Objective: Upon completion of this presentation, participants will be able to understand the ASA Practice Guidelines for the perioperative management of patients with obstructive sleep apnea and the options for their postoperative monitoring.

Summary: Adult obese patients with suspected or sleep tested obstructive sleep apnea (OSA) present a formidable challenge throughout the perioperative period. OSA is caused by passive collapse of the upper airway during sleep and leads to recurrent partial or complete cessation of airflow for more than 10 seconds. This leads to snoring, oxygen desaturation, frequent nocturnal wakening and daytime somnolence. Many of our patients have undiagnosed OSA. There is very little written about OSA in the parturient, though it seems that much of what is written about non-pregnancy is applicable. The combination of obesity, OSA, general anesthesia and opioid administration increases the risk of anesthesia-related postoperative complications. Life-threatening problems can occur with respect to tracheal intubation, extubation, and providing satisfactory and safe postoperative analgesia. Regional analgesia and anesthesia is desirable and preferred for both surgical procedures and postoperative pain control. The increased risk of pharyngeal collapse must be kept in mind, and consideration of the need for continuous monitoring must be made.

It remains to be determined if the perioperative risk of OSA patients can be decreased by appropriate screening to detect undiagnosed OSA and implementation of a perioperative management plan for OSA. Evidence-based research of perioperative management of OSA patients, and pregnant patients in particular, is sorely lacking.

The ASA Guidelines suggest that you:
Consider preoperative initiation of CPAP, especially if OSA is severe.
Consider early epidural for labor analgesia, use of supplemental oxygen and avoiding sedatives.
Extubate patients fully awake, with full neuromuscular blockade reversal in a semi-upright position.
Keep OSA patients in the PACU for monitoring about 3 hours longer than healthy patients.
Consider postoperative continuous pulse oximetry monitoring in patients at risk for respiratory compromise.
Consider the use of nonopioid medications to limit the administration of opioids.

Key Points:
1. In the absence of a sleep study, a presumptive diagnosis of OSA can be made with increased BMI, increased neck circumference, snoring, congenital airway abnormality, daytime hypersomnolence, tonsillar hypertrophy and observed apnea during sleep.
2. Perioperative risk depends on both the severity of OSA and the invasiveness of the surgical procedure.
3. Known or suspected OSA patients may have a difficult airway and are at risk for postoperative respiratory obstruction and hypoxia.
4. Postoperative monitoring needs to be adapted for each individual patient taking into account the severity of OSA, the type of surgery and anesthesia, and the need for postoperative opioids.

References: