17.1% of ultrasounds. Of patients with adequate imaging, 67 (46.9%) had pancreatic abnormalities detected; including 31 with chronic pancreatitis and 7 pancreaticobiliary cancers. 124 patients (68.1%) had nutritional blood tests sent. Of these, 65 (52.4%) had one or more abnormal result.

103 patients (56.6%) received PERT; median initial dose 50000 IU/meal. 77 patients (66.4%) were referred to dietetics. 67 patients (81.7%) responded clinically to PERT. Patients with severe PEI were no more likely to respond than those with mild PEI (OR 1.28, 95% CI 0.40–4.03; p=0.68). Initial PERT dose was not associated with clinical response (OR 1.00, 95% CI 1.00–1.00; p=0.51), nor was referral to dietetics (OR 0.61, 95% CI 0.12–3.04; p=0.54). However, patients with abnormal pancreatic imaging or nutritional blood tests had four times the odds of responding to PERT than those with normal results (OR 4.77, 95% CI 1.16–19.57; p=0.03, and OR 4.12, 95% CI 1.07–15.94; p=0.04).

Conclusions All patients diagnosed with PEI should be screened for malnutrition and undergo pancreatic imaging with CT or MRI. Abnormal results are common and may predict response to treatment.

Small bowel

P260 BILE ACID DIARRHOEA OUTSIDE TERTIARY CENTRES-HOW BAD IS BAD?

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Introduction Chronic diarrhoea causes significant morbidity and these patients are commonly referred to gastroenterology clinic. Bile acid diarrhoea (BAD) is considered causal in up to 1/3 of people investigated for IBS-D. BSG guidelines recommend investigation for BAD in secondary care using SeHCAT scanning/serum bile acid precursors.[1] Empirical trial of treatment is not recommended. Access to tests can be limited in district general hospital settings. We report our experience in a DGH where diagnostic testing is provided by a centre 39 miles away.

Methods A retrospective notes review was performed for all outpatients from East and North Herts NHS trust (catchment population 600,000) who had SeHCAT scans performed by a regional service (Mount Vernon Hospital) in 2019. Data were collected on demographics, symptoms, risk factors, other investigations, time between first clinic and scanning and prior empirical treatment. Comparison were made between positive and negative groups using multiple regression analysis.

Results 50 scans were requested of which 48 results were available. Median age was 49 (23 – 84 y), 33(69%) female. 21 scans (44%) were positive for BAD, 3 (14%) mild, 10 (48%) moderate 8 (38%) severe. Only patients with complete data (45) were included in subsequent analyses. Risk factors are presented in table 1. A statistically significant association between cholecystectomy and positive SeHCAT scan was found (P=0.026). There was considerable delay in diagnostic confirmation for some patients with a positive test taking 1 month to 10 years. Overall 41/45 patients had prior testing with faecal calprotectin (FC), 32 patients had colonoscopies of whom 24 had colonic biopsies, 43/50 had thyroid function checked and 39/50 were screened for coeliac disease. 10 patients had empirical treatment with bile acid sequestrants before scanning.

Abstract P260 Table 1 Risk factors for BAD in chronic diarrhoea

Risk factors	Negative SeHCAT scan (26)	Positive SeHCAT scan (19)
Cholecystectomy	5 (19%)	10 (53%)
Crohn's	1 (4%)	1 (5%)
Right hemicolectomy	1 (4%)	1 (5%)
Coeliac	2 (8%)	0 (0%)
Diabetes	2 (8%)	2 (10%)
Other surgery	1 (4%)	0 (0%)
No risk factors	16 (59%)	7 (37%)

Conclusions Our study has shown a burden of incident BAD in the outpatient DGH setting. This is underestimated due to use of empirical treatment without testing, lack of investigation of some patients with disease and referral for SeHCAT scanning in other centres not identified. Patients had appropriate initial investigations performed for chronic diarrhoea. In keeping with larger studies from tertiary centres prior cholecystectomy is the commonest predisposing factor (type III) and >1/3 of patients had no identified risk factor (type II). There are limited data regarding BAD investigation and management in DGH setting where patients have to travel considerable distance for testing. There are problems associated with empirical treatment including current drug availability in the UK. National management guidelines based on large studies and wider availability of economically viable testing are needed.

REFERENCE

1.. Arasaradnam RP, Brown S, Forbes A *et al*. Gut Epub ahead of print (13 April 2018) doi:10.1136/gutjnl-2017-315909

P261 THE MICROBIOTA IS A KEY FACTOR INFLUENCING GUT REHABILITATION IN EARLY ONSET SHORT BOWEL SYNDROME

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Introduction Short bowel syndrome (SBS) is the most common cause of paediatric intestinal failure (IF) and its prevalence is rising. Home parenteral nutrition (HPN) is life-saving but can be associated with serious complications such as intestinal failure-associated liver disease (IFALD) and catheter related blood stream infections (CRBSI), therefore the ultimate aim is intestinal autonomy. Current understanding of predictive factors for achieving intestinal autonomy is limited, but include remaining bowel length, type and quality of bowel, and earlier age of onset of SBS. Significant dysbiosis also occurs in SBS and may impact on the likelihood of successful intestinal rehabilitation (IR).

Our aim was to phenotype patients with SBS, comparing children who achieved intestinal autonomy to those who remained on HPN or required intestinal transplant, to identify possible factors that impact upon the likelihood of successful IR.

