

Abstract P84 Figure 1 Risk factors for POR

ileocolonoscopy within 12 months. However, 32% had an alternative assessment of POR, with calprotectin being the most popular. An escalation in treatment following assessment was required in 25% of patients. Postoperatively, 40% of patients had no maintenance therapy before POR assessment; 26% continued on the same therapy as preoperatively and 34% had augmented pre-operative therapy.

Conclusions The majority of patients in Northern England who have an ileocaecal resection for CD are high risk for recurrence and many patients are not being assessed. Endoscopic POR predates clinical POR³ and, without monitoring, the opportunity to augment therapy and prevent clinical recurrence can be missed. In Northern England less invasive disease monitoring is being used to assess for POR and this audit would suggest that these have a comparable rate of identifying a need to escalate medical therapy. A postoperative CD management bundle is being developed

and will be implemented to assess whether this drives improvement.

REFERENCES

1. Canin-Endres J, Salky B, Gattorno F, Edey M. Laparoscopically assisted intestinal resection in 88 patients with Crohn's disease. *Surg Endosc* 1999;**13**:595–599.
2. Michelassi, F., Testa, G., Pomidor, W.J. *et al.* Adenocarcinoma complicating Crohn's disease. *Dis Colon Rectum* **36**, 654–661 (1993)
3. Rutgeerts P, Crohn's disease recurrence can be prevented after ileal resection *Gut* 2002;**51**:152–153

P85

FAECAL VOLATILE ORGANIC COMPOUNDS IN PAEDIATRIC INFLAMMATORY BOWEL DISEASE

^{1,2}Salma Belnour*, ¹Rachael Slater, ³Marcus KH Auth, ⁴Rafeeq Muhammed, ⁵Christine Spray, ²Duolao Wang, ¹Chris Probert, ²Stephen Allen. ¹University Of Liverpool, Liverpool, UK; ²Liverpool School of Tropical Medicine, Liverpool, UK; ³Alder Hey Children's NHS Foundation Trust, Liverpool, UK; ⁴Birmingham Children's NHS Foundation Trust, Birmingham, UK; ⁵Bristol Children's NHS Foundation Trust, Bristol, UK

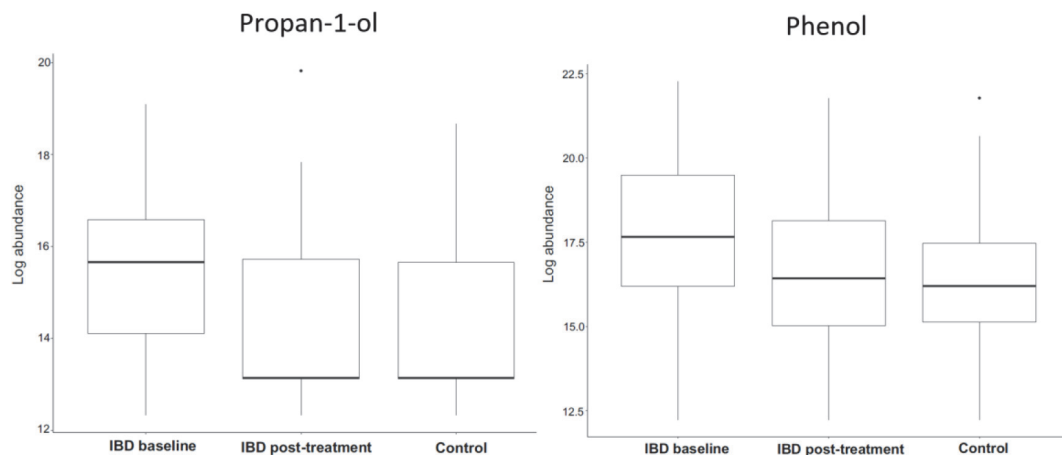
10.1136/gutjnl-2020-bsgcampus.160

Faecal volatile organic compounds (VOCs) result from the metabolism of the intestinal mucosa, gut microbiota and the environment. Faecal VOCs may provide novel insights into the pathogenesis of gastrointestinal disorders.

