most helpful in evaluating patients with symptoms suggestive of IBS with abnormal blood tests, and in those in whom previous investigations were equivocal for IBD

Disclosure of Interest None Declared.

Abstract PWE-099 Table

OUTCOMES FOR PATIENTS WITH ELEVATED FAECAL CALPROTECTIN	n = 98 of whom 5 await tests
Management unaltered	
Not pursued (n = 14), or did not attend or refused investigation (n = 5)	19
Further investigation indicated anyway (symptoms/bloods)	25
Self-limited or other illness	16
Misleading positive result	
Colonoscopy +/- capsule NAD (or insignificant incidental finding)	27
Helpful positive result	
Previous investigations equivocal: IBD later confirmed	2
Prompted positive capsule, colonoscopy or MR enterography	4

PWE-100 HOW COMMONLY DOES FAECAL CALPROTECTIN ALTER MANAGEMENT IN PATIENTS WITH I.B.D?

doi:10.1136/gutjnl-2013-304907.388

[1,*]M Allison, [1]M Hu, [1]S Puritz, [1]T Richards, [2]N El-Farhan. *[1]Gastroenterology; [2]Chemical Pathology, Royal Gwent Hospital, Newport, UK*

Introduction Faecal calprotectin is often measured in patients with inflammatory bowel disease (IBD). Some believe it is a useful surrogate marker for mucosal healing, and normal values may strengthen the case for stopping biological agents. It is unclear, however, to what extent such measurements alter patient investigation and management over standard history taking, examination and routine blood tests.

Methods We reviewed all faecal calprotectin results from samples submitted by 98 adults with IBD between February 2010 and April 2012. Using the Health Board's Clinical Workstation relevant outpatient letters, results of subsequent investigations and changes of treatment were reviewed. A calprotectin value of >60 ug/g was considered elevated.

Results Seventy of the patients (71%) had an **elevated result**. Their outcomes are summarised in the table. Most changes in patient management and investigation requests were made at the same visit as the calprotectin request. Elevated results prompted escalation of treatment in 6 patients. Among 28 patients with a **normal result**, symptoms prompted escalation of treatment (6 patients) and colonoscopy (3 patients) before knowledge of the result, No endoscopic or radiological investigations or changes of treatment occurred in 12 patients. In no cases was maintence treatment reduced on the basis of a normal result. Measurements seemed to help managment in 7 patients: there were 2 with previous equivocal investigations who may have avoided further tests, and there were 5 whose symptoms were in excess of objective findings who could be reassured about absence of active inflammation).

Conclusion This study casts doubt on the value of faecal calprotectin measurement in the follow-up of most patients with IBD. Normal results assisted in the reassurance of some patients whose symptoms seemed out of proportion to objective evidence of disease activity. There were no instances of a normal result leading to scaling back of maintenance treatment, and none stopped biological agents.

Disclosure of Interest None Declared.

Abstract PWE-100 Table

OUTCOMES FOR I.B.D. PATIENTS WITH ELEVATED FAECAL CALPROTECTIN	n = 70
Management unaltered	
No change in treatment	32
Further investigation indicated on basis of symptoms and/or blood results	11
Treatment escalated on basis of symptoms and/or blood results (one had surgery)	18
Management altered	
Led to escalation of treatment	6
Colonoscopy requested (but bloods or WC scan also pointed to disease activity)	2
Prompted MR enterography, which was positive, but treatment left unaltered	1

PWE-101 PATIENT'S AWARENESS OF THE NEED FOR VACCINATIONS WHILST ON IMMUNOSUPPRESSIVE THERAPY

doi:10.1136/gutjnl-2013-304907.389

[1,*]M Widlak, [1]R Matharu, [1]A Elzubeir, [1]J Slater, [1]L Wood, [1]S De Silva. *[1]Gastroenterology, Russells Hall Hospital, The Dudley Group NHS Foundation Trust, Dudley, UK*

Introduction With the ever increasing use of immunosuppressive therapy for the management of inflammatory bowel disease (IBD) patients are being exposed to infections which can be prevented by vaccinations administered prior to or during therapy. The European Crohn's and Colitis Organisation guidelines currently recommend that IBD patients who receive immunosuppressive medications should be vaccinated yearly with the influenza vaccine and a pneumococcal vaccination 3–5 yearly.

