protein expression, or through association with the rs2294008 (C>T) polymorphism in the *PSCA* gene. From in vitro data, this polymorphism appears to be functional, and the risk allele (T) has been shown to be associated with gastric cancer risk in Asians and white individuals. Our study aimed to test for associations between the rs2294008 polymorphism, or PSCA protein expression, and risk of adenomatous polyps and colorectal cancer.

Methods Between 2008 and 2010, we recruited individuals who had tested positively for faecal occult blood, and had undergone colonoscopic screening. Genomic DNA samples were available from 388 subjects with histologically-proven colorectal neoplasia and 493 subjects with no evidence of neoplasia. Genotyping for the rs2294008 polymorphism was performed using a pre-designed TaqMan® assay and the ABI 7900HT Fast Sequence Detection System. Immunohistochemical (IHC) staining for the PSCA protein was performed using normal and neoplastic tissues covering all stages of the adenoma-carcinoma sequence. The tissue set included adenomatous polyps displaying low-grade (n=10), and high-grade (n=10) epithelial dysplasia, and adenomatous polyps harbouring invasive carcinoma (n=10). Normal adjacent mucosa was assessed in the polyp sections in addition to separate normal mucosal sections (n=4). Positive staining of colonic crypt neuroendocrine cells served as an internal positive control.

Results There was no association between the rs2294008 SNP and risk of colorectal neoplasia in either dominant (OR 0.97; 95% CI 0.73 to 1.28) or recessive (OR 0.88; 95% CI 0.61 to 1.27) genotype models. IHC analysis of colonic tissue samples indicated no alteration in the topographic distribution or intensity of PSCA staining between normal mucosa, adenomatous mucosa with low or high grade epithelial dysplasia, and invasive carcinoma.

Conclusion Our results suggest that PSCA does not play an important role in the initiation or progression of colorectal carcinogenesis. Given that PSCA has been implicated in a variety of other solid tumours, continued efforts should be made to elucidate the normal and pathological cellular functions of PSCA.

Competing interests None declared.

PWE-076 CONTINUED BIENNIAL SCREENING OF FAECAL OCCULT BLOOD TEST (FOBT) POSITIVE AND SCREENING COLONOSCOPY NEGATIVE COHORT IN ENGLISH BOWEL CANCER SCREENING PROGRAMME—IS IT NECESSARY?

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Introduction The English NHS Bowel Cancer Screening Programme (BCSP) uses guaiac based faecal occult blood test (FOBT) as the screening tool, with people with a positive result undergoing colonoscopy. Subjects with adenomas who are in the low risk category and those with no adenomas at colonoscopy are invited to participate in the next gFOBT round in 2 years. This study evaluates the PPV of a second FOBT diagnostic colonoscopy following a second FOBT positive result.

Methods Data on each patient entering the NHS BCSP programme is prospectively recorded on the national BCSP database. The database was interrogated to identify subjects who had had a second FOBT positive diagnostic colonoscopy in BCSP 2 years after their first screening colonoscopy. The diagnostic colonoscopy PPV of this second FOB positive procedure was compared with the published PPV of first FOB positive diagnostic colonoscopies.[1]

Results The database was interrogated in April 2011. A total of 772 subjects were identified. The positive predictive value (PPV) for all colorectal neoplasia was 25.7% (n=199) and 0.9% (n=7) for colorectal cancer (CRC). 41.5% had a normal colonoscopy and 32.8% had non-neoplastic pathology. This compares with a PPV for CRC at the first FOB positive diagnostic colonoscopy of 10.1% and for all neoplasia of 53%.[2] Findings are summarised in the Abstract PWE-076 table 1 below. Out of the seven cancers three were Dukes' C, 2 Dukes' B and 2 Dukes' A stage. The sizes of the cancers ranged from 20 mm to 60 mm. Three were located in the rectum, three at the recto-sigmoid junction and one in the caecum.

Abstract PWE-076 Table 1 Outcome of 1st and 2nd FOBT positive colonoscopies

Screening cycle	Total number	Cancer	High risk	Intermediate risk	Low risk
First FOB colonoscopy	17 518	1772 (10.1%)	1721 (9.8%)	3050 (17.4%)	2743 (15.7%)
Second FOB colonoscopy	772	7 (0.9%)	7 (0.9%)	41 (5.31%)	144 (18.7%)
p Value (Fisher's exact, 2 tailed)		<0.0001	<0.0001	<0.0001	0.51

Conclusion There is significant reduction of CRC and adenoma in the population undergoing a second FOBT positive colonoscopy compared to the first one (0.9% vs 10.1%, p value <0.0001 for CRC). Though the numbers are small, in the cohort where cancer is detected, presence of locally advanced cancer raises the question of missed lesion during the colonoscopy after first positive FOBT and therefore the current practise of biennial FOBT screening for this group is justified.

Competing interests None declared.

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PWE-077 PILOT OF FLEXIBLE SIGMOIDOSCOPY SCREENING TO PREVENT COLORECTAL CANCER

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Introduction A screening programme in England to prevent colorectal cancer using flexible sigmoidoscopy (FSIG) was announced in late 2010, following the results of a major UK study showing that a one-off FSIG offered to people aged 55–64 years significantly reduced colorectal cancer incidence and mortality. Three "pathfinder" sites, in Derby, South of Tyne and Tees, were selected to assess the practicalities of invitation and FSIG screening. We report the findings of our evaluation of this pathfinder phase.

Methods Patients aged 55 yrs and registered with one of 31 selected practices in three pathfinder areas received postal invitations to participate. The South of Tyne and Derby sites employed similar, interactive model of screening invitation involving telephone pre-assessment by specialist screening practitioners, while Tees used a simple invitation. We used routinely collected data to assess screening uptake, process and outcomes. A self-completion patient satisfaction questionnaire was sent 1-month after attendance to all participants. A postal questionnaire was sent to the 31 participating GP practices that had been selected to participate. Screening took place for a 3-month period in early 2011.