Screening for Obstructive Sleep Apnea in Veterans: A Quality Assessment Project

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Background

- Obstructive sleep apnea (OSA) is characterized by repeated episodes of complete or partial upper airway obstruction.
- OSA is an independent risk factor for many cardiopulmonary diseases and patients with the disease have a risk of higher rates of postoperative complications and longer hospital length of stays compared to those without OSA.

Purpose

- We aimed to identify the rate of pre-procedural OSA screening as per the Society of Anesthesia and Sleep Medicine (SASM) guidelines published in 2016 at VA New Jersey Healthcare.

Table 1. Society of Anesthesia and Sleep Medicine 2016 Guidelines for Pre-procedural OSA Screening.

Recommendation	Level of Evidence	Grade
Patients with a diagnosis of OSA should be considered an increased risk for perioperative complications	Moderate	Strong
Screening tools such as STOP- Bang, Berlin and ASA checklist can be used as preoperative screening tools to identify patients with suspected OSA	Moderate	Strong
Cancelling or delaying surgery to formally diagnose OSA in those identified as High Risk of OSA preoperatively.	Low	Weak

Methods

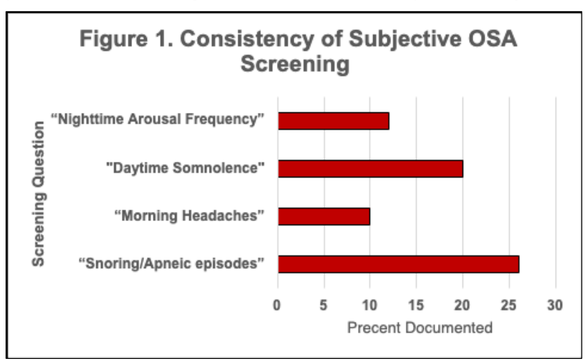
- Data from all patients undergoing general anesthesia at the Veterans Affairs New Jersey Healthcare System in East Orange from April 25 to May 17, 2019, were analyzed.
- Demographics, clinical information, and preprocedural documentation were reviewed in order to determine if patients were screened for OSA.
- Post-procedural complications and perioperative outcomes were also noted. .

Results

Table 2. Patient Demographics

Males	79
Females	5
Mean Age	64.82 Years
Body Mass Index	28.7 kg/m^2
Smoker (Former or Current)	80.9% (n = 68)
Diagnosed OSA via Sleep Study	26.2% (n = 22)
History of Cardiovascular or Pulmonary Disease	60.7 (n = 51)

Table 2. (Above) Patient who underwent general anesthesia between April 25th to May 17th of 2019.



Results Contd.

Table 3. Post Procedural Events

Complication	Event (n = 11)	Average Age (years)	Surgery Type
Hypoxia	6	75.8	Gastric and Ophthalmologic with Implantation
Delirium	3	60	Vascular – Aneurysm Repair, Extremity Amputation
Cardiac Arrhythmia	1	76	Vascular - Bypass
Myocardial Ischemia	1	72	Laparoscopic Abdominal

Table 3. (Above) Complications occurring up to 2-weeks post procedure. None required transfer to the intensive care unit.

Conclusion

- During the study period, objective history including underlying conditions, medication lists, and physical exam/airway anatomy were in accordance with the SASM guidelines.
- Subjective screening questions to assess for underlying OSA were not consistently documented.
- The average age and Mallampatti score of patients who had post procedural events was 9.35% and 6.84% higher respectively, than that of those without complications.
- One possible way of improving this inconsistency would be to possibly include a widely recognized screening questionnaires such as: STOP-BANG, Epworth Sleepiness Scale, or the Berlin Questionnaire in the preop screening template used. This establishes the baseline of screening before implementation of a formal screening process after which, a more robust analysis of complications and mitigation of risk will be possible.

References

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