PTU-076 MANAGEMENT OF INFLAMMATORY BOWEL DISEASE (IBD) IN PREGNANCY IN THE NORTHERN DEANERYC Parker*, M Gunn. *Gastroenterology, Royal Victoria Infirmary, Newcastle Upon Tyne, UK*

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Introduction A European consensus on issues surrounding IBD in pregnancy was published in 2010.¹ We conducted a questionnaire to gain information about knowledge and management of IBD in pregnancy in the Northern region in both gastroenterology consultants and specialist trainees.

Methods A questionnaire assessing the management of IBD in pregnancy and pre-conception was devised. 34 questionnaires were given out at a joint trainee and trainer teaching session and were completed anonymously.

Results 34 questionnaires were returned; 16 consultants, 14 trainees, 4 not specified.

Pre-conception 22/34 (65%) routinely ask women of childbearing age about intentions to conceive, 16/34 (47%) routinely ask about contraception. If intending to conceive 24/34 (71%) would routinely give supplements (19/24 (79%) specified folate).

Pre natal 29/34 (85%) would routinely refer to obstetrician on discovery of pregnancy, 24/34 (71%) would see more frequently during the pregnancy. 27/34 (79%) would advise Caesarean section (CS) in certain patient groups; 2 would not advise CS and 5 did not know. The suggested indications for CS by respondents were: perianal disease (24) ileoanal pouch (6), previous CS (1), uncontrolled disease (1), previous surgery (2). 20/34 would recommend the flu jab in pregnancy.

Postnatal 10/34 (29%) were aware of live vaccinations that may be contraindicated in a neonate (7/10 were trainees).

Medications specific questions were asked about which medications would be recommended to be stopped in the pre and antenatal periods and which were considered safe in breastfeeding (See Table).

Conclusion Within the North East Region there is a varied consensus to the management of IBD preconception and during pregnancy both in terms of medication and indication for surgery. This is despite the European consensus document. There are areas which could be improved; only 6 of 27 who would consider CS in certain groups would consider it for ileoanal pouch and although this should be tailored to each individual patient guidelines would suggest that CS be strongly considered in those with a pouch and perhaps further education in this area would be beneficial. Although the majority would ask about plans for conceiving, discussion of contraception occurs in less than half of consultations. We would advocate a combined approach for these patients in conjunction with an interested gastroenterologist and obstetrician in order to optimise management and outcomes.

REFERENCE1 Janneke van der Woude *et al.* *J Crohns Colitis* 2010;4:493–510**Disclosure of Interest** None Declared.**PTU-077 NOVEL TECHNIQUES TO UNRAVEL THE IMMUNE MECHANISMS DRIVING INFLAMMATORY BOWEL DISEASE**

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Introduction The inflammatory bowel diseases (IBD), ulcerative colitis (UC) and Crohn's Disease (CD) occur when failures of immune regulation result in an accumulation of immune effector cells that damage the intestine. A detailed understanding of these processes has heretofore been hampered by difficulties in obtaining phenotypic and functional analyses of the multitude of closely-related immune cells present in both normal and in the diseased intestine. Here we show data from our recently-developed 12-parameter flow cytometric analyses of leukocytes from blood and intestinal biopsies. We anticipate that this approach will enable us to identify immune mechanisms causing or controlling IBD.

Methods After written informed consent was obtained, endoscopic biopsies from the colon and/or terminal ileum were obtained from patients with UC, CD, or from unaffected individuals attending for polyp surveillance colonoscopies. Blood samples were obtained from UC or CD patients attending IBD clinics, or from healthy volunteers. Live single cell suspensions were prepared, and were prepared for flow cytometric analysis, focusing on dendritic cell and T cell populations. Data were analysed using FlowJo software. Differences were analysed by Mann-Whitney or ANOVA, with post tests to assess significance.

Results We have developed novel and reproducible methods for purification of live cells from fresh colonic and ileal biopsies, and for enumerating of T cell and antigen presenting cell populations using 10-colour flow cytometry. We have compared data from IBD patients and healthy controls. Initial analyses of intestinal dendritic cell populations (CD45⁺ CD14⁺ CD64⁺ CD11c⁺ MHC class II⁺) have identified three distinct subsets based on CD103 and SIRPα expression. Our preliminary data indicate that dendritic cells are differently distributed along the intestine. Analyses of intestinal T cells (CD45⁺ CD3⁺ CD4⁺, CD25⁺ CD45RA⁺) have revealed the proportions of naïve, activated, memory, and regulatory T cells expressing the chemokine receptors CCR6, CCR9, CXCR3 and CCR10 in each population.

