to reduce future risk of colorectal cancer. High definition colonoscopy allows better visualisation of the colonic mucosa and may improve detection of polyps. Previous studies have shown variable results when comparing polyp and adenoma detection between standard definition (SD) and high definition (HD) colonoscopy. The UK bowel cancer screening programme offers colonoscopy to all citizens aged 60–75 years who test positive for faecal occult blood (FOB). We aimed to compare polyp and adenoma detection rates between those patients undergoing SD Colonoscopy and HD colonoscopy in the screening population.

Methods Endoscopy, histopathology and screening database reports were analysed for all BCSP in our institution for the period September 2009 to October 2011. 1020 colonoscopies were performed of which 68 were excluded from further analysis (Incomplete procedure/polyposis syndrome/colitis/unknown definition of endoscope/previous colonic resection). Procedures were divided according to the definition of endoscope used: SD (500 000 pixels) n=421, HD (>500 000 pixels) n=531. Reports were analysed for demographic data, bowel preparation, withdrawal time, and the number, size, morphology, site and histology of all lesions removed.

Results There were no significant differences between the SD and HD groups respectively in percentage male subjects (57% vs 60.0%, p=0.229), mean age (66.47 vs 66.54, p=0.24), percentage with good or adequate bowel preparation (96.1% vs 96.2%, p>0.5), mean withdrawal time (10.9 min vs 10.6 min, p=0.06). In total 1553 lesions were detected: 49 cancers, 1149 adenomas and 335 non-neoplastic polyps. There was no significant difference between the SD and HD in overall polyp detection rate (SD 0.63 vs HD 0.65, p=0.401) and adenoma detection rate (SD 0.59 vs HD 0.59, p=0.516). However a significantly greater number of adenomas per patient (APP) were detected in the HD group (SD 1.20 vs HD 1.34, p=0.016). HD endoscopy detected significantly more diminutive adenomas (1–5 mm) than SD endoscopy (0.87 per pt vs 0.72 per pt, p=0.02), but there was no difference in the rate of detection adenomas >5 mm. More adenomas were detected in the proximal colon in the HD group (0.59 vs 0.44, p=0.03) but there was no significant difference in the distal colon (HD 0.79 vs SD 0.77).

Conclusion Overall adenoma detection rate in this study population was excellent with 59% of patients having one or more adenomas detected. HD endoscopy appears to improve the total number of adenomas detected in the screening population. The main gain of HD endoscopy is in detection of diminutive polyps in the proximal colon.

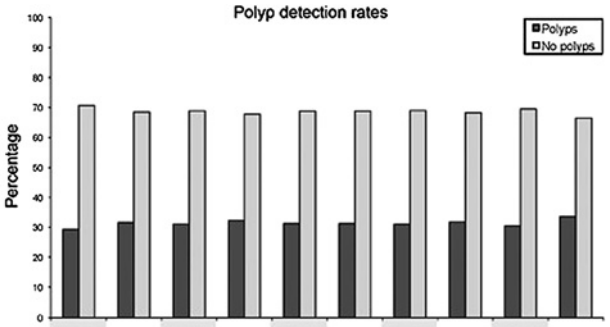
Competing interests None declared.

PWE-102 IS THERE A DIFFERENCE IN POLYP DETECTION RATES BY TIME OF DAY?

doi:10.1136/gutjnl-2012-302514d.102

T Maheswaran, R Warburton,* R Tighe. *Department of Gastroenterology, Norfolk and Norwich NHS Trust, Norwich, UK*

Introduction The endoscopy literature[1 2] has raised concerns regarding variations in polyp detection rates during the day. One mechanism for this is thought to be operator fatigue which increases as the day progresses. However, published data so far has been conflicting.[3 4] This is worrying as one purpose of colonoscopy is to detect and remove polyps in order to prevent cancer via the adenoma-carcinoma sequence. Therefore polyp detection rates in the East Anglian Bowel Cancer Screening Programme (BCSP) between 2006 and 2011 were reviewed and analysed. Bowel cancer screening colonoscopies in England are conducted for individuals between the ages of 60 and 74 with a positive faecal occult blood test. The procedures are performed by accredited bowel cancer screening colonoscopists under gold standard conditions.



Time of Day	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00
No of procedures	829	3445	3395	2780	1178	717	2627	2255	1601	325
Polyps	243	1087	1055	896	368	224	815	716	488	109
(%)	(29)	(32)	(31)	(32)	(31)	(31)	(31)	(32)	(30)	(34)
No Polyps	586	2358	2340	1884	810	493	1812	1539	1113	216
(%)	(71)	(68)	(69)	(68)	(69)	(69)	(69)	(68)	(70)	(66)
P Value	0.23		0.68	0.57	0.86	0.89	0.68	0.88	0.45	0.46

Abstract PWE-102 Figure 1

Methods The National Health Service BCSP database was retrospectively interrogated and polyp detection rates were calculated.

