tests were used for categorical, unpaired and paired continuous variables respectively.

Results See Table 1. 7 sites were able to participate in both rounds. There was a significant increase in the documentation of GBS and rebleed plans (vs. audit standard of 100%). There were non-significant reductions in the median time to OGD and the proportion within 24 hour. This improved at 5 sites ($p>0.05$ in paired analysis), and 5 vs. 6 sites achieved JAG 50% standard (no sites achieved 75% standard). In the 2017 cohort, 42% of patients had OGD delayed >24 hour. They had significantly lower GBS and longer length of stay (see Table 2). In patients receiving endotherapy, OGDs were more timely (18.4 hour [11.3–25.9] vs. 22.8 hour [16.9–43.5], $p=0.005$) but 31% were still treated after 24 hour.

Conclusions Locally-tailored QI driven through regional trainee-led audit can deliver modest improvements in patient care. This audit shows that further action is needed to meet standards. Time to OGD is a pragmatic measure of quality of care and not a clinical outcome. Service development would benefit greatly from a tool to identify patients most likely to benefit from timely endoscopic diagnosis and endotherapy. We propose that QI is co-ordinated at national level. We are collaborating with our fellow trainee networks to support such initiatives.

Abstract PTU-101 Table 1

Patients (n)	166	154	
Sites (n)	9	8	
Age (years, mean $\pm$ SD)	67 $\pm$ 17.9	67 $\pm$ 18.7	
Sex (% male)	60	58	
PPI pre-OGD (PPI-naïve [%])	50/106 [47%]	41/87 [47%]	ns
GBS recorded pre-OGD (%)	42	57	0.010
Time to OGD (h, median [IQR])	23.0 [16.5–40.1]	22.0 [15.1–32.2]	ns
OGD within 24 hour (% [range sites])	52 [28–71]	58 [22–70]	ns
Rebleed plan [%]	28	42	0.007

Abstract PTU-101 Table 2

Patients (n)	89	65	
Median GBS [IQR]	10 [5–13]	8 [5–11]	0.048
GBS $\geq$ 8 (%)	69	51	0.030
GBS $\geq$ 12 (%)	38	20	0.021
Shock index [IQR]	0.78 [0.61–0.94]	0.73 [0.60–0.89]	ns
Shock index $\geq$ 1 (%)	18	11	ns
Endotherapy (%) [number variceal band ligation, non-variceal]	33 [8–21]	20 [3–10]	ns
Length of stay (d) [IQR]	5 [3–8]	6 [5–10]	0.017

GBS, Glasgow Blatchford score; ns, not significant (2-tailed $p\geq 0.05$); PPI, proton pump inhibitor

Introduction GI bleeding is a common emergency. NCEPOD 2015 guidance recommends Consultant input within 1 hour, to both major upper and lower GIB; performance of endoscopy within 24 hours for all patients, and within 2 hours of stability in haemodynamically unstable patients. This guidance was incorporated into our local Trust GI bleed pathway. We have a 24/7 GIB on call rota and inpatient endoscopy lists 6 days/week. We have previously used our electronic endoscopy requesting system to identify the source of any delays in performing endoscopy. Following this we modified vetting and booking practices. We aimed to audit compliance with NCEPOD guidance and against our previous audits.

Methods Data were prospectively collated over 4 weeks from 6/2/17 to 5/3/17. Major GI bleeds were identified with either Glasgow Blatchford Score (GBS) score >8 or pre-endoscopy Rockall >5 or Shock index >1 . Information was extracted from the hospital electronic health record and the Unisoft endoscopy reporting tool.

Results 42 patients presented with upper GIB (UGIB) and 9 with lower GIB (LGIB). 95% of patients with UGIB had a pre-endoscopy Rockall score documented, compared to 83.3% post endoscopy. Shock index was documented in 82.3% of all GIB patients.

66.7% of patients with LGIB had a PR exam and only 33.3% also underwent proctoscopy. 66.7% of patients had a flexible sigmoidoscopy and 33.3% had a colonoscopy.

