

Results 31 088 patients undergoing screening colonoscopy were included in the analysis. 14 423 had one or more adenomas (46.7%). The following factors increased the relative risk of adenoma detection at screening colonoscopy in both univariable and multivariable analysis (p value <0.001 in multivariable analysis unless otherwise stated): male gender, increasing age, current or previous smoking, current alcohol use, increasing withdrawal time, higher quality bowel preparation, intravenous antispasmodic use, earlier procedure start time (p=0.018) and increasing colonoscopist experience. Increasing level of deprivation was associated with a reduced risk of adenoma detection (p=0.007). Similar results are demonstrated for the effect of these factors on advanced adenoma and right sided adenoma detection. Rectal retroversion did not increase adenoma detection or rectal adenoma detection.

Conclusion This is the largest study to examine the effect of both patient and colonoscopy factors on adenoma detection at colonoscopy following a positive FOB test. The known impact of smoking, alcohol use, and male gender on adenoma risk is also observed in this setting. The relative effect of colonoscopy factors is also demonstrated with caecal intubation, bowel preparation quality, withdrawal time, intravenous antispasmodic use, colonoscopist experience and earlier sessional start time significantly affecting the risk of adenoma detection. This study demonstrates the need for high quality colonoscopy to optimise adenoma detection.

Competing interests None.

Keywords colorectal cancer, screening.

PTU-009 **PATIENT AND COLONOSCOPY FACTORS INFLUENCING ADENOMA DETECTION IN PATIENTS UNDERGOING COLONOSCOPY IN THE NHS BOWEL CANCER SCREENING PROGRAMME**

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T J W Lee,^{1*} C J Rees² on behalf of Northern Region Endoscopy Group (NREG), R G Blanks,³ S M Moss,³ C Nickerson,⁴ K C Wright,³ P W James,¹ R J Q McNally,¹ J Patnick,⁴ M D Rutter⁵ on behalf of Northern Region Endoscopy Group (NREG) ¹*Institute of Health and Society, Newcastle University, Newcastle upon Tyne, UK;* ²*South of Tyne Bowel Cancer Screening Centre, South Tyneside General Hospital, South Tyneside, UK;* ³*Cancer Screening Evaluation Unit, Institute of Cancer Research, University of London, London, UK;* ⁴*NHS Cancer Screening Programmes, Sheffield, UK;* ⁵*Tees Bowel Cancer Screening Centre, University Hospital of North Tees, Stockton on Tees, UK*

Introduction The aim of screening colonoscopy is twofold: Firstly to detect colorectal cancer, secondly to detect and remove adenomas. This study examines the influence of both patient factors (age, gender, body mass index (BMI), smoking, alcohol use, deprivation, geographical location) and colonoscopy factors (withdrawal time, bowel preparation quality, rectal retroversion, colonoscopist, intravenous antispasmodic use, sedation use, time of procedure) on the risk of detecting one or more adenomas, advanced adenomas and right sided adenomas during screening colonoscopy.

Methods All patients undergoing colonoscopy in the NHS Bowel Cancer Screening Programme (BCSP) between August 2006 and August 2009 were included in this study. Demographic, lifestyle, procedural and histological data were retrieved from the national database. The relationships between patient and colonoscopy factors with adenoma detection were examined using univariable and multivariable analysis.