Diagnostic accuracy and cost-effectiveness of faecal occult blood tests (FOBT) used in screening for colorectal cancer: a systematic review

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Record Status
This is a bibliographic record of a published health technology assessment from a member of INAHTA. No evaluation of the quality of this assessment has been made for the HTA database.

Citation

Authors' objectives
This review aimed to determine the diagnostic accuracy and cost effectiveness of different types of FOBT, for screening for adenomas and/or CRC in an average risk population, with a view to determining whether a specific FOBT could be singled out as the most accurate and cost-effective.

Authors' conclusions
Implications for practice There are data to suggest that Immudia HemSp may be superior to other immunochemical FOBTs evaluated, in terms of diagnostic accuracy. In comparison, there is little evidence that any particular guaiac FOBT has superior performance to the others. Direct comparisons between guaiac and immunochemical FOBTs gave inconsistent, and often conflicting results, therefore there is no clear evidence to suggest that either guaiac or immunochemical FOBTs have superior diagnostic accuracy, either for the detection of all neoplasms or CRC. Less reliable indirect comparisons failed to identify a clear preference for either guaiac or immunochemical FOBTs. Factors, other than accuracy, that should be considered when deciding which FOBT to use for screening include: the effects of sampling methods and dietary restrictions upon compliance; sample storage and transportation issues, and cost-effectiveness. Data included in the review provided no clear evidence on any of these factors.

Implications for future research Further research is required to fully evaluate the comparative diagnostic accuracy of FOBTs. Large, well designed diagnostic cohort studies, recruiting appropriate patient spectra, are required. Such studies should give consideration to the clinical information available to those interpreting tests, and this should be representative of what would be available during an actual screening programme. Consideration should be given to the use of the same reference standard to confirm diagnosis, regardless of the FOBT result. At a minimum an appropriate, standard follow-up period for participants with a negative FOBT should be defined. Research should primarily concentrate on direct comparisons between guaiac and immunochemical FOBTs, and the relative cost-effectiveness of these tests in the UK setting. The impact of dietary restrictions and re-hydration on guaiac FOBTs also remains an area where further research would be beneficial. These practical factors, if they prove important for diagnostic accuracy, may be significant considerations when deciding whether or not to use a guaiac FOBT. Issues of patient acceptability and compliance also require further investigation. The reporting of future diagnostic accuracy studies should follow the recommendations of the STARD statement.

Project page URL
http://www.york.ac.uk/inst/crd/CRD_Reports/crdreport36.pdf

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