Management of Surgical Patients with Sleep Apnea: Guidelines
Authors: Camille Dulong, Kelly Farrah

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Questions or requests for information about this report can be directed to requests@cadth.ca
Research Questions
1. What are the evidence-based guidelines for preoperative management of surgical patients with known or suspected sleep apnea?
2. What are the evidence-based guidelines for post-operative monitoring and management of surgical patients with known or suspected sleep apnea?

Key Findings
Two evidence-based guidelines were identified regarding preoperative management of surgical patients with known or suspected sleep apnea while no relevant guidelines were identified regarding post-operative management of surgical patients with suspected or known sleep apnea.

Methods
A limited literature search was conducted by an information specialist on key resources including MEDLINE, the Cochrane Library, the University of York Centre for Reviews and Dissemination (CRD) databases, the websites of Canadian and major international health technology agencies, as well as a focused Internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine’s MeSH (Medical Subject Headings), and keywords. The main search concepts were sleep apnea and surgery. Search filters were applied to limit retrieval to guidelines. The search was also limited to English language documents published between January 1, 2014 and July 16, 2019. Internet links were provided, where available.

Selection Criteria
One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria

<table>
<thead>
<tr>
<th>Population</th>
<th>Adult surgical patients with suspected or known sleep apnea in a hospital setting</th>
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| Intervention        | Q1: Preoperative management or assessment by health care professionals (e.g., nurses or doctors) or alarm monitoring/management system  
                      | Q2: Post-operative management or assessment by health care professionals or alarm monitoring/management system |
| Comparator          | Not applicable                                                                     |
| Outcomes            | Q1-2: Guidelines                                                                   |
| Study Designs       | Evidence-based guidelines                                                          |
Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Normally, health technology assessment reports, systematic reviews, and meta-analyses are presented first; however, in reports where guidelines are primarily sought, the aforementioned evidence types are presented in the appendix.

Two evidence-based guidelines\(^1,2\) were identified regarding preoperative management of surgical patients with known or suspected sleep apnea while no relevant guidelines were identified regarding post-operative management of surgical patients with suspected or known sleep apnea.

Additional references of potential interest are provided in the appendix.

Overall Summary of Findings

Two evidence-based guidelines\(^1,2\) were identified regarding preoperative management of surgical patients with known or suspected sleep apnea while no relevant guidelines were identified regarding post-operative management of surgical patients with suspected or known sleep apnea.

The first guideline\(^1\) by the American Thoracic Society recommends the use of enhanced monitoring strategies through algorithms in a preoperative setting to observe patients who are at high risk of sleep apnea undergoing surgery. For instance, the guidelines state that a wireless continuous pulse oximetry/pulse rate monitoring system with direct notifications through a page system may be a strategy to monitor surgical patient with sleep apnea.

The second guideline\(^2\) by the Society of Anesthesia and Sleep Medicine presents recommendations on preoperative screening and assessment of adults with obstructive sleep apnea (OSA). The Society recommends that adult patients at risk for OSA should be identified before surgery with the use of screening tools, such as the STOP-Bang questionnaire, and a variety of checklists.

References Summarized

Guidelines and Recommendations


Appendix — Further Information

Previous CADTH Reports


Systematic Reviews

Guidelines Not Specified


Unclear Population


Clinical Practice Guidelines – Methodology Not Specified


Additional References