data collection is needed to provide better reliability. We have been successful at implementing the high BMI notification process.

Conclusions: Early identification of high BMI patients and the use of guidelines for their care do appear to be beneficial and improve their outcomes. Continued in-servicing is needed to extend these principles into more nursing units in our facility and to reinforce
the teaching that has been done. These guidelines provide a basis for PACU nurses to provide safer care to high BMI patients.

References:


Bell, R., Rosenbaum, S., Postoperative Considerations for Patients with Obesity and Sleep Apnea, Anesthesiology Clinics of North America, 2005, Vol 23.


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