

PTU-039 COLONOSCOPIC POLYP DETECTION RATE IS STABLE THROUGHOUT THE WORKDAY INCLUDING IN EVENING COLONOSCOPY SESSIONS

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¹D Thurtle, ²M Pullinger, ²J Tsigarides, ¹I McIntosh, ²C Steytler, ^{1,2}L P Beales. ¹Gastroenterology, Norfolk and Norwich University Hospital; ²Norwich Medical School, Norwich, UK

Introduction Polyp detection rate (PDR) is an accepted measure of quality of colonoscopy. Several factors may influence PDR including time of procedure and rank of colonoscopy within a session. Our unit provides evening colonoscopy lists (6–9 pm) to meet high demand and improve patient convenience, but it is unknown if colonoscopy performance declines in the evening. We have evaluated PDR by endoscopy session with particular reference to the evening session.

Methods Data were collected retrospectively for all NHS outpatient colonoscopies performed at Norfolk and Norwich University Hospital in 2011. Timing, demographics, staffing, indication and findings of colonoscopy were recorded. Descriptive statistics were calculated and statistical analysis was performed using multivariate regression. PDR was defined as the detection of one or more polyps at colonoscopy.

Results Data from 2576 colonoscopies were included: 1163 (45.1%) were performed in the morning, 1123 (43.6%) in the afternoon and 290 (11.3%) in the evening. Unadjusted PDR in the morning, afternoon and evening session were 46.4%, 35.9% and 37.2% respectively. Mean age was lower in the evening sessions (58.15) compared to morning (64.68) and afternoon (62.29).

Factors associated with polyp detection were assessed by multivariable logistic regression. Male gender (OR = 1.76, 95%CI 1.48–2.11, $p < 0.001$), increasing age (OR = 1.045, 95%CI = 1.035–1.055, $p < 0.001$) and successful caecal intubation (OR = 2.48, 95%CI = 1.53–4.01, $p < 0.001$) were all significantly associated with higher polyp detection. The indications 'faecal occult blood screening' ($p < 0.001$) and 'polyp surveillance' ($p < 0.001$) were strongly positively associated and 'anaemia' ($p = 0.01$) negatively associated with PDR.

Following standardisation of covariates (including endoscopists), there was no significant difference in PDR between sessions. With the morning as the reference value, the odds ratio for polyp detection in the afternoon and evening were 0.93 (95%CI = 0.72–1.18) and 1.15 (95%CI = 0.82–1.61) respectively. PDR was not shown to be affected by rank of colonoscopy within list ($p = 0.904$), sedation dose, trainee involvement or endoscopy room.

Conclusion Time of day was not shown to affect polyp detection rate in our clinical practise. Evening colonoscopy had equivalent efficacy and seems to be a useful and effective tool in meeting increasing demands for endoscopy. Standardisation was shown to have a considerable effect as demographics, indication and endoscopist varied substantially between sessions. Evening sessions, outside of standard working hours, were popular with a younger population. Consistent with previous studies, caecal intubation is an important marker of the quality of colonoscopy.

Disclosure of Interest None Declared

PTU-040 STUDY OF QUALITY AND EFFICACY OF BOWEL PREPARATION FOR COLONOSCOPY

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¹D S Chilkunda, ²S Shah. ¹Gastroenterology, Leeds Teaching Hospitals NHS Trust, Leeds; ²Gastroenterology, Pinderfields General Hospital, Wakefield, UK

Introduction Effective bowel preparation of $\geq 90\%$ is a key quality indicator for ensuring good standards of colonoscopy¹. Good quality bowel preparation improves polyp detection and caecal intubation rates. Various regimens used in Mid-Yorkshire NHS Trust (MYNHT) were assessed in 2008 leading to a change in practise. As a result, Citramag and Senna have been used in split doses since then. Aims of the study were to determine the efficacy of Citramag/Senna, and patient acceptability & tolerability of this regimen. Performance of this regimen was compared to Kleen Prep and oral Fleet used previously.

Methods We prospectively studied data collected from pre-procedure questionnaires completed by patients between Aug 2010 & May 2011. Endoscopists scored bowel cleansing according to Boston Bowel Prep Scale (BBPS) for each segment (0–3)², on the basis of guidance images and scoring system provided for the duration of the study. Qualitatively, bowel cleansing was graded as A, B or C, where A = all segments clean, B = partially removable stool preventing complete visualisation in at least one segment and C = solid stool in at least one segment. Exclusion criteria were used to philtre patients who received regimens other than Citramag/Senna, those with incomplete data and those who had had colonic resection.

Results A total of 194 questionnaires were received during the study period. Of these, 19 patients were excluded from further analysis on the basis of criteria detailed above. Of the remaining 175 cases assessed, 88% patients found taste of the preparation acceptable or pleasant. 92.5% were willing to take the same regime again. 44% patients had adverse effects of which 77% were mild. This compared favourably to results of Kleen-Prep (62.9%) & Fleet (66.2%). Abdominal cramp was the commonest side effect. Mean total BBPS score was 16.91 (maximum score possible 18). 93.14% cases were graded A (qualitative score) implying good efficacy of bowel preparation, compared to 45.1% for Kleen-Prep and 69% for Fleet.

Conclusion The split-dose regimen of Citramag/Senna meets the Joint Advisory Group (JAG) recommendation for bowel cleansing with efficacy of $>90\%$ and is better than other regimens previously used in MYNHT. We also found this to be superior to Kleen-Prep and oral Fleet in terms of patient acceptability and adverse effects. Hence, we recommend continuing with the current regimen, and re-assessing this to ensure ongoing efficacy/benefit. BBPS should be considered for use as a standard scoring tool for assessing efficacy of bowel preparation. However, further validation is required to demonstrate its applicability in day-to-day endoscopy.

Disclosure of Interest None Declared

REFERENCES

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2. Calderwood A & Jacobson B. Comprehensive validation of Boston bowel preparation scale. *Gastrointestinal Endosc.* 2010 October; 72(4): 686–692

PTU-041 DEDICATED GI BLEED SERVICES RESULT IN A SIGNIFICANT DIFFERENCE IN INPATIENT MORTALITY: A SOUTH YORKSHIRE EXPERIENCE

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

Introduction Acute upper GI bleeding (AUGIB) is a common gastrointestinal problem associated with significant mortality.¹ Whilst numerous factors have been shown to influence mortality in these

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 ENOSCOPIC 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.