

Abstract P309 Table 1

	Moviprep	Plenvu	
Number of patients	323	152	
Proportion who completed ingestion	94%	95.4%	P=0.54
Mean total BBPS score	6.79	6.96	
≥ 1 segment with BBPS score = 0 or 1	10.5%	12.5%	P=0.5

demographics and BBPS score were recorded on to an excel spreadsheet and later analysed

**Results** 479 patients were included. Median age was 66 (55 – 71) years. All patients had either face to face or telephone 'pre-assessment' by specialist screening practitioners. 73% of colonoscopies were performed on morning list.

Of the 7 patients unable to complete Plenvu, 43% for nausea and 28.5 percent vomited. For Moviprep (19 patients); 21% for nausea and 10.5% vomited. The remainder of the patients reported 'just being unable' to complete the agent.

**Conclusions** In our analysis, there was no significant difference between the efficacy of Plenvu and Moviprep in bowel cleansing. There was no significant difference in the patients ability to complete ingestion of Plenvu vs Moviprep despite the lower volume. This service evaluation does not support a switch to the more expensive cleansing agent.

### P310 HIGH INCIDENCE OF MICROSCOPIC COLITIS IN PATIENTS WITH DIARRHOEA SUSPECTED OF HAVING COLORECTAL CANCER

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**Introduction** A persistent change in bowel habit to a looser stool may signify an underlying colorectal cancer and in the UK such patients are often investigated via the urgent ('2 week wait') suspected colorectal cancer exclusion pathway. Microscopic colitis (MC), a common cause of diarrhoea, is recognised to be under-diagnosed, partly because of poor adherence to British Society of Gastroenterology (BSG) guidance on the performance of colonic biopsies in high-risk patients. The incidence of MC in patients with diarrhoea referred on the '2 week wait' pathway for exclusion of colorectal cancer as a cause of their symptoms is unknown.

**Methods** Consecutive '2 week wait' patients who underwent a colonoscopy were investigated. Patients were excluded if diarrhoea was not the predominant symptom, if a cause for diarrhoea was diagnosed on colonoscopy or if colonoscopy was incomplete. The number of patients who underwent colonic biopsy, and whether or not this demonstrated the presence of MC was recorded. Similar data was obtained for a second cohort of patients referred for endoscopic investigation of a change in bowel habit outside of a cancer exclusion pathway.

**Results** Overall, 600 consecutive patients underwent colonoscopic investigation via the '2 week wait' pathway [n=300], or an alternative non-'2 week wait' pathway [n=300]. 506 patients ('2 week wait' pathway [n=241] and non-'2 week

wait' pathway [n=265]) were excluded from analysis (diarrhoea not the predominant symptom [n=477], obvious cause of diarrhoea seen during the procedure [n=23], or incomplete procedure [n=6]), leaving 94 patients ('2 week wait pathway n=59, non-'2 week wait' pathway n=35). Overall, 84/94 (89.4%) of patients underwent colonic biopsy for the investigation of diarrhoea. There was no difference in colonic biopsy rate between the two groups (53/59 [89.8%] in the '2 week wait pathway' vs 31/35 in the non-'2 week wait' pathway [88.6%], P=0.99, Fisher's exact test). A high rate of MC (15.1% [8/53]) was observed in patients of patients biopsied in the cancer exclusion pathway. No difference in the incidence of MC was noted between the 2 groups (8/53 patients in the '2 week wait' pathway vs 2/31 patients in the non-cancer exclusion pathway [P=0.11, Fishers exact test]).

**Conclusions** There is a high incidence of microscopic colitis (15%) in patients with diarrhoea referred under the '2-week wait' suspected colorectal cancer pathway. Clinicians should have a high index of suspicion for microscopic colitis, regardless of the mode of referral.

### P311 PATIENTS' AND PHYSICIANS' PERCEPTIONS OF FAECAL MICROBIOTA TRANSPLANTATION TO TREAT CLOSTRIDIUM DIFFICILE INFECTION

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**Introduction** Faecal microbiota transplantation (FMT) is recommended as treatment for recurrent *Clostridium difficile* infection (CDI), with a 94% cure rate and excellent safety profile. However, only 28% of UK hospitals currently offer it. In this review, we attempt to identify the perceived barriers restricting the use of FMT.

**Methods** We searched Embase, MEDLINE, and PsychInfo for primary research. Articles were excluded if they were not primary research, were not about CDI, did not focus on perceptions of FMT, or they were conference abstracts only. Fourteen relevant articles were identified. These were appraised using appropriate critical appraisal tools.

**Results** Eight primary studies focussed on physicians' perceptions and six focussed on patients' perceptions. Most physicians were aware of or familiar with FMT, but fewer had referred patients for the procedure. The main barriers to referral identified by physicians were the absence of high-quality evidence-based clinical guidelines, poor patient acceptability, and lack of accessibility. Although every study indicated that patients found the nature of FMT unappealing, the majority of patients would undergo the procedure regardless. Patients' main concerns with FMT were the use of nasogastric tube for the introduction of faecal matter, its safety, and its efficacy.

**Conclusions** Physicians' concerns about patient acceptability should not be a factor influencing the recommendation of FMT for recurrent CDI. Patients are more concerned with safety and efficacy than the 'ick factor' of FMT. There is a need for physician education and training to overcome barriers concerning accessibility and the unappealing nature of FMT. Additionally, more research is needed to determine the best method of administration; with the identification of more

appealing forms. There was limited research looking at physicians' or patients' perceptions of FMT in the UK, which would be useful in order to identify barriers to FMT treatment which are applicable to the UK.