Abstract PTU-102 Table 1

Admission - medical review	3 hours 45mins
Medical review - endoscopy request	4 hours 18mins
Endoscopy request - vetting	10 hours 39mins
Vetting - endoscopy	21 hours 45mins

15/51 of patients presented with major GIB, all of which were upper GIBs. 10/15 of these patients were discussed with the on-call Gastroenterologist within 1 hour (66.7% compliance). No patients presented with a major lower or upper GIB, with haemodynamic instability, during this time frame.

80.4% underwent endoscopy within 24 hours. Table 1 demonstrates the breakdown of the mean cumulative length of time between each stage, from admission to undergoing endoscopy.

Conclusion Our audit demonstrates improved compliance with NCEPOD and NICE guidance. Following changes to the endoscopy requesting process, the% of patients undergoing endoscopy within 24 hours has improved (26% vs 80.4% in this re-audit). However, the incorporation of LGIB into the pathway revealed poor rates of compliance with proctoscopy and PR examination. Better communication is necessary between the surgical and medical teams for patients presenting with LGIB. Rapid Consultant Gastroenterologist input to patients with a major GIB happens frequently but needs further improvement. The introduction of an on call Gastroenterology baton telephone, and junior doctor education have been used to support the on call medical registrar with this.

PTU-102 ARE WE COMPLIANT WITH NCEPOD GUIDANCE FOR GASTROINTESTINAL BLEEDING (GIB)?

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PTU-103 COMPARATIVE RE-AUDIT OF NOVEL BLEEDS ROTA PROVISION IN A LARGE DISTRICT GENERAL HOSPITAL

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Introduction Acute upper gastrointestinal bleeding (UGIB) is a common medical emergency with an incidence of 103–172 per 100 000 in the UK. Doncaster and Bassetlaw Hospitals (DBHFT) receives 700–900 admissions with UGIBs annually. Due to an acute shortage of gastroenterologists, DBHFT offers a unique weekend-only service (WOS) operating out-of-hours (OOH) from Friday PM until Monday AM, but no official service delivery on weekdays OOH. This rota was implemented following an initial audit in 2014, when there was no weekend or weekday formalised service provision. The aim of this audit is to identify whether this method is adequate and if it confers a better prognostic outcome for patients.

Methods 198 patients were identified by the audit department by using computer code-based search criteria for random retrospective analysis. Out of 198, the first 100 patients were audited in 2014 (admitted Jan 2012–Jan 2013) and the remaining 98 patients were included in the re-audit in 2017 (admitted Jan–Dec 2016) following initiation of WOS. The end-points of each patient encounter were of those defined in the NICE guidelines.

Results Demographic information revealed that the male to female ratio in 2014 and 2017 audits was 58:42 and 54:46, respectively. The mean ages in 2014 and 2017 were 66 and 64 years respectively. In 2014, 58% (n=58) of patients had access to OGD within 24 hours of presentation, of which 55% (n=32) had OGD during normal office hours (NOH) on a weekday and 45% (n=26) had OGD within 24 hours if presenting OOH on *ad-hoc* weekend lists. In 2017, 69% of the patient received OGD within 24 hours of presentation during NOH and 74% of the patients received OGD within 24 hours if presenting OOH. The length of stay (LOS) in 2017 was reduced with 63% of patients discharged within 0–5 days of presentation, with a median LOS of 2 days. Comparatively, in 2014 the median LOS was 5 days. Endoscopic dual therapy was delivered to 12% and single therapy to 7.2% of patients in 2017 audit. On the other hand in 2014, dual and single therapy was administered in 9% and 15% cases, respectively. Finally in 2017, we found that 28% of patients needed a repeat endoscopy due to further bleeding or on-going haemodynamic instability, and a further 4% had an interventional radiology procedure done. There were 3 deaths in this cohort, but this was attributable to other co-morbidity rather than as a direct consequence of UGIB.

Conclusions This re-audit concludes that in a busy district general hospital with insufficient number of endoscopists to provide a full 24/7 bleeds rota, this novel method of service delivery infers significant improvement in access to endoscopy, reduction in LOS and an improvement in morbidity.

