abstracts of eight annual conferences. RCTs reporting administration of probiotics in adults with functional constipation were included. Two reviewers independently performed the screening of articles, data extraction, and risk of bias assessment. Data were synthesised using weighted or standard mean differences for all relevant outcomes using a random effects model. Publication bias was assessed via funnel plots and the Egger's test.

Results 657 records were identified, of which 14 were eligible (1,347 patients). Probiotics significantly reduced whole gut transit time by 11.9 h (95% CI: -18.4 to -5.4; p = 0.0003). They also significantly reduced right and left colonic transit times by 5.7 h (95% CI: -9.9 to -1.6; p = 0.007) and 5.1 h (95% CI: -9.6 to -0.6; p = 0.03), respectively. Probiotics significantly increased stool frequency by 1.1 bowel movements per week (95% CI: 0.7 to 1.5; p < 0.0001) with a number to treat (NNT) of 2, but there was significant heterogeneity (I^2=79%; p < 0.0001). Probiotics resulted in softer stool consistency (standardised mean difference, SMD = +0.5, 95% CI: 0.3 to 0.8; p = 0.0001) with a NNT of 3. Bloating (SMD = -0.6, 95% CI: -1.2 to -0.01; p= 0.04) and flatulence (SMD = -0.4, 95% CI: -0.7 to -0.1; p = 0.01) were also significantly reduced. No serious adverse events were reported following probiotic administration, and compliance was over 95%. There was no statistically significant funnel plot asymmetry found (p = 0.271), suggesting no evidence of publication bias.

Conclusion Probiotics significantly improve gut transit time, stool frequency and consistency, and constipation-related symptoms, and are associated with low risk of adverse events and high rates of compliance. Probiotics should thus be considered as an alternative treatment for functional constipation.

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PWE-165 A REAL WORLD STUDY TO DESCRIBE THE PATIENT PATHWAYS AND NHS RESOURCE USE ASSOCIATED WITH THE MANAGEMENT OF IRRITABLE BOWEL SYNDROME (IBS) IN UK CLINICAL PRACTICE

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Introduction Irritable bowel syndrome (IBS) is often a diagnosis of exclusion, with poor diagnosis coding in primary care. This makes identification of eligible research participants challenging.

We present the methodology development of a multi-centre, observational, retrospective research study ongoing in primary care, designed to overcome the challenges of IBS patient identification.

Methods Study feasibility was conducted by pH Associates (research consultancy; study coordinators) for Almirall UK Ltd (Sponsor) using medical opinion, clinical coding searches and NIHR Clinical Research Network expertise. FARSITE, a software tool for identification of research participants in primary care developed by the Greater Manchester Comprehensive Local Research Network and North West e-Health, was used to screen anonymised primary care records for potential eligible patients. Search criteria: patients aged 18–60; combination READ code symptoms indicative of IBS and prescription of IBS drugs 01/01/2009–31/12/2011. GP practices with eligible patients were invited to participate, with GPs reviewing clinical records of the FARSITE-generated list of patients to apply full eligibility criteria for final patient selection.

Inclusion criteria: medical diagnosis of IBS or meeting ROME III criteria; provision of consent. Exclusion Criteria: diagnosis excluding IBS; IBS symptoms secondary to other condition; IBS medications for non-GI symptoms. The study is ongoing in 8 GP practices in Salford and Greater Manchester (Ethical approval 13/LO/0692).

Results FARSITE feasibility search using READ code for IBS identified 50 (0.02%) patients. Combining READ codes with symptom and prescriptions criteria selected 4714 (1.9%) From these, 3 GP practices each screened 10 random patient records for eligibility and 12/30 (40%) were found eligible. Eligibility READ codes were revised following feasibility.

Following study approvals, FARSITE identified 1089 potential eligible patients at the 8 participating practices, of which 297 (27.3%) were eligible and approached for consent for participation. Main reasons for non-eligibility were symptom characteristics not meeting ROME III criteria or not confirmed as IBS by medical opinion.

Conclusion Identification of patients with IBS using READ code is sub-optimal in primary care. A combination search of READ codes with symptom and prescription data via FARSITE has enabled potential participants to be identified with a reasonable screening failure rate. FARSITE is a valuable research tool aiding study feasibility by reducing the need for manual patient identification.

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PWE-166 IS RESPONSE TO LINACLOTIDE AFTER 4 WEEKS OF TREATMENT PREDICTIVE OF 12-WEEK IMPROVEMENT?

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Introduction Linaclotide is a minimally absorbed guanylate cyclase C agonist approved in the US and EU for irritable bowel syndrome with constipation (IBS-C). A question for prescribing physicians is whether to continue linaclotide in patients who do not improve during the early weeks of therapy. This post-hoc analysis assessed if response to linaclotide at Week 4 predicts Week 12 improvement, and if linaclotide should be continued in IBS-C patients not responding by Week 4.

Methods Pooled data from 2 Phase 3 IBS-C trials of linaclotide were analysed. For Degree of Relief of IBS Symptoms, Degree of Relief of Abdominal Pain, and Spontaneous Bowel Movement [SBM] frequency, a patient's Week-4 clinical response was used to predict improvement at Week 12. For the purposes of determining a patient's Week-4 response, the 7-point balanced Degree of Relief scale was collapsed into 3 categories: Improved (completely, considerably, or somewhat relieved), Unchanged, and Worse (somewhat worse, considerably worse, or as bad as I can imagine) compared with baseline. For SBM frequency, a dichotomous end point was used: SBMs increased by ≥2/week or not increased by ≥2/week from baseline.

Results The proportion of patients who had response at Week 4 was significantly greater for linaclotide- vs placebo-treated