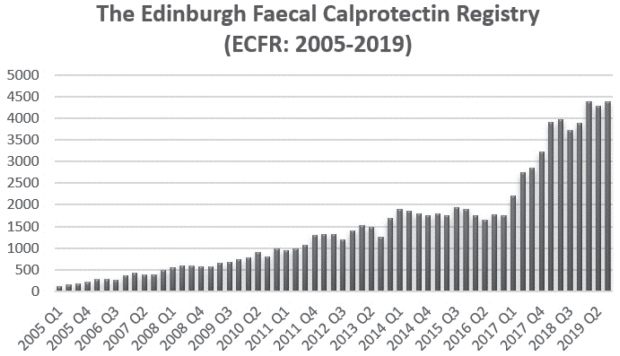

Abstract P155 Figure 1

The FC registry was merged with the prevalent cases in the LIBDR (N=7051). 5291 (75%) of these have had at least one FC measurement at any time point (median 4 FC assays per patient). Over the last 5 years, those patients under active follow-up (defined as 1 clinic appointment in secondary care between 1/1/14 and 1/8/18) had an average of 2 FC results per year.

Conclusions The Edinburgh FC Registry demonstrates the increasing demand over time for FC measurements in diagnosing IBD with the impact of primary care test clearly shown. In established IBD the time trends analysis demonstrates the deployment of treat-to-target in the clinic over almost a decade.

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P156 THE INFLAMMATORY BOWEL DISEASE (IBD) BIORESOURCE: FOCUS ON THE INCEPTION COHORT

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Introduction The IBD BioResource was established by the UK IBD Genetics Consortium and the NIHR BioResource in 2016 to expedite the clinical translation of recent genetics advances. It aimed to recruit >25,000 patients across hospitals UK-wide and comprises two cohorts: the Main cohort which focuses on patients with established IBD, and the Inception cohort which is dedicated to patients newly diagnosed with IBD. The Main cohort has recruited >32,000 patients so far. Owing to the detailed sampling of the Inception cohort and lack of confounding by medication or disease chronicity, it offers a unique resource to undertake 'omics' studies and enable research into determinants, predictors and biomarkers of IBD disease course and treatment response

Methods The Inception goal is to enrol 1,000 individuals who are new to their IBD diagnosis. Both clinical and self-reported phenotype data are collected, alongside detailed samples including whole blood for serum, plasma, DNA and RNA, stool and biopsy tissue. Samples are obtained following consent and then subsequently at first remission and first flare. Clinical data is recorded at all sample collection time-points and at 12, 24 and 36 months post diagnosis.

Results Inception has been up and running fully since March 2018 and >60 hospital sites have been trained to identify and recruit patients to this cohort. Recruitment has reached ~35% of the 1,000 patient target with the panel currently consisting of 40% Crohn's, 49% ulcerative colitis and 11% as IBDU or under further investigation. Of the patients recruited 34% have returned a baseline stool sample and 16% have had a biopsy collected at the time of diagnosis. Of all the patients recruited 23% have gone on to have samples collected at first remission and 3% at first flare. There is 92% clinical data entry at baseline. Due to the complexity of this cohort, recruitment to Inception has been challenging. Issues include staff time and capacity at recruiting sites, identifying recruitment paths and recruiting patients at the right time, capturing patients at remission and flare, involvement of clinicians to aid with the interpretation and capture of the required clinical information and patient compliance with the longitudinal protocol.

Conclusion Progress with the Inception cohort of the IBD BioResource continues and recruitment is gaining momentum. The use of this valuable resource must be the next phase of its life and the lessons and skills learnt along the way transferred to benefit the set-up of other complex and large scale common disease cohorts.

P157 RAMAN SPECTROSCOPY CAN DIFFERENTIATE MUCOSAL HEALING FROM NON-HEALING IN INFLAMMATORY BOWEL DISEASE

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Introduction Mucosal healing (MH) is a key treatment target in the management of inflammatory bowel disease (IBD), and is defined in endoscopic terms by the newly published PICaSSO score. Raman Spectroscopy is based on the scattering of inelastic light giving spectra that are highly specific for individual molecules. Our aim was to establish if Raman Spectroscopy is able to accurately differentiate between inflammation and MH.

Methods Biopsies were taken for *ex vivo* Raman Spectroscopy analysis alongside biopsies for histological analysis from IBD patients undergoing optical diagnosis endoscopic assessment. MH was defined as: PICaSSO score ≤3 and UCEIS ≤1 and RHI score of ≤3 in UC and SES-CD score ≤2 and modified Riley score of 0 in CD.

For spectral analysis we used artificial neural networks and a supervised learning model to build predictive modelling.

Results A total of 57 patients (29 UC/28 CD) were included giving 5700 Raman Spectra. Spectral differences were seen between MH and active inflammation. MH was associated with decreases at 1001 cm^{-1} and 1249 cm^{-1} in UC and CD and increases at 1304 cm^{-1} in UC and CD. The trained neural network was able to differentiate MH from active inflammation with a sensitivity, specificity, PPV, NPV and accuracy in