Abstract P87 Table 1

	2016/17		2017/18		2018/19	
Prescriptions	666		883		607	
1. Prednisolone	519	77.9%	749	84.8%	521	85.8%
- Budesonide**	147	22.1%	134	15.2%	86	14.2%
Age, mean (SD)	40	19	39	19	39	20
Gender						
Male, n (%)	360	54.1%	470	53.2%	325	53.5%
Diagnosis, n (%)						
- Crohn's disease	315	47.3%	362	41.0%	237	39.0%
- IBD-U	43	6.5%	44	5.0%	34	5.6%
- Ulcerative colitis	308	46.2%	477	54.0%	336	55.4%
Steroid courses						
Duration, mean (sd)	**13.02***	14.00	**9.90***	9.40	**8.40***	7.10
≤ 8 weeks, n(%)	355	53.3%	573	64.9%	386	63.6%
> 8 weeks, n(%)	311	46.7%	310	35.1%	221	36.4%

* p<0.01, ANOVA ** 78% of budesonide prescriptions were for CD

steroid exposure. The Registry has established an infrastructure capable of serving as a platform for future nationwide prospective steroid audit.

P88 THE IMPACT OF NOD2 DEFICIENCY ON THE GUT MYCOBIOTA IN CROHN'S DISEASE PATIENTS IN REMISSION

[1,2]S Bridge*, [1]A Nelson, [3,4]N Kennedy, [1]J Lodge, [1]H Morgan, [5]S Berry, [6]R Simpkins, [7]M Tremelling, [6]S Nutland, [8]C Probert, [9]M Parkes, [2,10]J Mansfield, [1,2]D Smith, [5,11]G Hold, [4]C Lees, [2]C Stewart, [2,10]C Lamb. *[1]Northumbria University, Newcastle Upon Tyne, UK; [2]Newcastle University, Newcastle upon Tyne, UK; [3]Exeter University, Exeter, UK; [4]Edinburgh University, Edinburgh, UK; [5]Aberdeen University, Aberdeen, UK; [6]Cambridge BioResource, Cambridge, UK; [7]Norfolk and Norwich University Hospital, Norwich, UK; [8]Liverpool University, Liverpool, UK; [9]Addenbrookes Hospital, Cambridge, UK; [10]Royal Victoria Infirmary, Newcastle upon Tyne, UK; [11]University of New South Wales, Sydney, Australia*

10.1136/gutjnl-2020-bsgcampus.163

Introduction Crohn's disease (CD) is strongly associated with risk variants in *Nod2* and an imbalanced gut microbiome. Historical and emerging data indicate that gut fungi play an important role in CD pathogenesis, however a causal link between fungi and dysregulated immunity remains obscure. A recent study has shown that NOD2 acts beyond peptidoglycan sensing and is activated via a fungal chitin-dependent pathway to induce anti-inflammatory cytokine responses. Currently it is unknown what impact *Nod2* deficiency may have on the gut mycobiota in CD.

Methods CD patients of known *Nod2* genotype were identified from the UK IBD genetics consortium. Patients in remission were selected if they carried 2 of the common *Nod2* variants (homozygotes or compound heterozygotes). Each *Nod2* mutant patient was matched to a *Nod2* wild-type patient. Participants without CD and of a known *Nod2* genotype were recruited from the Cambridge BioResource. DNA was extracted from stool samples using the DNeasy PowerLyzer PowerSoil kit. The ITS1 region of the eukaryotic ribosomal cluster was amplified and sequenced using the illumina MiSeq. Sequence data was processed using Mothur and reads were assigned taxonomy using the UNITE database (v8). 16S rRNA gene sequences of participants were used from a previous study.[1]

Results 81/109 individuals were included in the analysis (34 CD patients [53% *Nod2* mutant] and 47 non-CD individuals [39% *Nod2* mutant]. No differences were found in α diversity metrics (OTU richness and Shannon diversity) in samples from CD patients *vs.* non-CD or *Nod2* wild type *vs.* mutant individuals. The phylum *Ascomycota* was the most abundant in CD *vs.* non-CD (FDR-Adj. $P = 0.00096$), whereas *Basidiomycota* was the most abundant phylum in non-CD *vs.* CD (FDR-Adj. $P = 0.019$). An inverse relationship was found between bacterial and fungal Shannon diversity metrics in *Nod2* wild type individuals that was independent of CD ($r = -0.349$; $P = 0.029$). Principal coordinates analysis using weighted Bray-Curtis dissimilarities of fungal taxa showed separation in fungal community composition between CD and non-CD individuals ($R^2 = 0.021$; $P = 0.01$; PERMANOVA). The genus *Candida* showed the greatest effect on fungal community composition in CD, whereas in non-CD individuals, the genus *Cryptococcus* exerted the greatest effect on the mycobiota composition.

