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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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.

REFERENCE

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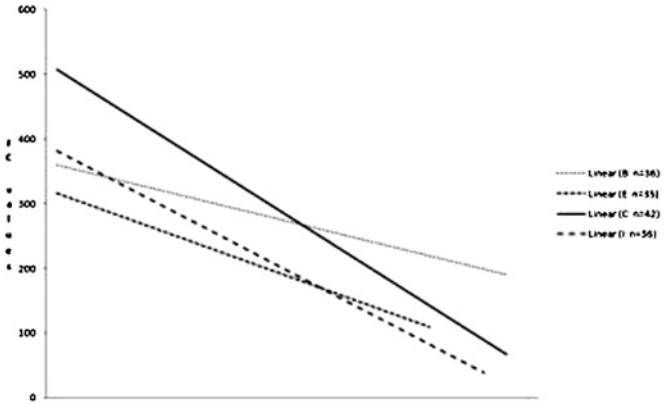
Introduction FC is a marker of GI inflammation. Four commercial ELISA-based assays are available, two polyclonal (Calpro ["C"]),

Eurospital ["E"]) and two monoclonal (Buhlmann ["B"], Immunodiagnostik ["I"]). "C" is a manual assay, rest are automated. Automation eases testing. Monoclonal assays are reportedly more accurate. Head-to-head comparison of all four assays is unexplored to the best of our knowledge.

Aim Pilot study to compare the four assays to help us select one (preferably automated) that best meets our clinical needs: reliably exclude GI inflammation (new patients) and quantify inflammation (known IBD).

Methods 42 stool samples collected from January to March 2011 were tested. Patients: 18 new (mainly for diarrhoea), 24 follow-up IBD (in remission/chronic active disease/flare). Assay (n): "C" (42), "B" (36), "I" (36), "E" (35). All four assays: 29/42 (sample insufficient in rest to do all 4). Analysis: Blinded to assay details, a single investigator (MS) mapped FC values to inflammation grade (0=nil, 1=mild/possible, 2=severe/definite) based on conventional markers (CRP/imaging/endoscopy/histology) and final diagnosis. Linearity characteristics of each assay was assessed by Excel trendlines. Restricting analysis to the 29 samples tested by all four assays (giving six pairings), inter-assay concordance was determined for each inflammation grade by Kendall co-efficient. p Value <0.02 (Fisher ratio) was deemed significant.

Results All four assays showed linear characteristics with different gradients, minimum and maximum values (Abstract PTU-243 figure 1). "C" had maximum gradient and highest values while "I" had the lowest levels detectable. Assays "B" and "E" had characteristics in between. Inter-assay concordance (Abstract PTU-243 table 1) was statistically significant in absence of inflammation for all pairings. The highest assay concordance across all grades of inflammation was between monoclonal "I" and polyclonal "C".



Abstract PTU-243 Figure 1

Abstract PTU-243 Table 1

Assay pairing (n=29)	Grade of inflammation: inter-assay concordance			
	All grades (n=29)	0 (n=12)	1 (n=11)	2 (n=6)
B/C	0.9284*	0.9788*	0.7346	0.8000
E/C	0.9611*	0.9767*	0.8941*	0.9058*
I/C	0.9863*	0.9797*	0.9682*	0.9143*
B/E	0.9440*	0.9875*	0.7671	0.8061
B/I	0.9484*	0.9930*	0.7847	0.8000
E/I	0.9650*	0.9813*	0.9487	0.7609

*p Value <0.02 by Fisher ratio.

Conclusion In this pilot, assays "I" and "C" had the most favourable characteristics/concordance. If this trend is confirmed by larger numbers, we will adopt the monoclonal assay "I" as it is automated.

Competing interests None declared.

PTU-244 AUDIT OF 30-DAY MORTALITY POST ENDOSCOPY—A TERTIARY CENTRE EXPERIENCE

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Introduction Post endoscopy mortality is a quality standard for all endoscopy units. Despite the BSG guidelines on endoscopy related mortality in 2006 there has been little published data available for individual trusts. To review all deaths occurring 30 days post Endoscopy performed within the UHL Trust and establish if they are related to the procedure. We also determined an all cause mortality and procedure related mortality for our Trust.

Methods Deaths that occurred both in hospital and community within 30 days post endoscopy were captured through our local CASE team for a period of 6 months (January—June 2009) and information was obtained on certified cause of death. All patients' case records were critically reviewed. Data were collected on demographics, principal diagnosis, indication for procedure, nature and type of procedure, immediate complications and cause of death. We made an observation and established if the death was related to endoscopic procedure. Results are analysed using MS excel 2007 and SPSS V.13.

Results In total 6783 endoscopy procedures were performed during this 6-month period. Of these, 3342 were Gastroscopies, 1645 Flexible Sigmoidoscopies, 1441 Colonoscopies and 355 ERCPs. A total of 87 patients died within 30 days of their Endoscopy procedure, a high proportion of which were inpatients. 56 died during their inpatient stay. 117 (72 OGD, 24 ERCP, 18 FOS, 2 Colons and 1 EUS) procedures completed on these 87 patients were reviewed. Of these, 54 were therapeutic procedures. 53 were male and 34 were female with a median age 74 years. Of these 6 (5%) patients had three or more procedures, 26 (22%) patients had two procedures and 55 (73%) had single procedures. None required reversing agents nor had sedation related complications. One immediate complication of duodenal perforation following ERCP was recorded. Overall four deaths were identified to be causally related to Endoscopy, all of who had therapeutic procedures (One OGD with oesophageal dilatation and three therapeutic ERCP (one of who died following a myocardial infarct)). 14 cardiovascular deaths occurred within 30 days post endoscopy, eight of which were within 8 days. Underlying malignancy was the commonest recorded cause of death in 30. Individual mortality rates 30 days post OGD, FOS, Colonoscopy and ERCP of 1.7%, 0.61%, 0.14% and 7.8% respectively were noted giving an overall mortality rate of 1.3% (1:78). Individual procedure related mortality figures for OGD and ERCP are 0.03% and 0.56% respectively.

Conclusion Post endoscopy mortality is a safety and quality standard for all units. Our audit serves as a reminder of the appreciable risk associated with therapeutic endoscopy and that cardiovascular complications still account for a significant proportion of endoscopy related morbidity and mortality.

Competing interests None declared.

PTU-245 COMMUNITY BASED SPECIALIST GASTROENTEROLOGY CLINIC IN SHEFFIELD, UK—COMPARING PRIMARY CARE AND SECONDARY CARE BASED CLINICS 2010—2011

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Introduction Community based clinics may improve patients' access to healthcare and improve communication between primary and