CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Hand Hygiene and Glove Use in Dental Settings: Clinical Effectiveness, Cost-Effectiveness, and Guidelines
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About CADTH: CADTH is an independent, not-for-profit organization responsible for providing Canada’s health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs, medical devices, diagnostics, and procedures in our health care system.

Funding: CADTH receives funding from Canada’s federal, provincial, and territorial governments, with the exception of Quebec.
Research Questions

1. What is the clinical evidence regarding hand hygiene techniques or glove use in dental settings?
2. What is the cost-effectiveness of hand hygiene techniques or glove use in dental settings?
3. What are the evidence-based guidelines regarding hand hygiene techniques or glove use in dental settings?

Key Findings

One systematic review was identified regarding clinical effectiveness of gloves in dental care settings. No relevant economic evaluations or evidence-based guidelines were identified.

Methods

A limited literature search was conducted on key resources including Medline via Ovid, 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 filters were applied to limit the 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, 2009 and April 3, 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.

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<thead>
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<th>Population</th>
<th>Any patient undergoing a dental examination or procedure</th>
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| Interventions | Hand hygiene products or techniques (e.g., soap and water, antibacterial solutions, surgical scrubs)  
Gloves (e.g., nitrile [clean] gloves, surgical [sterile] gloves, polyethylene over gloves) |
| Comparator | Q1-2: Any products or techniques compared with each other or compared with no hand hygiene  
Q3: No comparator |
| Outcomes | Q1: Clinical evidence, safety (e.g., infection transmission)  
Q2: Cost-effectiveness  
Q3: Guidelines and best practice |
| Study Designs | Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, economic evaluations, 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, economic evaluations, and evidence-based guidelines.

One systematic review was identified regarding the clinical effectiveness and use of hand gloves in dental care settings. No relevant health technology assessments, randomized controlled trials, economic evaluations, or evidence-based guidelines were identified.

Additional references of potential interest are provided in the appendix.

Overall Summary of Findings

The authors of the systematic review assessed whether the use of sterile gloves reduced surgical site infection (SSI) post-operatively compared to non-sterile gloves. Fourteen articles met the inclusion criteria for the systematic review and thirteen articles were included in the meta-analysis. Overall, the researchers concluded that there was no difference in postoperative SSI, with sterile or non-sterile gloves having comparable rates of SSI.\textsuperscript{1}

References Summarized

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses


Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

No literature identified.

Economic Evaluations

No literature identified.

Guidelines and Recommendations

No literature identified.
Appendix — Further Information

Previous CADTH Reports


Non-Randomized Studies – Non Patient-Related Health Outcomes


Guidelines and Recommendations – Discusses Washing


Clinical Practice Guidelines - Methodology Not Specified


Review Articles

   PubMed: PM28809528

Additional References

   PubMed: PM28317575

   PubMed: PM25908356

   PubMed: PM24581024

   PubMed: PM24564616