trials (RCTs) assessing the efficacy of psychological therapies for adults with IBS. Trials included in the analysis reported a dichotomous assessment of symptom status after completion of therapy ( $\geq$ 4 weeks), and data were pooled using a random effects model. We examined 6 and 12-month outcomes, where reported. Efficacy was reported as a pooled relative risk (RR) of remaining symptomatic, with a 95% confidence interval (CI) to summarise efficacy of each comparison tested. Treatments were ranked by therapy according to Pscore.

Results We identified 41 eligible RCTs, containing 4072 participants. At the first point of follow-up, after completion of therapy, contingency management was ranked first, but 95% CIs were wide (RR of remaining symptomatic = 0.39; 95% CI 0.19 to 0.84, P-score 0.89), and this was based on only one small RCT (figure 1). The psychological interventions with the largest numbers of trials, and patients recruited, included self-administered or minimal contact CBT (RR = 0.61; 95% CI 0.45 to 0.83, P-score 0.66), face-to-face CBT (RR = 0.62; 95% CI 0.48 to 0.80, P score 0.65), and gutdirected hypnotherapy (RR = 0.67; 95% CI 0.49 to 0.91, Pscore 0.57). CBT-based interventions and gut-directed hypnotherapy were the most efficacious long-term. Risk of bias of individual trials was high, meaning that the efficacy of all psychological therapies studied is likely to have been overestimated.

**Conclusions** Several psychological therapies are efficacious for IBS, although none were superior to another. CBT-based interventions and gut-directed hypnotherapy had the largest evidence base. Future RCTs should examine the effect of psychological therapy earlier in the disease course, before patients are refractory to medical management.

### 062 PSYLLIUM REDUCES COLONIC HYDROGEN PRODUCTION FOLLOWING INGESTION OF INULIN IN IRRITABLE BOWEL SYNDROME

<sup>1,2</sup>David Gunn\*, <sup>1,2</sup>Zainab Abbas, <sup>1,2</sup>Giles Major, <sup>1,3</sup>Caroline Hoad, <sup>1,3</sup>Penny Gowland, <sup>1,2</sup>Luca Marciani, <sup>4</sup>Hannah Harris, <sup>4</sup>Fred Warren, <sup>5</sup>Samantha Gill, <sup>5</sup>Megan Rossi, <sup>6</sup>Jose Remes-Troche, <sup>5</sup>Kevin Whelan, <sup>1,2</sup>Robin Spiller. <sup>1</sup>*NIHR Nottingham Biomedical Research Centre, Nottingham University Hospitals NHS Trust and the University of Nottingham, Nottingham, UK*; <sup>2</sup>*Nottingham Digestive Diseases Centre, School of Medicine, University of Nottingham, Nottingham, UK*; <sup>3</sup>*Sir Peter Mansfield Imaging Centre, University of Nottingham, Nottingham, UK*; <sup>4</sup>*Quadram Institute Biosciences, Food, Innovation and Health, Norwich Research Park, Norwich, UK*; <sup>5</sup>*King's College London, Department of Nutritional Sciences, London, UK*; <sup>6</sup>*Digestive Physiology and Motility Lab, Medical Biological Research Institute, University of Veracruz, Veracruz, Mexico* 

# 10.1136/gutjnl-2020-bsgcampus.62

Introduction Patients with irritable bowel syndrome (IBS) often develop symptoms of gas and flatulence after intake of the prebiotic inulin, leading to dietary avoidance that may have deleterious effects on gut microbiota. Our aim was to determine if co-administering inulin with psyllium, a viscous virtually non-fermentable fibre, known to improve symptoms in IBS, would increase viscosity in the ascending colon and slow fermentation, therefore reducing gas production.

Methods A randomised, four-period, four-treatment, placebocontrolled, crossover trial of 19 patients with IBS (meeting Rome IV criteria, 10 diarrhoea- and 9 constipation-predominant). Patients followed a standardised low-fibre diet on the day preceding each visit then fasted overnight prior to MRI investigations. Interventions were ingested as 500 ml drinks containing either inulin 20 g, psyllium 20 g, inulin 20 g + psyllium 20 g or placebo (dextrose) 20 g. A 446 kcal meal was consumed after 3 hours. Breath hydrogen and GI symptoms were recorded every 30 minutes and MRI scanning was performed hourly for 6 hours.

