

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Brachytherapy Administration for Cervical and Vaginal Cancer: Safety and Guidelines

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Research Questions

1. What is the clinical evidence regarding the safety of brachytherapy administration for adult patients with vaginal or cervical cancer?
2. What are the evidence-based guidelines regarding the administration of brachytherapy for adult patients with vaginal or cervical cancer?

Key Findings

No relevant clinical evidence or evidence-based guidelines were identified regarding the administration of brachytherapy for adult patients with vaginal or cervical cancer.

Methods

A limited literature search was conducted by an information specialist on key resources including Medline via OVID, 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 brachytherapy and gynecological cancers. Search filters were applied to limit retrieval to guidelines and safety data. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2015 and March 6, 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 with vaginal or cervical cancer
Intervention	Brachytherapy (any dose)
Comparator	Q1: Standard of care (e.g., surgery) Q2: Not applicable
Outcomes	Q1: Adverse events (e.g., infection, unintended patient consequences such as increased length of stay or unintended hospital stay) due to administration and use of equipment (not due to cancer treatment) Q2: Recommendations regarding the appropriate use (administration) of brachytherapy for infection prevention (e.g., best practices for cleaning device/equipment)
Study Designs	Health technology assessments, systematic reviews, 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 and systematic reviews are presented first. These are followed by randomized controlled trials, non-randomized studies, economic evaluations, and evidence-based guidelines.

No relevant health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, or evidence-based guidelines were identified regarding the administration of brachytherapy for adult patients with vaginal or cervical cancer.

References of potential interest are provided in the appendix.

Overall Summary of Findings

No relevant literature was identified regarding the administration of brachytherapy for adult patients with vaginal or cervical cancer, 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

1. Computed tomography-guided brachytherapy treatment in the operating room: clinical effectiveness, cost-effectiveness, and guidelines. (*CADTH Rapid response report: summary of abstracts*). Ottawa (ON): CADTH; 2014: <https://www.cadth.ca/computed-tomography-guided-brachytherapy-treatment-operating-room-clinical-effectiveness-cost>. Accessed 2020 Mar 17.
2. Severe complications following radiation therapy: evidence for association and guidelines for monitoring patients. (*CADTH Rapid response report*). Ottawa (ON): CADTH; 2010: <https://www.cadth.ca/severe-complications-following-radiation-therapy-evidence-association-and-guidelines-monitoring>. Accessed 2020 Mar 17.

Systematic Reviews and Meta-Analyses — No Comparator

3. Mendez LC, Weiss Y, D'Souza D, Ravi A, Barbera L, Leung E. Three-dimensional-guided perineal-based interstitial brachytherapy in cervical cancer: a systematic review of technique, local control and toxicities. *Radiother Oncol*. 2017;123(2):312-318. [PubMed: PM28351521](https://pubmed.ncbi.nlm.nih.gov/28351521/)

Non-Randomized Studies

Mixed Intervention

4. Boisen MM, Vargo JA, Beriwal S, et al. Surgical outcomes of patients undergoing extrafascial hysterectomy after neoadjuvant radiotherapy with or without chemotherapy for locally advanced endometrial cancer clinically extending to the cervix or parametria. *Int J Gynecol Cancer*. 2017;27(6):1149-1154. [PubMed: PM26825835](https://pubmed.ncbi.nlm.nih.gov/26825835/)
5. Abe A, Matoda M, Okamoto S, et al. Resection of the vaginal vault for vaginal recurrence of cervical cancer after hysterectomy and brachytherapy. *World J Surg Oncol*. 2015;13:137. [PubMed: PM25889861](https://pubmed.ncbi.nlm.nih.gov/25889861/)
6. Rema P, Suchetha S, Kumar A, Ahmed I. The role of adjuvant hysterectomy after radiotherapy in cervical cancer. *Indian J Surg*. 2015;77(Suppl 3):902-905. [PubMed: PM27011479](https://pubmed.ncbi.nlm.nih.gov/27011479/)

No Comparator

7. Mendez LC, Lang P, Patel C, et al. A prospective analysis of catheter complications for gynecological cancers treated with interstitial brachytherapy in the 3D era. *Brachytherapy*. 2019;18(1):44-49. [PubMed: PM30316724](https://pubmed.ncbi.nlm.nih.gov/30316724/)

8. Bailleux C, Falk AT, Chand-Fouche ME, Gautier M, Barranger E, Hannoun-Levi JM. Concomitant cervical and transperineal parametrial high-dose-rate brachytherapy boost for locally advanced cervical cancer. *J Contemp Brachytherapy*. 2016;8(1):23-31.
[PubMed: PM26985194](#)

Review Articles

9. Kissel M, Rambeau A, Achkar S, Lecuru F, Mathevet P. Challenges and advances in cervix cancer treatment in elder women. *Cancer Treat Rev*. 2020;84:101976.
[PubMed: PM32006796](#)