after switching to a different anti TNF the tolerability was good. Dermatological events were more common in patients with colonic CD treated with infliximab. Further studies on cumulative dermatological effects, risk factors, time to event and outcomes are underway at our institution.

PWE-017 FROM DIARRHOEA TO DIAGNOSIS: AN ANALYSIS OF FAECAL CALPROTECTIN USE IN AN IBD REFERRAL PATHWAY

Rosemary Faulkes*, Malik Magrabi, Gilian Townson, Megan Rees, Thomas Watkins, Katherine Richmond. *Shrewsbury And Telford NHS Trust, Telford, UK*

10.1136/gutjnl-2018-BSGAbstracts.149

Introduction The volume of referrals to gastroenterology from primary care is steadily increasing. In order to prioritise appointments for suspected inflammatory bowel disease (IBD), a pathway for primary care assessment and referral of patients to a specialist IBD clinic was introduced in Telford and Wrekin in 2015, based on NICE guidelines. This took symptoms, baseline bloods and faecal calprotectin (FC) result into account. We reviewed the efficacy and outcome of referrals following implementation of the pathway.

Methods A retrospective analysis of all patients in Telford and Wrekin who had a FC requested between September 2015 and September 2016. Electronic data were collected contemporaneously by the pathology laboratory on patients' age, gender and FC result. Further retrospective analysis of the cohort assessed whether a referral was made, the outcome of the referral, including endoscopy findings if performed, and diagnosis. The cohort was divided into three groups based on the FC result: negative, indeterminate and positive. The number of referrals that followed the IBD pathway was recorded for each group.

Results 506 patients had FC requested over 12 months. Ages ranged from 1 to 88 years and 63% were female. 244 were referred to secondary care. The likelihood of being referred correlated with the absolute FC value (table 1).

Abstract PWE-017 Table 1

FC result	FC value	Patients referred	Patients referred (%)
Negative	<30	247	30
Negative	30–59	65	45
Indeterminate	60–149	82	56
Positive	>150	112	84

Of those referred, there were 22 IBD diagnoses (table 2), giving an FC sensitivity of 90% and specificity of 63%

Abstract PWE-017 Table 2

FC result	Patients referred	IBD diagnoses	IBD diagnoses (% of referrals)
Negative	312	2	0.6
Indeterminate	82	2	2.4
Positive	112	18	16

161 referrals (66%) did not meet the referral criteria on the IBD pathway, including 52 suspected colorectal cancer cases who met criteria for a two week wait referral, which would supersede referral to the IBD clinic

Conclusion FC remains a sensitive marker of IBD in the symptomatic population. Whilst GP's are being guided by FC result when making referrals, there remains a significant number of patients who are being referred with IBS. In over a fifth of referrals the FC is obsolete as the patient requires a two week wait colorectal cancer appointment. This has financial implications as each FC assay costs £35. Thus there is still progress to be made regarding implementation of the IBD pathway.

PWE-018 NEW GUIDANCE ON THERAPEUTIC DRUG MONITORING; POTENTIAL CLINICAL AND COST IMPLICATIONS

Richard Felwick*, Heather Johnson, Hannah Dewhurst, Ernest Cadogan, Chris Hovell, Sean Weaver, Simon McLaughlin. *Royal Bournemouth Hospital, Bournemouth, UK*

10.1136/gutjnl-2018-BSGAbstracts.150

Introduction Biologic drugs are effective treatments in IBD, the use of therapeutic drug monitoring (TDM) is rapidly becoming part of routine clinical practice. The American Gastroenterology Association (AGA) and the Australian Gastroenterology Association have recently published guidance recommending the use of therapeutic drug monitoring in clinical practice. Recommendations on the minimum trough level for Infliximab differ between these two guidelines. The AGA recommends a level >5 µg/ml, whilst the Australian guidance suggests >3 µg/ml. To date there are no published recommendations from ECCO or BSG. In patients with active disease and sub-therapeutic trough levels we shorten the dose interval from 8 to 4 weeks.

Aim To review the clinical and cost implications of introducing these guidelines into clinical practice at a large district general hospital

Methods We maintain a prospective IBD database and have used TDM routinely since 2014. Data on the use of TDM from 2016 to 2017 were reviewed. Age, Sex, disease type, and disease activity were reviewed. Results of drug levels in the active disease and remission group were compared and the cost implications of intensifying drug treatment to achieve recommended trough levels calculated. The costs were calculated for escalating all patients below recommended levels to dosing every 4 weeks.

Results Biosimilar Infliximab (Remsima) trough level data was available for 167 patients. Mean age=42, Range 18–81. 133 (80%) had Crohn's disease and 34 (20%) UC. 118 had inactive disease at the time of TDM, whilst 49 had active disease. Of those with inactive disease 78/118 (66%) had an Infliximab TL <3 µg/L and 104/118 (88%) had a level <5 µg/L. In patients with active disease 33/49 (67%) had a TL <3 µg/ml and 40/49 (82%) a level <5 µg/mL. Across both groups antibodies were present in 72 (43%). The annual cost for maintaining all 167 patients on biosimilar infliximab (5 mg/kg) was calculated at £521,040, (assuming a standard dose of 5 mg/kg). If all patients with a TL <3 had treatment intensified the total annual drug cost would be £9 25 080 (+77%). If all patients <5 µg/ml were intensified the annual cost rises to £1,045,200 (+100%). If only those patients with active disease and <3 µg/mL were escalated the annual cost rises to £6 41 160 (+23%) and £6 66 640 (+28%) if those <5 µg/mL were escalated.

