

**HACKETTSTOWN REGIONAL MEDICAL CENTER
NURSING POLICIES
PERIOPERATIVE CARE FOR OBSTRUCTIVE SLEEP APNEA (OSA)**

Effective Date: 12/16/2014
Cross Referenced:
Reviewed Date:
Revised Date:

Policy No: 8620.265
Origin: Nursing
Authority: CNO
Page: 1 of 7

SCOPE

All Pre-Admission Testing (PAT) and Same Day Surgery (SDS) nurses at HRMC.

PURPOSE

The purpose of this policy is to provide guidelines for identifying surgical patients who have or are suspected of having Obstructive Sleep Apnea (OSA).

DEFINITIONS

- I. Obstructive Sleep Apnea (OSA) is a syndrome characterized by periodic, partial, or complete obstruction in the upper airway during sleep.
- II. Apnea is a complete cessation of airflow for at least ten seconds. Apnea is further classified as obstructive, central, or missed based on whether effort to breath is present during the event.
- III. Hypopnea is a reduction in air flow that is followed by an arousal from sleep or a decrease in oxy-hemoglobin saturation.
- IV. Sleep apnea severity is the number of apnea and hypopnea episodes per hour. This is measured by the Apnea-Hypopnea Index (AHI)
- V. Common risk factors for OSA include: Snoring, Tiredness, Observed apneas, and high blood Pressure and BMI >35, Age > 50, Neck circumference > 17 inches for males and > 16 inches for females, and male Gender.

POLICY

All patients will be assessed for risk factors associated with OSA prior to any surgical procedures.

PROCEDURE

I. Pre-Operatively

- A. A Sleep Apnea Screening tool will be completed preoperatively on all SDS patients under the care of an anesthesiologist [any procedure done under anything other than local anesthetic (Appendix B)].
 1. The OSA Screening questionnaire will be made available to the surgeon's offices. It is recommended that the OSA questionnaire be completed by the surgeon's office and the completed form faxed to the Pre-Admission office along with the Pre-admission order form. Sleep Apnea Screening will be completed on all patients processed through SDS regardless of whether it was completed by the surgeon's office.
 2. A version of the OSA Screening questionnaire is located in the patient's EMR in Procedure Admission History under Sleep Apnea Screening.
 3. The PAT nurse will initiate the Sleep Apnea Screening in the EMR.
 4. Patients with known OSA who are on CPAP at home will be instructed to bring

**HACKETTSTOWN REGIONAL MEDICAL CENTER
NURSING POLICIES
PERIOPERATIVE CARE FOR OBSTRUCTIVE SLEEP APNEA (OSA)**

=====

Effective Date: 12/16/2014

Policy No: 8620.265

Cross Referenced:

Origin: Nursing

Reviewed Date:

Authority: CNO

Revised Date:

Page: 2 of 7

=====

their CPAP mask with them the day of surgery.

5. Patients suspected of being at intermediate or high risk for OSA (a Sleep Apnea Screen score of 3 or greater) will have an anesthesia review form completed by the PAT nurse and submitted for anesthesia review.
6. For SDS patients or patients admitted through SDS (but not processed through the PAT office), the SDS nurse will complete the Sleep Apnea Screening section in the EMR and notify the anesthesia provider if the patient has a score of 3 or greater. A score of 3 or greater indicates an intermittent or high risk of OSA according to the screening tool.
7. Patients identified as being at risk for OSA will have an OSA alert placed on the "Condition Alert" page located in the front of their written chart (Appendix C).
8. Although the Sleep Apnea Screening results are available to all having access to the patient's EMR, the written chart and OSA alert will accompany the patient through the entire perioperative experience.
9. The OSA alert provides quick access to the OSA score which can aid healthcare providers with the care and treatment of our patients at risk for intermediate or severe OSA. The OSA alert will be removed from the chart when the patient is discharged from SDS.

II. Post-Operatively

- A. Routine monitoring of patient according to current American Society of Peri-Anesthesia Nursing (ASPN) guidelines.
- B. Continuous pulse oximetry monitoring.
- C. Position patient with known OSA, or suspected OSA, in non-supine position unless contraindicated or ordered otherwise.
- D. Consider use of continuous positive airway pressure (CPAP, requires physician order) especially for patients with known OSA on CPAP at home.
- E. Collaborate with anesthesiologist and surgeon in individualizing the patient's pain management plan of care based on severity of OSA, type of procedure, and need for opioids.
- F. Advocate for use of regional anesthesia for pain control when appropriate.
- G. Advocate for a multimodal approach to pain management.
Carefully titrate opioids
- H. Consider use of non-pharmacological comfort interventions.
- I. Notify anesthesiologist of frequent or severe airway obstruction or hypoxemia.
- J. For all inpatients who have a completed EMR Sleep Apnea screening tool a cardio pulmonary consult is generated as appropriate.

**HACKETTSTOWN REGIONAL MEDICAL CENTER
NURSING POLICIES
PERIOPERATIVE CARE FOR OBSTRUCTIVE SLEEP APNEA (OSA)**

=====

Effective Date: 12/16/2014
Cross Referenced:
Reviewed Date:
Revised Date:

Policy No: 8620.265
Origin: Nursing
Authority: CNO
Page: 3 of 7

=====

III. DISCHARGE TO UNMONITORED SETTING

- A. OSA patients and patients suspected of OSA should not be discharged from Phase I recovery area to an unmonitored inpatient setting.
- B. SDS patients with OSA and suspected OSA should be able to maintain adequate Oxygen saturation levels while breathing room air (with exception of patients on oxygen at home).
- C. The patient's respiratory function should be determined by observing the patient in an unstimulated environment, preferably while asleep.
- D. In cases where the patient can not maintain adequate oxygen saturation levels on room air, or requires oxygen to maintain adequate oxygen saturation levels (with exception of the patient on oxygen at home), the anesthesiologist and surgeon will be notified for further orders and patient disposition.
- E. Upon discharge, SDS patients who screen positive for OSA (an OSA Screening score of 3 or greater) will have their score card attached to a copy of the admitting face sheet and placed in folder. This folder will be forwarded to the Cardio-Pulmonary Department for patient follow-up and notification of the patient's primary physician.

