adequacy of bowel preparation according to three categories (>80% visualisation; 50%–80% visualisation).

Results

	Mean age	Completion rate (%)	Yield (%)	Good SB views (%)	Mean GTT ± SEM (min)	Mean SBTT ± SEM (min)
Gp 1	63.6	79	42.1	100	35.9±11.19	254.8±24.83
Gp 2	57	83.3	41.6	81.2	87.5±47.79	239.3±45.7
Gp 3	60	90	35	79	74.8±27.06	211.5±24.14
p Value		NS	NS		NS	NS

Conclusion Our findings are in keeping with a recent meta-analysis which has shown no difference in CE completion rates, GTT and SBTT with purgative preparation.[4] Our study shows a trend towards better caecal completion rates with bowel preparation involving PEG and Picoprep, but these results did not reach statistical significance. Overall diagnostic yield was similar in all three groups. Liquid diet, in combination with fasting, prior to CE is generally better tolerated by patients[3] and our findings would support this as adequate preparation for CE.

Competing interests None declared.

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PTU-239 EUS ASSESSMENT OF LESIONS OF THE AMPULLA OF VATER: OF PARTICULAR VALUE IN LOW GRADE DYSPLASIA

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K Roberts, N McCulloch,* D Mayer, J Isaac, P Muiesan, S Bramhall, D Mirza, R Sutcliffe, C Forde, R Marudanayagam, B Mahon. *Queen Elizabeth Hospital Birmingham, Birmingham, UK*

Introduction Lesions of the ampulla of Vater are difficult to stage using conventional cross sectional imaging and endoscopy. An accurate diagnosis is essential as this permits endoscopic resection in dysplastic lesions preserving pancreatoduodenectomy for malignant cases. Endoscopic ultrasound has greater sensitivity and specificity than conventional imaging in staging lesions. To date its role in staging dysplastic lesions is unclear.

Methods Patients with adenomas or adenocarcinomas of the ampulla were identified from departmental databases over a 5-year period. Methods of presentation, investigation, treatment and outcome were recorded. Patients with no EUS were compared to those with EUS.

Results Of 58 patients, 27 were investigated with an EUS. There was no difference in age, sex or method of presentation between groups. The preoperative diagnosis was correct in 94% of cases in the EUS group vs 61% in the no EUS group (p=0.006). The sensitivity, specificity, positive and negative predictive values in the EUS group to correctly identify malignant lesions was 93, 100, 100 and 93% respectively. For the non-EUS group these values were 77, 91, 93 and 72%. Every diagnosis of low grade dysplasia (LGD) was correct in the EUS group while these accounted for the majority of errors in the no EUS group. High grade dysplasia (HGD) was frequently understated.

Conclusion When added to existing investigations, EUS increases the accuracy of preoperative staging of ampullary lesions being particularly useful in cases of LGD. This permits safe endoscopic management of these cases. Cases of HGD must be reviewed carefully and considered for pancreatoduodenectomy.

Competing interests None declared.

PTU-240 IMPROVING OUTCOMES OF ENDOSCOPIC RETROGRADE CHOLANGIO-PANCREATOGRAPHY WITH THE USE OF NEW TECHNIQUES IN A DISTRICT GENERAL HOSPITAL SETTING

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N Owen,* B Macfarlane, A King, A Leahy. *Department of Gastroenterology, West Hertfordshire Hospitals NHS Trust, Watford, UK*

Introduction Outcomes of endoscopic retrograde cholangio-pancreatography (ERCP) performed at West Hertfordshire Hospital NHS Trust (WHHT) in 2007 and 2011 were compared. The 2011 data followed introduction of the techniques of wire-guided cannulation and balloon sphincteroplasty. Outcomes measured included successful biliary cannulation on first ever ERCP, the use of precut, successful stenting of strictures, stone extraction and post ERCP pancreatitis rates. The number of referrals to a tertiary centre due to failed ERCP in both years was also calculated. The outcomes were compared with national data from the BSG ERCP audit of 2007.[1]