Results Breath hydrogen rose significantly from 120 minutes after inulin; the addition of psyllium strikingly reduced this rise (51 [95% CI 33-69] ppm versus 18 [95% CI 6/30] ppm at 360 minutes, p=0.0004). Psyllium alone or dextrose produced no significant rise. At the end of the study, patients reported significantly less flatulence with inulin + psyllium than inulin alone (p=0.008). The rise in small bowel water content was highest after psyllium ingestion, peaking at 3 hours. Co-administration of inulin with psyllium significantly reduced SBWC AUC (mean difference -15.8(95% CI 1.5-30.1) l.min, p=0.028). Colonic volumes rose steadily through the study day, peaking at 6 hours. Inulin + psyllium had the fastest rate of rise from fasting, which was significantly greater than psyllium (0.89 [95%CI 0.68 to 1.1] ml/min versus 0.39 [95% CI 0.22 to 0.55] ml/min, p=0.0004) but not inulin.

**Conclusions** Psyllium significantly slows the fermentation of inulin, reducing the production of hydrogen and the symptoms of flatulence. This was likely due to its high viscosity reducing the access of the microbiota to inulin. Whether co-administration with psyllium increases the tolerability of prebiotics in IBS warrants a large-scale randomised controlled trial.

# O63 GASTROINTESTINAL SYMPTOM-SPECIFIC ANXIETY AND SYMPTOM SEVERITY IN IRRITABLE BOWEL SYNDROME: NEW INSIGHTS FROM FACTOR ANALYSIS

<sup>1,2</sup>Christopher Black\*, <sup>3</sup>Yan Yiannakou, <sup>2</sup>Lesley A Houghton, <sup>4</sup>Farag Shuweihdi, <sup>4</sup>Robert West, <sup>4</sup>Elspeth Guthrie, <sup>1,2</sup>Alexander C Ford. <sup>1</sup>Leeds Gastroenterology Institute, St. James's University Hospital, Leeds, UK; <sup>2</sup>Leeds Institute of Medical Research at St. James's, University of Leeds, Leeds, UK; <sup>3</sup>County Durham and Darlington NHS Foundation Trust, Durham, UK; <sup>4</sup>Leeds Institute of Health Sciences, University of Leeds, Leeds, UK

10.1136/gutjnl-2020-bsgcampus.63

Introduction Gastrointestinal symptom-specific anxiety and somatisation have both been associated with higher symptom severity in patients with irritable bowel syndrome (IBS). However, the relationship between these two factors and IBS symptom severity has not been explored fully. In addition, the performance of the instrument that measures gastrointestinal symptom-specific anxiety, the visceral sensitivity index (VSI), has not been examined in a UK population. We conducted a cross-sectional survey to examine these issues.

Methods We measured levels of gastrointestinal symptom-specific anxiety, using the VSI, somatisation via the patient health questionnaire-12 (PHQ-12), as well as symptom severity in adult subjects from the UK community with Rome IV-defined IBS. We carried out exploratory factor analysis on the VSI, prior to subsequent analyses, to establish its factor structure. We carried out multiple regression analysis to determine the relationship between demographic features, different factors of the VSI, somatisation, and IBS symptom severity.

**Results** 811 individuals with IBS provided complete data. The mean age was 47.4 years, and 85.9% were female. Factor analysis of the VSI revealed a three-factor structure, accounting for 47% of the variance. Three VSI items that loaded onto factor one were concerned with awareness of abdominal

discomfort and two with worry about abdominal symptoms. Items that loaded onto factor two were concerned with fear that symptoms were caused by a serious underlying illness. Items loading onto factor three were concerned with the fear of symptoms in the context of new experiences, for example trying new foods or having access to toilets in places that someone hasn't visited before. Both factor one of the VSI and the PHQ-12 were strongly and independently associated with IBS symptom severity, for the group as a whole (p < 0.001), and for all four IBS subtypes. However, factors two and three of the VSI were not significantly associated with IBS symptom severity. Of note, most VSI items concerned with overt gastrointestinal symptom-specific anxiety loaded onto these two factors that were not associated with IBS symptom severity.

**Conclusions** The factor structure of the VSI requires further investigation. Our findings cast doubt on the central role of gastrointestinal symptom-specific anxiety as a driver for symptom severity in IBS. Awareness of both gastrointestinal and extra-intestinal symptoms, however, is strongly associated with symptom severity.

# Gastroenterology service

# 064 COMPARISON OF EFFECT OF NEW COLONOSCOPY SURVEILLANCE GUIDELINES WITHIN BOWEL CANCER SCREENING AND SYMPTOMATIC PATIENTS

Stavroula Pelitari\*, Reuben Kurien, Riad Alame, Ashok Kurian, Ray Mathew, Brian McKaig, Aravinth Murugananthan. *The Royal Wolverhampton NHS Trust, Wolverhampton, UK* 

#### 10.1136/gutjnl-2020-bsgcampus.64

Introduction In November 2019 new national guidelines were issued for colonoscopy surveillance post polypectomy and colorectal cancer (CRC). <sup>1</sup> Their implementation has been strongly encouraged by JAG due to anticipated significant reduction in colonoscopy workload, although previous low quality colonoscopy should preclude any surveillance changes.<sup>1</sup> Similarly Public Health England encouraged their uptake within BCS.

