advanced adenomas and two (2.4%) had cancer. 9/115 (7.8%) declined an early colonoscopy.

A total of 2445 participants had negative FIT tests in Rounds 1 and 2 and will be invited to complete a final FIT, prior to their surveillance colonoscopy.

Satisfaction with the study was high among those who completed a questionnaire, with 95.4% (4177/4378) of FIT-negative and 91% (203/223) of FIT-positive participants in Round 1 stating that they would complete another kit in future.

Conclusion Compliance with the study was high, and the majority of participants reported that they would use FIT again. Almost a quarter (23.4%) of patients in Round 1 who had an early colonoscopy had advanced adenomas, falling to 15.3% in Round 2. Round 2 is ongoing, with Round 3 starting in January 2014.

Disclosure of Interest None Declared.

Colorectal and anorectal free papers

OC-043 HOW COMMONLY IS COLORECTAL CANCER LATER DIAGNOSED FOLLOWING A COLONOSCOPY THAT DOES NOT REPORT COLORECTAL CANCER (AN ANALYSIS OF 11 YEARS OF NATIONAL DATA IN ENGLAND)?

¹D Cheung*, ²F Evison, ³P Patel, ¹N Trudgill. ¹Department of Gastroenterology, Sandwell General Hospital, West Bromwich, UK; ²Health Informatics Department, Queen Elizabeth Hospital, Birmingham, UK; ³School of Cancer Sciences, University of Birmingham, Birmingham, UK

10.1136/gutjnl-2014-307263.43

Introduction Colonoscopy is the standard of care for diagnosing colorectal cancer (CRC). However, 3.4%–7.9% of subjects with CRC are reportedly diagnosed within 3yrs of a colonoscopy that did not detect the cancer (post-colonoscopy colorectal cancer, PCCRC). We have investigated risk factors for these events in a national data set in England.

Methods Hospital Episode Statistics (HES) collates information on all NHS hospital attendances in England. Subjects undergoing colonoscopy without a CRC diagnosis 6–36 months before subsequent CRC diagnosis were identified as PCCRC cases (definitely missed – colonoscopy without CRC diagnosis 6–12 months before CRC diagnosis; probably missed – colonoscopy without CRC diagnosis 12–36 months before CRC diagnosis) and those with no colonoscopy 6–36 months before diagnosis served as controls. The influence of personal and institutional variables on missed PCCRC were examined by multivariate logistic regression.

Results HES records from 2001–12 were analysed including 2874641 colonoscopies in 2263905 subjects. 136237 subjects were diagnosed with CRC. 4219 (3.1%) definitely missed PCCRC cases and 8266 (6.1%) probably missed PCCRC cases occurred. Colonic polyps were the most common coded finding in PCCRC subjects (1553 subjects (12.4%)). Emergency colonoscopies were less likely to fail to diagnose CRC than elective procedures (OR 0.58 (95% CI: 0.5–0.6), $p < 0.001$). Subjects over age 70 (1.16 (1.1–1.2), $p < 0.001$), female gender (1.05 (1.0–1.1), $p = 0.018$) and comorbidities (liver disease (2.18 (1.4–3.5), $p = 0.002$), peptic ulcer (1.29 (1.1–1.6), $p = 0.01$), myocardial infarction (1.14 (1.0–1.3), $p = 0.046$), pulmonary disease (1.11 (1.0–1.2), $p = 0.025$)) were associated with PCCRC. Ethnicity was not associated with PCCRC. Right sided CRC was more likely to be missed (1.30 (1.25–1.37), $p = 0.015$). Subjects

with PCCRC were less likely to undergo surgery (0.27 (0.26–0.28), $p = < 0.001$) or chemotherapy (0.62 (0.59–0.65), $p = < 0.001$). Overall survival was worse in PCCRC subjects than controls. There was a fourfold variation in PCCRC rates between units. Unit volume was inversely related to PCCRC rate (lowest tertile volume versus highest tertile 1.72 (1.6–1.8), $p = < 0.001$). The annual rate of PCCRC has improved over the study period with a fall in PCCRC rate from 15.9 to 5.1% per annum.

Conclusion The rate of PCCRC up to 3 yrs prior to CRC diagnosis was 9.1% in England between 2001–12. PCCRC was associated with increasing age, female gender, comorbidities, site in right colon and colonoscopy unit volume. PCCRC subjects were less likely to have surgery or chemotherapy and had worse survival rates. Encouragingly, annual rates of PCCRC have fallen over the study period.

Disclosure of Interest None Declared.

OC-044 PREDICTORS OF ADVANCED NEOPLASIA AT SURVEILLANCE IN SCREENING POPULATION- A STUDY OF ALL HIGH AND INTERMEDIATE RISK GORUP SUBJECTS IN FIRST SIX YEAR OF NHS BCSP

¹D Majumdar*, ²AP Hungin, ²DW Wilson, ³C Nickerson, ¹MD Rutter. ¹Gastroenterology, North Tees Hospital, Stockton on Tees, UK; ²Wolfson's Research Institute, Durham University, Stockton on Tees, UK; ³NHS Cancer Screening Service, Sheffield, UK

10.1136/gutjnl-2014-307263.44

Introduction In NHS BCSP, high and intermediate risk subjects with colorectal adenomas undergo surveillance colonoscopies. This guideline evidence was derived mostly from general population based studies. This study aims to evaluate the individual and adenoma specific characteristics detected at the index colonoscopy which can predict occurrence of advanced neoplasia during surveillance in a well-defined FOB screening population.

Methods The national BSCP database was interrogated to identify all subjects who participated during the period of June 2006 to July 2012 and completed their first surveillance. The subjects where all the adenomas were retrieved during screening colonoscopy were included. Multivariate analysis was performed to identify the factors which determine occurrence of CRC and advanced adenoma (AA= adenoma with size ≥ 10 mm/ $>25\%$ villous histology/ high grade dysplasia) at surveillance.

Results A total of 17694 high and intermediate risk subjects participated, and 7015 of them completed their first surveillance and were included for analysis. The adenoma specific factors evaluated were high grade dysplasia, villous histology $\geq 25\%$, and size ≥ 10 mm, number of adenomas and any proximal location of adenoma at screening. The individual characteristic

Abstract OC-044 Table 1

Predictor factor	AA OR (95% CI)	p-AA
Male gender	1.39 (1.07–1.8)	0.01
Proximal Location	1.8 (1.3–2.6)	<0.001
Adenoma size ≥ 10 mm	1.01 (0.7–1.36)	0.93
5 / > adenomas	2.4 (1.6–3.4)	<0.001
4 adenomas	1.4 (0.98–2.2)	0.06
3 adenomas	1.6 (1.12–2.4)	0.01
2 adenomas	1.4 (0.96–2.09)	0.07