Improving Patient Safety Through Pre-Anesthesia Screening for Obstructive Sleep Apnea Utilizing the STOP-Bang Questionnaire

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Background: While the exact number of surgical patients who suffer complications due to obstructive sleep apnea (OSA) is unknown, an opportunity exists in the risk reduction of these adverse episodes. Given that there is a large population with undiagnosed OSA having associated acute and long-term complications, a screening tool is essential in the pre op assessment. There was no appropriate tool to identify patients with high risk/undiagnosed OSA at The Queen’s Medical Center (QMC).

Objectives: The primary goal is to improve patient safety through pre-anesthesia screening for OSA utilizing the STOP-Bang questionnaire. Pre-anesthesia nurses must take accountable actions to appropriately screen patients prior to receiving anesthesia, IV sedation, or IV analgesia. An awareness of a possible OSA prepares the anesthesiologist for a potential difficult airway, in addition to having alternate choices of anesthetics in mind.

Process: All perianesthesia nurses were educated on the use of STOP-BANG questionnaire as a part of the pre-op evaluation. Then this evidence-based questionnaire, capturing potential clinical issues, was added to the electronic medical record. 120 identified patients’ charts were evaluated and we found that 20.8% of high risk patients had some type of post op complications.

Success: As a result of this project, the medical staff at our facility has a greater awareness of OSA and therefore can apply best practices to ensure a successful outcome. This PI project was recognized as a great EBP project. Thus a multidisciplinary EBP team was formed and supported by The Hawaii State Center for Nursing and QMC Senior Management.

Implications: The EBP team will develop and implement an evidence-based guideline for adult perioperative patient who have been identified as ‘high risk’ for obstructive sleep apnea to prevent adverse patient outcomes. Early recognition of potential problems allows nurses and anesthesiologists to work together to ensure that patients have a safe and positive surgical experience.