be particularly useful to control oozing. Larger prospective controlled studies are required to further determine its exact role in upper and lower GI bleeding.

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Disclosure of Interest None Declared.

PTU-030 10 YEAR RETROSPECTIVE REVIEW OF ABDOMINAL TUBERCULOSIS FROM A LONDON TEACHING HOSPITAL: DIAGNOSTIC METHODS

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Introduction Abdominal tuberculosis (TB) is difficult to diagnose, due to non-specific symptoms and radiological, histological and endoscopic similarity to other conditions. It can mimic Crohn's disease and should always be considered as a differential diagnosis. There are significant risk of incorrectly diagnosing TB and committing patients to a prolonged course of toxic chemotherapy; or missing TB with public health implications and causing life-threathening disseminated TB when immunosuppressing patients. We sought to review the route to diagnosis of patients treated for abdominal TB, their sites of disease and the yield of various diagnostic modalities.

Methods A retrospective review of patients treated at St George's Hospital, London, for abdominal TB from June 2003 to August 2013 was conducted. Information was gained from electronic patient records and the hospital's tuberculosis database.

Results 65 cases of abdominal TB were identified. Average age was 42 years (range 18–97), with 49.2% females.

Pre-diagnosis: 49.2% underwent endoscopy, 64.6% ultrasound, 70.8% CT, 3.1% MRI and 10.8% small bowel series.

TB was cultured in 47.7% of patients, in the remaining 52.3% the diagnosis of abdominal TB was based on radiology, symptoms, suggestive histopathology, exclusion of other conditions or TB at another site.

The site was: peritonitis in 35.4%, enteritis in 27.7%, solid organ TB in 3.1%, combination of sites in 33.8%. 24.6% had co-existent pulmonary TB isolated on sputum culture.

The rate of culture positivity varied from modality of specimen acquisition as outlined in the table. 1 case was resistant to isoniazid and streptomycin.

Conclusion Confirming a diagnosis of abdominal TB is notoriously difficult, with the rate of positive culture below 50% in our series. Non-invasive imaging is commonly used and is useful to characterise the phenotype of abdominal TB and suggest sites for sampling, however it does not assist in obtaining a definitive diagnosis. Invasive testing is a cornerstone of diagnosis. Ascitic fluid and surgically acquired biopsies had a higher diagnostic rate than endoscopy. There was a low rate of endoscopic biopsies being sent for Microbiology. If TB is part of the differential diagnosis endoscopists must ensure microbiological samples are taken into normal saline solution and sent for mycobacterial culture.

Disclosure of Interest None Declared.

PTU-031 DUODENAL BIOPSY SPECIMEN COLLECTION AND DIAGNOSIS OF COELIAC DISEASE

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Introduction Coeliac disease is an immune-medicated, gluten sensitive enteropathy affecting 1% of the UK population.[1] Early diagnosis is important due to the potential long-term complications. Histological analysis along with serum biomarkers are used in diagnosis.[1] British Society of Gastroenterology (BSG) guidelines recommend a minimum of 4 duodenal biopsies in order to maximise detection rates.[2,3]

Objectives To determine the current practice relating to the number of duodenal biopsy specimens taken at endoscopy in Belfast HSCT compared to national guidelines, and to assess the correlation between serology results and subsequent diagnosis of coeliac disease.

Methods Retrospective review of the first 500 duodenal biopsy histology reports processed by Belfast Trust pathology laboratory in 2012. Positive/equivocal histological features based on criteria in BSG guidelines.[2]Serology results were checked via the Link Labs© system on all patients with pathology submitted.

Results 481 duodenal histology records were included in the study with 19 excluded. 225 specimens (46.7%) had **less** than the 4 recommended individual biopsy fragments. 26 patients were diagnosed with Coeliac disease based on histological findings, and a further 30 had 'equivocal' results. Patients with positive or equivocal coeliac histology had a higher percentage of 4 or more biopsies as compared to the whole group (80.7% and 77.3% respectively vs 53.3%). Overall **96%** with histological evidence of coeliac disease also had positive serology (n = 23). For those with 'equivocal' histology, serology was positive in 55% and negative in 45%. 2% of patients with negative histology had strongly positive serology.

Conclusion The number of duodenal biopsy specimens taken at endoscopy is below recommended guidelines in 46.7% of cases. There is a higher number of biopsy specimens taken in those with subsequently positive or equivocal histological features. 96% of cases where histology was diagnostic also demonstrated positive serology. 2% of patients with subsequently negative histology had strongly positive serology prior to endoscopy, and in these cases almost all had 4 or more individual pathology specimens.

This suggests that where strong clinical suspicion and positive biochemistry indicate a higher probability of coeliac disease, the endoscopist is inclined to take more biopsy specimens.

Abstract PTU-030 Table 1

	Number	Histology sent (%)	Histology suggestive of TB (%)	Microbiology sent (%)	Culture +ve (%)
Paracentesis	20	20 (100%)	7 of 9 (77.8%) without TB had lymphocytic effusion	19 (95%)	11 (57.9%)
Endoscopy	32	28 (87.5%)	14 (50%)	10 (31.3%)	3 (30%)
Surgery	16	15 (93.8%)	14 (93.3%)	13 (81.3%)	9 (69.2%)

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Disclosure of Interest None Declared.

