Perioperative Medication Management

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KEYWORDS

• Perioperative • Medication management • Hospitalist
• Chronic disease management

PRINCIPLES OF PERIOPERATIVE MEDICATION MANAGEMENT

1. A complete medication history, including prescription, over-the-counter, and herbal medications, should be taken on the initial evaluation. Medication reconciliation will ensure that appropriate drugs are continued, adjusted, or discontinued perioperatively and that patients are later discharged from the hospital on the intended medication regimen.
2. Hospitalists should recognize the potential for herbal supplements to have direct adverse effects or important drug-drug interactions perioperatively. Several supplements have been associated with increased bleeding risk and others may potentiate the effects of anesthetic agents.
3. The urgency of surgery can dictate the approach to many medications in the perioperative period. Elective procedures allow for greater flexibility with which hospitalists can adjust or discontinue medications compared with urgent or emergent procedures.
4. Medications that are associated with withdrawal syndromes or adverse effects when stopped acutely should either be continued perioperatively or tapered in a deliberate manner before surgery. Common medications that are known to have rebound effects include β-blockers, clonidine, selective serotonin reuptake inhibitors (SSRI), benzodiazepines, corticosteroids, and, in certain circumstances, antiplatelet agents.
5. Most chronic medications can be continued perioperatively and may be given with sips of water on the morning of surgery. Notable exceptions include antithrombotic drugs, diuretics, oral hypoglycemics, alpha blockers (before cataract

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surgery), and monoamine oxidase (MAO) inhibitors, which should be held preoperatively.

6. The absorption, metabolism, and elimination of medications may be altered during the perioperative period. This alteration is commonly encountered in patients who are unable to tolerate oral intake because of ileus or abdominal surgery and in circumstances of fluctuating renal function perioperatively. Dose adjustments or alternative formulations (intravenous [IV], intramuscular, transdermal, rectal) may be required.
7. In patients receiving chronic antithrombotic therapy, the risks and benefits of interrupting therapy perioperatively must be carefully considered. Decisions must be made on a case-by-case basis, with individual risks of thrombosis balanced against risks of bleeding in the perioperative period. Anticoagulant and antiplatelet medications can be safely continued for minor surgeries, such as cataract removal, and most dental and dermatologic procedures.
8. Exogenous corticosteroid use has been associated with secondary adrenal suppression, which can impair patients' abilities to manage stress in the perioperative period. In deciding whether to administer stress dose steroids perioperatively, consideration must be given to the dose and duration of chronic steroid use before surgery as well as the type and duration of the surgical procedure.
9. Communication among hospitalists, surgeons, anesthesiologists, and subspecialty consultants is critical to ensure optimal medication management in the perioperative period. Patients' outpatient providers should be involved in the decisions to continue, discontinue, or taper certain high-risk medications before elective surgeries.

INTRODUCTION

Hospitalists are frequently consulted to assist with medication management in the perioperative period. The goal of this article is to provide guidance on the management of commonly prescribed medications that require careful consideration perioperatively to optimize patient safety and chronic disease management. Recommendations are based on available evidence and expert consensus. This summary is not intended to be all-inclusive. Select classes of medications, including those for chronic lung diseases, diabetes, and cirrhosis, and prophylactic agents are addressed in other articles.

ANTICOAGULANT AND ANTIPLATELET MEDICATIONS

1. What are the recommendations for perioperative management of chronic anticoagulants?

Anticoagulants frequently present challenges for the hospitalist in the perioperative period. The most common issues relate to the timing of discontinuing and restarting anticoagulants and when bridging therapy is required. These decisions are based on patients' risks of being off anticoagulation perioperatively versus the risks of bleeding related to the proposed intervention. Both patient factors and surgical factors must be considered, and the plan must be tailored to each individual patient.