individuals including co-morbidity and time of bleeding, variation in local practises may have a bearing on outcomes. This study evaluates whether facilities provided at differing centres can influence outcomes of AUGIB, with findings compared to the BSG National Audit (Hearnshaw *et al* 2011).

Methods Data was prospectively collected from five South Yorkshire hospitals (Northern General Hospital, Royal Hallamshire Hospital, Rotherham District General Hospital, Chesterfield Royal Hospital and Barnsley District General Hospital) between Sept-Dec 2011. This included demographic, clinical and endoscopic findings in all AUGIB patients, alongside 30-day mortality outcomes. Patients were risk stratified using pre-endoscopy Rockall scores with comparisons made with national audit results using standardised mortality ratios (SMR). In addition, service provision for AUGIB within each unit was collected. χ^2 analysis was used to compare categorical data, with p values < 0.05 considered significant.

Results A total of 796 patients (438 male, median age 65 years, range 16–86) were admitted at all sites with AUGIB during the 3-month study period. Of these patients, 33.7% (268/796) had a pre-endoscopy Rockall score of 6 or above, significantly higher than the 5.9% identified in the national audit ($p = < 0.001$). All hospitals in South Yorkshire had out of hours (OOH) endoscopy rotas (national audit = 52%), a nurse on call rota (national audit = 37%) and facilities to undertake OOH endoscopy (national audit = 92%). Whilst no statistical difference was identified in mortality between individual hospitals in South Yorkshire ($p = 0.406$), both risk-standardised mortality ratios and inpatient mortality in South Yorkshire were significantly lower than national audit findings (Table 1).

Abstract PTU-041 Table 1 Comparisons between South Yorkshire and National Audit populations

	South Yorkshire Data (n = 796)	National Audit (n = 6750)	p-value
Median Pre-Endoscopy Rockall Score	5	3	N/A
New Admissions Mortality	7.3%	7%	0.69
Inpatient Mortality	15.9%	26%	0.02*
Overall mortality	8.5%	10%	0.21

*Significant result

Conclusion Despite a higher pre-endoscopy Rockall Score in our cohort, both our risk adjusted mortality and inpatient mortality rates were significantly lower than the national audit findings. We believe that these outcomes are reflective of having dedicated GI bleed services, with provision and staffing of OOH endoscopy rotas, enabling us to provide quicker and more comprehensive services to our patients.

Disclosure of Interest None Declared

PTU-042 ENDOSCOPIC TRAINING IN UPPER GASTROINTESTINAL BLEEDING (UGIB): A BSG REGIONAL AND NATIONAL AUDIT

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¹E F Wong, ¹M Kurien, ¹E Ejenavi, ¹M Lau, ²C Romaya, ¹F Gohar, ³K L Dear, ⁴K Kapur, ⁵B Hoeroldt, ¹A J Lobo, ¹D S Sanders. ¹Department of Gastroenterology, Royal Hallamshire Hospital, Sheffield; ²BSG, London; ³Department of Gastroenterology, Chesterfield Hospital, Chesterfield; ⁴Department of Gastroenterology, Barnsley Hospital, Barnsley; ⁵Department of Gastroenterology, Rotherham Hospital, Rotherham, UK

Introduction UGIB is a common emergency frequently requiring endoscopic intervention. Training in therapeutic endoscopy for UGIB is not mandatory. Furthermore UGIB endoscopic experience

may be diminished by the European Working Time Directive and a Consultant delivered service. There has been no published data on trainees' opportunities for UGIB endoscopic experience. This study evaluates GI trainee experience in the South Yorkshire (SY) region and nationally.

Methods Rockall scores for patients requiring an endoscopy for an UGIB (n = 622, 5 hospitals) was prospectively collected in SY between Sept-Dec 2011. Trainee experience from this cohort was then compared with a historical SY UGIB cohort (n = 274) from 1996. Nationally, all BSG trainees (n = 478) were invited to respond to a custom designed web based questionnaire (Nov-Dec. 2012). Information was collected about OGD competency (both diagnostic and therapeutic) and trainees' confidence of acquiring sufficient endoscopic skills in UGIB prior to completing specialty training.

