

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Disinfection Procedures During and After Intravesical Bacillus Calmette-Guérin Vaccination Administration: Guidelines

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Research Questions

1. What are the evidence-based guidelines regarding disinfection procedures during administration of the Bacillus Calmette-Guérin vaccination in patients with bladder cancer?
2. What are the evidence-based guidelines regarding disinfection of items following administration of the Bacillus Calmette-Guérin vaccination in patients with bladder cancer?

Key Findings

One evidence-based guideline was identified regarding disinfection procedures and items during administration of the Bacillus Calmette-Guérin vaccination in patients with bladder cancer.

Methods

A limited literature search was conducted by an information specialist on key resources including PubMed, the Cochrane Library, the University of York Centre for Reviews and Dissemination (CRD) databases, the websites of Canadian and major international health technology agencies, as well as a focused Internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were BCG vaccine and disinfection. No filters were applied to limit the retrieval by study type. The search was also limited to English language documents published between January 1, 2015 and January 7, 2020. 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	Adult patients (>18 years) with bladder cancer
Intervention	Disinfection procedures during or following administration of the Bacillus Calmette-Guérin vaccination (e.g., 10% bleach, flushing twice)
Comparator	No comparator

Outcomes	Q1: Recommendations regarding disinfection procedures during administration of the vaccine (e.g., disinfection procedures for spills, prevention of infection) Q2: Recommendations regarding disinfection of tools and items after administration of the vaccine (e.g., toilets, toilet seats)
Study Designs	Evidence-based guidelines

Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Normally, health technology assessment reports, systematic reviews, and meta-analyses are presented first; however, in reports where guidelines are primarily sought, the aforementioned evidence types are presented in the appendix.

One evidence-based guideline¹ was identified regarding disinfection procedures and items during administration of the Bacillus Calmette-Guérin vaccination in patients with bladder cancer.

Additional references of potential interest are provided in the appendix.

Overall Summary of Findings

A guideline from the European Association of Urology Nurses¹ recommends that intravesical agents such as mitomycin C and Bacillus Calmette-Guerin (BCG) should not come into contact with a patient's skin. If these agents do come in contact with the skin, it is recommended that the contacted area should be cleaned with soap and water. The guideline also states that although some countries recommend flushing the toilet twice with the lid closed after intravesical instillation, there is no evidence to support this procedure. Moreover, it is recommended for patient to wash hands after urination who received BCG instillation and to clean toilets with normal detergent and water after BCG administration (particularly when the toilet will be used by more than one person).¹

References Summarized

Guidelines and Recommendations

1. Vahr S, De Blok W, Love-Retinger N, et al. Evidence-based guidelines for best practice in urological health care: intravesical instillation with mitomycin C or bacillus Calmette-Guérin in non-muscle invasive bladder cancer. Arnhem: The Netherlands: European Association of Urology Nurses; 2015 Mar: <https://nurses.uroweb.org/wp-content/uploads/EAUN15-Guideline-Intravesical-instillation.pdf>
See: 6.4 Patient Safety and Toileting, page 24 to 25

Appendix — Further Information

Previous CADTH Reports

2. Cleansers or disinfectants for cleaning chemotherapeutic agent residue: clinical effectiveness and guidelines (*CADTH Rapid response report: summary of abstracts*). Ottawa (ON): CADTH; 2015 Jul: <https://www.cadth.ca/sites/default/files/cleansers-or-disinfectants-for-cleaning-chemotherapeutic-agent-residue-clinical-effectiveness-and-guidelines.pdf>
Accessed 2020 Jan 20.
3. Decreased dosing of Bacillus Calmette-Guérin for bladder cancer: clinical effectiveness, safety, and guidelines (*CADTH Rapid response report: reference list*). Ottawa (ON): CADTH; 2014 Sep: <https://www.cadth.ca/sites/default/files/pdf/htis/dec-2014/RA0701%20BCG%20for%20Bladder%20Cancer%20Final.pdf>
Accessed 2020 Jan 20.
4. Bacillus Calmette-Guérin vaccine administration for patients with bladder cancer: safety and guidelines (*CADTH Rapid response report: summary of abstracts*). Ottawa (ON): CADTH; 2011 Feb: https://www.cadth.ca/sites/default/files/pdf/htis/feb-2011/K0319_BCG_Vaccine_Safety_final.pdf
Accessed 2020 Jan 20.

Clinical Practice Guidelines – Methods Not Specified

5. Australia and New Zealand Urological Nurses Society (ANZUNS). Intra-vesical therapy for Non-Muscle Invasive Bladder Cancer (NMIBC): nursing guidelines. Hawkes Bay, New Zealand; 2018 Feb: <https://anzuns.org/wp-content/uploads/2018/03/Intra-vesical-Therapy-for-NMIBC-Guidelines.pdf>
Accessed 2020 Jan 20.
See: Patient Safety and Toileting, page 6
6. Saskatoon Health Region. Bacillus Calmette-Guérin (BCG) instillation: RN procedure. Saskatoon (SK): Saskatoon Health Region; 2017 Jan: <https://www.saskatoonhealthregion.ca/about/NursingManual/1006.pdf>
Accessed 2020 Jan 20.
See: Hygiene, page 6
7. American Urological Association. Intravesical administration of therapeutic medication Standard operating procedure. Linthicum (MD): American Urological Association; 2015 Jul: <https://www.suna.org/resources/intravesicalMedAdminStatement.pdf>
Accessed 2020 Jan 20.
See: XIV, Patient Education, page 8 to 9

Review Articles

1. Decaestecker K, Oosterlinck W. Managing the adverse events of intravesical bacillus Calmette–Guérin therapy. *Res Rep Urol*. 2015;7:157-163.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4630183/>