Methods Local data were obtained from all ERCP performed at WHHT in the years 2007 and 2011. Success of cannulation, precut use, successful stenting and stone extraction was collected from electronic ERCP reports. Post ERCP pancreatitis rates were obtained by confirming hyperamylasaemia post ERCP of at least three times the upper limit of normal requiring admission to hospital or prolongation of planned admission of ≥2 nights, as per the BSG 2007 Audit definitions.[1] Similar national outcomes were taken from the BSG 2007 Audit.[1]

Results Results are summarised below:

A Fisher's exact test was performed to compare data. A statistically significant difference was found between the 2007 and 2011 groups (p value <0.01) when comparing successful stone extraction. Tertiary centre referrals due to failed ERCP fell from 12 in 2007 to 4 in 2011.

Conclusion The introduction of wire-guided cannulation has maintained high success rates of biliary cannulation with a reduction in

ERCP data	Successful biliary cannulation on 1st ever ERCP	Pre-cut use	Success of pre-cut	Successful stenting of stricture	Successful stone extraction	Post ERCP pancreatitis
UK 2007	2684 of 3210 (84%)	465 of 5264 (8.8%)	303 of 465 (65%)	1341 of 1827 (73%)	1318 of 2114 (62%)	79 of 5264 (1.5%)
WHHT 2007	172 of 190 (91%)	12 of 218 (5.5%)	6 of 12 (50%)	46 of 54% (85%)	61 of 91 (67%)	8 of 218 (3.7%)
WHHT 2011	180 of 193 (93%)	15 of 257 (6%)	11 of 15 (73%)	67 of 77 (87%)	97 of 116 (84%)*	3 of 257 (1.3%)

*Balloon sphincteroplasty used in 24 of 116 (21%).

post ERCP pancreatitis, as observed in previous studies.[2] Following adopting the technique of balloon sphincteroplasty there has been a statistically significant improvement in the success of stone extraction. A subsequent reduction in referrals to tertiary centres for failed ERCP has also been observed.

Competing interests None declared.

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Service development II

PTU-241 A PRAGMATIC APPROACH TO INVESTIGATION OF IRON DEFICIENCY ANAEMIA IN THE ELDERLY

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J L Hulley,* M Gunn, J Robertson. *Department of Gastroenterology, Royal Victoria Infirmary, Newcastle-upon-Tyne, UK*

Introduction Recent British Society of Gastroenterology (BSG) guidelines[1] recommend all post-menopausal women and all men with confirmed iron deficiency anaemia (IDA) should be considered for upper and lower gastrointestinal investigation. Increasing demands on limited resources mean a straight-to-test approach is commonly adopted in busy gastrointestinal units. In the elderly this may result in poor attendance and inappropriate endoscopic investigations in high-risk patients.

Methods We looked at one year's experience of a nurse-led one-stop IDA service which offered an initial clinic visit to discuss the most appropriate mode of investigation in patients aged 75 years and older. Four options were considered: bi-directional endoscopy, OGD and CT colonography with faecal tagging, plain CT scan of abdomen/pelvis or treatment of anaemia without investigation. Data were collected retrospectively for the period of April 2010 to April 2011 for this group of patients.

Results 244 patients were referred over the year. Ninety-six were 75 and over: 67 female, 30 male. Age range of 75–97. Fifty-nine patients had confirmed IDA based on the haemoglobin level, mean corpuscular volume (MCV) and ferritin. Twenty-seven patients were iron deficient without anaemia. Ten patients had normocytic anaemia. In the IDA group: 25/59 (42.3%) patients qualified for bi-directional endoscopy. 16/59 (27%) patients opted for alternative investigations and 18/59 (30.5%) either were not suitable, chose not to be investigated or did not attend their appointments. In the iron-deficient group: 6/27 (22%) underwent bi-directional endoscopy. 7/27 (26%) had alternative investigations and 14/27 (51.8%) were not investigated for reasons as outlined in the IDA group. In the normocytic anaemia group: 4/10 (40%) had IDA, 1/10 (10%) underwent bi-directional endoscopy. Only 32/96 (33%) patients initially referred to the IDA service underwent bi-directional endoscopy.