Method We assessed faecal VOCs by gas chromatography-mass spectrometry in a prospective, observational study of children with suspected inflammatory bowel disease (IBD) attending 3 specialist clinics. We tested whether the abundance of faecal VOCs differed according to IBD versus other gastrointestinal disorders, IBD subtype and response to treatment in IBD.

Results We characterised faecal VOCs in 132 children in whom IBD was diagnosed and 132 non-IBD controls. 162 (61.4%) were boys. Mean age was 12.2 years (SD 3.0). In total 214 (81.1%) were white, 35 (13.3%) were Asian and 15 (5.7%) of other ethnic background. There were 78 (29.5%) children with Crohn's disease (CD), 38 (14.4%) with ulcerative colitis (UC) and 16 (6.1%) IBD-unclassified. The most common diagnosis in controls was a functional gastrointestinal disorder.

The abundance of 18/30 (60.0%) faecal VOCs differed significantly between IBD and controls (t-test; $p < 0.03$ corrected for multiple analyses). Amongst 5 short chain fatty acids, 3 were of significantly lower abundance in IBD than controls (butanoic, pentanoic and hexanoic acids). The two compounds



Abstract P85 Figure 1 Box and whisker plots of propan-1-ol and phenol

that were more abundant in IBD than controls (propan-1-ol and phenol) returned to levels similar to controls following treatment (figure 1).

Within IBD, the subtype (CD versus colitis (UC and IBD-unclassified)) described a small amount of variation (3%, $p=0.006$), with three faecal VOCs (6-methylhept-5-en-2-one; benzaldehyde; 4-methylphenol) significantly different in abundance between CD and colitis (t-test, $p<0.05$).

Conclusion/Interpretation Characterisation of faecal VOCs may advance the understanding of the pathogenesis of IBD, disease sub-types and response to treatment.

P86 PERMANENT STOMA FORMATION IN CROHN'S DISEASE IS ASSOCIATED WITH INCREASED RATES OF ANTIDEPRESSANT USE

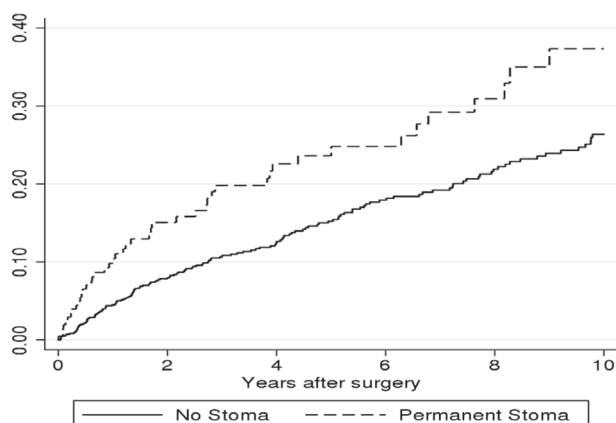
^{1,2,3}Jonathan Blackwell*, ²Prof Sonia Saxena, ^{1,2,3}Nishani Jayasooriya, ⁴Christopher Alexakis, ⁶Matthew Hotopf, ^{1,3}Richard Pollok. ¹St George's University of London, UK; ²Imperial College London, UK; ³St George's Hospitals NHS Foundation Trust, Dept Gastroenterology, London, UK; ⁴Royal Surrey Hospital, Guildford, UK; ⁵University College London, UK; ⁶Institute of Psychiatry Psychology and Neuroscience, King's College London, UK

10.1136/gutjnl-2020-bsgcampus.161

Introduction 50% of patients with Crohn's Disease (CD) will require surgery within the first 10 years after being diagnosed. The impact of having a temporary or permanent stoma on mental health in IBD is unknown.

Aim To examine the impact of intestinal surgery and stoma formation on antidepressant medication (ADM) use.

