

Getting to the bottom of bowel cancer screening

An update on Professor Julietta Patnick – The University of Oxford

Detecting cancer early is one of the most promising areas through which we could improve cancer survival in the UK. If more cancers were diagnosed at an early stage and treated appropriately, our researchers think that thousands of deaths could be avoided every year.

Bowel cancer claims the lives of over 16,000 people each year. One of the key reasons why this number is so high is that it is often diagnosed at a late stage, when the cancer has already spread, making it more difficult to treat successfully.

Screening is one way of diagnosing cancer at an early stage. This involves testing people who do not have any symptoms for early signs of a disease. The UK already has very successful screening programmes for cervical and breast cancer. Cervical cancer screening for example, is estimated to save around 5000 lives each year.

The national bowel cancer screening programme is relatively new and when fully implemented, will invite about 2.5 million men and women each year to participate. Researchers estimate that the bowel cancer screening programme will save around 2000 lives each year by 2025.

Dr Julietta Patnick is working to ensure that patient experiences and outcomes in the bowel screening programme are the best they possibly can be.

The bowel cancer screening programme

People who take part in the bowel cancer screening programme use a home screening kit, called a Faecal Occult Blood (FOB) test. The test looks for blood in the stools, which may be an early sign of bowel cancer. About 1 in 50 people have an abnormal result from the FOB test and are called back to a screening clinic for a colonoscopy examination. This involves passing a small camera along the entire length of the large bowel to look for cancer and other abnormalities. Of the people who have a colonoscopy, 1 in 10 are found to have cancer and about 4 in 10 have 'polyps'. These are small growths which are not cancerous, but which may develop into bowel cancers if they are not detected and removed.

Other non-cancer bowel problems (which usually lead to the original abnormal test result) are found in a further 1 or 2 out of 10 people. This leaves 3 or 4 people out of every 10 with an abnormal FOB test result, whose colonoscopy doesn't provide an explanation. These are the people that Professor Patnick's research focuses on.

What does this mean for patients?

All screening tests have 'false positives' where the result of the first test is abnormal but then nothing unusual is found on further investigation. For bowel screening, however, an unexplained abnormal test result might indicate other health problems in the digestive system which cannot be seen when examining the bowel. Professor Patnick is assessing if there is advice we should be offering to patients and doctors when this happens. For example, a false positive test result could indicate other problems, such as stomach ulcers, which could then be treated more quickly, before they become serious. Or the research may suggest that the chance of other serious problems developing in the digestive system is very low, so doctors can reassure patients that their abnormal test result is nothing to worry about.

What does this study involve?

Around the time that participants complete their initial screening test, they also fill in questionnaires detailing information about their lifestyles, medical history and medications that they take. With the patients consent, the researchers then follow what happens to them over time. This allows them to see if their lifestyle practices influence whether people are likely to develop digestive diseases later on. This evidence can then be used to provide an explanation for the abnormal FOB result.

So far, Professor Patnick has recruited 5000 people into the study. She and her team are currently in the process of collecting their screening information and information from their questionnaires so that this can be put into the study database.

Next steps...

Next year, Professor Patnick aims to have a complete collection of screening records for all consenting study participants. She will then be able to use the comprehensive database to answer the question of why some people have abnormal FOB results. This will provide doctors with valuable information about how to manage these patients going forward. She also plans to submit her research findings for publication in a scientific journal.

‘We hope that this study will help us to understand why some people have abnormal Faecal Occult Blood test results but do not have any abnormalities found during colonoscopy. This understanding will have a direct impact on patient care – either by providing reassurance that the screening programme is already doing everything that needs to be done for these people, or by providing the information we need to improve follow-up care. I would like to thank you for your interest and support for this project’ – Professor Julietta Patnick

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