Operating Room Medication Safety Checklist

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Introduction

The ***Operating Room Medication Safety Checklist*** was created by Institute for Safe Medication Practices Canada (ISMP Canada) in collaboration with:

- Canadian Anesthesiologists' Society (CAS)
- Operating Room Nurses Association of Canada (ORNAC)
- ISMP (US)

Operating Rooms (ORs) are unique environments that involve the frequent use of high-alert medications and procedures requiring the use of sterile fields. Medication incidents are common adverse events associated with morbidity and mortality; they are a frequent cause of medical legal events for Canadian anesthesiologists.[1,2]

Objective

To develop and pilot test a comprehensive, multidisciplinary, checklist program incorporating potential strategies to address medication use-related hazards in the OR.

Method

1. Draft version developed and based on:
   - published literature,[3-18]
   - current practices and guidelines,[19-28]
   - findings from focused reviews of operating room medication-use systems in two Ontario hospitals,[2] and
   - expert and multidisciplinary input.
2. Distributed to Ontario hospitals. Feedback received and incorporated into pilot version.

3. All Ontario hospitals were invited to participate in a web-based pilot program.

4. Participating hospitals assessed their level of implementation for each checklist item (none/ partial/ full implementation) and entered facility-specific information into a secure, web-based program using a unique password.

5. Participating hospitals were invited to complete a post-evaluation survey (fax, telephone, email or on-line).

Results

18 Ontario hospitals completed the pilot checklist; 4 were multi-site. Checklist findings identified medication system strengths as well as opportunities for improvement.

Examples of Strengths:

- Use of two (2) unique identifiers to confirm the patient's identity
- Segregation and use of auxiliary warning labels when premixed heparin intravenous solutions are made available

Examples of Opportunities for System Improvements:

- Labelling of medications on the sterile field
- Use of warning labels where neuromuscular blocking agents are stored
- Implementation of safeguards to prevent inadvertent injection of epinephrine intended for topical use

Conclusions

Post-pilot survey evaluation was completed by nine of the participating facilities.

Examples of Unexpected Benefits Identified by Participants:

- Improved clarification of team member roles
- Increased awareness of medication safety issues and preferred safety practices

Examples of Planned Changes by Participants:

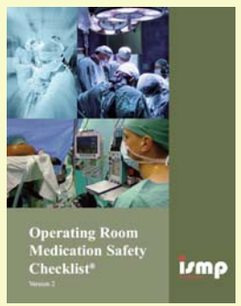
- 88.9% of respondents reported that they plan to use the checklist as part of their quality improvement process
- 44.4% indicated they have fully implemented some changes, including use of sterile labels in the sterile field
- 66.7% are planning or are in the process of implementing changes

Refinements

The Operating Room Medication Safety Checklist Version I included refinements as a result of the pilot.

Learning from sentinel events prompted further revisions to the checklist.

The practice of withdrawing a medication intended for topical use into a parenteral syringe poses a risk for a substitution error and/or inadvertent injection. All facilities that perform procedures requiring the use of epinephrine 1 mg/mL (1:1,000) for topical application should review their processes.



The Operating Room Medication Safety Checklist Version 2 is now available to facilities and practitioners.

Additional information can be obtained from:

www.ismp-canada.org

operatingroomchecklist@ismp-canada.org

References available upon request.

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