Results Regionally, comparison between the 2011 and 1996 SY UGIB cohorts demonstrated comparable 30-day mortality rates (8.5% vs 8.1%, $p = 0.78$), with similar median post-endoscopy Rockall scores (6 v 5). When comparisons were made between trainee and non-trainee performed procedures, no mortality difference was identified ($p = 0.286$). However, when comparing trainee undertaken procedures between the two cohorts, a significant decline was observed with 76% (208/274) of endoscopic procedures for UGIB being performed by trainees in 1996 compared with only 16% (97/622) in 2011 ($p < 0.0001$). Nationally, questionnaires were returned by 51% (245/478) of BSG trainees (median = 4 years registrar training, range 1–9 years). Of these, 42% (104/245) had completed a basic upper GI endoscopy training course and 40% a therapeutic course. Median number of OGD's performed by trainees was 500, with therapeutic exposure $< 10\%$ in 76% of cases. 23% (57/245) of trainees felt their endoscopic skills in UGIB will be insufficient at the time of specialty training completion.

Conclusion This study objectively demonstrates a decline in regional training for gastroenterology trainees in UGIB endoscopic procedures. Furthermore our regional audit is supported by the National audit, which suggests that trainees across the UK are both limited in their opportunities and concerned that a level of competency may not be attained during registrar training. We advocate reviewing UK endoscopic training provision for UGIB ensuring qualified and confident endoscopists are produced to meet future service needs.

Disclosure of Interest None Declared

PTU-043 DIAGNOSTIC YIELD AND SAFETY OF SMALL BOWEL CAPSULE ENDOSCOPY

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¹E Houston, ¹R Rivera-Forrester, ¹N Haslam, ¹A Morris, ¹P Reid, ¹P Collins. ¹Gastroenterology, Royal Liverpool University Hospital, Liverpool, UK

Introduction Small bowel capsule endoscopy (CE) is a minimally-invasive, established tool for the detection of small bowel lesions.

Methods All capsule endoscopy reports from Jan 2007 to Aug 2012 performed at the Royal Liverpool University Hospital were reviewed.

Results A total of 311 examinations were performed during the period of review. Patients undergoing CE had a median age of 53 years (range 15 – 88) and a male:female ratio of 48.6%:57%.

The commonest indication for examination was unexplained iron deficiency anaemia (IDA) (48.6%). Other indications included assessment for suspected Crohn's disease (23.5%), obscure overt GI blood loss (11.9%), polyposis syndrome (3.9%), diarrhoea (2.6%) and investigation of refractory coeliac disease (1.6%).

The median gastric transit time was 19 mins (range 0 – 276 mins). The median small bowel transit time was 245 mins (range 61–533 mins). The capsule failed to reach the colon in 17.4% of cases.

41.8% of examinations were normal. The commonest finding in patients with IDA was angioectasia (19.9%). 59.5% of patients with obscure overt GI blood loss had positive findings. (Active bleeding (24.3%), Vascular lesion (5.4%), polyp (10.8%), NSAID enteropathy (2.7%), and gastritis (2.7%)). Crohn's disease was identified in 5.8% of all cases and in 13.8% of cases referred for assessment of suspected Crohn's disease. 4.6% of patients with IDA had findings consistent with Crohn's disease.

Further investigation was advised in 36.7%. In 35.9% of those patients, the major abnormality identified for which a further procedure was required was located within the reach of a gastroscope. In those with IDA, gastroscopy was recommended in 22.7% of cases. Gastroscopy was recommended in a smaller proportion of patients (4.4%) having CE for other indications.

A repeat procedure with bowel cleansing agents was required because of poor views in 1.6% of procedures.

Capsule retention occurred in 2 of 186 patients (1.1%) for whom retention data was available. Prior small bowel imaging had not demonstrated a stricture in either case. Endoscopic removal of the capsule was successful in both patients. The cause of capsule retention was Crohn's disease in one and NSAID enteropathy in the other.

Conclusion Adequate diagnostic images were obtained in > 98% of patients without the administration of bowel cleansing agents. The yield of positive findings from capsule endoscopy is high, but a significant proportion of lesions are within the range of a gastroscope, especially in patients with IDA. We recommend that patients undergo at least two gastroscopies prior to CE. CE is a safe procedure. Capsule retention was reported with a similar frequency to that reported in other case series. Patients should be advised that normal small bowel radiology may not exclude a significant stricture.

Disclosure of Interest None Declared

PTU-044 JOINT ENDOSCOPIC/LAPAROSCOPIC PROCEDURES FOR MANAGEMENT OF COMPLEX COLONIC POLYPS

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¹E Wesley, ²N L Bullen, ²N J Smart, ³S D Mansfield, ¹T Shirazi. ¹Gastroenterology; ²Surgery, Royal Devon and Exeter Hospital, Exeter, UK

Introduction Polypectomy during colonoscopy can be challenging and is potentially dangerous. Patients with particularly challenging polyps have been traditionally referred for segmental colectomy.

