

patients (71.3%) had high risk symptoms (NG12). The sensitivity of FIT in this group at thresholds of 2 and 10 $\mu\text{g/g}$ was 98.4% and 92.8%, respectively. The PPV was 9.1% and 16.3%, respectively. In contrast the sensitivity of FIT was significantly lower for low risk symptoms (DG30) at 91.5% and 84.5% at cut-offs of 2 or 10 $\mu\text{g/g}$ respectively ($p < 0.01$). The PPV for low risk symptoms at these thresholds was 7.7% and 16.0% respectively.

Conclusions This is the first study to report that at the lowest threshold of detectable blood (2 $\mu\text{g/g}$), FIT sensitivity is equivalent to the current gold standard investigation of colonoscopy. The results of this study support the use of FIT as an objective diagnostic tool to triage patients with both high and low risk CRC symptoms, reducing the number of unnecessary investigations.

052

INCREASING INCIDENCE OF YOUNG-ONSET COLORECTAL CANCERS IN THE UK AND RISING MORTALITY IN RECTAL CANCERS

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Introduction The incidence of young-onset (<50 years old) colorectal cancer (CRC) is reported to be increasing in the western world. Studies on assessing trend in both the incidence and mortality are limited. Furthermore, there are no studies specific to United Kingdom (UK).

Design We performed a UK specific population-based study on young colon and rectal cancer incidence and mortality. Data on young-onset colon and rectal cancer incidence and mortality between 1996 and 2016 were obtained from the Cancer Research UK. Trends were analysed by Joinpoint Regression Program expressed as average annual percentage change (AAPC).

Results Incidence of young-onset colon and rectal cancer increased significantly in both male (colon cancer: 3.9 per

100,000 to 5.9 per 100,000; rectal cancer: 3.1 per 100,000 to 3.9 per 100,000) and female (colon cancer: 3.6 per 100,000 to 6.2 per 100,000; rectal cancer: 2.3 per 100,000 to 3.1 per 100,000). Mortality of young-onset colon cancer decreased significantly for male (1.7 per 100,000 to 1.1 per 100,000) but an insignificant decrease in female (1.4 per 100,000 to 1.1 per 100,000). However, the rectal cancer mortality increased significantly in both male (0.8 per 100,000 to 1.2 per 100,000) and female (0.6 per 100,000 to 1.0 per 100,000). (Figure 1)

Conclusion This is the first UK specific population-based study demonstrating the rising incidence of young-onset colon and rectal cancer and rising mortality from rectal cancer. There is a need for an increased awareness amongst clinicians in the UK and potential change to the current UK national bowel cancer screening guidelines.

053

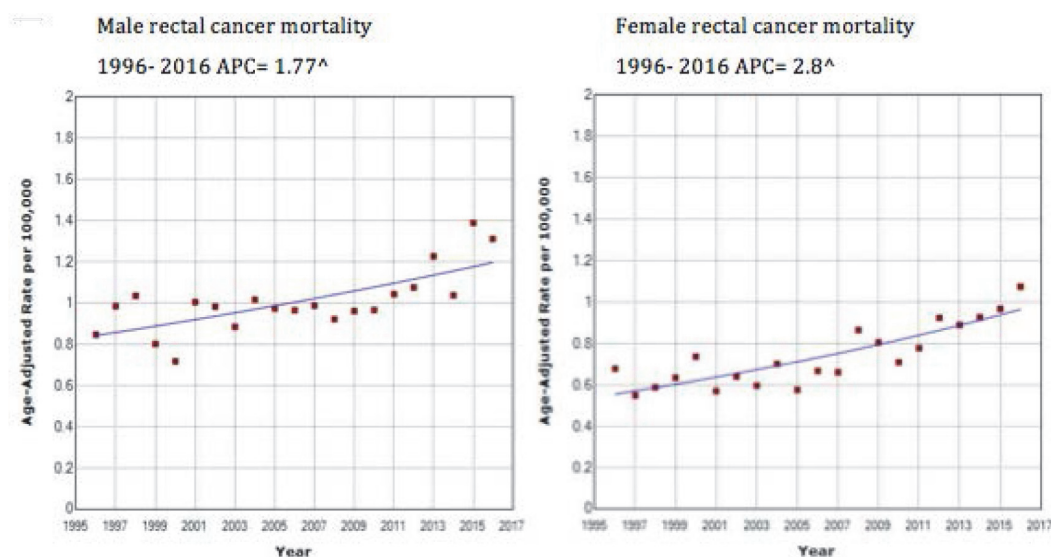
THE EVOLUTION OF SPORADIC COLORECTAL ADENOMAS: COPY NUMBER ALTERATIONS (CNA) IN POLYP PROGRESSORS VS NON-PROGRESSORS

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Introduction 1 in 10 people in the UK have a detectable adenoma in the bowel wall. Most adenomas are asymptomatic and detected incidentally during national screening and surveillance programmes. People who have adenomas detected and removed are considered at an increased risk of colorectal cancer (CRC), with risk calculations based on adenoma size and multiplicity. Our current risk stratification model is unspecific and results in many patients having unnecessary surveillance procedures.

We hypothesise that prognostic biomarkers can be found through molecular analysis of adenomas removed at index colonoscopy, and there is a key role for copy number



Abstract O52 Figure 1 Annual percentage change (APC) of mortality for male and female young-onset (<50) rectal cancer. ^Indicates that the APC is significantly different from zero at the $\alpha = 0.05$ level