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PMO-8 THE RELATIONSHIP BETWEEN INFLAMMATORY BOWEL DISEASE ACTIVITY AND SLEEP EFFICIENCY: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction Sleep disturbance is often reported amongst patients with IBD. Emerging evidence suggests a bidirectional relationship between gut and brain mediated by neuro-immunomodulatory mechanisms. Gastrointestinal symptoms including pain and bowel disturbance that occur in active disease as well as associated psychological stress may thereby impact both sleep quality and quantity. However, few studies have explored sleep in patients with IBD using objective measures such as wrist actigraphy or polysomnography. We, therefore, aimed to systematically review the relevant literature with particular regard to the impact of disease activity on sleep efficiency in IBD patients.

Methods An electronic search of Medline, EMBASE, Cochrane Library and National Library of Medicine Clinical Trial Database was carried out. Equivalent combinations of keywords relating to 'Inflammatory Bowel Disease' and 'Sleep' in line with PRISMA guidelines were used to identify studies reporting information on IBD activity and objective measures of sleep. All articles were reviewed individually by two assessors for eligibility and any conflicts were resolved through discussion to reach a final decision. The Oxford CASP tools were utilised to explore risk of bias, study validity and generalisability. Using a fixed-effects model, sleep efficiency data in active and inactive Crohn's disease patients were pooled and continuous data were summarised. Heterogeneity between studies was assessed by the I^2 statistic as defined by the Cochrane Handbook for Systematic Reviews.

Results The initial search produced 780 articles. 8 eligible studies were identified and included for qualitative synthesis. 4 of these studies were eligible for quantitative synthesis (meta-analysis), comprising 158 participants (73 with active Crohn's Disease and 85 patients in remission). 95% CI of two studies in this meta-analysis straddled unity but the overall trend was higher sleep efficiency in remission compared to active Crohn's (SMD, - 4.60; 95% CI, -7.03, -2.16, $p = 0.0002$) (Figure.1). Heterogeneity between studies was low ($I^2 = 0\%$, $p = 0.74$).

Conclusions This meta-analysis reveals CD patients with active disease have a poorer sleep efficiency compared to those in remission but data in UC is lacking. Further work, using

objective instruments to assess sleep efficiency, is needed to characterise the interplay between disease activity and sleep quality in IBD.

PMO-9 REDUCING INTRAVENOUS MONOCLONAL ANTIBODY OBSERVATION TIMES WITHOUT COMPROMISING PATIENT SAFETY; A SINGLE-CENTRE OBSERVATIONAL STUDY.

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Introduction Monoclonal antibodies (MAbs) are integral to manage Inflammatory Bowel Disease (IBD). At Brighton & Sussex University Hospital, intravenous MAbs, infliximab and vedolizumab, are administered in an outpatient setting. Licensing specifies post-infusion observation times of 1 to 2 hours. This affects waiting lists and capacity.

Methods A single-centre observation study was conducted.

Part 1 Retrospective data was collected for all infliximab and vedolizumab infusions from April to July 2019. Patients seen twice, were included once. For established infusion patients, historical reactions were recorded. Reaction incidence was established by observations, patient questioning and record review.

To standardise the reactions, we used the cancer Common Terminology Criteria for Adverse Events; grade 3 is 'severe'.

Part 2 Observation time was removed from infusion 4 in April 2020. Prospective data was collected for all infliximab and vedolizumab infusions from April to December 2020. Multiple attendances were included.

Results

Part 1 130 infliximab patients (2607 infusions) and 69 vedolizumab patients (557 infusions) were reviewed.

No severe reactions were recorded. All reactions occurred during induction. Analysis showed high levels of 'no reactions observed' after the first 4 infliximab infusions 97.7% (+1.6%, -4.7%), and the first 3 vedolizumab infusions 96.9% (+2.3%, -8.8%).

121 hours could be saved for infliximab and 64 hours for vedolizumab. Extrapolated this equates to 740 hours per year.

Part 2 679 infliximab infusions were administered (including 12 new starters). 418 vedolizumab infusions were administered (16 new starters). No reactions were reported.

Conclusions All infusion reactions occurred within 3 infusions, were non-severe and managed in clinic. By removing observation periods from infusion 4, capacity increased in concordance with COVID-19 social distancing, without affecting waiting times or patient safety. Patient experience was

Abstract PMO-8 Figure 1 Forest plot with studies comparing sleep efficiency in patients with active vs. inactive Crohn's disease