Laparo-endoscopic resection (LER) has been found to be safe and effective in other centres^{1,2}. Laparoscopic mobilisation of the colon for endoscopic sub-mucosal resection (EMR) has the potential to assist with the removal of complex polyps and can allow immediate management of complications.

We implemented a pathway for patients who would previously have been offered segmental resection to undergo colonoscopy in theatre under general anaesthetic (GA) by an expert colonoscopist with a laparoscopic colorectal surgeon present to assist with laparoscopic mobilisation or proceed to segmental colectomy if required.

Our aim was to assess the safety and feasibility of this new service and to compare our results to published data.

Methods Cases were collected prospectively from February 2010 to September 2012.

Data on patient demographics, indication, lesion site and size, index colonoscopist, LER surgeon and endoscopist, procedural details, length of hospital stay, completeness of endoscopic resection and complications were collected retrospectively by two independent investigators.

Results 25 patients, (17 male) underwent GA colonoscopy in theatre for 26 polyps. Polyp size estimation at initial colonoscopy ranged from 10–50mm, median 25mm. 15 polyps were in the right colon.

8 (32%) required segmental colectomy: 5 lesions appeared malignant, 1 was too large, 1 and 2 technically impossible to resect. 2 cases required laparoscopic mobilisation of the colon to aid EMR.

15 patients (60%) avoided any abdominal surgical intervention.

Median length of hospital stay was 1 day.

2 patients had significant post-operative bleeding (1 EMR, 1 port-site). 1 patient developed a collection after laparoscopic resection which required radiological drainage. 1 EMR patient had polyp cancer with inadequate resection margins and required subsequent laparoscopic resection.

Conclusion Although the number of patients is relatively small, the pathway is a safe and feasible way to reduce the need for colonic resection for complex polyps. A significant number of patients avoided the need for segmental resection, and most did not require any laparoscopic assistance.

Disclosure of Interest None Declared

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PTU-045 DIAGNOSTIC UTILITY OF SINGLE-USER PERORAL CHOLANGIOSCOPY FOR INDETERMINATE BILIARY STRICTURES IN SCLEROSING CHOLANGITIS

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¹E Kalaitzakis, ²R Sturgess, ^{2,3}H Kaltsidis, ⁴K Oppong, ²V Lekharaju, ¹P Bergenzaun, ³P Vlavianos, ⁵H Sharma, ³D Westaby, ⁵G J Webster. ¹Department of Gastroenterology, Skåne University Hospital, Lund, Sweden; ²Department of Gastroenterology, Aintree University Hospital, Liverpool; ³Department of Gastroenterology, Imperial College Healthcare NHS Trust, London; ⁴Department of Gastroenterology, Freeman Hospital, Newcastle; ⁵Department of Gastroenterology, University College Hospital, London, UK

Introduction Single-user peroral cholangioscopy (SOC) has been reported to be useful in the differential diagnosis of indeterminate biliary lesions, but its diagnostic utility in sclerosing cholangitis (SC) has not been evaluated.

Methods Fifty-one consecutive patients with sclerosing cholangitis (47 primary SC; 4 IgG4-related cholangitis), who underwent 54 attempted SOC procedures due to indeterminate biliary strictures, in 4 UK and 1 Swedish tertiary referral centres in 2008–2012, were retrospectively enrolled. Brush cytology or SOC-directed biopsies were obtained as clinically indicated. The operating characteristics of SOC for detecting cancer were calculated using a composite reference standard (incl. surgical confirmation, tissue sampling, follow-up). For each SOC procedure in SC, another one attempted due to an indeterminate biliary stricture in patients without SC in the same centre and calendar year was randomly selected as control.

Results The SpyglassTM cholangioscope could be successfully inserted in the bile duct less frequently in SC compared to controls (83% vs 96%, $p = 0.05$), but the two groups did not differ in the mucosal visualisation success rate (93% vs 94%). SOC-directed biopsies were more commonly performed in SC vs controls (83% vs 61%, $p = 0.02$) but the rate of adequate samples did not differ significantly (67% vs 77%, $p = 0.2$). The sensitivity, specificity and accuracy of SOC with/without tissue sampling for cancer diagnosis were similar in the 2 groups (intention-to-diagnose; table). The SOC diagnosis rate of malignant lesions was also similar in SC vs controls (50% vs 55%, $p > 0.05$). Adverse events were more common in SC, mainly due to an increased frequency of cholangitis (table). No severe adverse events were observed.