referrals were recorded on paper and filed in a secure office in the Department. We introduced an electronic database system to record a standardised dataset from each call in order to improve clinical governance and to generate contemporaneous records that could be easily retrieved and audited. We present our five-month pilot data.

Methods A Caldicott-compliant database was designed and made securely available to Registrars and Consultants. Registrars were encouraged to record all referrals and telephone calls they received. Calls taken by the Liver Intensive Care Unit, consultants, nurses, junior doctors and the out of hours team were excluded. Demographic and clinical data were recorded in real time with information regarding the source of the referral and the outcome of the call. There were no mandatory fields.

Results Data from 350 calls were entered over five months. The source of the call was recorded in 345 cases. 125 (36%) were from King's College Hospital and 20 (6%) were from General Practitioners or patients. The remaining 200 calls came from 75 institutions. Of the 220 calls made from outside the Trust, 63 resulted in the patient being transferred (n = 32), reviewed as an out-patient (n = 27) or discussed at a multidisciplinary team meeting (n = 4) at King's.

In 235 cases, discussion with a King's Consultant was recorded (67%). Of the 115 calls where discussion with a Consultant was not recorded, 41 were from within King's, 19 were transferred to King's and in 36 cases there was continuing input by telephone advice from one of the teams at King's. Only 15 extramural cases (7.5%) were concluded without a documented discussion with a Consultant.

Conclusion Use of an electronic database to record extramural telephone advice given by senior trainees and Consultants provides clinical governance to this service and forms a contemporaneous record that is kept at the referral centre. The data can be used to estimate workload and to determine the disease burden in this population, thereby tailoring services to the needs of referrers and commissioners. Formal recording of the Consultant input in the advice service also forms an excellent training opportunity for trainees. We recommend the implementation of similar databases in other units that give verbal advice to colleagues outside their own institution.

Disclosure of Interest None Declared.

Small bowel

PTH-179 AN AUDIT OF CLINICAL OUTCOMES OF SEHCAT STUDY IN PATIENTS WITH CHRONIC DIARRHOEA

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Introduction Latest NICE guidance suggest that there is not enough evidence to determine whether SeHCAT test is a cost effective option for diagnosing bile acid malabsorption (BAM) among people with IBS-D and Crohn's disease patients without ileal resection. We undertook an audit of sequential patients referred for SeHCAT testing to assess diagnostic value.

Methods Retrospective data was collected from 88 consecutive patients referred to Nuclear Medicine for SeHCAT testing over one year. The indication for the test request and treatment given were collected from request forms, clinic letters and GP record. Subjective global outcome was assessed at mean of 3 months after treatment (range 2–7).

Results Of 88 patients who underwent SeHCAT test, 49 (56%) were found to be positive for bile acid malabsorption. Of these 29 (59%) had severe *(< 5% retention)*, 9 (18%) had moderate *(> 5 and < 10% retention)* and 11 (22%) had mild BAM *(> 10 and < 15% retention)*.

With regard to the distribution of positive SeHCAT test results according to aetiology, there were 18 patients who fell into BAM Type 1 (Ileal disease/resection) group out of which 17(94%) were positive. Type 2 (Idiopathic BAM) had a total of 57 patients out of which 24(42%) were positive and Type 3 (Secondary to other GI disease) had 13 patients of which 8(62%) tested positive to SeHCAT study.

Table 1 below shows the outcomes of bile acid sequestrant (BAS) according to BAM groups.

Abstract PTH-179 Table 1

BAM type	Treatment	Outcome mean 3 months	
Type 1 (n = 17)	Started (12), dose increased (3), same dose (2)	Better 12	No change 3 Drug not tolerated 2
Type 2 (n = 24)	Started (16), dose increased (2), same dose (5), declined (1)	Better 11	No change 7 Drug not tolerated 6
Type 3 (n = 8)	Started (7), dose increased (1)	Better 4	No change 2 Drug not tolerated 2

39/88 (44%) patients had a negative test. Diagnoses were made as follows: IBS-D 13, inflammatory bowel disease with no BAM 8, functional or non-specific diarrhoea 18. In these patients BAS was empirically started, in spite of the test results, in 6, 2 and 5 patients respectively. Only 1 of these 13 (8%) patients (who had IBS-D) improved.

