has been proposed, reducing invasive and costly lower gastrointestinal (GI) endoscopy, particularly when functional disorders are suspected [1]. We reviewed all faecal calprotectin results and available patient records over a six month period to determine whether a normal faecal calprotectin resulted in subsequent avoidance of lower GI endoscopy.

**Methods** The paper and/or electronic medical records for patients with calprotectin requests over a 6 month period were accessed and reviewed by a Specialty Trainee in gastroenterology at Lancashire Teaching Hospitals NHS Foundation Trust. Demographic data, symptoms, and recent or subsequent lower GI endoscopy were recorded. Endoscopy was considered 'spared' if the diagnosis was anticipated to be functional and a normal faecal calprotectin resulted in avoidance of lower GI endoscopy; or in patients with known inflammatory bowel disease (IBD) where the notes intimated a normal calprotectin would result in avoidance of further endoscopy.

**Results** 122 patients (73 female, mean age 41yrs, range 16–89yrs) had faecal calprotectin requests sent from the Royal Preston Hospital and Chorley and South Ribble Hospital. 4 samples were not received or processed. 90.2% were outpatient requests, and the most common indications were loose stools (54.1%) and abdominal pain (28.7%). 45 samples (36.9%) had a raised calprotectin (≥51$\mu$g/g), of which 20 patients had known IBD. In those with a normal calprotectin (n = 73), 56 had an unclear diagnosis of which 4 (7.1%) eventually went on to have lower GI endoscopy with no major findings, and 20 patients (35.7%) had previously undergone lower GI endoscopy. In 13 patients there were insufficient records available to be able to comment. According to the criteria mentioned 35 patients were spared lower GI endoscopy within the 6 month period.

**Conclusion** Over a 6 month period 35 lower GI endoscopies were avoided representing both a reduction in patient exposure to the risks of endoscopy and a significant financial saving. Our results suggest that faecal calprotectin is a valuable and cost effective resource in helping to exclude significant organic pathology in selected patients given its proven high negative predictive value in excluding gastrointestinal inflammation [2].

**Disclosure of Interest** None Declared

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## PTU-070 SELECTING THE MOST COST-EFFECTIVE MODEL OF CARE FOR DELIVERING BIOLOGICAL AGENTS AS MAINTENANCE THERAPY IN PATIENTS WITH CROHN'S DISEASE

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**Introduction** The introduction of anti-TNF alpha monoclonal antibodies in 1999 has revolutionised the management of inflammatory bowel disease (IBD). A significant increase in gross spend on biological agents in the management of Crohn's disease has occurred since the implementation of NICE guidance in 2002. The unplanned nature of the service expansion and evolution has led to a wide variation in service delivery. Within the Aneurin Bevan Local Health Board (ABHB) the approximate doubling in the gastroenterology spend on biologics (between 2010 and 2011) prompted a review of current services and an investigation of other potential models of care for delivering the service.

**Methods** A service evaluation for both adalimumab and infliximab (IFX) including: an assessment of the current services from a patient's perspective (study 1), identifying and exploring models of care for delivering the service (study 2) and evaluating the costs associated with each model of care (study 3) was undertaken. Study 1 comprised face-to-face semi-structured, tape recorded patient-interviews, which were transcribed verbatim and then thematically analysed. Study 2 utilised a number of methods to identify key-informants at various secondary care sites to participate in telephone semi-structured interviews, models identified were compared and contrasted. Study 3 identified and compared the costs of current models within ABHB with viable models identified in study 2.

**Results** The results revealed overall satisfaction with the IBD services within ABHB and with the service provided by Healthcare at Home Ltd. Patients were complementary of the IBD team and the telephone help line. Nonetheless areas for improvement with regards to the infusion facilities were identified by the IFX group. Study 3 identified four models of care: IFX prepared in pharmacy, IFX prepared by a specialist nurse, IFX at home and adalimumab at home. For standard dosing (79kg patient-average IFX patient weight at ABHB) annual costs were £12,237, £12,314, £10,254 and £9,156 respectively, inclusive of pharmacy production time, nursing time and active drug and exclusive of hospital facilities. Vial sharing would reduce the cost of models one and two, however would require complex re-organisation to facilitate "pairing" patients. Study 3 identified adalimumab via Healthcare at Home as being the most cost-effective model.

**Conclusion** Where clinically appropriate adalimumab via Healthcare at Home Ltd is recommended for this group of patients within ABHB, with IFX via a home care company as second line. Work should be done to improve the current infusion facilities. Future work should include reviewing the potential of setting up a biologics unit shared between specialities.

**Disclosure of Interest** None Declared

## PTU-071 CAUSE OF DEATH IN THE EXETER INFLAMMATORY BOWEL DISEASE (IBD) POPULATION

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**Introduction** Recent meta-analyses of population based IBD mortality studies have shown no increase in standardised mortality ratio for ulcerative colitis (UC)[1], but a small increase for Crohn's disease (CD)[2]. 26–50% of deaths in CD patients were related to the underlying IBD diagnosis[2]. The aims of this study were to investigate the death cause distribution in a well defined IBD population and to establish the proportion of deaths related to the underlying diagnosis or treatment.

**Methods** Retrospective case note review to establish cause of death of all patients on the Exeter IBD database who died in the 9yr period until 31.12.2011. Cases were reviewed by 2 clinicians to establish cause of death and ascertain whether it was related to the underlying diagnosis or treatment.

**Results** 143 deaths, 82 male. 87 had UC, 46 CD and 10 IBD unclassified. Mean age at diagnosis was 58 (11 – 94). Mean duration of disease at time of death was 17 years (0–61). The median age of death was 72.5 and 79 years for CD and UC respectively ($P = 0.001$, 95% CI –13 - –3 years).

The underlying disease or treatment was implicated in the cause of death in 35/143 (23%) patients and was more common in CD compared to UC patients (37 vs. 18%, $P = 0.03$). There was no change over time in the proportion of related deaths.

13/143 (9%) had a diagnosis of colorectal cancer at the time of death; in 8 this was the primary cause of death. 8 had Primary Sclerosing Cholangitis, all of whom died of related complications. 8 patients had a haematological malignancy including 3 patients with colonic lymphomas, 1 with chronic myeloid leukaemia, 2 with non-Hodgkin's lymphoma and 1 with peripheral T cell lymphoma. Half of these patients had previously been prescribed thiopurines.