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CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Chlorhexidine Gluconate for Skin Preparation During Stereotactic Core Biopsy of the Breast: Clinical 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 effectiveness of chlorhexidine gluconate wipes for female adults undergoing skin preparation during stereotactic core biopsy of the breast?

2. What are the evidence-based guidelines associated with skin preparation during stereotactic core biopsy of the breast?

Key Findings

No relevant clinical evidence or evidence-based guidelines were identified regarding chlorhexidine gluconate wipes for female adults undergoing skin preparation during stereotactic core biopsy of the breast.

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. For Q1, no filters were applied to limit the retrieval by study type. For Q2, methodological filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses and guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2009, and February 4, 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

Population	Female adults undergoing skin preparation during stereotactic core biopsy of the breast
Intervention	Chlorhexidine gluconate swabs/wipes
Comparator	Q1: Alcohol; Other swab preparations; No comparator Q2: No comparator
Outcomes	Q1: Clinical effectiveness (e.g., prevention of biopsy site infections, ease or speed of drying, comparative effectiveness versus alcohol) and safety (e.g., clinical benefit or harm [e.g., skin irritation]) Q2: Guidelines
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.

No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, or evidence-based guidelines were identified regarding chlorhexidine gluconate wipes for female adults undergoing skin preparation during stereotactic core biopsy of the breast.

References of potential interest are provided in the appendix.

Overall Summary of Findings

No relevant literature was identified regarding chlorhexidine gluconate for skin preparation during stereotactic core biopsy of the breast; therefore, no summary can be provided.

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

No literature identified.

Appendix — Further Information

Previous CADTH Reports – Not Specific to Breast Biopsy

1. Chlorhexidine gluconate wipes for infection prevention in acute and critical care: a review of clinical effectiveness and cost-effectiveness. (CADTH Rapid response report: summary with critical appraisal). Ottawa (ON): CADTH; 2016. https://www.cadth.ca/sites/default/files/pdf/htis/apr-2016/RC0769%20Chlorhexidine%20Wipes%20Final.pdf. Accessed 2019 Feb 7.

2. Chlorhexidine impregnated wipes for pre-operative skin preparation: clinical evidence and guidelines. (CADTH Rapid response report: summary of abstracts). Ottawa (ON): CADTH; 2012. https://cadth.ca/sites/default/files/pdf/htis/dec-2012/RB0551%20PreOp%20Skin%20Wipes%20Final.pdf. Accessed 2019 Feb 7.

Health Technology Assessments – Alternative Comparator

3. Use of 4% chlorhexidine gluconate products for reducing hospital-acquired infections. Plymouth Meeting (PA): ECRI Institute; 2017.

4. Preoperative skin preparation with chlorhexidine gluconate products for reducing surgical site infections. Plymouth Meeting (PA): ECRI Institute; 2017.

Randomized-Controlled Trials – Recruitment Status Unknown

Specific to Surgery

5. Wound infections in breast cancer surgery after preoperative skin preparation with chlorhexidine vs. povidone-iodine. Milan (IT): Fondazione IRCCS Istituto Nazionale dei Tumori; 2015. https://clinicaltrials.gov/ct2/show/NCT02479347. Accessed 2019 Feb 7.

Non-Randomized Studies – Alternative Population

6. Heckmann N, Sivasundaram L, Heidari KS, et al. Propionibacterium Acnes Persists Despite Various Skin preparation Techniques. *Arthroscopy*. 2018 Jun;34(6):1786-1789. PubMed: PM29580742

Guidelines and Recommendations

Alternative Population: Pre-Surgical

7. Global guidelines for the prevention of surgical site infection. Geneva (CH): World Health Organization (WHO); 2016. https://apps.who.int/iris/bitstream/handle/10665/250680/9789241549882-eng.pdf. Accessed 2019 Feb 7.
   See: 4.7 Surgical site preparation, page 87

Alternative Comparator

8. Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings. Ottawa (ON): Public Health Agency of Canada; 2013. https://www.canada.ca/content/dam/phac-aspc/documents/services/publications/diseases-conditions/routine-practices-precautions-healthcare-associated-infections/routine-practices-precautions-healthcare-associated-infections-2016-FINAL-eng.pdf. Accessed 2019 Feb 7.
See: "Routine practices—Aseptic technique for injections and intravascular and other invasive procedures," page 49 for general antiseptic guidelines

Review Articles

9. Newell MS, Mahoney MC. Ultrasound-guided percutaneous breast biopsy. Tech Vasc Interv Radiol. 2014 Mar;17(1):23-31. doi: 10.1053/j.tvir.2013.12.005. https://www.techvir.com/article/S1089-2516(13)00091-7/pdf. Accessed 2019 Feb 7.
See: Page 26, first paragraph