

make a prediction was constructed from 35 clinical and laboratory variables. The ANN was trained and validated internally using leave-one-out method. The primary composite end point was the need for intervention, rebleeding or death. Sensitivity, specificity, predictive values and accuracy were calculated to compare the performance of the scores in predicting the composite end point.

Results Overall demographics and outcome of the 174 patients identified with ALGIB were: mean age 68 year (range 16–99), male: female 1:1, rebleeding rate (16.1% n=28), 30 day in hospital mortality (2.3% n=4). The most common diagnoses were diverticular disease (36%), haemorrhoids (10%) and colorectal carcinoma (10%). Twenty-three patients (13%) required intervention; endoscopic therapy (n=7), angiographic embolisation (n=8), or surgery (n=8). Notably, only four (2.3%) patients satisfied the SIGN criteria for non-admission. Predictive scores for each tool were: ANN (sensitivity 50%, specificity 83%, PPV 44%, NPV 83%), BLEED (sensitivity 67%, specificity 44%, PPV 28%, NPV 81%) and SIGN (sensitivity 100%, specificity 3%, PPV 25%, NPV 100%). The ANN performed significantly better in predicting the composite outcome (accuracy 0.76, 95% CI 0.70 to 0.83) compared with BLEED (0.49, 95% CI 0.42 to 0.57) and SIGN (0.26, 95% CI 0.20 to 0.33) scores.

Conclusion A non-endoscopic based artificial neural network model was more accurate than published guidelines/scores in predicting an adverse outcome in patients with ALGIB.

Competing interests None declared.

PMO-205 PHOTOGRAPHIC CONFIRMATION OF COMPLETE COLONOSCOPY

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C Subbiah Somasundaram,* D Ramanaden, A Baghomian, I Finnie. *Gastroenterology, Ysbyty Glan Clwyd, Rhyl, UK*

Introduction Establishing intubation of caecum is an important aspect of quality indicator¹ of colonoscopy, BSG recommendation is that photographic and written confirmation of caecal intubation is kept.

Aims

1. Establishing reliability of photodocumentation of caecum as evidence of caecal intubation in a DGH setting.
2. Reproducibility of findings.

Methods A retrospective study of 100 consecutive endoscopic (single) caecal photographs documented by eight endoscopists (7 consultants, 1 SPR) were collected onto a spreadsheet. Nine endoscopists then independently scored the photographs anonymously using a range from 1 to 6 as tabulated to determine the strength of the photograph as displaying caecal intubation. Seven photographs were duplicated in sheet 1 and sheet 5 to assess intra-observer reproducibility.

Results The results were as follows for the first part of the study:

Intra observer variability (number of sets of pictures with difference in score of more than 1 point) was 5 out of 63 (7.93%) was good, but there was poor agreement between observers.

Conclusion In 48% of assessments the photograph was assessed as either definitely caecum or likely caecum. These results are higher than found in some previous studies.^{2–5} Factors including poor bowel preparation, caecal anatomy, patient tolerance of the procedure can influence the quality of photographs. It would be interesting to know if multiple photographs gave better results. Other methods including video (as opposed to still) photography⁶, barium x-rays have also been recommended.

Abstract PMO-205 Table 1

Score	Description of score	Number of photos	Percentage
1	Not known	1	0
2	Definitely caecum	246	26
3	Likely caecum	208	22
4	Maybe caecum	212	22
5	Unlikely caecum	147	16
6	Not caecum	135	14

Competing interests None declared.

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PMO-206 POST COLONOSCOPY CANCERS IN 5-YEAR INTERVAL

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C Subbiah Somasundaram,* D Ramanaden, I Finnie, A Baghomian. *Gastroenterology, Ysbyty Glan Clwyd, Rhyl, UK*

Introduction To evaluate the risk of colorectal cancer in a 5-year period after a negative colonoscopy (PCCRC).