Results In total 19 152 bowel cancer screen procedures were performed between the hours of 07:00 and 17:00. Although there is a variation in the number of procedures performed per hour 325–3445 (see Abstract PWE-102 figure 1), less at the beginning and end of a list, there is no significant difference in the polyp detection rate. Differences in polyp detection rates were calculated from the data for 08:00 (the baseline).

Conclusion No significant difference in polyp detection rates by time of day was detected in patients undergoing colonoscopy through a national bowel cancer screening programme. This should reassure endoscopists and patients alike.

Competing interests None declared.

REFERENCES

1. **Lee A,** Iskander JM, Gupta N, *et al. Am J Gastroenterol* 2011;**106**:1475–65.
2. **Long MD,** Martin C, Sandler RS, *et al. J Clin Gastroenterol* 2011;**45**:253–8.
3. **Munson GW,** Harewood GC, Francis DL. *Gastrointestinal Endoscopy* 2011;**73**:467–75.
4. **Gurudu SR,** Ratuapli SK, Leighton JA, *et al. Am J Gastroenterol* 2011;**106**:1466–71.

PWE-103 A RISK STRATIFICATION SCORE FOR PREDICTING 30-DAY MORTALITY IN *CLOSTRIDIUM DIFFICILE* ASSOCIATED DIARRHOEA

doi:10.1136/gutjnl-2012-302514d.103

[1]R Sood,* [1]L L Wong, [2]R Swallow, [1]S J Smale. [1]*Department of Gastroenterology, York Teaching Hospital, York, UK;* [2]*Pharmacy Department, York Teaching Hospital, York, UK*

Introduction *Clostridium difficile* associated diarrhoea (CDAD) causes significant morbidity and mortality in susceptible patients. There are no validated risk stratification scores to identify those patients at the greatest risk of death.

Methods Data were collected on 125 sequential patients diagnosed with CDAD in our institution between August 2008 and October 2010. Data on age, co-morbidities, number of antibiotics prescribed and course length as well as other relevant medications such as proton pump inhibitor (PPI) were recorded. The length of and timing of any admissions in the preceding 13-month and

physiological variables such as the patient's temperature, blood pressure and pulse at diagnosis of CDAD were recorded as were any haematological and biochemical investigations taken within 24 h of diagnosis.

Results Hospital admissions between 14 and 30 days (p=0.031), increasing co-morbidities (p=0.05), systolic blood pressure <100 mm Hg (p=0.048) and heart rate greater than 100 beats per minute (p=0.043) were significantly associated with increased 30-day mortality. There was a clear trend of increased mortality for increasing length of stay (LOS) on the current admission before development of diarrhoea (If LOS greater than 7 days before onset, p=0.07), temperature <35°C (p=0.07), recent discharge from hospital within 30 days (p=0.106) and to a lesser degree, low albumin (albumin <30 g/l p=0.221) at the time of diagnosis, age >85 years (p=0.947) and current PPI use (p=0.224). From the data, a scoring system was derived whereby 1 point was given to the non-statistically significant trends and 2 points to the statistically significant trends. If there were 1 to 3 co-morbidities, this was scored as 1 and greater than 3 co-morbidities scored as 2. There was a maximum score of 14. On applying this retrospectively to the existing database, 39 patients were identified where all the parameters in the scoring system were available. Of these, a score of 4 or less was associated with low risk of 30-day mortality (0% mortality in 13 patients). A score of 5 to 7 was associated with moderate risk of 30-day mortality (33.3% mortality in 15 patients) and a score of 8 or more to be associated with a high risk of 30-day mortality (72.7% mortality in 11 patients).

Conclusion A simple scoring system holds promise for defining those patients at greatest risk of 30-day mortality from CDAD in our population. However a note of caution should be exercised. Applying a scoring system retrospectively to a dataset from which information has been used to derive the score does not validate it and a prospective study is planned to validate the York scoring system.

Competing interests None declared.