Methods An audit was carried out within our department to assess our patient's knowledge and uptake of such vaccines. Patients with Inflammatory Bowel Disease were identified from an established data base and those receiving immunosuppressive therapy were invited to complete a questionnaire. Data gathered included age, gender, current treatment and awareness of the need for vaccinations. We also gathered data on the number of patients already vaccinated.

Results A cohort of 88 patients on immmunosuppressive therapy was analysed. 61% of patients were female and 39% male. Patients ranged between 16–21 years (11%), 22–30 years (18%), 31–50 years (40%), 51–70 years (24%) and above 70 (7%). 59 (67%) patients had Crohn's disease, 26 (29.5%) ulcerative colitis and 3 of them (3.5%) had indeterminate colitis. The majority of patients received immunomodulators including Azathioprine or Mycophenolate (n = 48, 54%). 13 (15%) were treated with biologics alone (Infliximab or Adalimumab), 21 (24%) with combination of biologics and immunomodulators and 6 patients (7%) received immunomodulators with a reducing dose of steroids.

77% of patients were aware of recommended vaccinations but as many as 23% were not. 42% were aware of the importance of receiving dual vaccinations, 35% were only aware of the need for either the influenza or pneumococcal vaccine, with 23% unaware of the need for either. In this cohort 54 (61%) patients had already had or were planning to have the influenza vaccine this year. Patients between the ages of 31–50 years had the highest awareness of the recommended vaccines (86%), with the majority of uptake of vaccines seen in the 31–50 year group (63%). Unfortunately 39% of patients were not receiving recommended vaccinations with more than half (56%) of patients being unaware of the need to avoid live vaccinations.

Conclusion Our data suggest that a significant proportion of patients within our cohort are still not receiving vaccinations

that were recommended to them. Although 77% were aware of a form of recommended vaccine, 39% were not receiving them. Wider education of our IBD patients as well as their primary care doctors should be implemented to increase awareness and uptake of vaccines to provide adequate protection to this vulnerable group.

Disclosure of Interest None Declared.

PWE-102 THE USE OF TPMT ENZYME TESTING IN MANAGING THIOPURINE THERAPY

doi:10.1136/gutjnl-2013-304907.390

[1,*]M Widlak, [1]M Smith, [1]J Slater, [1]L Wood, [1]S De Silva. [1]*Gastroenterology, Russells Hall Hospital, The Dudley Group NHS Foundation Trust, Dudley, UK*

Introduction Thiopurine methyl transferase (TPMT) enzyme deficiency is associated with azathioprine-induced myelosuppression and hepatotoxicity. We aimed to assess thiopurine methyl transferase levels (TPMT) in patients with inflammatory bowel disease (IBD) and to determine how these levels impact on thiopurine dosing and further treatment.

Methods Retrospective analysis of all adult IBD patients treated with azathioprine (AZA) who had TPMT levels checked in our department 2008 – 2012. Patient demographics, AZA dose, blood parameters, adverse effects and reason for discontinuation were recorded. Patients were treated to try and achieve a target dose of 2.0 – 2.5 mg/kg of AZA. Our laboratory enzyme assay defined normal TPMT level as 68–150 mU/L.

Results A cohort of 135 patients receiving azathioprine were identified. Mean age was 43 years (SD 17), M:F ratio 1:1. 72 patients (53%) had Crohn's disease, 60 (44%) ulcerative colitis and 3 (3%) indeterminate colitis. Mean starting dose of AZA 1.7 mg/kg (SD 0.6), maintenance dose 1.8 mg/kg (SD 0.5). 63 (47%) were initially dosed with ≥ 2.0 mg/kg. The mean TPMT level was 100 mU/L (SD 23); 14 patients (10%) had low levels. Patients with low TPMT levels were generally started at lower doses of AZA 1.3 mg/kg (SD 0.7) vs 1.8 mg/kg (SD 0.6).

Mean length of follow up on AZA was 10.6 months (range 0.1 – 44). 50 out of 135 patients (37%) exhibited adverse effects during treatment (representing 44 of the 121 (36%) with normal TPMT levels, 6 of 14 (43%) with low TPMT). Median time to adverse effects was 3 months (range 0.1–22). Leucopenia developed in 11 (22%), deranged liver biochemistry 24 (48%), adverse symptoms 24 (48%). There was one case of pancreatitis and lymphoma respectively. Adverse effects were managed by discontinuation in 30 (60%), dose reduction 14 (28%), monitoring only 6 (12%).

