Introduction Early adenoma detection is shown to reduce mortality from colorectal cancers. Advances in endoscopy are aimed at improving adenoma detection. Contrast enhancement using dye spray is reported to improve the detection of subtle mucosal changes. We aim to perform a meta-analysis to look at the effect of chromoendoscopy on adenoma detection in the colon.

Methods Various electronic databases were searched for articles reporting on detection of polyps during colonoscopy comparing standard white light endoscopy and chromoendoscopy. The pooled mean differences in total number of adenomatous polyps detected, number of right and left sided polyps, advanced and flat adenomas, total number of polyps and number of < 5mm polyps detected was calculated. A fixed effects model was used unless there was significant heterogeneity. Publication bias was assessed using Funnel plots and Egger's test and heterogeneity was assessed using Cochran's Q and the I^2 test.

Results 3714 number of patients from 14 studies were included in the analysis. 7 studies were randomised controlled trials and 7 had a tandem colonoscopy study design. Chromoendoscopy detected significantly higher number of adenomas, advanced adenomas, right and left sided adenomas (Table 1). A significantly higher number for hyperplastic and small (< 5mm) polyps were detected by chromoendoscopy but no differences were noted for detection of flat adenomas. A random effects model was used because there was significant heterogeneity between the studies. There was some publication bias noted on the funnel plot with fewer number of smaller negative studies included. Sensitivity analysis for publication bias using the trim and fill method which did not change the statistical significance of the pooled analysis.

Abstract PWE-072 Table 1

Variable	Pooled mean difference	P value
Adenoma detection	0.139 (95% CI 0.082 to 0.195)	0.0001
Right sided adenomas	0.137 (95% CI 0.048 to 0.226)	0.003
Left sided adenomas	0.117 (95% CI 0.007 to 0.227)	0.036
Advanced adenomas	0.105 (95% CI 0.017 to 0.194)	0.019
Flat adenomas	0.154 (95% CI -0.084 to 0.393)	0.205
Hyperplastic	0.364 (95% CI 0.281 to 0.447)	0.001
< 5mm	0.271 (95% CI 0.172 to 0.369)	0.001

Conclusion Conclusions: Chromoendoscopy improves detection rate of adenomatous polyps compared to conventional white light endoscopy. This seems greater for advanced as well as right sided adenomas, but significantly higher number of hyperplastic and small (< 5 mm) polyps were detected by chromoendoscopy. Future work needs to focus on the cost effectiveness of chromoendoscopy taking into account the increased time and cost of chromoendoscopy and long term outcomes like reduction in colorectal cancer rates between chromoendoscopic and conventional colonoscopy surveillance.

Disclosure of Interest None Declared.

Inflammatory bowel disease

PWE-073 THE MULTIDIMENSIONAL NATURE OF IBD FATIGUE: A SYSTEMATIC REVIEW AND META- ANALYSIS

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Introduction Fatigue is recognised as a troublesome symptom for patients with IBD. There is no consensus regarding mechanisms driving fatigue or treatment. The aim of the present study is to assess the factors associated with IBD fatigue, using a systematic literature review and meta-analysis.

Methods A systematic literature review was performed in PubMed and EMBASE and additional articles and abstracts were identified by a hand search. All studies reporting correlation coefficients (CCs) of fatigue with disease activity were included. A random-effects model was employed to produce a pooled estimate of CCs, which was the effect size in the current analysis. Fisher's Z transformation of the CCs was utilised for the analysis. Publication bias was assessed with funnel plots and Egger's test. All computations were executed with Stata 10.0 and MetaWin.

Results 23 studies were eligible for inclusion (total sample size = 5980). Fatigue was strongly correlated with IBD disease activity (pooled CC 0.386; 95% CI 0.335 to 0.435, range 0.165 to 0.540). Although there was no publication bias (failsafe N = 958), there was moderate heterogeneity ($Q = 33.74$, $df = 14$, $p = 0.002$; $I^2 = 58.5\%$). Subgroup analysis showed a relationship between the correlation of fatigue and disease activity with population group (adult, paediatric) but not with country. Meta regression with percentage of males and mean age did not suggest that either were significant moderators of the particular correlation coefficient. Fatigue was also strongly correlated with quality of life (pooled CC -0.534; 95% CI -0.636 to -0.414), psychological distress (pooled CC 0.515; 95% CI 0.412 to 0.606) and daytime sleepiness (pooled CC 0.400; 95% CI 0.32 to 0.471), and was moderately correlated with anaemia (pooled CC 0.167; 95% CI 0.104 to 0.231) and social and functional impairment (pooled CC 0.288; 95% CI 0.133 to 0.424). Flare ups were not a significant predictor of fatigue ($p > 0.05$). Heterogeneity was present in all analyses ($p < 0.05$), except for the meta-analyses with anaemia, daytime sleepiness and social and functional impairment. Publication bias (assessed with the funnel plot) was more probable in the secondary factors compared with disease activity analyses in the initial correlation.

Conclusion A number of factors were found to correlate with IBD fatigue. These include: psychological distress, daytime sleepiness, disease activity, anaemia and social and functional impairment. This suggests both cognitive and physical aspects of IBD fatigue and clearly highlights the multidimensional nature of this symptom.

This is part of a larger study conducted in collaboration with Crohn's and Colitis UK, King's College London and Addenbrookes' NHS Trust, funded by the Big Lottery Fund.

Disclosure of Interest None Declared.

PWE-074 HOW OFTEN DO WE DISCONTINUE MAINTENANCE INFLIXIMAB DUE TO CLINICAL REMISSION IN CROHN'S DISEASE?

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Introduction Biologics are increasingly used in the management of Crohn's disease (CD). NICE guidelines advise reassessing CD patients after 12 months of treatment with infliximab and discontinuing therapy for patients in stable clinical remission. Evidence suggests that sustained remission may be achieved in up to 50–60% of these patients on withdrawal of treatment. However, it is recognised that decisions regarding continuing treatment must be individualised and take into account previous disease behaviour. We sought to determine how often in clinical practise maintenance infliximab was discontinued due to clinical remission.

Methods All patients treated with infliximab for CD between September 2006 and December 2012 were identified from our inflammatory bowel disease (IBD) database. Dates of initiation and termination of treatment were recorded along with the reason for discontinuation. Patients continuing on infliximab were analysed in more detail. Patient demographics, past medical history, Montreal classification, baseline investigations, Harvey-Bradshaw index (HBI) and faecal calprotectin (FC) levels were recorded.