Conclusions This study confirms previously identified compositional changes in the enteric mycobiota in CD patients. However, no differences were observed in the fungal community when stratified by *Nod2* genotype (wild type *vs.* mutant).

REFERENCE

1. Kennedy NA, Lamb CA, Berry SH, *et al*. *Inflamm Bowel Dis* 2018;**24**(3):583–92.

P89 PATIENT PERCEPTIONS AND CONCERNS REGARDING PREGNANCY AND FERTILITY IN INFLAMMATORY BOWEL DISEASE

[1]Sophie Broad*, [1]Elena-Cristina Andreica*, [1]Sidra Giny*, [2]Michael Colwill, [2]Lucy Medcalf, [2]Guy Chung-Faye, [2]Patrick Dubois, [2]Bu'Hussain Hayee, [2]Alexandra Kent. *[1]King's College London, London, UK; [2]King's College Hospital NHS Trust, London, UK*

10.1136/gutjnl-2020-bsgcampus.164

Introduction Voluntary childlessness is recognised in Inflammatory Bowel Disease (IBD) patients, despite fertility being comparable to the general population. This may be due to misconceptions of medication safety and the impact on pregnancy. We aimed to:

1. Identify patients' specific concerns regarding IBD and having children

- Quantify the need for more information
- Determine a preferred information format
- Evaluate patient confidence in different clinicians' knowledge of IBD and pregnancy/fertility

Method A medical student led Quality Improvement Project over 11 consecutive weeks (Oct-Dec 2019). IBD patients attending outpatient clinics completed a self-administered survey, tailored to men (M), parous (P) or nulliparous (NP) women.

Results 156 participants completed the survey: 67 males (=37 yrs, range 17–65) and 89 females (=37 yrs, range 17–66, 43P, 46NP). The disease distribution was Crohn's Disease 36%, Ulcerative Colitis 50%, Indeterminate Colitis 3% and 11% were unsure. The mean disease duration was 109.5 months (5–540 months). 71% felt their disease was in remission.

66.2% felt they did not have enough information regarding the impact of IBD on raising a family, specifically fertility and pregnancy, including 63% of the male patients. 42.3% of

Abstract P89 Table 1 Patient response to concerns

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Infertility due to IBD	13.50%	11.50%	22.40%	12.80%	6.40%
Infertility due to medication	11.50%	12.80%	17.30%	16.70%	7.70%
Miscarriages	9.00%	14.70%	18.60%	16.00%	7.10%
IBD harming child	7.70%	12.20%	16.70%	16.70%	13.50%
Medications harming child	7.70%	7.10%	17.30%	19.90%	15.40%
Inheritance risk	5.10%	6.40%	6.40%	9.00%	16.70%
Unable to care for child	4.50%	10.30%	7.70%	9.00%	6.40%
Complicated pregnancy	4.50%	4.50%	10.30%	10.30%	7.10%

patients had not accessed information previously. Concerns were explored (table 1). Participants who had accessed information utilised a variety of sources: 19.8% had spoken to an IBD clinician, 31.4% accessed CCUK online resources, 2.6% read leaflets and 3.8% asked friends/family.

53% of parous women breastfed. No women reported concerns that IBD could directly harm their child via breastfeeding; 1 had concerns that IBD medications could harm their child via breastfeeding.

The majority (59%) stated they would like more information, with 33.6% patients preferring to receive it from an IBD clinician. Other methods included leaflets (28.1%), posters (12.1%) and patient education events (6.0%). The participants would rather discuss fertility and pregnancy issues with their IBD clinician (26%) than with their GP (17%).

Conclusion Many patients feel uninformed regarding pregnancy with IBD, with a variety of concerns. Information should be readily available for both genders, and integrated into patient-clinician discussions.

