

A systematic review and economic evaluation of diagnostic strategies for Lynch syndrome

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Plain English summary

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Lynch syndrome (LS) is a genetic disease which increases the chances of developing cancer for people with the disease. If a parent has LS there is a 50 : 50 chance that his or her child will also have it. The most common cancer for people with LS is bowel cancer. Around one in three people with LS would develop bowel cancer by the age of 70 years if no action was taken to reduce the risk.

It is recommended that people with LS have a colonoscopy at least once every 2 years, from age 25 to around age 75 years. Colonoscopy can find pre-cancerous growths, which can be removed to reduce the risk of bowel cancer. Colonoscopy can also identify cancer in early stages, improving the chances of surviving bowel cancer.

It has been suggested that people diagnosed with bowel cancer under the age of 50 years should be tested for LS, and their relatives should also be tested if LS is found.

In this report a number of common testing strategies were compared against no testing, as well as the strategy of offering genetic testing to all people diagnosed with bowel cancer under the age of 50 years.

It was found that all strategies improved health outcomes compared with no testing, at a cost generally considered acceptable to the NHS. The strategy of genetic testing for all bowel cancer patients aged under 50 years was not a good use of NHS resources compared with strategies involving additional tests before genetic testing.

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