PWE-104 PREVALANCE AND SIGNIFICANCE OF SESSILE SERRATED LESIONS FROM A LARGE PROSPECTIVE UK SERIES IN THE SETTING OF BOWEL CANCER SCREENING PROGRAMME

doi:10.1136/gutjnl-2012-302514d.104

S Tholoor,* P Basford, P Bhandari. *Department of Gastroenterology, Portsmouth Hospitals NHS Trust, Portsmouth, UK*

Introduction Screening colonoscopy has not had a big impact in reducing right sided cancer mortality and it is believed that this could partly be due to sessile serrated lesions (SSLs) which are thought to be the precursors of microsatellite adenocarcinomas. In the UK, people from the age of 60 to 75 with positive faecal occult blood undergo screening colonoscopy. We aim to evaluate the prevalence and significance of SSLs in our screening population.

Methods All colonoscopies performed between 2007 and 2011 were prospectively recorded on a screening database along with the histology. Pathology was reported as per standards laid out by the National screening programme by accredited Pathologists.

Results We analysed 1948 polyps from a total of 1576 patients. 28/1948 polyps in 25/1576 patients were found to have sessile serrated lesions. This amounted to 1.4% of the total polyps found. Out of 25 patients, 13 patients were men. The prevalence of sessile serrated lesions in all patients with polyps was 1.7% 17/28 lesions. (60%) of the lesions were smaller than 10 mm. 17/28 (60%) were in the right colon. 14/28 (50%) had no dysplasia. 14/28 (50%) had low grade dysplasia. None had high grade dysplasia or cancer. No interval cancer was found in a mean follow-up of 12 months. All 25 patients with sessile serrated lesions were also found to have conventional adenomas. 1–2 adenomas were found in 6/25 patients, 3–4 adenomas in 6/25 patients and 13/25 patients had at least 5 adenomas.

Prevalance of dysplasia: SSLs with dysplasia: 14/28 (50%)
–Low grade dysplasia: 14/14, High grade dysplasia/cancer: 0/14
SSLs with NO dysplasia: 14/28 (50%).

Conclusion (1) Our study shows a low prevalence of 1.7% of sessile serrated lesions accounting to <1.5% of the total number of polyps found in the setting of bowel cancer screening programme. (2) We did not find any high grade dysplasia or cancer in these patients. No interval cancer or synchronous cancers were found. (3) All patients with SSLs had conventional adenomas and the presence of SSLs had no effect on their surveillance plans. (4) Our study does not show any clinical impact of the sessile serrated lesions on patient outcomes. This questions the clinical relevance of SSLs.

Abstract PWE-104 Table 1

Site	No of lesions
Right colon	17 (60%)
Left colon	11 (40%)
Upto 10 mm	17 (60%)
>10 mm	11 (40%)

Competing interests None declared.

REFERENCES

1. **Lash RH**, Genta RM, Schuler CM. Sessile serrated adenomas: prevalence of dysplasia and carcinoma in 2139 patients. *J Clin Pathol* 2010;**63**:681–6.
2. **Freeman HJ**. Heterogeneity of colorectal adenomas, the serrated adenoma, and implications for screening and surveillance. *World J Gastroenterol* 2008;**14**:3461–3.

PWE-105 CLINICAL EFFICACY OF THE COMBINATION OF PROPOFOL AND KETAMINE (KETOFOL) FOR DEEP SEDATION FOR COLONOSCOPY

doi:10.1136/gutjnl-2012-302514d.105

S Amornyotin,* W Chalayonnawin, S Kongphlay. *Department of Anesthesiology, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand*

Introduction A combination of propofol and ketamine is usually used to achieve sedation and analgesia during colonoscopy. Few studies have compared their efficacy. The aim of this study was to compare and evaluate the clinical efficacy of the combination of propofol and ketamine (ketofol) vs propofol alone when each regimen is used as sedative agents for colonoscopy.

Methods 194 patients who underwent colonoscopy in 2 years, were randomly assigned to PN and PK groups. 97 patients in group PN received propofol and normal saline and 97 patients in group PK received propofol and ketamine for intravenous sedation (IVS). All patients were premedicated with 0.02–0.03 mg/kg of midazolam. The primary outcome variable was the successfully completed colonoscopic procedure. The secondary outcome variables were patient tolerance, discomfort during insertion, patient and endoscopist satisfaction, haemodynamic responses, as well as complications during and immediately after procedure. Immediately after the procedure, the endoscopist was asked to rate tolerability for the patient, discomfort during insertion and satisfaction. As well, a blinded member of the research team evaluated the patient satisfaction, procedural pain, recovery time and recovery score.

Results All endoscopies were completely successfully. Mean total dose of propofol in group PK and PN was 6.98 (2.90) mg/hg/h and 7.73 (3.45) mg/kg/h, respectively (p=0.413). Mean total dose of