data input and examination of the factors contributing to these data requires further investigation and analysis.

Competing interests None declared.

PWE-073 COLONOSCOPY FOR A FAMILY HISTORY OF COLORECTAL CANCER: ARE WE SCREENING "THE WORRIED WELL"?

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A K Hunt,* S Qiu, Z Mohamed, I Beveridge, C E Collins, J Mawdsley, K Sundaram, K J Monahan. *Family History of Bowel Cancer Clinic, West Middlesex University Hospital, London, UK*

Introduction The British Society of Gastroenterology (BSG) updated guidelines for colonoscopic screening of people with family history (FH) of colorectal cancer (CRC) in 2010. In the UK, most patients anxious about their FH of CRC are referred by primary care doctors to non-specialist hospitals. Previous studies indicate guideline adherence is poor with significant clinical, medico-legal, and resource implications.

Methods Our study analysed adherence to the 2010 BSG guidelines in a district general hospital (catchment population of 300 000). Observational data were collected from all colonoscopies in which FH was the primary indication over a 16-month period from guideline publication up to April 2011 at our centre.

Results Of the 91 cases found (mean age 49.1 years, range 24.7–73.2), there were 11 high, 24 high moderate and 20 low moderate risk cases identified. 36 were low risk and did not fulfil criteria for initial colonoscopic screening. The 55 within guideline were screened on average 4.0 years early ($p<0.0002$; paired T test; 0–24.2 years early), with 18 cases screened early. 17 of the 91 cases were offered unnecessary follow-up colonoscopies. Yield for polyps and CRC was significantly lower in screened individuals (16/91 (18%)) compared to patients offered colonoscopies for other indications during the same period (246/838 (25%); $p=0.018$; χ^2 test). Referrers recorded "reassurance" in 29 cases as a factor for screening.

Conclusion The BSG guidelines are based on robust evidence. Despite this, many patients (40%) undergoing screening in our centre do not meet guideline criteria. Some (33%) were screened too early, and others (19%) had unnecessary follow-up. Therefore, some patients are exposed to the risk of colonoscopy decades younger than recommended without justifiable benefits. This is reflected in similar data from other centres. Non-adherence to guideline occurs at multiple levels from referral and beyond. Clinicians often feel compelled to offer screening against guidelines for the reassurance of anxious patients. Our study identifies multiple opportunities where intervention could result in better adherence to guidelines; interventions such as the development of family cancer clinics outside clinical genetics centres to improve management of these patients.

Abstract PWE-073 Table 1

Risk	Life time risk of CRC death	n (%)	Cases screened early	Inappropriate follow-up	Polyp/ CRC cases found
Appropriate for screening					
High (ie, known familial syndrome)	1 in 2–5	11 (12%)	0	0	2
High moderate	~1 in 6–10	24 (26%)	6	8	5
Low moderate	~1 in 12	20 (22%)	12	3	3
Inappropriate for screening					
Low	>1:12	36 (40%)	NA	6	6
Total		91	18/55 (33%)	17/91 (19%)	16/91 (18%)

Competing interests None declared.

PWE-074 FACTORS THAT PREDICT SEVERE *CLOSTRIDIUM DIFFICILE* INFECTION (CDI)

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[1]A Sugumaran,* [1]M Eisa, [2]G Musiime, [2]F Mendes, [1]H Khan, [3]C Cefai. *[1]Department of Gastroenterology, Wrexham, UK; [2]Wrexham Maelor hospital, Wrexham, UK; [3]Department of Microbiology, Wrexham Maelor hospital, Wrexham, UK*

Introduction *Clostridium difficile* is a well-recognised infective cause for increased morbidity and mortality especially in hospitalised patients.[1] "Severe" CDI as defined by Health Protection Agency (HPA) is infection with stool positive for toxin, with white cell count $>15\times10^9$/l, or an acute rising serum creatinine (ie, >50% increase above baseline), or a temperature of >38.5°C, or evidence of severe colitis (abdominal or radiological signs). Increasing age, female sex, prolonged hospital stay, patient movement between wards, previous CDI, usage of proton pump inhibitors (PPI), histamine blockers (H2B) and antibiotics were reported to be associated with CD infection and colonisation,[2 3] but our aim was to check if the above factors predicted the severity of the infection.

Methods Data were collected from 392 patients who were diagnosed with CDI between January 2010 and December 2011. The CDI team (one Consultant, two nurse practitioners, one pharmacist) normally review patients twice weekly in our district general hospital. Details on the above risk factors were noted to study the correlation with severity of infection. Results were analysed with Pearson correlation test.

Results At the time of diagnosis, out of 392 patients, 206 were classified as "mild," 76 "moderate," 91 "severe" and 3 "life-threatening" infection (severity not documented in 16). Age distribution varied between 22 and 100 years, with 153 male and 239 female patients. 316 patients were on atleast one antibiotic when they developed CDI, chest infection being the commonest indication (36.8%). Amoxicillin was the most used antibiotic and the range of days on antibiotic varied between 1 day and long term usage (>3 years). 46% of patients were taking PPI while only 7.8% were on H2Bs. There were upto maximum four ward transfers and average of 17.62 inpatient days before CDI. Pearson correlation test showed there is no significant association between severity and any of the identified risk factors, closest being previous CD infection ($p=0.058$).

Conclusion Though there are definite risk factors associated with development of CDI, our study confirms that none correlate with the severity. More research is needed to clarify factors that will help identify hospitalised patients at risk of developing severe CDI.

Competing interests None declared.

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PWE-075 LACK OF ASSOCIATION BETWEEN THE PSCA RS2294008 POLYMORPHISM, OR PSCA EXPRESSION, AND COLORECTAL NEOPLASIA

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[1]C Smith,* [1]P Lochhead, [1]U Basavaraju, [1]G Hold, [2]N Fyfe, [2]G Murray, [1]E El-Omar. *[1]Gastrointestinal Research Group, University of Aberdeen, Aberdeen, UK; [2]Department of Pathology, University of Aberdeen, Aberdeen, UK*

Introduction Prostate stem cell antigen (PSCA) has been implicated in the pathogenesis of several solid tumours, either due to changes in

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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[1]D Majumdar,* [2]J Patnick, [2]C Nickerson, [1]M D Rutter. *[1]Department of Gastroenterology, University Hospital of North Tees, Stockton on Tees, UK; [2]NHS Cancer Screening Programmes, NHS Cancer Screening Programmes, Sheffield, UK*

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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[1]E Sofianopoulou,* [1]G Rubin, [2]M Ritchie, [3]J Patnick, [1,2,4]C Rees. *[1]School of Medicine and Health, Durham University, Stockton-On-Tees, UK; [2]South of Tyne Bowel Cancer Screening Centre, District Hospital, South Tyneside, UK; [3]NHS Cancer Screening Programmes, Sheffield, UK; [4]Northern Region Endoscopy Group, UK*

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.