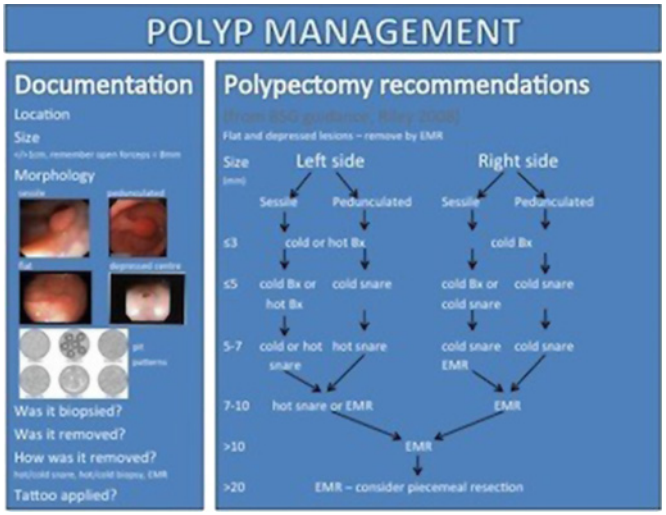

Abstract PWE-194 Figure 1

Abstract PWE-194 Table 1 Polypectomy methods

Polyp size	Cold biopsy	Hot biopsy	Snare	EMR	Not removed	Unknown
≤3 mm	10	0	23	14	6	0
4–5 mm	2	3	18	18	3	1
6–9 mm	0	2	18	7	1	2

Competing interests None declared.

PWE-195 NON-NEOPLASTIC DIAGNOSES WITHIN THE NHS BOWEL CANCER SCREENING PROGRAMME

doi:10.1136/gutjnl-2012-302514d.195

[1,2]R Bevan,* [3,4]T J W Lee, [5]W S Atkin, [6]C L R Nickerson, [7]G Rubin, [2,7,8]C Rees. *[1]Cumberland Infirmary, Carlisle, UK; [2]Northern Region Endoscopy Group, UK; [3]Freeman Hospital, Newcastle, UK; [4]Institute of Health and Society, Newcastle University, Newcastle, UK; [5]Department of Surgery and Cancer, Imperial College, London, UK; [6]NHS Cancer Screening Programmes, Sheffield, UK; [7]Durham University, Co. Durham, Durham, UK; [8]South Tyneside General Hospital, South Shields, UK*

Introduction The aim of the NHS Bowel Cancer Screening Programme (BCSP) is to diagnose colorectal cancer. Small studies have demonstrated a yield of diagnoses other than cancer or adenomas (non-neoplastic diagnoses (NND)) ranging from 11% to 25%. NND may account for false positive FOB test (FOBt) results and may generate a significant workload outside the BCSP. The aim of this study was to evaluate the burden of NND generated by the BCSP.

Methods Data were obtained from the BCSP national database for all patients with a positive FOBt who subsequently underwent investigation from August 2006 to November 2011. These data included patient demographic data, smoking status, clinical outcome and NND made. Data were analysed using SPSS.

Results 121 728 patient episodes in the BCSP were included in the analysis. 60.2% of patients were male and the mean age was 65.7 years. In this period 10 836 cancers were detected (8.9%). One or more NND were made in 26 251 patients (21.6%). Patients with a diagnosis of neoplasia (cancer or adenomas) were less likely to have a NND than those without neoplasia (19.8% vs 24.4%, p<0.001). Older age and male gender were, but smoking status was not, associated with a greater likelihood of an NND being made (NND in males 21.8% vs 21.2% in females, p=0.01; NND in those <65 years 20.6% vs 22.3% in those ≥65 years, p<0.001; NND in smokers 21.4% vs 21.7% in non-smokers, p=0.34). After adjustment for confounding using multivariable analysis, older age and male gender were still associated with a small but statistically significant increased risk of a NND.

Conclusion The BCSP generates a significant volume of Non-Neoplastic Diagnoses. Inflammatory bowel disease is an important and common diagnosis and may have important implications for the management of the patient. Large numbers of patients had diverticulosis and haemorrhoids diagnosed however reporting of these findings may vary. Patients undergoing bowel cancer screening should be aware that a diagnosis other than cancer or polyps may be made. The burden of NND generated by the BCSP nationally has not been investigated and the impact of this on primary and secondary care is not known.

Abstract PWE-195 Table 1 Frequency of non-neoplastic diagnoses

	Frequency (%)
Inflammatory bowel disease	2152 (1.8)
Angiodysplasia	902 (0.7)
Diverticulosis	18 875 (15.5)
Haemorrhoids	7011 (5.8)
Radiation enteritis	374 (0.3)
Solitary rectal ulcer syndrome	228 (0.2)
Other diagnoses (including: lymphoma, ischaemic colitis, pseudomembranous colitis)	1362 (1.1)

Competing interests None declared.

