

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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**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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**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 2<sup>nd</sup>) 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 DBE<sup>1</sup> 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

with the main referral indication being Crohn's disease (in 46%) and GI bleeding in only 30% of cases. The overall rate of positive findings is lower than in the literature at 37% and may be due to the different referral indications as well as the small number of procedures performed so far.

**Competing interests** None declared.

## REFERENCE

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### PMO-209 INCIDENCE OF STROKE FOLLOWING ENDOSCOPY IN A DISTRICT GENERAL HOSPITAL

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**Introduction** There has been a sustained increase in demand for gastrointestinal (GI) endoscopy. 1.4%–1.6% of the population undergo upper GI endoscopy per annum, 0.8 % flexible sigmoidoscopy (FS) and 0.6% colonoscopy.<sup>1</sup> Complications occur due to the risk of the procedure or sedation. With the advent of the bowel cancer screening programme there has been increasing scrutiny of the safety of endoscopy and strict quality assurance. Both transient ischaemic attacks (TIAs) and strokes (cerebrovascular accidents (CVAs)) are recognised to occur both during and following endoscopic procedures,<sup>1,2</sup> however data regarding prevalence are lacking. Our objective was to establish the frequency of stroke after endoscopy in our hospital.

**Methods** We performed a retrospective audit of stroke occurrence after endoscopy. Hospital episode statistics were cross referenced with endoscopy reporting system from November 2009 to November 2011. Patients admitted with a stroke within 28 days of an endoscopic procedure (OGD, colonoscopy or FS) were identified. The notes were then examined to ascertain further information about demographics, procedure type, comorbidities, complications, haemodynamic changes, time period between procedure and symptoms, length of stay and survival.

**Results** 8790 procedures were performed: colonoscopy 1953, OGD 4084, FS 2753. Seven strokes were identified; 5 OGD, 1 FS and 1 colonoscopy. 6 of 7 (86%) of the strokes occurred within 10 days, 4 (57%) within 4 days of procedure. Four patients died. Five strokes were cerebral infarcts, two intracerebral haemorrhages. There were no cardiovascular changes or hypoxia during any procedures. 86% of the patients were aged over 75 years. Data from 2 UK audits of OGD and colonoscopy have found the rate of stroke to be 0.04%.<sup>1,2</sup> Our rates of stroke following endoscopy are similar for colonoscopy at 0.05% but are 3 times higher for OGD at 0.12%. This suggests post endoscopy stroke is a more common occurrence than is previously documented. Although the relatively small numbers make bias likely, an alternative reason could be the under reporting of strokes occurring in the 28 days following endoscopy.

#### Abstract PMO-210 Table 1

Abnormal imaging modalities	Normal imaging modalities	Pathology suggested by imaging/VCE	Symptoms only	Result of DBE	Histology
VCE	BaFT	SB inflammation	No	Normal	None
VCE	BaFT	SB ulceration	No	Normal	None
Nil	CE, BaFT	Normal	Yes	Normal	Normal
Nil	CE, BaFT	Normal	Yes	Normal	Normal
Nil	CT, CE BaFT	Normal	Yes	Normal	Normal
CT	Nil	SB ulceration/thickening	No	SB ulceration	Inconclusive
MRE	Nil	SB thickening	No	Crohn's stricture	Crohn's
CE	MRE	SB ulcers	No	SB ulceration	Inconclusive

**Conclusion** Endoscopy is a safe procedure but it does have risks, we are performing more procedures and have an aging population. Stroke is a serious event with high mortality and long hospital stay. Quality assurance of endoscopy is an important factor in all procedures and our data would suggest that stroke should be specifically looked for following endoscopy. We need to consider if there is any alternative ways of monitoring patients to be able to predict those who are at risk of stroke following endoscopy.

**Competing interests** None declared.

## REFERENCES

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### PMO-210 DOUBLE BALLOON ENTEROSCOPY: HOW USEFUL IS IT TO CONFIRM CROHN'S DISEASE?

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**Introduction** Double Balloon Enteroscopy (DBE) is widely used in clinical practice worldwide. A DBE service at South Tyneside District Hospital was commenced in January 2010 to complement the existing capsule endoscopy (CE) service. We present the results of an audit of prior investigation before DBE.

**Methods** Clinical records were examined for patients referred for DBE with a diagnosis of suspected Crohn's disease. Information was gathered regarding: place of referral, previous imaging and endoscopy, findings and histology.

**Results** 28/37 (77%) of referrals were from outside our hospital. 15/37 referred for investigation of Crohn's disease, 75% of these were from outside our hospital. Seven patients with known Crohn's were referred for investigation of recurrent symptoms or for possible stricturing disease. Eight patients were referred with possible Crohn's based on clinical symptoms and signs. All patients had been previously investigated with multiple endoscopic or imaging modalities. Most common method of prior imaging for patients being investigated for Crohn's disease was Barium follow through (BaFT) 42%, followed by CE 33%, CT 12.5%, MRE 12.5%. 87% had a colonoscopy prior to referral. 11/15 had abnormal imaging, 5 (33.3%) having inflammatory changes seen on CE. Of these histology was taken in three and found: Crohn's (1), non-specific inflammation (1), normal (1). 3/5 cases were normal at DBE. 4/15 had entirely normal previous investigations. Of the eight patients with suspected Crohn's, two patients with abnormal radiology had DBE findings consistent with Crohn's. Of the three patients with SB ulceration on CE only one had an abnormal DBE and histology obtained was inconclusive. See Abstract PMO-210 table 1.