Abstract PTU-076 Table 1

Drug	Would stop preconception	Would stop in the antenatal period	Would consider safe for breastfeeding
5ASA	1 (3%)	1 (3%)	25 (74%)
Azathioprine	3 (9%)	2 (6%)	22 (65%)
Methotrexate	31 (91%)	28 (82%)	1 (3%)
6mercaptopurine	2 (6%)	2 (6%)	18 (53%)
AntiTNF	6 (18%)	6 (18%)	1 (3%)
Prednisolone	5 (15%)	4 (12%)	18 (53%)
Don't know	3 (9%)	6 (18%)	7 (21%)

Abstract PTU-077 Figure 1 Gating strategy to identify three subsets of dendritic cells in a colonic biopsies from an individual unaffected by IBD.

Conclusion Our novel multi-parameter analyses of live cells prepared from fresh colonic and ileal biopsies enable precise examination of the disease-inducing and effector populations that drive UC and CD. We are using the methods described here to dissect the immunological mechanisms driving inflammation in patients with IBD. We anticipate that our on-going comparisons of each of these immune cell populations in blood and intestinal biopsies from unaffected individuals, CD, and UC patients will reveal important details about pathogenic mechanisms controlling intestinal inflammation.

Disclosure of Interest None Declared.

PTU-078 THE APPLICATION OF A MARKOV MODEL FOR EVALUATING ASA THERAPY FOR ULCERATIVE COLITIS

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Introduction We developed a Markov model for ulcerative colitis that calculated the costs of two different treatment strategies for 1000 patients and healthcare providers and ran the model over a ten year cycle to evaluate each treatment arm.

Methods Healthcare costs were calculated from the published study of costs of ulcerative colitis at Aintree University Hospital, Liverpool, UK. Effects were quantified with the EQ-5D visual analogue scale and Work Productivity and Activity Impairment (WPAI) study.

Lost income for patients was calculated assuming that the patient was self employed, earning the national average wage and had no sickness benefits.

Results Cohort simulation is used to present the results. At the end of exercise, 277 patients were in the phase of remission in ASA continuing arm and 232 patients were in the same phase in ASA discontinuing arm.

Total costs to the healthcare providers for providing treatment to the patients were found to be £15,390,139.81 (discounted-£12,825,018.45) for ASA continuing arm and that for ASA discontinuing arm were £12,911,557.43 (discounted-£10,752,633.35). These costs were incurred to gain QALYs of 31,682.14 (discounted-26713.79) for the ASA continuing arm and of 31,307.73 (discounted-26,405.89 for ASA discontinuing arm).

Primary outcome in terms of ICER (Incremental Cost-Effectiveness Ratio) is £6730.55 per QALY (acceptable range < £20,000–30,000). Secondary outcomes such as Discounted total earnings lost due to illness and Discounted total earnings affected due to work impairment were found to be in favour of

ASA continuation by 19.43% (£3.7 million) and 11.15% (£7.8 million) in favour of ASA continuing arm.

Sensitivity analysis was conducted to challenge both the cost and effect assumptions. CEAC (Cost Effectiveness Acceptability Curve) revealed the probability of 1 is reached with the cost-effectiveness acceptability limit of £40,000 ceiling limit.

Conclusion Markov models have been used extensively to study the cost-effectiveness of healthcare interventions in chronic diseases.

Our Markov model considered costs for both patients and healthcare providers, rather than solely considering the costs for healthcare providers.

Results not only revealed the cost-effectiveness of ASA for the healthcare provider but also potential benefits for the broader economy.

Disclosure of Interest None Declared.

PTU-079 THE TPMT AND ABCB1 POLYMORPHISMS IN IBD PATIENTS IN CRETE: IMPACT ON DISEASE AND RESPONSE TO TREATMENT

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Introduction It is well known that polymorphisms of the TPMT gene (coding for thiopurine methyl-transferase), influence response to treatment with azathioprine. Polymorphisms of the ABCB1 gene (coding for p-glycoprotein 170) has been associated with IBD and resistance to treatment but results are conflicting. The aim of this study was to determine the frequencies of TPMT and ABCB1 gene polymorphisms in IBD patients from Crete, a population genetically homogeneous, and how these polymorphisms might influence response to treatment and disease behaviour.

Methods A total of 222 IBD patients records were reviewed for intake of azathioprine, possible adverse reactions, response to treatment and need for colectomy. All patients were genotyped for TPMT gene polymorphisms, that have been related to intolerance to azathioprine (G238C, G460A and A719C) as well as ABCB1 gene polymorphisms (G2677T/A and C3435T), using a PCR-RFLP method. The same polymorphisms were also determined in 119 age and sex healthy controls.

Results Allele frequencies of TPMT gene in our study population were found to be in concordance with those reported in other Caucasian populations. 76 IBD patients were identified receiving azathioprine, of whom 16 were discontinued (10 CD, 6 UC) due to adverse reaction. 2 of them were found to carry the G460A and A719G alleles (TPMT 3A genotype) (12.5%).