Conclusion Changes in treatment as a result of the SeHCAT test were made in 70% (62/88) of all patients: 84% (41/49) positive patients and 33% (13/39) negative patients. In terms of yield of SeHCAT, patients with chronic diarrhoea and ileal disease (BAM Type 1) may warrant empiric BAS treatment without testing since there was 94% response, suggesting limited value in terms of yield of new information. In contrast, there was value to a negative study, which predicted lack of response (8%) to BAS.

Disclosure of Interest None Declared.

PTH-180 SMALL BOWEL ULTRASOUND AND VIDEO CAPSULE ENDOSCOPY: COMPLIMENTARY INVESTIGATIONS TO DIAGNOSE SMALL BOWEL CROHN'S DISEASE

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Introduction Crohn's disease affecting the small intestine requires accurate localization, assessment and follow up, to direct and monitor therapy. Video capsule endoscopy (VCE) has an established role in small bowel Crohn's evaluation; however, use is limited by procedure costs and risks of capsule retention. Small bowel ultrasound (SB USS) with doppler is a rapid, inexpensive, dynamic and non-invasive method for assessing activity of Crohn's disease. We present the largest published comparative UK dataset of SB USS and capsule endoscopy in Crohn's disease.

Methods A 5 year retrospective analysis from 2008–2012 was carried out. Patients investigated for suspected small bowel Crohn's disease with SB USS and VCE were included, if one examination occurred within 12 month of the others. VCE findings were graded as mild (apthous ulcers only), moderate (apthous ulcers with mucosal distortion) or severe (apthous ulcers with mucosal distortion and strictures/stenosis). SB USS was graded positive or negative for small bowel Crohn's disease. Both assessments were single operator. Results were expressed as sensitivity, specificity, positive and negative predictive value (PPV and NPV) of SB USS compared with VCE for detection of small bowel Crohn's. Sub-analysis of SB USS findings for VCE-defined severity of small bowel Crohn's disease was carried out.

Results 500 VCE procedures were reviewed, of which 61 fulfilled the inclusion criteria. 19 patients had SB Crohn's on VCE; this was detected in 5 patients by SB USS (sensitivity 26%). 42 patients had no evidence of SB Crohn's on VCE; none of these had SB USS findings (specificity 100%). 56 patients had a negative SB USS, of these

14 VCE studies had findings compatible with Crohn's disease (NPV 75%). All patients with positive findings of Crohn's disease on SB USS had evidence of SB Crohn's on VCE (PPV 100%). Sub-analysis for Crohn's severity was carried out; of 11 VCE patients with moderate to severe Crohn's disease, 5 patients had a positive SB USS (sensitivity 45%), however of 8 patients with mild Crohn's on VCE, no patients had a positive SB USS.

Conclusion SB USS has excellent positive predictive value (100%) and specificity (100%) for detection of SB Crohn's disease. All detected cases were moderate or severe identifying cases at higher risk of capsule retention. Sensitivity of SB USS is 26% rising to 45% in VCE proven moderate or severe disease. It follows that a positive expert SB USS in the context of suspected small bowel Crohn's is a definitive radiological result, on which therapy can be commenced. However, a negative SB USS should be followed by VCE or magnetic resonance enterography (MRE) if clinical suspicion remains.

Disclosure of Interest None Declared.

PTH-181 BILE ACID MALABSORPTION: PREVALENCE COMPARABLE TO COELIAC DISEASE IN PATIENTS WITH CHRONIC DIARRHOEA

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Introduction Chronic watery diarrhoea is a common referral, with a host of possible aetiologies. To help establish a diagnosis a number of international guidelines have been created, defining diagnostic pathways. Bile acid malabsorption (BAM) is a potential cause, with high prevalence previously demonstrated by our group in patients with Diarrhoea predominant Irritable Bowel Syndrome (D-IBS).[1] This study determines the prevalence of BAM and other organic conditions in patients referred with chronic diarrhoea (Group A), with findings compared to our previously published D-IBS cohort (Group B).

Methods A total of 92 consecutive patients referred to a tertiary referral centre with chronic diarrhoea, defined as more than 3 loose or liquid bowel movements a day for at least 4 weeks were evaluated (Group A). Demographic data, subsequent investigations and diagnostic yields of these tests were collected. All patients underwent haematological, biochemical and immunological testing prior to subsequent investigations. Statistical analysis was performed using SPSS with Fisher's exact test used to compare categorical data.

