Implementing Perioperative Evidence-Based Interventions for OSA: Increasing Risk Awareness, Enhancing Patient Care

Primary Investigators: Vicki Harkins RN CAPA, Jodi Heth RN BSN CAPA, Sheri Parman RN BSN CAPA University of Iowa Hospitals and Clinics, Iowa City, Iowa Co-Investigators: Donna Brimeyer BSN RN CAPA, Donna Dolezal MSN RN CAPA CPAN, Alexandra Stuessy MSN RN CAPA

Introduction: The majority of Obstructive Sleep Apnea (OSA) cases are reported to be undiagnosed, including surgery patients. Perioperative nurses are in a unique position to recognize OSA not diagnosed in the perianesthesia period.

Identification of the problem: OSA has been identified as a factor for prolonging PACU stays and, more importantly, a contributing factor to respiratory compromise for those receiving opioids postoperatively. This population has an increased risk for adverse respiratory events once discharged. Implementing and sustaining interventions to safely discharge the patient can be a challenge.

EBP Question/Purpose: PICO question. Databases utilized.

Can increasing nursing knowledge of OSA risk and perioperative nursing interventions optimize perioperative care for surgical patients with diagnosed and undiagnosed OSA? The American Society of Anesthesiologist published guidelines for perioperative management of patients with OSA in 2006. Since then, the ASPM published guidelines for monitoring opioid induced sedation in 2011 and in 2012 ASPAN published practice recommendation for obstructive sleep apnea in the adult patient. Various literature has been published on implementing these guidelines.

Methods/Evidence: Initial data showed patients with oxygen desaturation less than 92%, had STOPBANG scores of 4-8 52%. A pre-survey was distributed to nurses working in the pre-op and post-op area to assess their knowledge of OSA, OSA risk identification, and interventions to initiate with OSA and at-risk populations. Education was then given regarding identification of undiagnosed sleep apnea, recognition of post-operative hypoventilation and apneic events, and implementation of enhanced monitoring and nursing interventions. OSA screening information was added to electronic documentation, including assessments of at home CPAP/BiPAP use. A literature review identified post-anesthesia patient education points for patient diagnosed with or at risk for OSA. Educational points were incorporated into discharge teaching and discharge documents. A post survey was completed.

Significance of Findings/Outcomes: The initial desaturation data was thought to be skewed as nurses were unwilling to document low saturations on their patients, waiting to document until the patient was encouraged to take deep breaths, repositioned the airway, or provided other interventions.

Implications for perianesthesia nurses and future research: Encourage frontline nurses to recognize the significance of respiratory compromise and improve quality of care with resources and increased knowledge of interventions.