We applied these guidelines to the surveillance waiting list of our symptomatic and BCS cohort, aiming to compare reduction in surveillance colonoscopies within the two groups and assess the impact on our services.

Methods We analysed data from Wolverhampton BCS Hub for BCS patients awaiting surveillance between January to March 2020. A similar number of patients were analysed from the

## Abstract O64 Table 1

| Intervention \ Groups   | High risk<br>BCS<br>cohort | High risk<br>symptomatic<br>cohort | Low/<br>Intermediate<br>risk BCS cohort | Low/Intermediate<br>risk symptomatic<br>cohort |
|-------------------------|----------------------------|------------------------------------|---|--|
| Interval<br>changed     | 21.7%                      | 38.9%                              | 2.7%                                    | 3.2%   |
| Surveillance<br>stopped | 23.6%                      | 38.9%                              | 52.6%                                   | 84.1%  |
| No interval<br>change   | 54.7%                      | 22.2%                              | 44.7%                                   | 12.7%  |

current surveillance waiting list at The Royal Wolverhampton NHS Trust. Surveillance vetting was undertaken by a single clinician for BCS and 5 healthcare professionals for the symptomatic service. Patients were contacted with any change in surveillance strategy.

**Results** 182 BCS patients were vetted with the new guidelines. This led to a 48.9% (n=89) reduction in colonoscopy procedures required in that year (surveillance discontinuation in 35.7% (n=65) and deferred surveillance interval in 13.2% (n=24)).

In the symptomatic cohort 203 patients were vetted with the new guidelines. Indications for surveillance in this cohort were post polypectomy surveillance (79.4%, n=161), post CRC surveillance (16.7%, n=34) and confirmed family history of CRC (3.9%, n=8).

There was a 73.9% (n=150) reduction in colonoscopy procedures required in that year in the symptomatic service cohort (surveillance discontinuation in 65% (n=132) and deferred surveillance interval in 8.9% (n=18)). The indications for discontinuation were age (>75 years old) in 44.7% (n=59) and no high risk features in 55.3% (n=73).

This table 1 describes the differences observed between high and low/intermediate risk groups, as per old guidance, in both populations.

**Conclusions** The new guidelines significantly reduced colonoscopy workload mainly through surveillance discontinuation. This reduction was greater for the symptomatic service largely due to new suggested age cut off. Implementation of current guidelines will lead to decreased workload for endoscopy units and risk reduction for patients avoiding exposure to unnecessary procedures.

# REFERENCE

 Rutter MD, East JE, Rees C, *et al.* BSG/ACPGBI/PHE Post-polypectomy and postcolorectal cancer resection surveillance guidelines. *Gut* 2020;69:201–223.

# 065 IMPACT OF A 'HIGH INTENSITY TEST AND TREAT' INITIATIVE FOR HCV IN LOW NEWTON PRISON

<sup>1</sup>Caroline Allsop, <sup>1</sup>Francesca McCullough, <sup>1</sup>Carolyn Miller, <sup>1</sup>Gary McTeer\*, <sup>2</sup>Jodi Aldridge, <sup>2</sup>Dee Jones, <sup>1</sup>Jayne Harwood, <sup>2</sup>Andrew Marr, <sup>3</sup>Abi Hamoodi, <sup>1</sup>Yusri Taha, <sup>1,4</sup>Stuart McPherson. <sup>1</sup>The Newcastle upon Tyne Hospitals NHS Foundation Trust, Newcastle Upon Tyne, UK; <sup>2</sup>HMP Low Newton, Durham, UK; <sup>3</sup>PHE UK; <sup>4</sup>Newcastle University, Newcastle upon Tyne, UK

10.1136/gutjnl-2020-bsgcampus.65

Background Hepatitis C virus infection (HCV) is common in prisons in the UK with estimates suggesting a prevalence of approximately 7%. One of the goals of NHS England is to eliminate HCV from the country by 2025. In order to facilitate elimination of HCV from prisons, funding was available to conduct high intensity test and treat (HITT) initiatives in prisons with the aim of testing >95% of residents for HCV and treating >90% of those with active HCV, which is considered 'elimination'. We describe the outcomes of a HITT conducted in Low Newton prison, in County Durham, which houses 307 female residents.

Methods A Blood borne virus (BBV) testing weekend was conducted in January 2020 following detailed planning from a multidisciplinary team. The testing weekend was well publicised among residents. All residents were offered BBV testing using fingerpick dry blood spot testing for HCV antibody/ RNA, HIV, HBsAg and Syphilis. A small incentive was given