

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Shortened Drug Regimens for the Treatment of Active Tuberculosis: Clinical Effectiveness

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Research Question

What is the clinical effectiveness of shortened drug regimens for the treatment of active tuberculosis?

Key Findings

One systematic review and one randomized controlled trial were identified regarding the clinical effectiveness of shortened drug regimens for the treatment of active tuberculosis.

Methods

Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, 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 shortened drug regimens and people receiving drug treatment for active tuberculosis disease. Search filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, or network meta-analyses, randomized controlled trials, controlled clinical trials, or any other type of clinical trial, and observational studies. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2019 and August 7, 2020. Internet links were provided, where available.

Selection Criteria and Summary Methods

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in Table 1. Full texts of study publications were not reviewed. The Overall Summary of Findings was based on information available in the abstracts of selected publications. Open access full-text versions of evidence-based guidelines were reviewed when abstracts were not available, and relevant recommendations were summarized.

This report is a component of a larger CADTH Condition Level Review on tuberculosis. A condition level review is an assessment that incorporates all aspects of a condition, from prevention, detection, treatment, and management. For more information on CADTH’s Condition Level Review of tuberculosis, please visit the project page (<https://www.cadth.ca/tuberculosis>).

Table 1: Selection Criteria

Population	People receiving drug treatment for active tuberculosis disease
Intervention	Tuberculosis treatment regimens that are less than 6 months
Comparator	Tuberculosis treatment regimens that are 6 months or longer

Outcomes	Clinical effectiveness (e.g., eradication of tuberculosis, quality of life, treatment adherence, relapse of tuberculosis, treatment failure) and safety (e.g., adverse drug effects, acquired drug-resistance, mortality)
Study Designs	Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies

Results

One systematic review¹ and one randomized controlled trial² were identified regarding the clinical effectiveness of shortened drug regimens for the treatment of active tuberculosis. No relevant health technology assessments or non-randomized studies were identified regarding the clinical effectiveness of shortened drug regimens for the treatment of active tuberculosis.

Additional references of potential interest that did not meet the inclusion criteria are provided in the appendix.

Overall Summary of Findings

One systematic review¹ and one randomized controlled trial² were identified regarding the clinical effectiveness of shortened drug regimens for the treatment of active tuberculosis. The systematic review¹ examined the efficacy and safety of shortened treatment regimens in comparison to the standard six-month treatment regimen. The authors concluded that there was insufficient evidence to support shortened treatment regimens over six-month regimens and found that the outcomes measured had comparable results between comparison groups.¹ The randomized controlled trial² examined the safety and efficacy of 3- and 4-month regimens in comparison to a control 6-month regimen. The authors found that the 4-month regimen was equally as effective and safe as the 6-month regimen, and due to high tuberculosis recurrence rates, they had to terminate the 3-month regimen.²

References Summarized

Health Technology Assessments

No relevant literature was identified.

Systematic Reviews and Meta-analyses

1. Grace AG, Mittal A, Jain S, et al. Shortened treatment regimens versus the standard regimen for drug-sensitive pulmonary tuberculosis. *Cochrane Database Syst Rev.* 2019 12 12;12:CD012918.
[PubMed: PM31828771](https://pubmed.ncbi.nlm.nih.gov/31828771/)

Randomized Controlled Trials

2. Velayutham B, Jawahar MS, Nair D, et al. 4-month moxifloxacin containing regimens in the treatment of patients with sputum-positive pulmonary tuberculosis in South India - a randomised clinical trial. *Trop Med Int Health.* 2020 Apr;25(4):483-495.
[PubMed: PM31944502](https://pubmed.ncbi.nlm.nih.gov/31944502/)

Non-Randomized Studies

No relevant literature was identified.

Appendix — Further Information

Review Articles

3. Silva DR, Mello FCQ, Migliori GB. Shortened tuberculosis treatment regimens: what is new? *J Bras Pneumol.* 2020;46(2):e20200009.
[PubMed: PM32215450](#)