

**Competing interests** None declared.

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### PWE-228 AN ASSESSMENT OF THE IMPACT 5ASA DOSE, DOSE INTERVAL, PREPARATION AND DELIVERY HAVE ON MAINTAINING REMISSION IN ULCERATIVE COLITIS

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**Introduction** 5-Aminosalicylic Acid (5ASA) plays a key role in both induction and maintenance of remission in ulcerative colitis (UC). A number of questions remain poorly assessed by clinical trials including the role of dose, dose interval, preparation and delivery method in maintaining remission. We aimed to assess the value of preparation, dose, delivery method and dosing interval on the duration of first remission in patients with newly diagnosed UC.

**Methods** We retrospectively assessed an inception cohort of 100 newly diagnosed UC patients diagnosed between 2004 and 2008 and followed-up for 3 years. 69 patients took oral Pentasa and 11 took oral Asacol. The diagnosis adhered to the criteria of Lennard-Jones and clinical details were categorised according to the Montréal classification. Data were also collected on 5ASA maintenance drug (Asacol or Pentasa), dose (high dose or low dose), and delivery (oral or oral and rectal). Relapse was defined as an increase in symptoms needing an increase in anti-inflammatory therapy. Risk of relapse was evaluated using HR, and by using Cox regression to control for potential confounders.

**Results** From induction of remission to the end of our 3 yr follow-up, 76% of patients relapsed, with a mean time to relapse of 16 months. Mean daily dose taken of Asacol was 2.3 g/day (IQR 0 g/day) and Pentasa 2.4 g/day (IQR 2–3 g/day). We found no significant difference in the relapse rates between Asacol and Pentasa. (Relapse rate 7/11 Asacol vs 53/69 Pentasa,  $c^2=0.574$ , HR 1.78 ( $p=0.19$ )). We also found no significant difference between: relapse rates for patients taking high dose 5ASA vs low dose. (Relapse rate 9/10 high dose vs 42/58 low dose,  $c^2=0.114$  HR 0.505 ( $p=0.223$ )); Oral and rectal vs oral alone (Relapse rate 10/12oral + rectal vs 59/77 oral,  $c^2=0.374$ , HR 0.49 ( $p=0.09$ )); Twice daily and once daily (Relapse rate 44/60 TD vs 5/6 OD,  $c^2=0.306$ , HR 2.12 ( $p=0.43$ )), and three times daily compared with twice daily (Relapse rate 20/23 TD vs 44/60 BD,  $c^2=0.107$ , HR 0.82 ( $p=0.6$ )).

**Conclusion** The duration of first remission in UC is variable and although 5ASA are effective the majority of patients will relapse within 3 years. These data demonstrate that relapse is influenced relatively little by high dose or bi-directional therapies and there were no differences in the preparations studied. This would indicate that concordance with therapy is a vital aspect of 5ASA efficacy and clinicians should reinforce this point when discussing therapy.

**Competing interests** None declared.

### PWE-229 ASSESSING PATIENT REPORTED OUTCOME IN CROHN'S DISEASE

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**Introduction** Research into the impact of Crohn's Disease (CD) and its treatment on the patient relies on outdated and inappropriate

generic questionnaires. These do not address important impacts of the illness and ask questions of limited relevance. As part of a study to develop CD-specific patient-reported outcome measures (PROMS), qualitative interviews were conducted with CD patients.

**Methods** Item generation was based on the International Classification of Functioning, Disability and Health (ICF) and the needs-based quality of life (QoL) models. Interviewees were recruited via out-patient clinics and interviewed in a private room or at the researcher's offices. Interviews covered all aspects of the impact of CD and its treatment and were audio-recorded. Transcripts were content analysed to identify impacts on symptoms, activity limitations and QoL.

**Results** 26 patients (69.2% female; aged 25–68; mean (SD): 46.2 (14.7) years) were interviewed. Participants had a wide range of duration of CD (2–40; mean (SD): 13.0 (12.9) years). 2641 statements relating to the impact of CD were identified. These statements fell into three major categories with a number of sub-themes identified: Symptoms (such as pain, fatigue and emotional impairment), activity limitations (such as difficulties with walking, lifting and jobs around the house) and QoL (including preoccupation with the disease, self-conscious of appearance and reduced socialisation).

**Conclusion** The study was successful in identifying the most important impacts of CD from the patients' perspective. In addition to generating potential items for the new measure the findings of the interviews have implications for clinical practice and clinical trial design. Audit of services and assessment of new interventions for CD should assess whether or not these impacts of CD are improved. Only then will it be possible to determine whether interventions are of true benefit to the patient.

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### PWE-230 AN IRON-RESPONSIVE PROBIOTIC TO TREAT INFLAMMATORY BOWEL DISEASE

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**Introduction** Iron is an essential cofactor in most biological systems. Lactic acid bacteria (LAB), frequently employed as probiotics, are unusual in having little or no requirement for iron. In the intestine of inflammatory bowel disease (IBD) patients increased availability of iron following oral iron supplementation or intestinal bleeding enhances growth and virulence of many pathogens against which LAB cannot compete. We have previously identified an iron-responsive LAB, *Streptococcus thermophilus* NCIMB 41856, with probiotic potential based on functionality in in vitro models which could be competitive during active disease. In order for this strain to be used as a probiotic treatment in IBD patients it must be safe, able to survive gastrointestinal transit and preferentially adhere to epithelial cells and colonise.

**Methods** Adhesion to the human epithelial cell lines, T84 and Caco-2, was investigated and the ability of *S thermophilus* NCIMB 41856 to abrogate binding of potential pathogens, in particular adherent-invasive *Escherichia coli* examined in vitro. The strain was also subjected to in vitro safety tests which included the production of ammonia, indole, phenols, amines, hydrogen peroxide and D-lactate. Antibiotic resistance was examined, including detection of transmissible antibiotic resistance. Ability to survive within a low pH environment was determined, as was enzyme activity and metabolism of carbohydrates.

**Results** The strain was found to be capable of binding to epithelial cells and reduce the binding of potential pathogens, while not causing cellular damage itself. It produced no harmful metabolites