Abstract 25

A Perioperative Triage Plan for Obstructive Sleep Apnea Patients

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Our institution, like many others, has sought to determine the appropriate postoperative care for patients with a diagnosis or signs of obstructive sleep apnea (OSA). Historically, OSA patients who maintained normal oxygen saturation postoperatively were admitted to the floor or discharged home at the discretion of an attending anesthesiologist. On the other hand, OSA patients who did not maintain a patent airway and sufficient oxygenation were admitted to a monitored or intensive care unit (ICU) for observation on supplemental oxygen. Clearly, the routine use of ICU beds for this patient population was expensive and utilized valuable resources.

As such, members of several departments (anesthesiology, perioperative medicine, sleep medicine, otolaryngology, respiratory therapy) reviewed recent literature regarding postoperative care of OSA patients in an effort to develop a single standard for triage of such patients after surgery.

The result of this collaboration was an OSA scoring system incorporating several criteria: (1) severity of OSA (mild, moderate, severe based on sleep study results) or high risk for OSA based on Berlin Questionnaire screening with no prior sleep study; (2) invasiveness of surgery and anesthesia; (3) postoperative opioid requirement; and (4) additional criteria (home continuous positive airway pressure [CPAP]/bilevel positive airway pressure, arterial blood gas results, cardiac dysfunction, and postanesthesia care unit [PACU] respiratory events). Safety and efficacy of incorporating the overall OSA score with remote monitoring on hospital floors were tested at our institution and deemed appropriate for this patient population.

The OSA scoring tool was added to the patient electronic medical record for completion by health care providers. The patient's OSA information is transparent and can be updated at any time to reflect changes in patient activity.

Based on the overall OSA score, a standard triage plan is now followed. For example, OSA patients who use CPAP at home are started on their usual home settings in the PACU using a standard hospital CPAP machine. On the other hand, OSA patients not using CPAP at home are observed on room air for 2 hours postoperatively and placed on CPAP autotitration if they experience oxygen desaturation. Outpatients may be discharged to home or transferred to a continuous pulse oximetry unit based on the overall OSA score. Inpatients are admitted to a continuous pulse oximetry unit depending on the overall OSA score and oxygen saturation values in PACU.

This plan translates to anesthesiologists, internists, and surgeons all having similar expectations about a particular patient's postoperative disposition.