Methods Using the Clinical Practice Research Datalink, a nationally representative research database, we identified patients with CD who underwent their first intestinal surgery between 1998–2018. We identified all prescriptions for the 7 most commonly prescribed antidepressant medications: escitalopram, sertraline, citalopram, fluoxetine, paroxetine, venlafaxine, and mirtazapine. Tricyclic antidepressants were excluded since we have previously found they are rarely used for mood disorders and given at low dose for other conditions. Patients were excluded if they had a prescription for an ADM in the 6 months before surgery. Those undergoing intestinal surgery were stratified into three patient groups: without a stoma, temporary stoma, and permanent stoma. We used survival analysis to generate Kaplan-Meier curves to



Abstract P86 Figure 1 Risk of antidepressant medication use after first intestinal surgery stratified by stoma status

estimate the risk of ADM use in the 10 years after intestinal surgery. We used multiple Cox regression to identify risk factors for ADM use after intestinal surgery. We adjusted for the following covariates within the regression model: sex, age at surgery, smoking status, socio-economic status (index of multiple deprivation) and early surgery within the first year of diagnosis.

Results We identified 1,367 cases of CD undergoing their first intestinal surgery. 71% did not have a stoma ($n=974$), 14% had a temporary stoma ($n=190$), and 15% received a permanent stoma ($n=203$). The 10-year risk of ADM use in each group was 26.4%, 33.4% and 37.3% respectively. Patients with a permanent stoma were 67% more likely to require an ADM than patients undergoing intestinal surgery without a stoma (HR 1.67, 95% CI 1.15–2.42, Abstract P86 figure 1). Patients with a temporary stoma had a similar risk of requiring an ADM to patients undergoing intestinal surgery without stoma formation (HR 1.18, 95% CI 0.82–1.68).

Conclusion Permanent stoma formation is associated with significantly increased ADM use after intestinal surgery and is like to be associated with increased anxiety and depression. More research to understand how having a stoma impacts on mental health is warranted.

P87 THE IBD REGISTRY AS A PLATFORM FOR STEROID THERAPY AUDIT: TIME TRENDS IN TREATMENT DURATION

¹Mustafa Shalihidi*, ²Sarah Miles, ²Liz Dobson, ^{2,3}Fraser Cummings, ^{2,4}Stuart Bloom, ²Stephen Grainger, ^{1,2,5}Keith Bodger. ¹University Of Liverpool, Liverpool, UK; ²UK IBD Registry, UK; ³University Hospitals Southampton, Southampton, UK; ⁴University College London Hospital, London, UK; ⁵Aintree University Hospital, UK

10.1136/gutjnl-2020-bsgcampus.162

Introduction Oral corticosteroids continue to play a key role in inducing remission in inflammatory bowel disease (IBD) but are not effective as maintenance agents. Avoiding prolonged courses of treatment is an important strategy to minimise side effects. The UK IBD Registry has established an infrastructure capable of recording prescribing at point-of-care using a range of different local systems and software, including direct capture from local operational records. We investigated the feasibility of extracting data to undertake audit of steroid prescribing for hospitals participating in the Registry.

Methods Data submitted to the UK IBD Registry were analysed over three consecutive fiscal years (2016/17, 2017/18 and 2018/19). All prescriptions for oral steroids (prednisolone or budesonide) with a record of both a start and stop date were extracted and linked to patient characteristics. We compared the mean duration of steroid courses initiated in each year and the proportion lasting eight weeks or less.

Results There were 2,156 prescriptions (prednisolone 83%; budesonide 17%) with a start and stop date, relating to 1,591 patients treated at 42 hospitals. Three quarters (77.4%) of cases had a single steroid prescription recorded over the three year time period (5.8% had >2). Results are summarised in the table 1. There was a year-on-year reduction in the mean duration of recorded steroid courses from 13.0 to 8.4 weeks ($p<0.01$, ANOVA).

Conclusion IBD teams participating in the UK IBD Registry have achieved a reduction in the duration of steroid treatment courses, suggesting progress in efforts to avoid prolonged