

**Introduction** The reported increase in early onset colorectal cancer (EOCRC) incidence remains unexplained and is likely to be multifactorial. Understanding the molecular characteristics of EOCRC may give insights into aetiology, and inform potential treatment strategies that may be distinct from late onset disease. The aim of this analysis was to compare the molecular characteristics and survival of EOCRC with older colorectal cancer (CRC) patients in a population-representative cohort.

**Methods** Clinicopathological data from 661 patients with Stage II or III colon adenocarcinoma diagnosed between 2004 and 2008 in Northern Ireland were analysed. Tissue blocks were retrieved, DNA extracted and microsatellite instability (MSI) and targeted gene mutation status ascertained. Chi-squared tests were used to compare molecular characteristics of EOCRC (<50 years old) versus older age groups (50–59, 60–69, 70–79 and ≥80 years old). Cox proportional hazards models were used to calculate hazard ratios and 95% confidence intervals (CI) for survival outcomes.

**Results** EOCRC represented 5.8% of all Stage II and III colon cancer patients in this cohort. EOCRC patients did not have any BRAF or NRAS-mutant tumours, which was significantly different from older patients ( $p=0.004$  and  $p=0.009$ , respectively). EOCRC tumours were more likely to have PIK3CA mutations compared to older patients (23.7% versus 15.6–19.7% in patients aged over 50 years old), and be MSI-high (33.3% versus 13.6–25.9% in patients aged over 50 years old), but these differences were not statistically significant. Compared to CRC patients aged 50–60 years old, EOCRC did not have a significantly increased risk of CRC specific death (adjusted HR 1.33; 95%CI 0.62–2.87).

**Conclusions** This population-representative study found that EOCRC patients had no BRAF or NRAS-mutant tumours. PIK3CA-mutant and MSI-high tumours were overrepresented in EOCRC patients but this was not statistically significant. EOCRC patients were not at an increased risk of death, however further research in larger cohorts is required to investigate if differences in molecular characteristics, for example MSI status, may have implications for survival or novel adjuvant treatment strategies.

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#### THE ROLE OF FMT IN REDUCING HOSPITAL ADMISSIONS AND LENGTH OF STAY

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**Introduction** Clostridium difficile infection (CDI) is the most common healthcare associated infection in the NHS with 12,275 cases reported in England in 2018/19. Recurrent Clostridium Difficile infection (rCDI) is an increasingly common problem; the recurrence rate is approximately 20% after a first episode and 45–60% after a second episode of *C difficile* infection, with mortality approaching 25% in elderly patients. Thus, rCDI is associated with significant healthcare costs and hospital admissions.<sup>1</sup>

Faecal microbiota transplant (FMT) is a NICE approved treatment for rCDI when treatments such as antibiotics have failed. FMT cure rates are consistently reported in the range of 80–90%.<sup>2</sup>

The aim of this audit was to assess the 6 week success rate of FMT procedures performed at Whiston Hospital for rCDI, and to evaluate the impact of FMT on preventing further hospital admissions.

**Methods** Data was collected retrospectively on all patients undergoing FMT for rCDI between April 2015 to November 2019. Data was collected from electronic case notes and the local FMT database. Success rates were defined as resolution of diarrhoea 6 weeks post FMT. The number of CDI related admissions and days in hospital prior to and post FMT were also analysed.

**Results** Twenty eight FMTs were performed on 20 patients (13 Females: 7 Males). FMT was performed via NG tube (19) gastroscopy (2), colonoscopy (2), NJ tube (4) and via enema (1). 6 patients (30%) required a second FMT and 1 patient required a third FMT.

The 6 week success rate after the first FMT procedure was 12/20 (60%), second FMT 19/20 (95%) and third FMT 20/20 (100%).

Within the 12 months prior to FMT the 20 patients had a median of 2 CDI related hospital admissions (range 0–13) and a median total length of stay of 29.5 days (range 0–104 days). 12-month post FMT data showed a reduction in the median number of hospital admissions (median 1, range 1–7) and in total length of stay (median 17 days, range 0–33 days).

**Conclusions** Our data shows that FMT is a highly effective treatment for rCDI. All patients were diarrhoea free at 6 weeks, although our 1st FMT success rates are lower than previously reported in RCTs.

FMT resulted in a reduction in the subsequent number of hospital readmissions and length of stay, thus reducing the financial burden on the NHS.

#### REFERENCES

- Public Health England. *Annual epidemiological commentary: Gram-negative bacteraemia, MRSA bacteraemia, MSSA bacteraemia and C. difficile infections*. 2019. <http://www.gov.uk/phe> (accessed 15 Feb 2020)
- Mullish BH, Quraishi MN, Segal JP, et al. *Gut* Epub. *The use of faecal microbiota transplant as treatment for recurrent or refractory Clostridium difficile infection and other potential indications: joint British Society of Gastroenterology and Healthcare Infection Society guidelines*. (Accessed 16 Feb 2020). doi:10.1136/gutjnl-2018-316818

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#### INNOCENT OR GUILTY POLYPS ? A NOVEL CONCEPT OF A SIMPLIFIED 'RESECT AND DISCARD' STRATEGY

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**Introduction** Optical Diagnosis (OD) based strategy (PIVI criteria) in the management of colorectal polyps has been a revelation in modern endoscopic therapy, however, studies have shown that OD in non-expert hands have not meet PIVI criteria, for both 'diagnose and leave' and 'resect and discard' strategies. We aim to create a simplified optical strategy which could accurately identify covert cancer as well as reduce the number of pathological examinations based on prevalence of cancer in 6–10 mm polyps.

