Better guidance urgently needed for 'epidemic' of sleep apnea in surgical patients

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Although as many as 25 percent of patients undergoing surgery suffer from sleep apnea, few hospitals have policies to help manage the risks of this condition during surgery, and there is little evidence to help guide anesthesiologists and surgeons caring for these patients. In a new editorial in the *New England Journal of Medicine*, Stavros Memtsoudis, M.D., Ph.D., director of Critical Care Services at Hospital for Special Surgery, New York City, calls for a new research initiative to identify the safest and most effective ways to manage patients with sleep apnea.

Sleep apnea, a disorder in which a person frequently stops breathing for short periods during sleep, not only makes for a restless night but also puts the person at increased risk of high blood pressure, diabetes, heart attack and stroke. But although the condition is more common than diabetes, and poses particular hazards during surgery, relatively little research has been done to help guide clinicians.

"Patients with sleep apnea may be at risk for many complications during surgery, including airway blockage and intubation problems," said Dr. Memtsoudis. "But that's not all: we know that apnea affects many other organ systems as well. The American Society of Anesthesiologists published guidelines in 2006 to help us take better care of patients with sleep apnea, but there was—and still is—very little research to support these recommendations."

The current guidelines recommend a period of pre-operative evaluation for patients with sleep apnea; the use of continuous positive airway

pressure (CPAP); the use of local or regional anesthesia or perioperative nerve blocks rather than general anesthesia; and extended periods of observation of the patient during the post-surgical period.

"But there is insufficient evidence to tell us whether these actions actually have any effect," said Dr. Memtsoudis. "And as we continue to see an increase in the number of surgical patients with sleep apnea, it creates a significant financial burden for hospitals at a time when health care costs are skyrocketing."

Perhaps as a result of the lack of evidence, less than one in four hospitals in the United States and Canada have policies in place for the management of surgical patients with sleep apnea.

"We are fortunate, at Hospital for Special Surgery, to have the expertise and logistics in place to provide the great majority of our patients with the option to receive regional anesthesia, perioperative CPAP and monitoring if necessary and deemed appropriate. But we are mindful that these approaches require extensive resources that may be hard to justify given the high cost and lack of evidence that they truly change outcomes."

Regional anesthesia, for example, has direct costs that are similar to general anesthesia, but requires expertise and resources that are not available everywhere. In the rest of the country, three quarters of joint replacement procedures are performed under general anesthesia.

In May, Dr. Memtsoudis published the first study to date that provides evidence about specific techniques for the safe management of patients with sleep apnea surrounding surgery. That study found that the use of regional anesthesia, rather than general anesthesia, reduced major complications by 17 percent in patients with sleep apnea undergoing joint surgery.

"We need much more research like this," he said.

Working with key members of the new Society for Anesthesia and Sleep Medicine, Dr. Memtsoudis and his colleagues from the Department of Public Health at Cornell University are now designing a multicenter "practice based evidence" study that will collect data from institutions that have varying practices with regard to the management of sleep apnea in surgical patients. "This will help us assess what works and what doesn't work and who among sleep apnea patients is actually at risk," he said. "We can't just advocate that people keep doing what they're doing with no evidence for it."

More information: The editorial appears in the June 20, 2013, edition of the *New England Journal of Medicine*.

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