Conclusions In our cohort of 167, 62% (n=104) of patients had a TL below the recently published recommended guidelines (5 µg/ml) yet were in a clinical remission. Therefore following these guidelines would lead to a significant increase in drug spend which may not translate into improved clinical outcomes; since in this cohort only 24% with sub-therapeutic levels had active disease. Escalating only those with active disease may represent a more acceptable financial solution but too will lead to an increase in drug spend.

PWE-019 DAY OF ADMISSION RESULTS PREDICT OUTCOME IN ACUTE ULCERATIVE COLITIS

¹Ian Amott*, ²Ruairi Lynch, ³Thomas Manship, ¹Fiona Jagger, ¹Jack Satsangi, ¹Gwo-Tzer Ho, ¹Charlie Lees, ²Miss Rebecca Grant. ¹Western General Hospital, Edinburgh, UK; ²University of Edinburgh, Edinburgh, UK; ³Royal Infirmary of Edinburgh, Edinburgh, UK

10.1136/gutjnl-2018-BSGAbstracts.151

Introduction Intravenous steroids remain the standard first line treatment for patients with acute ulcerative colitis (UC). However, 30% of patients fail to respond and require second line therapies and/or surgery. The purpose of this study was to determine if day 1 parameters could identify a group at high risk of failing first line therapies.

Methods All admissions for acute UC (ICD-10 K51) to hospitals within NHS Lothian (4 sites) from 1st November 2015 to 31st October 2016 were obtained from the regional coding department. Inclusion was limited to patients with UC as the primary reason for admission. Case record review confirmed diagnosis and clinical data were collected. Response to steroids was defined as discharge from hospital with no further acute medical or surgical treatment. The following parameters were recorded up to the first 10 days post admission: haemoglobin, platelet count, CRP, albumin, stool frequency, faecal calprotectin and abdominal x-ray results. Each patient was later attributed a score based on CRP (<50 mg/dL=0; >50 mg/dL=1), albumin (>30 g/L=0; <30 g/L=1) and platelets (<450×10⁹/L=0; >450×10⁹/L=1).

Results From 1 st November 2015 to 31 st October 2016 61 admissions with acute UC were identified; 37 (60%) of which responded to steroids, 24 (40%) patients were non-responders. 3 (12.5%) non-responders received infliximab as second line therapy, 1 (4.2%) adalimumab and 20 (83.3%) ciclosporin; 11 (45.8%) of the non-responders required surgery, 100% of whom had been previously treated with ciclosporin. On univariate analysis, the albumin, platelet count and CRP differed significantly between responders and non-responders (p≤0.05), whereas on multivariate analysis only CRP and albumin were significant. No difference was seen for haemoglobin and stool frequency. 88.9% of patients with concurrent hypoalbuminaemia, high CRP and high platelets (score=3) were non-responders.

Conclusions 82.4% of patients with a score of 2 or more will fail first line medical therapy. The combination of these readily available parameters identifies a high-risk population who may benefit from earlier second line medical or surgical intervention.

Abstract PWE-019 Table 2 Patient scoring

Total score	No. of patients	Responders (%)	Non-responders (%)
0-1	29	23 (79.3)	6 (20.7)
2-3	17	3 (17.6)	14 (82.4)

PWE-020 INITIAL EXPERIENCE OF A RAPID ACCESS ULTRASOUND IMAGING CLINIC IN INFLAMMATORY BOWEL DISEASE

Nigel Grunshaw*, Francis Egbuonu, Wendi Harrison, Albert Davies. University Hospitals Morecambe Bay NHS Trust, Barrow In Furness, UK

10.1136/gutjnl-2018-BSGAbstracts.152

Introduction Although less widely used than MRI in UK practice, Ultrasound offers a number of advantages in the assessment of inflammatory bowel disease. It is quick to perform and requires minimal preparation allowing it to be performed at short notice. It is dynamic and clinically interactive allowing immediate correlation of patient's symptoms with imaging findings. It provides assessment of disease activity/complications together with dynamic assessment of functional obstruction. Results are immediately available allowing instantaneous clinical decision making. We present our initial experience of using Ultrasound in a rapid access imaging clinic and its effects on patient management.

Methods Patients were referred from either clinic, endoscopy or via IBD specialist nurse direct access/telephone advice line. Dedicated slots were allocated on Ultrasound lists, and appointments directly booked by the IBD nurse. All referrals were made on the basis of possible new diagnosis of IBD, assessment of disease extent following endoscopic diagnosis or known patient with IBD with possible exacerbation/complications. All patients were scanned by a single Consultant GI Radiologist in the presence of the IBD specialist nurse. Findings were immediately communicated to patient and nurse and immediate combined decision made with regard to necessity for treatment change and urgency of further follow up.

Results 54 patients were examined: – Male: Female 21:33. Age range 17–79 years. 48% of patients were examined within 7 days and 69% within 14 days of referral. Ultrasound detected active disease/complications in 65%. Ultrasound findings resulted 43% of patients undergoing significant change in management with 41% also requiring dietetic referral. 29% required urgent follow up within 1 week including 3 patients

Abstract PWE-019 Table 1 Day one results

	Platelets (x10 ⁹ /L)		CRP (mg/dL)		Albumin (g/L)	
	Responders (n=36)	Non-responders (n=23)	Responders (n=32)	Non-responders (n=22)	Responders (n=27)	Non-responders (n=23)
Median	342	464	25	78	34	27
Interquartile range	107 (291–398)	172 (345–517)	45 (9–54)	131 (44–175)	5 (31–36)	9 (24–33)