### P312 INTRAOPERATIVE ASSESSMENT OF COLORECTAL ANASTOMOSES: A COMPARISON OF FLEXIBLE ENDOSCOPY VERSUS RIGID SIGMOIDOSCOPY

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**Introduction** Left sided and pelvic colorectal anastomoses are associated with a 6 -12% risk of anastomotic leak which can have devastating consequences for the patient. Assessment of colorectal anastomoses (CRA) is therefore essential to reduce the risk and consequences of leaks.

A 2014 systematic review of intraoperative assessment of CRA integrity demonstrated moderate benefit for mechanical patency testing and endoscopic visualisation.

More recently (2018) an endoscopic mucosal grading was described for assessing CRA.

**Methods** Based on best available evidence on assessment of CRA since 2019 we changed our practice by introducing flexible endoscopy (FE) in assessment of pelvic CRA.

In this study we compared the information provided by flexible endoscopy versus traditional rigid sigmoidoscopy (RS) with respect to successful testing of mechanical integrity and visualisation of colonic mucosa.

The following data was recorded prospectively: 1) Ease of performing and quality of air leak test 2) Quality of visualisation of anastomotic staple line 3) Quality of luminal visualisation proximal and distal to anastomotic ring and feasibility of recording the mucosal grading score.

**Results** 32 consecutive pelvic CRA were included of which 10 were in the RS and 22 in the FE group. Eight RS cases were prior to change of practice and 2 during the same period due to unavailability of the flexible endoscope. There were 14 anterior resection (3 with diversion ileostomy) and 18 sigmoid colectomies and all procedures were laparoscopic.

With adequate planning for availability of equipment for flexible sigmoidoscopy, there was no significant difference in the time needed to complete the assessment between 2 groups. The FE was superior to RS in all criteria relevant to assessment of CRA and provided the additional benefit of video-recording of both intraluminal and abdominal views by the entire team.

**Abstract P312 Table 1 Results**

Assessment criteria	RS group	FE group	P value chi square
Air leak test (intraabdominal)	8/10	22/22	0.03
Staple line visualisation	6/10	22/22	0.008
Recording mucosal grading score	4/10	21/22	0.005

**Conclusions** FE provides a consistently superior assessment and documentation of integrity of pelvic CRA and should become standard practice in laparoscopic left sided colonic resections.

### P313 ELECTROCHEMICAL PROBE FOR SIMULTANEOUSLY TRACKING ANOECTUM MUCOSAL SIGNALLING TRANSMITTERS AND MUSCLE CONTRACTION

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**Introduction** Serotonin (5-HT) is a key signalling molecule within the mucosal epithelium of the intestinal wall and has been shown to be an important modulator of motility. At present, no single approach has been established for simultaneous dual measurement of 5-HT overflow and circular muscle contraction.

**Methods** We developed a 3D-printed carbon black/poly(lactic acid) (PLA) electrochemical sensor, which had a geometry suitable for *ex vivo* measurement in the guinea pig anorectum. Phasic changes in the current were used to track contractility, whilst basal changes were used to track changes in mucosal 5-HT signalling. Using amperometric detection, the sensitivity and stability of the device for 5-HT measurements was assessed. The device was compared with an isometric force transducer for tracking of anorectal contractions.

**Results** The 3D-printed electrochemical sensor had a linear range in physiological concentrations of 5-HT (1–10  $\mu$ M) present within the intestinal tract and a limit of detection of 540 nM. There was a significant correlation in the amplitude and duration of individual contractions when comparing the measurements using an isometric force transducer and 3D-printed electrochemical sensor ( $p < 0.001$ ,  $n = 7$ ). Finally, in the presence of 1  $\mu$ M fluoxetine, the sensor was able to monitor a reduction in contractility ( $p < 0.001$ ,  $n = 7$ ) as well as an increase in 5-HT overflow ( $p < 0.001$ ,  $n = 7$ ). The sensor was stable for 5-HT measurement following *ex vivo* tissue measurements.

**Conclusions** The 3D-printed sensor can simultaneously measure 5-HT overflow and contractility in the anorectum. This single device will have significant potential for clinical measurements of anorectum function and signalling that can direct therapeutic management of patients with lower bowel disorders.

### P314 UNDERSTANDING THE ROLE OF MELATONIN ON COLONIC FUNCTION

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**Introduction** Melatonin is synthesized from 5-HT by the enzyme hydroxyindole-O-methyltransferase and the EC cells maybe a site of synthesis and release of mucosal melatonin. Although the presence of melatonin in the gastrointestinal tract is not disputed its role in regulating gastrointestinal motility and its mechanism of action are still debated.

**Methods** We used electrochemical and chromatographic methods to detect the regulation of mucosal melatonin release from intact segments of 3 month old C57BL/6 murine colon. Colonic migratory motor complexes (CMMC) were recorded in the presence of melatonin, MT<sub>2</sub> receptor antagonist 4-PDOT and MT<sub>1/2</sub> receptor antagonist luzindole. Functional bioassays were carried out to study how varying concentrations of melatonin influenced electrical field stimulated (EFS)