References:

- 1. American Society of Anesthesiologists. Practice Guidelines for Perioperative Management of Patients with Obstructive Sleep Apnea: An Updated Report by the American Society of Anesthesiologists Task Force on Perioperative Management of Patients with Obstructive Sleep Apnea, *Anesthesiology* 2014; 120(2): 1-19.
- 2. American Society of Peri-Anesthesia Nurses, 2012-2014 Peri-anesthesia Nursing Standards, Practice Recommendations, and Interpretive Statements, p. 67-73.
- 3. Ankichetty, S., Chung, F., Considerations for patients with obstructive sleep apnea undergoing ambulatory surgery, *Current Opinion in Anesthesiology*, 2011, 24;605-611.
- 4. Chung, f., Yegneswaran, B., Liao, et al. (2008). Management of sleep apnea in adults Canadian Journal of Anesthesia. 49, 54-59

**HACKETTSTOWN REGIONAL MEDICAL CENTER
NURSING POLICIES
PERIOPERATIVE CARE FOR OBSTRUCTIVE SLEEP APNEA (OSA)**

Effective Date: 12/16/2014
Cross Referenced:
Reviewed Date:
Revised Date:

Policy No: 8620.265
Origin: Nursing
Authority: CNO
Page: 4 of 7

Appendix A

OBSTRUCTIVE SLEEP APNEA QUESTIONNAIRE

Please answer the following questions below to determine if you are at risk of obstructive sleep apnea (OSA)

- YES NO **Snoring?**
 Do you **Snore Loudly** (loud enough to be heard through closed doors or your partner has to wear ear plugs or elbow you at night?)
- YES NO **Tired?**
 Do you often feel **Tired, Fatigued, or Sleepy** during the daytime?
- YES NO **Observed?**
 Has anyone **Observed** you **Stop Breathing** during your sleep?
- YES NO **Pressure?**
 Do you have or are being treated for **High Blood Pressure**?
- YES NO **Body Mass Index more than 35 kg/m²?**
- YES NO **Age older than 50 year old?**
- YES NO **Neck size large?**
 For male, is your shirt collar 17 inches or larger?
For female, is your shirt collar 16 inches or larger?
- YES NO **Gender = Male?**

Scoring Criteria: For general population:

Low risk of OSA: Yes to 0-2 questions

High risk of OSA: Yes to 3-4 questions

Very high risk of OSA: Yes to 5-8 questions, or yes to 2 OF STOP questions + male gender
Or Yes to 2 of STOP + male + BMI > 35kg/m²

For obese (BMI > 35 kg/m²)

Lower risk of OSA: Yes to 0-3 questions

High risk of OSA: Yes to 4-5 questions

Very high risk of OSA: Yes to 6-8 questions

PATIENT NAME: _____

DATE OF SURGERY: _____

Reference: Chung F et al. Anesthesiology 2008; 108: 812-821, Chung F et al Br J Anaesth 2012; 108: 768-775, Chung F et al Obes Surg 2013; 23: 2050-2057

**HACKETTSTOWN REGIONAL MEDICAL CENTER
NURSING POLICIES
PERIOPERATIVE CARE FOR OBSTRUCTIVE SLEEP APNEA (OSA)**

Effective Date: 12/16/2014
Cross Referenced:
Reviewed Date:
Revised Date:

Policy No: 8620.265
Origin: Nursing
Authority: CNO
Page: 5 of 7

**Appendix B
EMR Screen**

Sleep Apnea Screening

A score of 3 or greater indicates an increased risk for Obstructive Sleep Apnea. A score of 2 or more generates a consult to the respiratory therapy department (inpatients only).

Do you snore loudly? Yes No

Do you feel tired or sleepy during the day? Yes No

Has anyone ever observed you stop breathing during sleep? Yes No

History of high blood pressure? Yes No

Score:

BMI:

Age > 50? Yes No

Male Gender? No Yes

Neck Circumference (inches):

Previously diagnosed with Obstructive Sleep Apnea: Indicate by answering YES and then add to Problem List/Medical History section.

Yes N/A

**HACKETTSTOWN REGIONAL MEDICAL CENTER
NURSING POLICIES
PERIOPERATIVE CARE FOR OBSTRUCTIVE SLEEP APNEA (OSA)**

Effective Date: 12/16/2014

Policy No: 8620.265

Cross Referenced:

Origin: Nursing

Reviewed Date:

Authority: CNO

Revised Date:

Page: 6 of 7

Appendix C

OBSTRUCTIVE SLEEP APNEA CHART ALERT

SLEEP APNEA RISK



My sleep apnea score is: /8

(PATIENT LABEL)

**HACKETTSTOWN REGIONAL MEDICAL CENTER
NURSING POLICIES
PERIOPERATIVE CARE FOR OBSTRUCTIVE SLEEP APNEA (OSA)**

Effective Date: 12/16/2014
Cross Referenced:
Reviewed Date:
Revised Date:

Policy No: 8620.265
Origin: Nursing
Authority: CNO
Page: 7 of 7

Appendix D