**Methods** We analysed outcomes of all patients who underwent screening colonoscopy between January 2007 to December 2018 and were found to have polyps. Data was prospectively collected on an online endoscopy reporting system and

Abstract P301 Table 1

Size	Location Right.: Left	Morphology Pedunculated.: Sessile	Adenoma	HGD	SSL	Cancer	Other
≤ 5 mm (N=10775)	50.3% 49.7%	3.7% 96.3%	64.3%	0.6%	19.5%	0.0%	15.6%
6–10 mm (N=2365)	30.8% 69.2%	31.75% 68.25%	74.1%	4.05%	16.1%	0.17%	5.58%
11–19 mm (N=1759)	31% 69%	46.9% 53.1%	76.5%	12.9%	6.3%	1.1%	3.2%
≥ 20 mm (N=1007)	24% 76%	14.1% 85.9%	66.4%	16.9%	7.7%	7.7%	1.3%

pathology reporting system. Statistical analysis was performed using multinomial logistic regression.

**Results** A total of 15906 polyps were removed at colonoscopy over the specified period. Mean size was 7.3 mm (range: 1 to 120 mm). 86.6% of all polyps were non pedunculated and 56.3% polyps were located in the left colon. The size, site, morphology and histology of these polyps is shown in table 1.

A histopathological diagnosis of polyp cancer was made in 104/15906 polyps (0.65%). 94/104 polyp cancers (90.25%) were associated with non pedunculated morphology [OR 1.45, 95%CI 0.75–2.78 p=0.005].

Risk of developing in cancer in polyps ≥20 mm was significantly higher than in smaller polyps [ OR 6.57 95% CI 5.7–13.1 p< 0.001 ].

89 cancers were found in the left colon and rectum compared with 15 cancers in the right colon ( 85.5% vs 14.5%) [OR 1.98, 95%CI 0.9–3.1 p=0.007].

**Conclusion** This is the largest report of the prevalence of cancer in colorectal lesions 6–10 mm in size. We have demonstrated that the prevalence of covert cancer in colorectal lesions <5 mm is negligible and that of polyps 6–10 mm is very low (0.17%). All these cancers were in non-pedunculated adenomas in left colon. Based on the data, we have demonstrated in the 6–10 mm polyp subgroup, we suggest a modified ‘resect and discard’ concept ( based on OD AND location based strategy) extending to 6–10 mm polyps in the right colon. Given the fact, that most non experts fail to reach PIVI criteria based on OD alone, this modified strategy would reduce the need for optical assessment and increase the scope of ‘resect and discard’ to a larger number of polyps.

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### SINGLE CENTRE EXPERIENCE OF EFFICACY AND SAFETY OF FAECAL MICROBIOTA TRANSPLANTATION FOR CLOSTRIDIUM DIFFICILE DIARRHOEA

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**Introduction** Clostridium Difficile diarrhoea is common in hospitalized patients especially in elderly, immunocompromised or those who have had multiple broad spectrum antibiotics. C.Difficile Diarrhoea is difficult to treat and has high recurrence rate. Faecal microbiota transplantation has emerged as a novel and highly effective alternate to antibiotics for treatment of C. Difficile diarrhoea but there have been reports of sepsis and aspiration pneumonia following FMT.

**Methods** We reviewed the outcomes and complication rates in patients with C Difficile diarrhoea who were treated

with FMT. A list of all patients treated with FMT was obtained and their notes, drug charts and blood results were reviewed. The number of antibiotic courses and types of antibiotic received prior to FMT was recorded. The number of previous C diff episodes was also recorded. Medisec and clinical notes were used to follow-up the patients for 1 year to look for recurrence and complications.

**Results** 28 patients were treated with FMT after failing multiple courses of antibiotics. 20 patients (71.4%) were male and 8 (28.5%) were female with an average age of 73.89 years.

In 20 patients, FMT was given after second or more recurrence of C Difficile. In 8 patients FMT was given after 1st recurrence of C Difficile Diarrhoea after failed antibiotic response and worsening diarrhoea.

NG was the preferred route, used in 19 patients with NJ used in 4 and PEG used in 2 patients. 2 patients had FMT via rectal enema and route could not be identified in 2 patients.

In total, 29 courses of Fidoxamicin were used. 39 courses of vancomycin were used including weaning courses in 2 patients and metronidazole was used 18 times. In total these patients (28) had 76 courses of antibiotics prior to receiving FMT.(2.71 courses per patient or 27 days of antibiotics!)

26 patients(92.8%) required 1 treatment of FMT and 2 patients (7.14%) required second course of FMT.

On follow up over 1 year following index FMT treatment, 3 patients (10.7%) of patients had recurrence of C Difficile diarrhoea. No immediate or late complications were observed in any of the patients receiving FMT. All patients who had prolonged stays in hospital due to C Difficile diarrhoea were discharged within 7 days of FMT therapy and all were diarrhoea free at the time of discharge.

**Conclusion** FMT is a safe and highly effective therapy for C Difficile diarrhoea and significantly shortens patient stay in hospital and should be considered after 1st episode of recurrence of C Difficile diarrhoea.

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### COST COMPARISON OF FAECAL IMMUNOCHEMICAL TESTS TO CONVENTIONAL METHODS AS DIAGNOSTIC TOOL IN COLORECTAL CANCER

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**Introduction** With rising awareness of colorectal cancer in the general public there has been an increase in the numbers of patients presenting to primary care with suspected malignancy.