PTU-104 LOWER GASTROINTESTINAL TWO WEEK WAIT REFERRALS: ARE THEY BEST MANAGED BY THE GASTROENTEROLOGIST?

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Introduction National Institute of Clinical Excellence guidelines recommend considering a cancer pathway referral for suspected lower gastrointestinal cancers via Lower Gastrointestinal two week wait pathway (LGI 2WW). Unexplained weight loss, abdominal pain, rectal bleeding, unexplained iron deficiency

anaemia and a change in bowel habit are but a few indications. A third of bowel cancer cases in England are diagnosed via this referral route. In the majority, referred on the LGI 2WW, cancer is not final diagnosis. In the United Kingdom this is a pathway led by colorectal surgeons.

We hypothesise the LGI 2WW pathway would be best led by the gastroenterologist in view of the non-cancer diagnosis made through the pathway.

Method This was a retrospective, single centre case review series. One hundred consecutive patients referred via the LGI 2WW to our institution in the year 2016 were reviewed. Demographic data, investigations performed, endoscopy, final diagnosis made and follow up plan for patients were reviewed from Electronic Patient Records (EPR).

Results Ninety-eight consecutive patients referred via the LGI 2WW pathway in the year 2016 were identified (n=98, M=47 and F=51; Mean age=66.5 years).

Indication for referral and final diagnosis made has been summarised in the table below.

Abstract PTU-104 Table 1

Indication for LGI 2WW (number of patients)	Final diagnosis
Iron deficiency anaemia (14)	No cause (10) DNA (3) Referred to OP Gastroenterology (1)
Change in bowel habit (43) of which also with rectal bleeding (13/43)	No cause (20) Diverticular disease (14) colonic polyps (6) Rectal varices (1) Declined investigations (2)
Rectal bleeding (32)	Haemorrhoids (12) Colonic polyps (3) Diverticular disease (6) Colitis (3) No cause (4) DNA (4)
Weight loss with diarrhoea (5)	Diverticular disease (1) No cause (3) Referred to Gastroenterology OP (1)
Abdominal pain (3)	Diverticular disease (1) No cause (2)
Ano-rectal mass (1)	Declined further investigation

Overall, no cause was identified in 39.8% (39/98) of individuals who were then discharged to their General Practitioner with no further investigations

Conclusion In this study, out of 98 patients investigated via the LGI 2WW pathway, only one patient had evidence of a malignancy. A large proportion of patients referred to the service are discharge to the GP without a clear diagnosis. The majority of diagnosis found are non-surgical and managed usually within the UK by gastroenterologists. 3 patients in this study had a diagnosis of colitis and were not referred to GI physicians as per usual practice. Whilst urgent investigation to exclude colorectal cancer in suspected patients are imperative, we conclude that the referral pathway should be led by gastroenterologists rather than colorectal surgeons as the majority of diagnosis are managed by GI physicians.

PTU-105 THE COST BURDEN OF COELIAC DISEASE ON A DGH ENDOSCOPY UNIT: A 12 YEAR RETROSPECTIVE REVIEW

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Introduction Financial pressure within the NHS has recently led to many Clinical Commissioning Groups (CCG)

decommissioning gluten free prescriptions. However, little is known about the direct economic impact of coeliac disease (CD) in UK, thought to affect 1 in 100 people. This includes costs related to inpatient stay and towards the endoscopy unit. In order to attract appropriate, yet fair, future funding from our local CCG for treating coeliac patients, the existing expenditure needs to be acknowledged. Endoscopy with histopathological analysis of duodenal biopsies is still the gold standard for diagnosing coeliac disease. Furthermore, both upper and lower endoscopy allows the important investigation of symptoms encountered by CD patients. The objective of this study was to assess the demand and costs of GI endoscopic procedures in relation to the management of CD, over a 12 year period.

