PTU-202 FLEXIBLE SIGMOIDOSCOPY AS A SCREENING TOOL FOR BOWEL CANCER- TIME FOR STANDARDISATION!

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Introduction Flexible sigmoidoscopy (FS) has been shown to offer substantial reduction in the incidences of and mortality from distal colorectal cancer and is soon to become the new screening method. Although quality markers for colonoscopy have been widely adopted in the UK, similar practice for FS is variable. In order for this procedure to be used as an effective screening tool it will need standardisation in term of quality assurance.

Methods It was a retrospective study which was carried out using an endoscopy database to identify patients who had FS performed during 2009–2011 in three district general hospitals serving a population of 600 000. The patient's age, sex, extent of examination, grade of endoscopist, use of medications, procedure tolerance, bowel visualisation and missed left sided lesions were investigated. A complete examination was defined as a procedure when the scope was passed to the splenic flexure or beyond. Mucosal visualisation and patient tolerance were graded as good, fair and poor.

Results A total of 2823 procedures were recorded, of which 87.5% were carried out as an out-patient. In 56.7% of cases the scope was passed to the splenic flexure or beyond, while examination was limited to descending colon in 20.2%, sigmoid colon in 18.7% and rectum in 4.6%. Poor bowel preparation accounted for procedure failure in 3.7%, pain for 1.5% and anatomical complexities and pathology encounter in 1%, while in 94.1%, there were no limitations. 94.8% of procedures were performed without sedation. Good mucosal visualisation was achieved in 76.1% and the procedure was well tolerated in 80.7%. 2% of the patients used entonox and 3.3% received midazolam (range 1–5 mg median dose 3 mg). Pathologies were detected in 58.8% of the cases while procedure was reported normal in the remaining 41.2 %. No patient had a subsequent diagnosis of a left sided lesion.

Conclusion This study identified wide variability in FS practice in local hospitals and highlighted the lack of quality standards particularly in terms of examination extent, use of medication, bowel preparation and mucosal visualisation. It showed that FS is widely practiced and a useful diagnostic tool but to make it more effective screening tool for colorectal cancer, a standardisation process is needed.

Competing interests None declared.

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PTU-203 COLONOSCOPIC INDICATIONS AND OUTCOMES IN PATIENTS AGED OVER 80: ARE WE COMPLYING WITH BSG GUIDELINES?

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Introduction Colonoscopy in patients aged over 80 can be a high risk procedure due to increased comorbidity and risk of procedural complications. This audit was carried out to ensure that colonoscopies were being performed appropriately, with respect to the indication, in accordance with BSG guidance; with the aim of improving safety and appropriateness of procedure for this sensitive group of patients.

Methods We retrospectively reviewed 158 colonoscopies over a 16-month period in patients over the age of 80. Data were collected from medical records, the Endoscopy Reporting System, referral letters and the Pathology system. Audit measures included the indications for colonoscopy, comorbidity, outcome, completion rate and complications such as; renal impairment due to bowel preparation, readmissions within 8 days from the procedure and mortality within 30 days.

Results 6.33% (10/158) of colonoscopies were carried out inappropriately in relation to the indication. Inappropriate indications included normocytic anaemia, abdominal pain, weight loss, short history (<6 weeks) of a change in bowel habit. The rate of inappropriate colonoscopy in relation to co morbidity was 5.06% (5/158). Significant co-morbidities included triple vessel disease and ongoing angina, recent myocardial infarction, symptomatic heart failure, pulmonary embolism and previous stroke. The rate of inappropriate colonoscopy with respect to outcome was 5.7% (9/158) due to a combination of inappropriate indication and high risk procedure with normal findings. 18% (29/158) of colonoscopies were incomplete due to; severe diverticulosis, obstructive malignancy, adhesions, excess looping, high risk of perforation and instrument inadequacy. Renal impairment (serum creatinine rise ≥1.5-fold from the reference value within 8 days) was identified in 1 case due to bowel preparation. Of note, only 29.1% (46/158) of patients had their creatinine measured within a month prior to and following the procedure. The 8-day post procedure readmission rate was 2.35% (4/158). Three of the readmissions were directly related to the colonoscopy. The mortality rate within 30 days was 0%. 28% (45/158) of procedures were carried out via the fast track referral pathway; of these nine cases were diagnosed with malignancy (20%), 9 were found to be normal (20%), 18 had diverticulosis (40%), 8 had polyps (18%), 2 had colitis (4%) and 1 had angiodysplasia (2%).

