CADTH

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Interferon Gamma Release Assay for the Identification of Latent Tuberculosis Infection in Rural and Remote Settings: Clinical Utility, Cost-Effectiveness, and Guidelines

Service Line:	Rapid Response Service
Version:	1.0
Publication Date:	August 7, 2020
Report Length:	6 Pages

CADTH

Authors: Diksha Kumar, Mary-Doug Wright

Cite As: *Interferon Gamma Release Assay for the Identification of Latent Tuberculosis Infection in Rural and Remote Settings: Clinical Utility, Cost-Effectiveness, and Guidelines*. Ottawa: CADTH; 2020 Aug. (CADTH rapid response report: summary of abstracts).

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.

Questions or requests for information about this report can be directed to **requests@cadth.ca**

Research Questions

1. What is the clinical utility of the interferon gamma release assay for identifying latent tuberculosis infection in rural and remote settings?
2. What is the cost-effectiveness of the interferon gamma release assay for identifying latent tuberculosis infection in rural and remote settings?
3. What are the evidence-based guidelines regarding the identification of latent tuberculosis infection in rural and remote settings?

Key Findings

One systematic review was identified regarding the clinical utility of the interferon gamma release assay for identifying latent tuberculosis infection in rural and remote settings. No relevant economic evaluations were identified regarding the cost-effectiveness of the interferon gamma release assay for identifying latent tuberculosis infection in rural and remote settings. In addition, no relevant evidence-based guidelines were identified regarding the identification of latent tuberculosis infection in rural and remote settings.

Methods

Literature Search 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 the interferon gamma release assay and people in rural and remote settings who may have been exposed to tuberculosis. Search filters were applied to limit retrieval to guidelines for Q3 only. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2015 and July 26, 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.

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 in rural and remote settings who may have been exposed to tuberculosis
Intervention	Q1, 2: Interferon gamma release assay Q3: Interferon gamma release assay, tuberculin skin test

Comparator	Q1, 2: Tuberculin skin test Q3: Not applicable
Outcomes	Q1: Clinical utility (e.g., detection outcomes, people who obtain screening in accordance with guidelines, patients receiving treatment for infection, need for additional latent tuberculosis infection screening) Q2: Cost-effectiveness (e.g., cost per health benefit) Q3: Recommendations regarding the best practices for screening for LTBI in this population
Study Designs	Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, economic evaluations, evidence-based guidelines

Results

One systematic review[1] was identified regarding the clinical utility of the interferon gamma release assay (IGRA) for identifying latent tuberculosis infection (LTBI) in rural and remote settings. No relevant economic evaluations were identified regarding the cost-effectiveness of the IGRA for identifying LTBI in rural and remote settings. In addition, no relevant evidence-based guidelines were identified regarding the identification of LTBI in rural and remote settings. No relevant health technology assessments, randomized controlled trials, or non-randomized studies were identified.

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

Overall Summary of Findings

One systematic review[1] was identified regarding the clinical utility of the IGRA for identifying LTBI in rural and remote settings. The authors of the systematic review[1] determined that the utility of IGRAs versus the tuberculin skin test was inconclusive for high-risk pediatric populations in low-incidence countries.

No relevant literature was found regarding the cost-effectiveness of the IGRA for identifying LTBI in rural and remote settings; therefore, no summary can be provided.

No relevant evidence-based guidelines were found regarding the identification of LTBI in rural and remote settings; therefore, no summary can be provided.

References Summarized

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-Analyses

1. Faust L, McCarthy A, Schreiber Y. Recommendations for the screening of paediatric latent tuberculosis infection in indigenous communities: a systematic review of screening strategies among high-risk groups in low-incidence countries. *BMC Public Health*. 2018 08 06;18(1):979.
PubMed: PM30081879

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

No literature identified.

Economic Evaluations

No literature identified.

Guidelines and Recommendations

No literature identified.

CADTH

Appendix — Further Information

Previous CADTH Reports

2. Identification of Tuberculosis: A Review of the Guidelines. *(CADTH rapid response report: summary with critical appraisal)*. Ottawa (ON): CADTH; 2020 February. https://www.cadth.ca/sites/default/files/pdf/htis/2020/RC1236%20TB%20identification%20Final.pdf