PWE-196 ENDOSCOPIC MUCOSAL RESECTION OF FLAT AND SESSILE POLYPS IN THE COLON: SAFETY, EFFICACY AND CLINICAL OUTCOMES FROM A LARGE DATA BASE IN THE UK TERTIARY REFERRAL CENTRE

doi:10.1136/gutjnl-2012-302514d.196

S Ahmad,* R Shukla, E Telakis, S Sami, J mannath, R Teli, A Jawhari, K Ragunath. *Nottingham Digestive Diseases Centre and NIHR Biomedical Research Unit, Nottingham University Hospitals NHS Trust, Nottingham, UK*

Introduction Endoscopic Mucosal Resection (EMR) is now well established as the procedure of choice for removing flat and sessile polyps in the colon. It stems from large scale studies in Japan that is increasingly practised in the UK, thus potentially avoiding surgery for benign polyps. Our aim was to assess the safety, efficacy and clinical outcomes of EMR procedures at Nottingham University Hospitals NHS Trust.

Methods We searched our prospectively collected database for all sessile and flat colonic polyps >10 mm (Paris0–Is, 0–II) removed by injection and snare EMR technique in our centre over a 7-year period (2004–2011). Follow-up examinations were done as per BSG guidelines. Parameters analysed included patient's demographics; type of resection; completeness of resection; endoscopic success rate; as well as recurrence and complication rates.

Results All procedures were done by endoscopists trained in EMR. 338 EMRs were done in 325 patients, age range 20–90 yrs, male 55% (180). 77% (261) had sedation and one patient had GA for the procedure. 53% (180) had en bloc resection, 39% (132) had piecemeal while 4.7% (16) had incomplete or partial resection. 2.9% (10) were unable to resect. Endoscopic success at 1st attempt was achieved in 82% (278) and over all endoscopic cure was 92% (310). 4.4% (15) were referred for surgery. A follow-up procedure was performed in 77% (242) within 12 months Recurrence rate for enbloc resection was 5.7% (9/156), for piecemeal resection it was 18% (16/86). Overall recurrence rate was 10.3% (25/242). Adenocarcinoma was

present in 4.1% (14) patients while in eight of these patients had complete resection with no evidence of recurrence at follow-up. Over all Complication rate was 9.1% (31). 6.5% (22) had immediate bleeding requiring therapy. 15/22 were left sided Polyps (11 rectum, 4 sigmoid) with mean size >20 mm. 1.1% (4) patients had delayed bleeding. While two required repeat colonoscopy and haemostasis one had right hemicolectomy as bleeding was complicated by delayed perforation. 0.5% (2) patients had immediate while one patient had delayed perforation at second day requiring surgery. There was no procedure related death.

Conclusion EMR is effective and safe therapy in well trained hands with minor and acceptable complication rate. There is high recurrence rate especially after piecemeal resection within the first 12 months that requires a strict follow-up protocol. Rectal polyps and size >20 mm were associated with high risk of bleeding. Currently there are no guidelines and standards measuring EMR outcome. Nationwide EMR audit/database is needed to help form recommendations.

Competing interests None declared.

PWE-197 OPTIMISATION OF THE FICE TECHNIQUE FOR ENHANCEMENT OF OESOPHAGEAL PATHOLOGY

doi:10.1136/gutjnl-2012-302514d.197

[1]S Inglis,* [2]S Alexandridis, [2]J N Plevris. *[1]Department of Medical Physics, NHS Lothian, Edinburgh, UK; [2]Centre for Liver & Digestive Disorders, NHS Lothian, Edinburgh, UK*

Introduction Fuji Intelligent Chromo Endoscopy (FICE) is a post-processing image enhancement technique designed by Fuji for their video endoscopy systems. FICE is a method that takes the original white light image and separates the image into discrete light wavelengths, each setting has a different combination of three selected wavelengths (from 400 to 700 nm), representing RGB, that are independently weighted, combined and superimposed on the white light image to produce the FICE image. Fuji currently provides 10 different settings. The aims of this project are: to evaluate the current FICE settings on images captured during upper GI endoscopy, and the creation of new oesophageal settings to simplify the selection and improve the application of FICE in the diagnosis of oesophageal pathology.