Method The Luton and Dunstable University Hospital has a database of 1317 patients with coeliac disease. [Male n=467, Female n=850; Age range: 1–102 years old; mean age 58]. Using the database for reference, the hospital coding system was used to analyse the total number of upper and lower GI endoscopy procedures performed for these patients during

2005–2016. The total cost for the Luton CCG was then calculated based on the latest Department of Health National Tariff, awarding £375 for an OGD with biopsy; £474 for colonoscopy with biopsy; £391 for flexible sigmoidoscopy with biopsy; £914 for Video Capsule Endoscopy (VCE) and £945 for ERCP. The Luton CCG reimburses (tariff cost x

1.120265) to the hospital.

Results Over the 12 year period, the 1317 known coeliac patients underwent a total 689 OGDs (cost £258,375), 413 colonoscopies (£195,762), 108 flexible sigmoidoscopies (£42,228), 6 pouchoscopies (£2,346), 8 VCE's (£7312) and 3 ERCP's (£2835). 353 patients were newly diagnosed with coeliac disease histopathologically, costing £132,375; (Marsh criteria (1) n=107; (2) n=6; (3a) n=120; (3b) n=100; (3 c) n=23). 156 OGD's were performed to investigate gluten-free compliance, costing £58 500. Sedation for all procedures accounted to £729.92.

Conclusion Over 12 years, the 1317 patients underwent 1227 endoscopic procedures (700 upper GI, 527 lower GI) and cost the CCG £5 09 588. The hospital would have reimbursed (relating to latest tariff figures) £5 70 874 from the CCG. Whilst it is clear that not all the endoscopies were directly related to coeliac disease (for example, 52 lower GI procedures were part of the Bowel Cancer Screening Programme), there is still a strong demand placed on the endoscopy unit from this cohort of patients. This burden is only likely to increase, given the suspicion that ½ million people in the UK remaining undiagnosed.

PTU-106 IMPROVING CARE IN INFLAMMATORY BOWEL DISEASE OUTPATIENT CLINICS: FIRST STEPS IN DELIVERING QUALITY IMPROVEMENT

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Background Inflammatory Bowel Disease (IBD) requires lifelong monitoring that is mostly offered in hospitals. The demand for outpatient clinic appointments continues to increase in parallel to the increasing prevalence of IBD, resulting in delays in accessing medical care.

We developed a patient centred pathway that stratifies care according to clinical needs as part of a quality improvement project. The first step was to engage patients aiming to develop a patients' information leaflet (PIL) to inform about our initiative and determine their preferred type of follow up depending on their clinical state.

Methods We used the National Institute for Health Research Collaboration for Leadership and Applied Healthcare Research for quality improvement methodology namely Plan-Do-Study-Act cycles (PDSA). The first version PIL and questionnaire was tested on patients attending clinic on week 1 (plan). PIL was distributed to patients (do) and feedback collated (study) including PIL readability using FK reading ease score. The PIL was adjusted (act) and the cycle repeated until no more changes were necessary. A structured questionnaire was developed to assess patients' preferred type of follow up and was distributed to sequential patients attending non-complex IBD clinics. Patients opting for out of hospital follow up, would have their care transferred to the telephone clinic if they were in remission according to the physician's global assessment.

Results The FK Reading ease score of the first PIL was 53.5. After 1 PDSA cycle, it increased to 64.5. Sequential reviews of the document up to 15th version resulted in a final score of 65.8. (Figure)

12 patients reviewed the document. All agreed that the information provided was readable, adequate and useful. At 5 months, 107 patients completed the questionnaire. The mean (SD) age was 52.1 (16.1) years. 62 (58%) preferred hospital monitoring for remission compared with 45 (42%) who preferred outside hospital care (telephone clinic, community services, eHealth). For active disease 45% of patients would still prefer to be given advice over the phone. Overall, 21 patients in remission were identified as appropriate to have their care transferred in our telephone clinic in the first phase of our improvement plan.

Conclusions In the first steps of our quality improvement plan, we show the value of patient involvement on designing PIL. We show that out of hospital follow up is a viable option for a select group of patients. The next step is to assess the impact of out of hospital monitoring on quality of care.

Abstract PTU-106 Figure 1