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Extended Research Article

Quantitative faecal immunochemical tests to guide colorectal cancer pathway referral in primary care. A systematic review, meta-analysis and cost-effectiveness analysis

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Plain language summary

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Plain language summary

When a person visits their doctor with symptoms suggestive of colorectal cancer, people with high-risk symptoms are sent to have a test called a colonoscopy, and people with low-risk symptoms get a faecal immunochemical test. Colonoscopies, where a special camera is inserted into the anus, are very good at spotting colorectal cancer, but they are unpleasant and expensive. Long colonoscopy waiting lists mean that people are diagnosed later, when their cancer is harder to treat.

Faecal immunocheical tests use a poo sample and are quick and easy to do at home but are less good at spotting colorectal cancer. If a person has a positive result from a faecal immunochemical test, they are sent for a colonoscopy. If the faecal immunochemical test result is negative, the person is given advice by the doctor, such as to come back if their symptoms continue or worsen. The doctor can still send people for a colonoscopy if they are worried about the symptoms.

This project aimed to see if faecal immunochemical tests could be used instead of a colonoscopy in patients with high-risk symptoms, to reduce waiting lists and improve chances of survival through quicker treatment. We did a systematic review to find all relevant research studies about faecal immunochemical tests. We built a mathematical model to estimate the impact of faecal immunochemical tests on the health of patients and on National Health Service costs. The model used evidence from the systematic review, from other sources such as scientific studies and clinical opinion, and assumptions.

The model showed that using faecal immunochemical tests would shorten waiting lists and lower costs. However, the health of patients overall was slightly lower because even though some people were diagnosed more quickly, faecal immunochemical tests missed cancer in a small number of people, who had a lower chance of survival because their cancer was diagnosed later. These conclusions remained true using different assumptions in the model.

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This article

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