

CADTH RAPID RESPONSE REPORT: REFERENCE LIST

Root Canal Therapy Performed by Endodontists Versus General Dentists for Persons with Failed Vital Pulp Therapy: Comparative Clinical Effectiveness

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Research Question

What is the comparative clinical effectiveness of root canal therapy performed by endodontists versus general dentists in persons with failed vital pulp therapy?

Key Findings

One non-randomized study was identified regarding the comparative clinical effectiveness of root canal therapy performed by endodontists versus general dentists in persons with failed vital pulp therapy.

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 root canal, endodontist or dentist, and vital pulp therapy. 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 June 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.

Table 1: Selection Criteria

Population	Adults requiring a root canal treatment, on any mature teeth, subsequent to a failed vital pulp therapy
Intervention	Root canal therapy (i.e., pulpectomy) performed by an endodontist
Comparator	Root canal therapy (i.e., pulpectomy) performed by a general dentist
Outcomes	Effectiveness (e.g., symptoms, dental fitness, clinical stability, radiographic stability, healing); Safety (e.g., side effects, adverse events, tooth weakening, susceptibility to caries, susceptibility to fracture due to a loss of the proprioceptive mechanism, susceptibility to fracture in general, tooth loss)
Study Designs	Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials and non-randomized studies

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 followed by randomized controlled trials and non-randomized studies.

One non-randomized study was identified regarding the comparative clinical effectiveness of root canal therapy performed by endodontists versus general dentists in persons with failed vital pulp therapy. No relevant health technology assessments, systematic reviews, meta-analyses and randomized controlled trials were identified in the literature search.

Additional references of potential interest are provided in the appendix.

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

No literature identified.

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

1. Vena DA, Collie D, Wu H, et al. Prevalence of persistent pain 3 to 5 years post primary root canal therapy and its impact on oral health-related quality of life: PEARL Network findings. *J Endod.* 2014 Dec;40(12):1917-1921.
[PubMed: PM25220076](#)

Appendix — Further Information

Previous CADTH Reports

2. Endodontic Therapy Interventions for Root Canal Failure in Permanent Dentition: A Review of Clinical Effectiveness, Cost-Effectiveness, and Guidelines. (CADTH rapid response: summary with critical appraisal). Ottawa (ON): CADTH; 2017: <https://www.cadth.ca/endodontic-therapy-interventions-root-canal-failure-permanent-dentition-review-clinical>

Non-Randomized Studies

General Dentist Not Specified as Comparator

3. Burry JC, Stover S, Eichmiller F, Bhagavatula P. Outcomes of Primary Endodontic Therapy Provided by Endodontic Specialists Compared with Other Providers. *J Endod.* 2016 May;42(5):702-5
<https://www.ncbi.nlm.nih.gov/pubmed/?term=27004720>

Additional References

4. Demant S, Markvart M, Bjorndal L. Quality-Shaping Factors and Endodontic Treatment amongst General Dental Practitioners with a Focus on Denmark. *Int J Dent.* 2012;2012:526137.
[Pubmed: PM22536241](https://pubmed.ncbi.nlm.nih.gov/22536241/)