Conclusion Colonoscopy can be a high risk procedure in patients over the age of 80. Patients should be selected carefully to ensure that the benefits from the procedure outweigh the risks. The need for colonoscopy should be questioned in elderly patients in whom colonoscopy findings will not significantly affect management and for such patients alternative methods of imaging may be more appropriate.

Competing interests None declared.

PTU-204 ACCURACY OF VISUAL ESTIMATION OF ADENOMA SIZE: A COMPARISON WITH DIRECT MEASUREMENT IN THE PATHOLOGY DEPARTMENT

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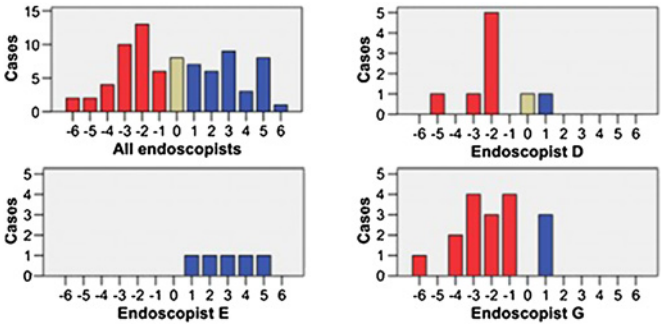
Introduction Large adenomatous colonic polyps (>10 mm) are associated with an increased risk of development of adenocarcinoma. Recent national guidelines require the ability to distinguish polyps above and below 10 mm in size to determine the optimal surveillance interval.[1] There is no standardised technique to measure polyp size either in the literature that underpins current guidelines or in practice. Visual estimation at endoscopy is widely used. Small prospective studies have shown this method to be inaccurate when compared to direct measurement in the pathology department.[2] This retrospective study aims to establish the accuracy of visual estimation of polyp size in usual clinical practice comparing to direct measurement.

Methods A search for the word "polyp" was performed on the pathology reports for all colonoscopies and flexible sigmoidoscopies performed during a 1-year period. The pathology and endoscopy reports of the resultant cases were reviewed. Only adenomas completely removed by snare polypectomy without lifting and

retrieved intact, where both endoscopic and measured sizes were recorded, and where the measured size was 5 to 15 mm were included. The direct measurement was subtracted from the visual estimate to give a size difference. The paired-sample t-test was used to test the null hypothesis that there was no difference between the mean sizes determined using the two methods for the group as a whole or for individual endoscopists.

Results In a total of 4285 procedures, 79 polyps met the criteria for inclusion. In 39 cases (49%), the difference between visual estimate and direct measurement was >2 mm. In ascertaining whether a polyp was above or below the 10 mm cut-off, visual estimate and direct measurement were discordant in 21 cases (27%). Despite these disparities, there was no overall tendency to over or underestimate polyp size for the group as a whole (mean difference 0.05 mm p=0.88). Of the 15 individual endoscopists, the two with the highest procedure counts both showed significant tendencies to underestimate polyp size, while a third showed significant overestimation.

Conclusion In clinical practice, visual estimation of polyp size is often inaccurate. Individual endoscopists may systematically over or underestimate polyp sizes. Direct measurement should be preferred in determining surveillance intervals.



Abstract PTU-204 Figure 1 Visual estimate—direct measurement (mm).

Abstract PTU-204 Table 1

Endoscopist	Polyp count	Mean difference (mm)	p Value
D	9	−1.9	0.01
E	5	3.0	0.01
G	17	−1.9	0.001

Competing interests None declared.