PTU-032 TWO WEEK RULE REFERRALS FOR UPPER GI CANCER: RIGHT PATIENTS, WRONG TEST?

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Introduction Patients with alarm symptoms for upper gastrointestinal (GI) cancer or those over 55 years with persistent, recent onset dyspepsia are referred for a specialist opinion under the two week rule (TWR) referral pathway. Referrals are vetted by two consultants, and in the majority of cases patients are sent directly for upper GI endoscopy (OGD). The incidence of gastric cancer in patients undergoing TWR endoscopy is around 4%.[1] Alarm symptoms have very variable specificity and sensitivity for upper GI cancer.[2] This study aimed to analyse outcomes for both patients triaged direct to OGD and direct to clinic.

Methods A prospective analysis of patients referred to a single centre in South London (St George's Hospital) under the TWR pathway for upper gastrointestinal cancer was performed. Patients referred during two random four week periods in 2012 were identified. The referral form, endoscopy records, clinic letters, radiology reports and histology results were reviewed.

Results Data were analysed for 114 patients. Mean age was 63 years, with 23% of referrals aged under 55 years.

96 (84%) patients went direct to OGD, of which 3 (3%) had upper GI cancer and 4(4%) had significant non-malignant pathology. In the 27 (28%) patients under 55, no significant pathology was identified at OGD. Dyspepsia, dysphagia and weight loss were the commonest indications for the referrals.

47 (49%) patients had further imaging after endoscopy of which 18 (38%) had significant pathology leading to a change in management.

18 (16%) were seen directly in clinic following referral of which 11 (61%) went on to have further imaging. Of these patients, 45% had malignancy and 35% had significant abnormalities leading to a change in management.

Conclusion The yield of pathology at OGD undertaken as a first line investigation in patients referred via the TWR pathway is low, regardless of the referral criteria. However, imaging modalities appear to have a reasonably high yield of pathology in this group of patients. This suggests that General Practitioners are identifying the correct group of patients for referral, but that perhaps OGD is not the most appropriate first line test. Clinical review, as a first point of contact of patients referred via the TWR pathway, is likely to facilitate a more guided investigation process, while reducing the number of endoscopies being undertaken, and has potential cost-saving implications.

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Disclosure of Interest None Declared.

PTU-033 THE UTILITY OF NARROW BAND IMAGING ENDOSCOPY IN IDENTIFYING POTENTIAL CAUSES OF IRON DEFICIENCY ANAEMIA IN THE ABSENCE OF ANY OVERT GI CAUSE

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Introduction IDA is prevalent in up to 5% of the developed world and endoscopy remains the most utilised investigation. Magnified white light endoscopy has been shown to accurately identify gastric atrophy, *H. pylori* gastritis and coeliac disease but the role of magnified NBI endoscopy (NBI-Z) in this context has not been evaluated. The study aim was to assess the ability of NBI-Z to make a real time diagnosis of these conditions compared to histology as the gold standard.

Methods This prospective cohort study recruited patients undergoing endoscopic evaluation for IDA. All procedures were performed with an Olympus video endoscopy system by clinicians with advanced imaging experience. Systematic NBI-Z imaging in parts of the duodenum and gastric mucosa were taken with corresponding biopsies. A previously validated Nottingham Type 1–4 classification system was used to classify the characteristic gastric mucosal pit pattern, and magnified morphological features were used to describe intestinal metaplasia and villous atrophy. This allowed for a real time diagnosis to be made for villous atrophy, gastric atrophy and *H. pylori* gastritis. The specimens were examined by a single blinded GI pathologist.

Results 105 patients were recruited over 3 years. Excluding those with an obvious cause (n = 11), a total of 94 patients were included in the final analysis. Female: male ratio was 1: 0.7, median age 66 years (range 21–85). 38% had significant comorbidities. At time of endoscopy 52% were taking iron therapy, 19% aspirin, 30% PPI and 4% NSAIDs. The median (range) anaemia parameters were: Hb 10.8g/dL (7.7–12.6), MCV 82fl (60–97), Ferritin 10g/L (1–379) and iron 7.5 µmol/L (1–22). 73% had the procedure under sedation with median doses of 2.5 mg midazolam and 25 mg pethidine.

Conclusion In patients with IDA, NBI-Z is highly specific in providing a real time diagnosis of gastric atrophy and coeliac disease.

Abstract PTU-033 Table 1 NBI performance (%) compared to histology with 95% confidence intervals

	Sensitivity	Specificity	Positive predictive value	Negative predictive value
Type 1 predicting normal	100 (81.4–100)	24.2 (18.8–24.2)	27.7 (22.5–27.7)	100 (77.7–100)
Type 2/3 predicting *H. pylori* gastritis	100 (76.9–100)	28.8 (22.6–28.8)	27.5 (21.1–27.5)	100 (78.4–100)
Type 4 predicting atrophy	92.9 (72.7–99)	93.3 (72.7–99.4)	92.9 (72.7–99.4)	93.3 (74.5–94.4)
Predicting Intestinal Metaplasia	50 (15.8–65.8)	98.1 (94.4–99.9)	75 (23.7–98.7)	94.6 (91–96.3)
Predicting Villous Atrophy	66.7 (13.6–97)	98.7 (96.6–97)	66.7 (13.6–97)	98.7 (96.6–99.9)