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. 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. FOBT may be guaiac-based (gFOBT) or immunochemical (iFOBT or FIT). Guaiac-based FOBT detects hemoglobin by the presence of a peroxidase reaction. Immunochemical tests use antibodies to detect the globulin portion of human hemoglobin. 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 patient outcomes?

2. What are the evidence-based guidelines regarding the use of urgent or non-screening immunochemical fecal occult blood testing?
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

<table>
<thead>
<tr>
<th>Population</th>
<th>Patients in the emergency room, intensive care unit, or hospital who are undergoing a rectal exam to check for gastrointestinal bleeding</th>
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<tbody>
<tr>
<td>Intervention</td>
<td>Immunochemical fecal occult blood testing or immunochemical fecal testing using point of care or other types of testing</td>
</tr>
<tr>
<td>Comparator</td>
<td>None or any</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Improved patient care; change in patient treatment pathway</td>
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<tr>
<td>Study Designs</td>
<td>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</td>
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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), wrong outcomes (2), wrong population (8).  

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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REFERENCES


APPENDIX 1: Selection of Included Studies

248 citations identified from electronic literature search and screened

235 citations excluded

13 potentially relevant articles retrieved for scrutiny (full text, if available)

1 potentially relevant report retrieved from other sources (grey literature, hand search)

14 potentially relevant reports

14 reports excluded:
- irrelevant intervention (4)
- irrelevant population (8)
- irrelevant outcomes (2)

0 report included in this report