TITLE: Reprocessing of Endoscopy Devices: Clinical Effectiveness and Guidelines

DATE: 14 June 2016

RESEARCH QUESTIONS

1. What is the clinical effectiveness of high-level disinfectants versus sterilization for the reprocessing of bronchoscopes, cystoscopes, duodenoscopes, or hysteroscopes?

2. What is the clinical effectiveness of manual cleaning prior to the use of high-level disinfectants versus using only an automated endoscope reprocessor with a cleaning claim?

3. What are the evidence-based guidelines regarding the disinfection or sterilization requirements for final rinse water for the reprocessing of endoscopic devices?

KEY FINDINGS

Two evidence-based guidelines were identified regarding the disinfection or sterilization requirements for final rinse water for the reprocessing of endoscopic devices.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No methodological filters were applied to limit retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2011 and June 9, 2016. 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>Patients in hospital</th>
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| Intervention     | Q1: High-level disinfectants  
|                  | Q2: Manual cleaning prior to high-level disinfectants  
|                  | Q3: Disinfection and sterilization equipment and standards |
| Comparator       | Q1: Sterilization  
|                  | Q2: Automated endoscope reprocessing with cleaning claim  
|                  | Q3: No comparator |
| Outcomes         | Clinical evidence to support practice;  
|                  | Guidelines and best practice for disinfectants or sterilization |
| Study Designs    | Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based guidelines |

RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and evidence-based guidelines.

Two evidence-based guidelines were identified regarding the disinfection or sterilization requirements for final rinse water for the reprocessing of endoscopic devices. No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, or non-randomized studies were identified regarding clinical effectiveness of high-level disinfectants versus sterilization for the reprocessing of bronchoscopes, cystoscopes, duodenoscopes, or hysteroscopes or the clinical effectiveness of manual cleaning prior to the use of high-level disinfectants versus using only an automated endoscope reprocessor with a cleaning claim.

Additional references of potential interest are provided in the appendix.

REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses
No literature identified.

Randomized Controlled Trials
No literature identified.

Non-Randomized Studies
No literature identified.

Guidelines and Recommendations

1. Provincial Infectious Diseases Advisory Committee (PIDAC). Infection prevention and control for clinical office practice (1st revision) [Internet]. Toronto (ON): Queen’s Printer for
See - Appendix L: Reprocessing Endoscopy Equipment, pages 99 to 101

See: Disinfection, pages i3 to i4

PREPARED BY:
Canadian Agency for Drugs and Technologies in Health
Tel: 1-866-898-8439
www.cadth.ca
APPENDIX – FURTHER INFORMATION:

Previous CADTH Reports


Laboratory Studies


**Economic Analyses**


**Guidance Documents and Recommendations**


Review Articles


Additional References
