diarrhoea resolved transiently. However, following TCR clustering based on temporal trajectories, a significant increase in relative abundance of specific clonotypes was observed at the end of FMT cycle 2 when CDI recurred. Temporal clustering analyses also revealed clonotypes which strongly decreased or increased over time in concomitance with positive response to FMT, suggesting an association with CDI progression and remission.

Conclusions This is the first attempt to assess the potential of TCR repertoire profiling as a prognostic tool for assessing clinical outcomes of FMT in severe or fulminant CDI and of evaluating the role that specific T cell clonotypes may play in mediating FMT efficacy.

P308 EXPLORATORY STUDY OF URINARY PEPTIDE MARKERS IN COLORECTAL CANCER AND LINKAGE TO HISTOPATHOLOGY

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Introduction Colorectal cancer (CRC) is common and symptoms are often vague and non-specific. Superior methods of risk stratification are required. This study explored proteomic CRC markers released from the tumour site into the periphery (blood and urine). This work could contribute to a novel multi-parametric diagnostic test for accurate and easy-to-use diagnosis and monitoring of CRC.

Methods Capillary electrophoresis mass spectrometry (CE-MS) was used to perform proteomic profiling and to search for CRC-specific peptide fragments in blood and urine samples of CRC cases and normal controls. Based on the terminal amino acid sequence motifs, proteases responsible for CRC peptide marker cleavage were predicted and validated by immunohistochemistry (IHC) of CRC and normal colonic tissue sections.

Results Six CRC peptide markers were identified in both urine and blood; many others possess sequence overlap (table 1). These peptides belong to the interstitial collagen chains α-1(I), α-1(III) and α-2(I), but also to fibrinogen α, apolipoprotein A-I, uromodulin and gelsolin. Protease prediction revealed 13 proteases in urine and 17 in blood potentially involved in CRC pathology. Of these, 12 were predicted to be associated with both urinary and plasma CRC peptide markers. Meprin 1α (MEP1A) was selected as a proof-of-concept candidate at the cancer tissue site. Using IHC, MEP1A identified at strong intensity (Allred score 3) in 75% of the tumour tissues versus 38% of the adjacent normal tissue ($z=1.069$ $p\geq0.2$), and was seen at the advancing margin of the tumour.

Conclusions We have previously shown the role of FGF7 in the tumour microenviroment and in this exploratory study has shown the existence of peptide markers for CRC in plasma and urine. Increased MEP1A expression was shown in CRC tissue and suggests a link with more aggressive tumour pathology. Findings supports published literature on MEP1A and provides a platform for further proteomic studies on the significance of MEP1A and other extracellular matrix degrading proteases in CRC.

CE-MS and sequence characteristics of CRC peptide marker candidates that showed significant differences in their distribution between CRC cases and controls.

P309 OUR BOWEL CLEANSING SERVICE EVALUATION DOES NOT SUPPORT SWITCH FROM MOVIPREP TO PLENVU

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Background and Aims Bowel cleansing (prep) is usually the most demanding and yet important aspect in colonoscopy. Adequate prep is prerequisite for complete, accurate and comfortable colonoscopy. Polyethylene glycol based agents have been deemed the safest category of prep. Moviprep has been the 1st line cleansing agent for patients attending for screening colonoscopy in the North of Tyne Bowel Screening Centre. Recently we have attempted to use Plenvu in some patients as it has less volume (0.5 vs 1 litre) and a different flavour to Moviprep. However it costs more. 6 colonoscopists perform procedures in 4 sites. We had limited supply of Plenvu so we decided to do a 'real-world' service evaluation to determine if the smaller volume would lead to:

1. Comparable bowel cleansing
2. Reduction in proportion of patients unable to complete ingestion of cleansing agent

Method Patients due screening colonoscopy were given either Plenvu or Moviprep. The colonoscopists were blinded to the cleansing agent until after they had scored the effect of cleansing using the Boston bowel preparation scale (BBPS) after the procedure. Completion of ingestion of agent, patient

Abstract P308 Table 1 CE-MS profiling Amino acid sequence and protein information in urine in plasma

MS mass [Da]	CE-time [min]	MS mass [Da]	CE-time [min]	Sequence	Protein
1016.45	25.79	1016.44	25.88	777-ApGDKGESGPS-787	COL1A1
1200.54	25.03	1200.54	24.82	709-KGDAGApGApGSQG-722	COL1A1
1693.76	23.48	1693.77	23.69	222-PpGPpGKNGDDGEAGKpG-239	COL1A1
1732.77	28.18	1732.77	28.42	605-WVGTGASEAEKTGAQEL-621	GSN
1737.78	23.73	1737.77	23.77	585-NDGAPGKNGERGGpGGpGp-604	COL3A1
1737.78	31.00	1737.77	30.85	541-TGSpGSpGPDGKTGPpGPAG-560	COL1A1
4638.10	25.78	4638.09	25.70	—	n.i.
6236.91	21.07	6236.84	20.95	—	n.i.

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