Don't Ignore My Snore: Reducing Perioperative Complications Related to OSA

Ludy P. Lemus, BSN, RN, CAPA
Betty McMullin, MSN, APRN-Rx, ANP-BP, CPAN
Honorata Balinowski, RN-BC

BACKGROUND
• 32% of patients were high-risk for Obstructive Sleep Apnea (OSA) based on the STOP-Bang screening tool per a 3-month random chart audit of 25 surgical patient records (October - December 2011).
• 27% of patients at high-risk for OSA experienced adverse postoperative events including oxygen desaturation, re-intubation, cardiac arrhythmias, and myocardial infarction per a 6-month chart audit of 135 patient records (January - September 2012).

PURPOSE
To promote patient safety with the development of an evidence-based guideline for the management of adult surgical patients identified as high-risk for OSA.

METHOD
Inter-disciplinary team created an OSA guideline and algorithm of care
• Utilized the Iowa Model of Evidence-Based Practice to Promote Quality Care
• Critiqued and synthesized over 40 articles researched in PubMed from 2016-2013
• Communicated with organizational committees

Nursing care plans created for diagnosed and high-risk for OSA based on the guideline and process developed for integration into the electronic medical record

Patient education: discharge instructions and handout
Staff education: OSA guideline self-learning module, change champions on the units, unit-based meetings, nursing grand rounds, emails, huddles

Chart Audit completed to assess for cardiopulmonary complication for 24 hours post anesthesia

GUIDELINE ALGORITHM

Obstructive Sleep Apnea (OSA) Algorithm

**Preoperative Evaluation**

- **Preoperative Screening**
  - Patient with known OSA diagnosis
  - STOP-Bang score ≥ 3
  - Patient with undiagnosed OSA
  - Consider capnography

**Intraoperative/Procedural**

- Communicate OSA status in pre-op hand-off & E&M
- Initiate OSA education

**Postoperative Management**

- Vital signs and continuous SpO2 monitoring
- Consider capnography
- Pain management

**Phase I: Discharge Criteria**

- No evidence of obstruction & SpO2 ≥92% pre-procedure baseline when left undisturbed

**Phase II: Discharge Criteria**

- No evidence of obstruction & SpO2 ≥92% pre-procedure baseline when left undisturbed for 30 minutes

OUTCOME

This OSA guideline and nursing care plan specific to OSA was effective in improving patient outcomes.