



Canadian Agency for
Drugs and Technologies
in Health

RAPID RESPONSE REPORT: SUMMARY WITH CRITICAL APPRAISAL



TITLE: Urgent Immunochemical Fecal Occult Blood Testing for Patients with Suspected Gastrointestinal Bleeding: Clinical Evidence and Guidelines

DATE: 28 September 2012

CONTEXT AND POLICY ISSUES

Stool sampling is one method of testing for the presence of gastrointestinal (GI) blood. Occult bleeding is diagnosed by a positive fecal occult blood test (FOBT) result or iron deficiency anemia in the absence of visible blood loss.¹ FOBT is used in outpatients to screen for colorectal cancer, in high-risk hospitalized patients to monitor GI bleeding, and in the emergency department setting to detect bleeding caused by trauma or other conditions.² FOBT may be guaiac-based (gFOBT) or immunochemical (iFOBT or FIT). Guaiac-based FOBT detects hemoglobin by the presence of a peroxidase reaction.³ Immunochemical tests use antibodies to detect the globulin portion of human hemoglobin.¹ Most commonly, samples are sent to a central laboratory for processing of non-urgent requests such as during population-based screening for colorectal cancer. For urgent requests, point of care testing or other types of testing (e.g., satellite, bedside etc.) may be more expedient than using a central laboratory.

The purpose of this report is to determine if the use of urgent immunochemical fecal occult blood testing in non-screening situations improves patient outcomes.

RESEARCH QUESTIONS

1. What is the clinical evidence that the results of an urgent immunochemical fecal occult blood test, used for non-screening purposes, lead to improved patients outcomes?
2. What are the evidence-based guidelines regarding the use of urgent or non-screening immunochemical fecal occult blood testing?

Disclaimer: The Health Technology Inquiry Service (HTIS) is an information service for those involved in planning and providing health care in Canada. HTIS responses are based on a limited literature search and are not comprehensive, systematic reviews. The intent is to provide a list of sources and a summary of the best evidence on the topic that CADTH could identify using all reasonable efforts within the time allowed. HTIS responses should be considered along with other types of information and health care considerations. The information included in this response is not intended to replace professional medical advice, nor should it be construed as a recommendation for or against the use of a particular health technology. Readers are also cautioned that a lack of good quality evidence does not necessarily mean a lack of effectiveness particularly in the case of new and emerging health technologies, for which little information can be found, but which may in future prove to be effective. While CADTH has taken care in the preparation of the report to ensure that its contents are accurate, complete and up to date, CADTH does not make any guarantee to that effect. CADTH is not liable for any loss or damages resulting from use of the information in the report.

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KEY MESSAGE

No clinical trials were identified that have investigated whether the use of urgent immunochemical fecal occult blood test in non-screening situations improves patient outcomes. Similarly, no clinical practice guidelines were identified.

METHODS

Literature Search Strategy

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2012, Issue 8), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. 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, 2007 and September 5, 2012. Internet links were provided, where available.

Selection Criteria and Methods

One reviewer screened the titles and abstracts of the retrieved publications and evaluated the full-text publications for the final article selection, according to selection criteria presented in Table 1.

Table 1: Selection Criteria

Population	Patients in the emergency room, intensive care unit, or hospital who are undergoing a rectal exam to check for gastrointestinal bleeding
Intervention	Immunochemical fecal occult blood testing or immunochemical fecal testing using point of care or other types of testing
Comparator	None or any
Outcomes	Improved patient care; change in patient treatment pathway
Study Designs	Health technology assessments (HTA), systematic reviews (SR), meta-analyses (MA), randomized control trials (RCTs), non-randomized trials, and guidelines for the use of urgent or non-screening immunochemical fecal occult blood testing

Exclusion Criteria

Studies were excluded if they did not satisfy the selection criteria in Table 1, if they were published prior to 2007, or if they were duplicate publications of the same study.

SUMMARY OF FINDINGS

The literature search yielded 248 citations. Upon screening titles and abstracts, 13 potentially relevant articles were retrieved for full-text review. Upon consulting other sources such as the grey literature, one other potentially relevant report was retrieved. None of the 14 potentially

relevant articles met the inclusion criteria. The study selection process is outlined in a PRISMA flowchart (Appendix 1). Exclusions were made based on wrong intervention (4),⁴⁻⁷ wrong outcomes (2),^{8,9} and wrong population (8).^{2,3,10-15}

CONCLUSIONS AND IMPLICATIONS FOR DECISION OR POLICY MAKING

Whether or not the use of urgent iFOBT in non-screening situations improves patient care and outcomes is unknown.

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APPENDIX 1: Selection of Included Studies