Methods Retrospective analysis of all North East Paediatric SBS patients who have been cared for by the HPN team during the past 11 years, using anonymised routinely collected data. Comparative statistical analyses were performed, using parametric or non-parametric tests as appropriate, to evaluate the significance of differences in predictive factors between children who achieved intestinal autonomy and those who have not yet done so.

Results 70 children who had received HPN were identified. 35 had SBS, 35 had non-SBS diagnoses. 33 had neonatal onset, 2 had childhood onset. 2 died (from illnesses not relating to SBS). Of the remaining 31 in the neonatal onset group, 15 have achieved successful IR to date. The underlying causes of SBS were similar between the two groups. Mean bowel length was significantly longer in the successful IR group (48.3 cm vs 24.5 cm, $p<0.01$), the mode number of central lines was significantly lower in the successful IR group (3 vs 6, $p<0.01$), and the number of line infections post-discharge was significantly lower in the successful IR group (>2 treated line infections post-discharge 2 vs 8, $p<0.05$).

Conclusions We confirmed that the initial length of bowel is important in determining outcome amongst children with early onset intestinal failure. We further show that the number of central lines and the number of courses of antibiotics given for line infections may be even more important in predicting outcome, which suggests that intestinal microbiota play a key role in intestinal rehabilitation.

P262 DIAGNOSIS AND MANAGEMENT OF SMALL INTESTINAL BACTERIAL OVERGROWTH (SIBO): CURRENT PRACTICE ACROSS ENGLAND

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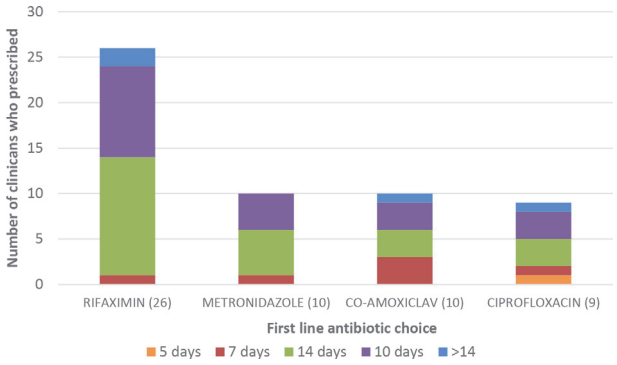
Introduction Despite causing multiple gastrointestinal symptoms, a diagnosis of small intestinal bacterial overgrowth (SIBO) can be difficult to establish due to the lack of a standardised diagnostic test. Current BSG guidelines advise empirical antibiotic treatment in high probability cases,[1] although evidence for which antibiotic to use first line and duration of treatment is lacking.[2] As a result of these factors, we suspect that current practice in the diagnosis and management of SIBO may vary considerably between gastroenterologists across the country and aimed to assess this.

Methods A brief survey was created to collect data on the diagnosis and treatment of SIBO, as well as the methodology used for hydrogen/methane breath testing (HMBT) in comparison with recent UK guidelines.[3] The survey was emailed to 607 gastroenterologists (consultants/registrars) who's email addresses were obtained through an existing database or via the nhs.net email server.

Results There were 57 (9%) respondents from 31 different hospitals. Recent UK guidelines[3] advise that best practice for HMBT should measure methane excretion in addition to hydrogen and have both lactulose and glucose substrates available for testing, but this was only done in 7/31 (22%) and 11/31 (35%) hospitals respectively. Rifaximin (26), followed by metronidazole (10), co-amoxiclav (10) and ciprofloxacin (9) were the most commonly used antibiotics for SIBO treatment,



Abstract P262 Figure 1 First line antibiotic choice and duration of therapy prescribed

with antibiotics usually given between 10 – 14 days (44/57, 77%), although length of treatment prescribed varied from 5 – 21 days (see figure 1). Most gastroenterologists (61%) would initially give antibiotic treatment for a suspected high probability case of SIBO but request a breath test first (65%) if the patient was only felt to have a moderate probability of SIBO.

Conclusion Best practice guidelines on HMBT are not followed in many hospitals in England and there is considerable variation among gastroenterologists between first-line antibiotic choice and duration of treatment. Improving standards of HMBT would increase accuracy of testing, while greater evidence for choice and duration of antibiotic therapy in SIBO would improve consistency of treatment among clinicians, resulting in cost-savings and fewer side effects to patients from unnecessarily long or repeated courses of antibiotics.

REFERENCES

1. Arasaradnam et al. Guidelines for the investigation of chronic diarrhoea in adults: British Soceity of Gastroenterology, 3rd edition. *Gut* 2018;**0**:1–20
2. Shah S, *et al*. Meta-analysis: antibiotic therapy for small intestinal bacterial overgrowth. *Aliment Pharmacol Ther* 2013; October; **38**(8): 925–934
3. Sweis, *et al*. New AGIP recommendations of best practice in hydrogen/methane breath testing for SIBO and carbohydrate malabsorption. *New Wave* 2019; February:7–10

P263 IRINOTECAN INDUCES A RAPID INCREASE IN ENTEROID PERMEABILITY

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Introduction Chemotherapy-induced diarrhoea is a common side effect for patients given irinotecan and can result in the cessation/interruption of treatment affecting clinical efficacy. The clinical approach is to treat diarrhoea symptomatically as there are currently no preventative therapies. Recent *in vivo* studies suggest that irinotecan initiates two phases of diarrhoea with the first attributed to changes in intestinal permeability through tight junction (TJ) disruption. We have now investigated whether small intestinal (SI) organoids (enteroids) can be used to model SI permeability changes induced by irinotecan to dissect the mechanisms responsible for irinotecan-induced diarrhoea. Understanding