Conclusion Only a third of elderly patients referred for investigation of IDA were appropriate for bi-directional endoscopy. A straight-to-test approach in this group of patients is likely to result in inefficiencies in endoscopy slots and inappropriate investigations in a high-risk group. We recommend a one-stop initial clinic assessment in this group of patients.

Competing interests None declared.

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PTU-242 CAN ENDOSCOPIC ULTRASOUND AND ERCP BE PERFORMED SAFELY IN THE SAME PATIENT DURING THE SAME SESSION?

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J S Leeds.* *Department of Gastroenterology, Aberdeen Royal Infirmary, Aberdeen, UK*

Introduction ERCP should be considered as a therapeutic modality in the vast majority of cases but some patients may have to wait for the appropriate diagnostic test. Endoscopic ultrasound (EUS) can be used to detect pancreaticobiliary pathology especially in situations where cross sectional imaging techniques have reduced accuracy (eg, <10 mm bile duct stones). When such pathology is identified, same session ERCP theoretically could be performed but there is limited data on safety, patient comfort and complications. The aim of this study was to evaluate a recent service development whereby EUS can be immediately followed by ERCP.

Methods Our unit performs around 350 ERCP's and 250 EUS procedures per annum. Since April 2011, there has been facility to perform EUS on the ERCP lists. All referrals are vetted and if deemed appropriate are listed for EUS ± ERCP on the same list. All patients listed for both procedures had their notes reviewed and demographics, indication, sedation requirements, comfort scores, need for ERCP and final diagnosis recorded. Median pethidine dose, midazolam dose and comfort scores were compared in those who EUS and ERCP vs EUS alone.

Results During the period April 2011–December 2011, 34 patients (median age 72 years) were listed for EUS ± ERCP. Indications for EUS prior to ERCP included dilated ducts (n=13), abnormal enzymes (n=10), other imaging unclear (n=4), possible sphincter of Oddi dysfunction (n=3), fine needle aspiration (n=4). 10/34 (29.4%) patients did not undergo subsequent ERCP as the EUS showed no indication. 16 were found to have bile duct stones, 4 had a neoplasm, 3 had sphincter of Oddi dysfunction and 1 a pancreatic duct stone (all confirmed at ERCP). There were no differences in demographics or indication in patients undergoing EUS and ERCP vs EUS alone. Median midazolam doses were significantly higher in those undergoing both procedures (4 mg vs 3 mg, p=0.002) not median pethidine dose (25 mg vs 25 mg, p=0.12) or comfort scores (1.0 vs 1.0, p=0.25). At ERCP, 18 patients underwent sphincterotomy and duct trawl, five patients had a stent inserted and one patient underwent choledochoscopy. No complications occurred in either group.

Conclusion EUS and ERCP can be performed safely in the same session but patients often need extra sedation for the second procedure. This does not appear to be detrimental to patients comfort or associated with an increased complication rate. A larger cohort should be examined prospectively and include analysis of list dynamics, cost effectiveness and patient preference.

Competing interests None declared.

PTU-243 FAECAL CALPROTECTIN (FC) ASSAYS: COMPARISON OF FOUR ASSAYS WITH CLINICAL CORRELATION

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[1,2]M Srinivas, [3]R Eyre, [3]R Ellis, [3]S Viney, [2]P Basumani, [2]K Bardhan.* *[1]Department of Gastroenterology, Global Hospitals & Health City, Chennai, India; [2]Department of Gastroenterology, The Rotherham Hospitals NHS Foundation Trust, Rotherham, UK; [3]Department of Biochemistry, The Rotherham Hospitals NHS Foundation Trust, Rotherham, UK*

Introduction FC is a marker of GI inflammation. Four commercial ELISA-based assays are available, two polyclonal (Calpro ["C"]),