Methods We used a PC based FICE simulator, provided by Fuji, to process images offline, using the FICE settings. A series of images were captured during diagnostic endoscopies of various conditions (eg, varicies, Barrett's oesophagus) at various points in the oesophagus using the capture facilities on the Fuji endoscopy EPX-4400 processor. Using the FICE simulator, two new FICE settings were created to maximise the enhancement of the pathology while maintaining the anatomical colouring. For each RGB component, the selected wavelength was altered independently in 5 nm steps. Once the wavelength was fixed, the gain was altered to minimise artefacts and maximise enhancement. Forty images were selected from the series that covered various conditions, and were processed via the FICE simulator using the 10 standard and two new settings. The images were randomised for evaluation by five blinded endoscopists. Each endoscopist compared the original and FICE image and scored the degree of enhancement over the original image from 0 (no enhancement) to 5 (maximum). The highest score FICE settings were translated to the EPX-4400 processor for further clinical evaluation.

Results The oesophageal mucosa presented with two distinct shades of pink (eg, Light and Dark). Two settings were created, one for each mucosal shade (L1—Light and L2—Dark). From the 40 images 65% would be characterised as Light and 35% Dark mucosa. Out of a possible enhancement score of 1000, the standard FICE Settings (0—9) scored between 202 and 319, with settings 2 scoring the highest (319). The Lothian FICE settings L1 and L2 scored 463 and 387 respectively.

Conclusion In conclusion the L1/2 FICE settings were found to provide further enhancement compared with current FICE settings by improving the colour discrimination between normal and abnormal mucosa. FICE is a useful and flexible system with a lot of potential but still requires optimisation.

Competing interests S Inglis Grant/Research Support from: Fuji provided software for Trial, S Alexandridis Grant/Research Support from: Fuji/Imotech Medical Provided funding for a Fellowship, J Plevris Grant/Research Support from: Fuji Provided Loan Equipment for trial.

PWE-198 PROPOFOL ASSISTED ENDOSCOPY ON DAY-CASE ENDOSCOPY UNIT—"THE EXPERIENCE"

doi:10.1136/gutjnl-2012-302514d.198

[1]S V Murugesan,* [2]M Davies, [1]N Haslam, [1]H L Smart, [1]S Sarkar. *[1]Department of Gastroenterology, Royal Liverpool and Broadgreen University Hospitals NHS Trust, Liverpool, UK; [2]Department of Anaesthetics, Royal Liverpool and Broadgreen University Hospitals NHS Trust, Liverpool, UK*

Introduction Patients intolerant of endoscopic procedure under conscious sedation subsequently have the procedure under a general anaesthetic. Provision of deep sedation (with propofol) has also been used in this setting.

Aim To assess the safety profile and patient satisfaction with deep sedation using propofol for endoscopic procedures in a dedicated deep sedation endoscopy list.

Methods Retrospective analysis of cases performed between June and December 2011. Cases were performed on a dedicated weekly "deep sedation" list supervised by a consultant anaesthetist in the endoscopy Unit. Anaesthetic records, case records and GI reporting tool (UNISOFT®) were interrogated for data. Satisfaction scores (score 1=unsatisfactory; 5=fully satisfied) were recorded for patients, anaesthetists and endoscopists post procedure.

Results 40 patients, 19 (47.5%) female with a median age of 53 years (range 18—80 years), underwent propofol assisted endoscopy. Mean ASA grade was 2 (range 1—3). 24 (60%) had unsatisfactory endoscopy previously under conscious sedation for phobia, anxiety, pain (colonoscopy) and stricture requiring dilatation.

Procedures 16 (40%) underwent radio frequency ablation of dysplastic lesion in Barrett's oesophagus (HALO®) and 14 (35%) underwent colonoscopy, with the remainder undergoing ERCP (n=3, 7.5%), gastroscopy (n=2, 5%), ampullectomy (n=2, 5%), small bowel enteroscopy (n=1, 2.5%) and endoscopic ultrasound (n=2, 5%). Mean waiting time was 8 weeks. All procedures were successfully completed with mean duration of 33 min per procedure (range 10—70 min). Mean propofol dose administered was 333 mg (range 41—1178 mg) and in addition fentanyl (mean dose 50 μg), midazolam (mean dose 1.5 mg), hyoscine hydrobromide (20 mg) and intravenous paracetamol (1 g) were administered as required. No reversal agents were required for any of the procedures.

Adverse Events Overall rate was 10% and minor. Transient hypoxia (SpO2 <90%) in two patients, relieved with jaw thrust, one patient required an airway device and persistent hypotension in two patients required vasopressors. All patients were discharged as day-cases. There were no 7-day readmissions or 30-day mortality. Median satisfaction scores for the procedure were high for patients (5), for anaesthetists (5) and for endoscopists (5).

Conclusion Anaesthetic led propofol assisted endoscopy is safe in a day-case endoscopy unit and is associated with high satisfaction scores for patient, anaesthetist and endoscopists.

Competing interests None declared.