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PTU-205 PRE-MEDICATION WITH N-ACETYLCYSTEINE AND SIMETHICONE IMPROVES MUCOSAL VISUALISATION DURING GASTROSCOPY. A RANDOMISED, CONTROLLED, ENDOSCOPIST-BLINDED STUDY

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Introduction The detection of early cancer during gastroscopy in the western world is poor. UK studies have demonstrated up to a 15% miss rate during diagnostic gastroscopy for early neoplasia. Early gastric cancer has a vastly superior survival rate and may be amenable to endoscopic resection. Diagnostic gastroscopy provides a unique opportunity to diagnose early gastric neoplasia, whatever the indication; however intraluminal mucus and saliva can obscure mucosal visualisation and potential detection of these lesions. The aim of this study was to investigate whether the use of a premedication solution containing the mucolytic agent N-acetylcysteine and the surfactant simethicone improves mucosal visualisation within an unselected UK diagnostic gastroscopy service.

Methods 75 consecutive patients were recruited from a single endoscopist's diagnostic gastroscopy list. These were randomised into three groups. 1: Standard control—clear fluids only for 6 h, NBM for 2 h. 2: Placebo control − standard control + 100 ml sterile water (given 20–30 min prior to gastroscopy). 3: Solution − standard control + 100 ml investigated solution (20–30 min prior). The endoscopist was blinded to patient preparation. Inadequate mucosal visualisation was measured by assessing fluid/mucus during gastroscopy that could not be suctioned and required flushing with water. The volume of flush, the site at which it was used and the procedure time were recorded.

Results All three groups showed no statistical difference for age, gender, priority or indication. The mean volume of flush required to obtain clear mucosa was significantly less in the *solution* group (12.1 ml (3.5–20.7)) compared to the *standard control* group (54.2 ml (39.2–69.2), p<0.00003) and the *placebo control* group (61.0 ml (44.6–77.4), p<0.00001). This significant difference was identified across all sites recorded in the upper GI tract, bar the OGJ where very little stubborn mucus was identified in all three groups. 61% of the *solution* group required no flushing at all, significantly more than the *standard control* group (13%, p<0.002) and the *placebo control* group (9%, p<0.0005). Mean procedure time was less in the *solution* group (8.5 min (7.1–9.9)) compared with the *standard control* (10.4 min (8.5–12.3), p<0.075) and *placebo control* groups (10.5 min (9.3–11.7), p<0.028). When patients on Barrett's surveillance are excluded this is more significant. *Solution* (7.2 min (6.2–8.2)) vs *standard control* (8.8 min (7.3–10.1), p<0.041) vs *placebo control* (10.2 min (8.6–11.8), p<0.0031).

Conclusion Premedication with NAC and simethicone is a low cost and well-tolerated method of dramatically improving visibility and procedure time during diagnostic gastroscopy. This simple intervention may improve detection of early gastric cancer.

Competing interests None declared.

PTU-206 STENT EXPULSION IN DIAGNOSTIC ERCP

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Introduction Patients who have a high risk of developing pancreatic cancer (FPC) may have pre-malignant molecular changes and have been enrolled in a EUROPAC Study to conduct diagnostic ERCP for the collection of pancreatic juice.[1 2] These otherwise healthy patients have been identified as a higher risk group for ERCP-induced pancreatitis.[3] To reduce the incidence of post-ERCP pancreatitis a self-expelling plastic stent is routinely inserted into the pancreatic duct after ERCP. Stents have been shown to reduce pancreatitis in small cohorts but previous spontaneous intraluminal migration has been quoted at 67% for pancreatic stents.[4 5]

Methods Prospective observational study of 24 patients who underwent ERCP and secretin stimulated collection of pancreatic juice as part of the EUROPAC study. No pancreatic or biliary disease was present. In all patients a plastic stent was inserted (3 cm 5 Fr Zimmon, Cook Medical©) to avoid post-ERCP pancreatitis. Plain