P90 POST-OPERATIVE CROHN'S DISEASE RECURRENCE IN GLASGOW – HOW COMMON IS IT AND DOES DEPRIVATION MATTER?

Emily Brownson*, Stephanie Shields, Mohammad Derakhshan, Jonathan Macdonald, Gary Nicholson, John Paul Seenan. *Nhs Greater Glasgow And Clyde, Glasgow, UK*

10.1136/gutjnl-2020-bsgcampus.165

Introduction 50% of patients with Crohn's Disease (CD) will have surgery within the first 10 years, with 35% requiring additional surgery. The REMIND cohort linked male gender, smoking and previous resection to recurrence.[1] The link between CD and deprivation is debated[2], and its influence on recurrence is unknown. We aimed to define our local post-operative CD population, highlighting recurrence rates.

Methods CD resections between 2008–2014 were identified from NHS Greater Glasgow & Clyde Pathology Archive. Data including gender, age at diagnosis and resection, Montreal Classification and smoking status was obtained from Electronic Patient Records. Scottish Index of Multiple Deprivation (SIMD) score was determined by postcode and was ranked 1–5 (most to least deprived).

A minimum of 5 years of follow up data was collected. Type of recurrence was recorded as: 1) clinical recurrence - symptom flare requiring course of steroids or inpatient admission; 2) biochemical recurrence - faecal calprotectin >250µg/l; 3) endoscopic recurrence; or 4) surgical recurrence – the need for further CD-related surgery.

Results 304 patients (59.5% female) were included. Median age at diagnosis was 29 (range 3–82 years) and at resection was 43 (range 17–85 years). 82.9% had terminal ileal, colonic, or ileocolonic involvement. Upper GI and perianal disease occurred in 17.1% and 12.8% respectively. 94% had a stricturing or penetrating phenotype. 52.9% of patients were never-smokers, 16.5% were ex-smokers and 30.6% were current smokers. 33.6% patients had a SIMD score of 1.

47% of patients had clinical recurrence and 48.7% had biochemical recurrence with 49 patients 16.1% requiring further surgery for Crohn's disease.

There were significant associations between younger age at diagnosis/resection, male sex, current smoking and biochemical, surgical and clinical recurrence respectively. There was no significant association between SIMD score and recurrence of any type.

Conclusions Our data suggests rates of post-operative recurrence in line with existing published data. Risk factors for this are similar to those identified in the REMIND study[1], with younger age at diagnosis/resection, male sex and smoking all associated with higher rate of recurrence. Our data suggests deprivation does not influence recurrence rates. However more work is needed to validate this in larger, prospective cohorts.

REFERENCES

1. Auzolle, *et al*. Male gender, active smoking and previous intestinal resection are risk factors for post-operative endoscopic recurrence in Crohn's disease: results from a prospective cohort study. *Aliment Pharmacol Ther* 2018 Nov;**48**(9):924–932
2. Wardle, *et al*. Literature review: impacts of socioeconomic status on the risk of inflammatory bowel disease and its outcomes. *Bottom of Form European Journal of Gastroenterology & Hepatology* **29**(8):879–884.

P91 TRENDS IN IBD MORTALITY IN THE ERA OF BIOLOGICS

Troy O'Dowd*, Joe West, Timothy Card. *University Of Nottingham, Nottingham, UK*

10.1136/gutjnl-2020-bsgcampus.166

Introduction It is arguable that the only truly valid endpoints of healthcare are death and quality of life. Few RCTs are powered to examine these and so even for therapies of proven value and high cost such data are often not available. We have therefore examined the changing mortality from IBD at a population level in several countries in the era of biologic drugs.

Methods We obtained from the WHO mortality database the recorded deaths due to IBD and population figures for a number of advanced economies in which ICD coding within these data were adequate to identify IBD as a cause of death. From these we calculated cause-specific mortality rates for IBD. We went on to conduct interrupted time series analyses for each nation using SEER joinpoint software. The methodology is described in, Kim HJ, Fay MP, Feuer EJ, Midthune DN. 'Permutation tests for joinpoint regression with applications to cancer rates' Statistics in Medicine 2000; 19:335–351: (correction: 2001;20:655).