Results Medical records were identified in 89 of the 92 patients referred (mean age 50 years, range 18–86 years). Of these patients, 23 (26%) had an organic cause for their diarrhoea identified (Table 1), with 6 having dual pathology. Inflammatory bowel disease was the most prevalent condition identified, with the prevalence of BAM being comparable to that seen for coeliac disease ($p = 0.72$). When evaluating diagnostic yields for BAM in Groups A and B, prevalence was significantly higher in the D-IBS Cohort (42% vs 6%, $p < 0.001$).

Abstract PTH-181 Table 1 Final Diagnoses in those referred with chronic diarrhoea

Diagnosis (total n = 89)	Patients (%)
Diarrhoea-predominant Irritable Bowel Syndrome	43 (48)
Functional diarrhoea	28 (31)
Inflammatory Bowel Disease	8 (9)
Bile Acid Malabsorption	5 (6)
Lactose intolerance	4 (4)
Coeliac	3 (3)
Lymphocytic Colitis	2 (2)
Pancreatic Insufficiency	1 (1)
Small Bowel Bacterial Overgrowth	1 (1)

Conclusion In this study organic causes for chronic diarrhoea were identified in 26%. Given that BAM had similar prevalence to coeliac disease in patients with chronic diarrhoea, we would advocate BAM investigations early within the diagnostic pathway.

Disclosure of Interest None Declared.

REFERENCE

Kurien M *et al.* Bile acid malabsorption: an under-investigated differential diagnosis in patients presenting with diarrhoea predominant irritable bowel syndrome type symptoms. Scand J Gastroenterol. 2011 Jul; 46(7–8):818–22

PTH-182 WHAT IS THE DIAGNOSTIC YIELD OF DUODENAL BIOPSY AT UPPER GI ENDOSCOPY?

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Introduction By and the large, the most common indication for obtaining biopsy of the 2nd part of the duodenum is in the diagnosis of coeliac disease. We wanted to identify the diagnostic yield of duodenal biopsies at upper GI endoscopy.

Methods We obtained clinical details of 500 patients who had duodenal biopsies taken at upper GI endoscopy (UGIE). This was provided by our local histo-pathology department. These included patients who had UGIE from October 2011 till September 2012.

We excluded indications related to coeliac follow up and suspected malignancy (n = 31). We collected data that included age of the patient, indication of the biopsy, findings at endoscopy and histology. We also looked at our results server to see if TTGs were sent for these biopsies.

Results Duodenal biopsies were taken to rule out coeliac disease in the context of a variety of symptoms: mainly iron-deficiency or other unspecified anaemia, but also chronic or intermittent diarrhoea, unexplained GI symptoms including nausea and vomiting, fatigue, abdominal pain and distension and weight loss.

Of the 469 biopsies, 89% (n = 416) were reported as normal at histology and 11% (n = 53) were reported as being abnormal.

84% (n = 45) of the abnormal biopsies were non specific in nature. Only 11.3% (n = 6) of the abnormal biopsies were diagnosed as coeliac. A further 2 patients were diagnosed as coeliac disease after further clinical evaluation.

Of the 469 samples, 34% (n = 161) of patients had TTG serology was sent prior to biopsy. Only 50% (n = 3) of those diagnosed with coeliac disease in this study had TTG done prior to biopsy.

1.7%(n = 8) of patients who had duodenal biopsies had a conclusive diagnosis of coeliac disease.

Only 0.4% (n = 2) of patients who were TTG negative were diagnosed with coeliac disease based on histology and clinical correlation. There were no falsely positive TTG.

Conclusion The diagnostic yield of duodenal biopsies is low. It may be more cost-effective if we limit biopsies after being guided by tissue transglutamiase (TTG).

Disclosure of Interest None Declared.

PTH-183 THE DIAGNOSTIC UTILITY OF ENDOSCOPIC DUODENAL BIOPSIES FOR GASTROINTESTINAL INVESTIGATION

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Introduction Duodenal biopsies are usually taken at upper gastrointestinal endoscopy to exclude coeliac disease (CD). To date, few studies have investigated overall duodenal pathologies in this group. Serological testing for anti-tissue transglutaminase