Methods Data of patients undergoing colonoscopy in a 1-year period from January to December 2004 collected from endoscopy database (847 cases), and matched electronically with patients diagnosed with CRC in the next 5 years. 60 matches were made. **Exclusion criteria:** Patients detected to have cancers by colonoscopy in 2004 (44 cases). **Inclusion criteria:** Patients with negative colonoscopy in 2004 with CRC from 2005 to 2009 were included (n=803).

Results Four patients with negative colonoscopy in 2004 were diagnosed with CRC between 2005 to 2009.

Case 1: M78 with diverticular disease in 2004 and iron deficiency anaemia 2005. OGD showed pyloric ulcer. Colonoscopy deferred as negative 1 year ago. In 2006 found to have **caecal cancer**.

Case 2: M43 known IBD, on surveillance with negative colonoscopy in 2004 had **low rectal cancer** in 2005.

Case 3: M66 had four adenomas (ascending colon, hepatic flexure, splenic flexure and 20 cm from anal verge) removed in July 2004. **Rectal Malignancy** detected in 2005.

Case 4: F76 incomplete colonoscopy in 2004 due to a tight sigmoid diverticular stricture, developed **sigmoid cancer** in 2008.

4 PCCRCs (1 Caecal, 1 Sigmoid, 2 Rectal) detected out of 803 patients in an interval of 5 years with a miss rate of 0.49% over 5 years. Three were males. Age range 43–78 years.

Conclusion What is known: Previous studies¹ have shown that female sex diverticular disease, older age,^{2,3} right sided cancers^{1–5} IBD, incomplete colonoscopy^{2,3} are all risk factors for missed CRCs.

What this study found: 3 out of 4 missed cancers were in males and 3 out of 4 were left sided cancers, two of them in rectum. Our miss rate was 4/803 that is 0.49% compared to an average of 5% in other studies^{1–6} and similar to the miss rate in the National Polyp study. **What this study adds:** Diligent examination of the rectum

is important; particularly in IBD patients on surveillance. It is important to retroflex in rectum to inspect the anal verge. Left sided cancers comprised the major part of missed cancers.

Competing interests None declared.

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PMO-207 CHANGING TRENDS IN UPPER AND LOWER GASTROINTESTINAL BLEEDING OVER A 13-YEARS PERIOD

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C Smith,* J M Thomson, A Fraser, B Vijayan, J S Leeds. *Gastroenterology, Aberdeen Royal Infirmary, Aberdeen, UK*

Introduction Acute gastrointestinal (GI) bleeding is a common medical emergency associated with significant mortality and morbidity. Recent studies suggest that the incidence of upper GI bleeding (UGIB) has decreased mainly due to reduction in peptic ulcer disease. Trends for lower GI bleeding (LGIB) are less well defined and therefore the burden on health services is unknown. The aim of this study was to examine the trends in all types of GI bleeding presenting to our bleeding unit over a 13-year period.

Methods Our Gastrointestinal Bleeding Unit opened in October 1991 and serves a population of around 600 000. The unit admits patients with both upper (UGIB) and lower (LGIB) bleeding and maintains a prospective database of all admissions. The database was analysed for yearly admissions over the period 1991–2004 with respect to total number of admissions and then stratified by bleeding source, age, gender and diagnosis. Age, gender, bleeding source and disease specific rates were calculated.

