prevalent case is increasing over time with a marked difference between age groups (figure 1(b)).

Hospital re-admission analysis showed 3,715 index admissions for IBD with 177 (5%) readmissions within 7 days of discharge, 313 (8%) within 14 days and 498 (13%) within 30 days. In most cases, the reason for readmission was also IBD. However, infection and abdominal pain accounted for 10% of readmissions.

Conclusions The current burden of on hospital resources from the IBD population is high. With prevalence continuing to rise, service planning will be essential to provide care for these patients.

REFERENCE
1. Jones, G.R. *et al. Gut* (2019)

P125   FAECAL IMMUNOCHEMICAL TEST (FIT) IN PRIMARY CARE AS A RULE OUT TEST FOR IBD

Stephen Macpherson*, Gillian Bain, John Thomson, Perminder Phull. *NHS Grampian, Aberdeen, UK*

Introduction NICE recommends faecal calprotectin (FCP) testing as an option to support clinicians with the differential diagnosis of inflammatory bowel disease (IBD) or irritable bowel syndrome (IBS) in adults with recent onset lower gastrointestinal symptoms for whom specialist assessment is being considered, if cancer is not suspected.[1] Our local IBS pathway advocates use of FCP to support the above and is requested in secondary care. More recently faecal immunochemical test (FIT) for faecal haemoglobin concentration has been shown to safely and objectively determine a patient's risk of significant bowel disease (SBD) (colorectal cancer (CRC), higher risk adenoma (HRA) and IBD[2] and has been available to primary care in our area since July 2018. We examined all patients having both FCP and FIT testing in our centre to determine whether a negative FIT could be used as a rule out test for IBD in our population.

Methods All patients over the age of 16 who had both a FIT and FCP between July 2018 and November 2019 in NHS Grampian were included in this retrospective study. Data on demographics, endoscopy and imaging results and diagnosis were collected.

Results 191 (124 F, 67 M) patients from 17–90 yrs (median 47 yrs) had both a FIT and FCP. In 155/191 patients (81.2%) the FIT was performed in primary care first (median age of patient 47) before subsequent FCP in secondary care. FIT was negative (<10) in 113/155 (72.9%) of these patients. FCP was subsequently positive (>50) in 24/113 (21.2%) of these FIT negative patients. The final diagnosis in these FIT negative/FCP positive patients was: 7 diagnosis unclear (all had normal colonoscopy), 4 diverticular disease, 3 known/pre-existing IBD, 3 IBS, 3 bile acid malabsorption, 2 microscopic colitis, 1 Crohn's, 1 haemorrhoids.

22/191 patients (11.5%) were diagnosed with IBD. 21/22 (95.5%) of these had a positive FIT. (n=5 10–100, n=4 201–400, n=10 > 400). This is compared to 20/22 (90.9%) who had a positive FCP.

Conclusions In our population, a negative FIT is a good 'rule-out' test for IBD and has a similar sensitivity to FCP. An advantage of FIT is that it can also be used to rule out other SBD including CRC and HRA. FIT could therefore be substituted for FCP in our IBS pathway avoiding the need for secondary care FCP requests. Consideration should be given as to whether the NICE guidance[1] should be reviewed/amended to include FIT.

REFERENCES
1. Faecal calprotectin diagnostic tests for inflammatory diseases of the bowel. Diagnostics guidance [DG11]. October 2013
2. Mowat C et al, 2019. Impact of introducing a faecal immunochemical test (FIT) for haemoglobin into primary care on the outcome of patients with new bowel symptoms: a prospective cohort study.

P126   PHENOTYPIC CHARACTERISATION OF SUSPECTED SMALL BOWEL CROHN'S DISEASE WITH NATURAL LANGUAGE PROCESSING OF MRE REPORTS

[1]Luke Materacki*, [1]Daniel Collins, [2]Sebastian Zeki, [1]Jonathon Brown. *[1]Gloucestershire Hospitals NHS Trust, Gloucester, UK; [2]Gastroenterology Data Sciences Institute, St Thomas' Hospital, London, UK*

Introduction Location and Behaviour are important considerations in the phenotypic characterisation of Crohn's disease. Although enteroscopy and video capsule endoscopy allow direct visualisation of the small bowel mucosa, radiographic examinations (CT and MRI) are less invasive and provide additional information in stricturing and penetrating disease. Such studies tend to be reported in semi-structured free-text which presents a challenge for automated classification of large cohorts. We set out to write a natural language processing (NLP) algorithm to extract phenotypic characteristics from the magnetic resonance enterography (MRE) reports of patients with suspected Crohn's disease to help define our local IBD population.

Methods Reports from 904 consecutive MRE scans in our hospital trust were anonymised and imported into a Microsoft Excel datasheet. A senior gastroenterology trainee encoded phenotypic characteristics of Crohn's disease into new attribute columns to provide a 'ground truth' reference. The anonymised raw dataset was also imported into a Python pandas dataframe for NLP. The NLP algorithm:

1. Separated all words by a single space, converted to lower case and removed superfluous punctuation
1. Corrected spelling of key words using a Levenshtein threshold
2. Identified disease phenotypes by matching regular expressions
3. Excluded negating phrases with pre– and post-concept regular expressions
4. Excluded positive diagnoses documented within a family history

Abstract P126 Table 1

	Sensitivity (%)	Specificity (%)	Positive predictive value (%)	Negative predictive value (%)
Family history of CD	97	100	100	100
MRE interpretation: CD	98	94	95	97
CD phenotype: stricturing	90	98	87	98
CD phenotype: penetrating	88	99	88	99