In the 6 patients with low TPMT levels, 4 developed deranged liver biochemistry and 2 had leucopenia; in 50% AZA was discontinued. The median time to adverse effects was 11 months (range 2–22), with 5 out of 6 patients developing adverse effects after more than 6 months of treatment.

Conclusion In our cohort low TPMT enzyme activity was not associated with an early onset of adverse effects or an excess of adverse effects when compared to the normal TPMT group. We would suggest that the value of TPMT level testing prior to thiopurine therapy may be less of a priority than vigilant monitoring of blood parameters during AZA therapy in identifying serious adverse effects.

Disclosure of Interest None Declared.

PWE-103 VITAMIN D DEFICIENCY IN CROHNS DISEASE AND ULCERATIVE COLITIS

doi:10.1136/gutjnl-2013-304907.391

[1,*]M S Mohammad, [1]J Mayberry. [1]*Gastroenterology, University Hospitals of Leicester, Leicester, UK*

Introduction The role of vitamin D in inflammation and its possible cancer protective effects are now coming to the fore. Inflammatory bowel disease (IBD) provides a model where both roles can be assessed. Early studies have indicated that vitamin D deficiency is common amongst patients with this condition. Leicester in the UK has a significant population of patients from both English and South Asian backgrounds and so allows comparisons to be made between people of different ethnicities and different experiences of vitamin D deficiency.

Methods Vitamin D (25 OH D) status was measured in 148 consecutive patients with IBD, who attended the gastroenterology clinics during a period of one year (Jan to Dec 2011). Vitamin D levels were graded as severe deficiency (< 15 nmol/l), moderate deficiency (16–30 nmol/l), insufficiency (31–50 nmol/l), adequate (51–75 nmol/l), and ideal (> 76 nmol/l). All case notes were reviewed and data analysed using χ^2 statistic.

Results 148 patients had IBD, 64% were women and 36% men. 93 patients (61%) with ulcerative colitis (UC) and 55 (39%) Crohns disease (CD). Of the 93 patients with UC, 50 were English and 43 South Asian. Of the 55 patients with CD, 43 were English and 12 of South Asian background. The proportions amongst both communities and across the disease groups were not significantly different when analysed with a χ^2 statistics.

Abstract PWE-103 Table Vitamin D Levels in patients with inflammatory bowel disease in Leicester

Ulcerative colitis	< 15nm/lt	15–30nm/lt	30–50nm/lt	> 50nm/lt
English (50 pts)	3(6%)	17(34%)	12(24%)	18(36%)
Asian (43 pts)	16(37%)	13(31%)	12(28%)	12(28%)
Crohns disease				
English (42 pts)	7(6%)	14(34%)	8(19%)	13(31%)
Asian (12 pts)	2(37%)	4(31%)	3(25%)	3(25%)

Conclusion Vitamin D deficiency is common in all patients with inflammatory bowel disease. It plays a vital role in bone health, immune regulation and cancer prevention in IBD. The optimal target level of 25(OH) vitamin D in IBD patients is uncertain as is the best therapeutic modality. The precise threshold for 25(OH) vitamin D level is poorly defined in the literature and so is the dosing and duration of treatment. Its frequency is almost similar in South Asian and English patients with Crohn's disease which suggests that mal-absorption of the vitamin may play a part in the vitamin D deficiency. In contrast it is commoner in South Asian patients with ulcerative colitis than amongst English patients and this warrants further investigation. It may suggest that in the future South Asian patients will be at greater risk of colonic carcinoma as a complication of ulcerative colitis.

Disclosure of Interest None Declared.

PWE-104 VITAMIN D IN INFLAMMATORY BOWEL DISEASE. A SEMI-QUALITATIVE ASSESSMENT OF THE PATIENT EXPERIENCE

doi:10.1136/gutjnl-2013-304907.392

[1,*]M S Mohammad, [1]J Mayberry. [1]*Gastroenterology, University Hospitals of Leicester, Leicester, UK*

Introduction Vitamin D plays a vital role in bone health, immune regulation and cancer prevention in inflammatory bowel disease (IBD). Our understanding has increased remarkably in the past decade, although the mechanism of its influence in IBD