Results 12 572 patients (median age 66, 7028 males) were admitted to the unit over the period October 1991–October 2004. 9544 presented with symptoms of UGIB and 2508 with symptoms of LGIB with 520 patients being unclassified due to a mixture of symptoms. Overall numbers of admissions increased from 728 in the first year to 1003 in year six then reached a plateau thereafter around 950 per year. Overall 30-day mortality was 9.7% (8.7–10.8) for UGIB and 11.4% (9.2–14.1) for LGIB and there was no change in rebleeding rates. Median age increased significantly from 64 years to 68 years ($p < 0.001$) over this period mirrored by increasing age in UGIB (63 to 65 years, $p < 0.001$) but no significant difference in LGIB. Patients presenting with LGIB were significantly older than those presenting with UGIB (70 vs 64, $p < 0.001$) and were more likely to be female (OR 1.64, 95% CI 1.5 to 1.8, $p < 0.001$). With respect to UGIB, there was a non significant increase in admissions overall but there was a rise in variceal bleeding (OR 2.5, 95% CI 1.5 to 4.4, $p = 0.005$) but a reduction in bleeding peptic ulcers (OR 0.65, 95% CI 0.49 to 0.87, $p = 0.039$) particularly in males age < 40 years. There was a significant increase in the numbers of admission due to LGIB ($p < 0.001$) predominantly due to inflammatory bowel disease ($p = 0.04$), haemorrhoidal bleeding ($p = 0.001$) and ischaemic colitis ($p = 0.0016$).

Conclusion There has been an increase in numbers of patients admitted with GI bleeding and this population is significantly older over time. There has been a decline in peptic ulcer bleeding but a rise

in variceal cases. Admissions overall for GI bleeding have increased mainly due to a significant rise in LGIB mainly accounted for by IBD, haemorrhoids and ischaemic colitis.

Competing interests None declared.

PMO-208 DOUBLE BALLOON ENTEROSCOPY IN A DISTRICT GENERAL HOSPITAL: THE EXPERIENCE SO FAR

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¹C Parker,* ²R Perowne, ³D Nylander, ²S Panter. ¹South Tyneside District Hospital, South Shields, UK; ²South Tyneside Hospital, South Shields, UK; ³Sunderland Royal Hospital, Sunderland, UK

Introduction Double Balloon Enteroscopy (DBE) is widely used in clinical practice worldwide and can be used to explore the small bowel in an antegrade or retrograde approach. A DBE service at South Tyneside District Hospital was commenced in January 2010 to complement the existing capsule endoscopy service.

Methods Patient records were examined retrospectively for all DBE's performed at South Tyneside District Hospital between January 2010 and January 2012. Information recorded included: indication for procedure, route of procedure, average depth of insertion, findings of procedure, therapy performed, sedation used and complications.

Results A total of 37 procedures (17 (46%) in first 12 months, 20 (54%) in 2nd) were performed: 17 anal, 1 via ileostomy, 19 oral. 81% were done under sedation using a combination of midazolam and pethidine (average doses 4.7 mg midazolam, 62 µg pethidine), 19% were performed under GA. Average depth of insertion for all procedures was 197 cm for oral DBE and 81 cm for anal DBE. Average depth for year 1: 204 cm oral, 69 cm anal. Average depth of insertion for year 2: 190 cm oral, 93 cm anal. Indications: Suspected mid GI bleeding 30%, definite or suspected Crohns 46%, neoplasia, 10.5%, abnormal imaging 10.5%, symptoms/signs only 3%. See Abstract PMO-208 table 1. DBE Findings: Diagnostic yield: 30% for occult GI bleeding, 46% for suspected or definite Crohns with an overall change in management (or can explain symptoms) in 37%. See Abstract PMO-208 table 2. Overall biopsies were taken in 43% (37.5% year 1, 47% year 2). Therapy was performed in 9% (1 Crohn's stricture dilatation, 2 Peutz Jegher polypectomies.). There have been no complications.

Conclusion Our DBE service appears safe. In the second 12 months there were deeper depths of insertion for the anal approach suggesting the "learning curve" is greatest for this approach. Increasing amounts of therapy and tattoos are being performed as experience is increasing. A recently published systematic review of DBE¹ found the main indication for referral for DBE to be GI bleeding (60.2%), interestingly our results show a different picture

Abstract PMO-208 Table 1

DBE indication	%
GI bleeding	30
Crohn's disease	46
Neoplasia	10.5
Abnormal imaging	10.5
Symptoms/signs	3

Abstract PMO-208 Table 2

DBE findings	%
Inflammatory	27
Vascular	2
Neoplastic	9
Normal	62