Conclusion. In this limited population, it appears FMT may predispose to weight gain, which may reflect improved health with CDI cure. However, effects of FMT on patient's microbiomes must also be considered. As this intervention becomes more widely used we must be increasingly aware of possible metabolic side effects and ensure documentation of weight changes as part of FMT protocols.

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1262. Comparison of Fidaxomicin and Vancomycin for Recurrent *Clostridium difficile* Colitis

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Background. Fidaxomicin is a narrow spectrum macrocyclic antibiotic used for the treatment of *Clostridium difficile*infection (CDI). The objective of this study is to compare the recurrence and mortality rates of patients with CDI who received either vancomycin or fidaxomicin at Stony Brook University Hospital.

Methods. A retrospective chart review was performed to identify all hospitalized patients who received fidaxomicin and vancomycin for CDI for the period 2011–2015. Inclusion criteria included patient age ≥18 years, stool positive PCR test for *C. difficile* and being treated ≥10 days of either fidaxomicin or vancomycin orally. Clinical recurrence was defined as a return of diarrhea, a positive test for *C. difficile*toxin B and a need for retreatment for CDI within 90 days of cessation of therapy.

Results. A total of 55 (52.7% male) and 74 (51.4% male) cases met inclusion criteria in the fidaxomicin (F) and vancomycin (V) groups, respectively. The mean age was 65.9 ± 1.88 and 63.7 ± 1.86 years in group F and V respectively ($P = 0.4$). Median length of hospitalization was 14 and 9 days for F and V respectively ($P = 0.6$). Both groups had similar proportions on the following variables: immunosuppression (V 36.5% vs. F 36.4%; $P = 0.9$), ≥ 1 prior episode of CDI (V 59.5% vs. F 61.8%; $P = 0.8$), sepsis on admission (V 29.7%, F 36.4%; $P = 0.4$), the use of any antibiotic during the last 30 days (V 74.3%, 71%, $P = 0.7$), and treatment with additional anti-CDI therapy (V 24.3%, F 29.1%; $P = 0.5$). CDI recurrence rate was 24% (V) and 40% (F, $P = 0.057$). The 90-day mortality rate was 4.1% in the vancomycin group and 10.9% in the fidaxomicin group ($P = 0.13$).

Conclusion. Fidaxomicin had a higher recurrent CDI than vancomycin in this tertiary medical center.

Disclosures. **All authors:** No reported disclosures.

1263. Factors Affecting Effectiveness of Fecal Microbiota Transplant

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Background. Fecal microbiota transplant (FMT) is an effective treatment for relapsing *Clostridium difficile* infection (CDI). With more widespread use of this intervention, variable cure rates (70–95%) have been observed. We conducted this study to identify specific patient- and procedure-level factors affecting FMT effectiveness, hypothesizing that those patients with higher comorbidity, inadequate bowel preparation, and shorter retention of transplant would fail more frequently.

Methods. At our 2-hospital, >1100-bed community-based academic center, we prospectively followed patients pre/post-FMT between June 2014-April 2017. To undergo FMT, patients must have ≥2 CDI relapses and failed vancomycin taper. We entered all FMT patients into a registry and followed them regularly for up to 1 year, collecting age, Charlson Comorbidity Index, number of CDI relapses, Boston bowel prep score, and stool retention time. FMT donor stool was obtained from OpenBiome (Boston, MA). We defined failure as recurrent CDI requiring treatment ≤8 weeks after FMT. We used 1-sided t-tests to test our hypotheses.

Results. During the study period, 41 patients (mean age 65 years, SD 17.6) underwent FMT. Most (37, 90%) were performed via colonoscopy, 1 via upper endoscopy, and 3 via oral preparation (capsules). FMT failure occurred in 10 patients (24.4%). Nearly half ($n = 20$) reported adverse events, including constipation, gas, abdominal pain, blood in stool, and fatigue. Three patients expired from comorbid disease, and 3 were lost to follow-up. Patients with higher Charlson scores failed more frequently ($P = 0.04$), and history of tumor ($P = 0.03$) and pulmonary disease ($P = 0.04$) were both associated with failure. No other factors, including age, retention time, and Boston bowel prep score, were associated with failure.

Conclusion. This study found that patients with multiple comorbid conditions, as defined by the Charlson index, are at risk for FMT failure. However, quality of bowel prep and retention time did not predict FMT failure. Future studies should include larger samples of FMT patients to determine whether specific comorbidities such as history of tumor and pulmonary disease are clinically significant predictors of FMT failure.

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1264. Cost Effectiveness Analysis of Fecal Transplant Delivery Methods for Recurrent *Clostridium difficile* Infections in Outpatients

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Background. *Clostridium difficile* infection (CDI) accounts for more than $1 billion annually in US health care costs. Recurrent CDI (RCDI, recurrence within 8 weeks of initial treatment) contributes substantially to this cost. The objective of the study was to compare the cost effectiveness of FMT delivered via colonoscopy vs. blind nasogastric tube (NGT) in outpatients. We hypothesized that FMT by NGT would be cost-effective given its low risk and simplicity.

Methods. A decision-analytic simulation model compared the cost effectiveness of FMT by colonoscopy vs. NGT from a third-party payer perspective. Our base case cure rates were derived from a cohort receiving outpatient RCDI treatment at our institution. Cure was defined as resolution of symptoms for ≥ 90 days. Procedural cost and consultation was defined by average reimbursement to a large southeastern medical center in 2016 USD based on current procedural terminology (CPT) codes, and cost of disease states were derived from published literature. Health utilities were defined by quality of life year (QALY) based on published literature. Incremental Cost Effectiveness ratio (ICER) was defined as the cost per additional QALY gained. We assumed a 90 day time horizon. One-way sensitivity analysis was performed on all variables using ranges defined by published literature. We used TreeAge Software (Williamstown, MA).

Results. In the base case, FMT by colonoscopy was dominant (more effective and less costly) than NGT, with cost of $1,568/QALY vs. $1,910/QALY respectively. Cure rates of FMT by colonoscopy vs. NGT (100% vs. 87%) had the largest impact on ICER based on one-way sensitivity analysis. Therefore, a subsequent two-way sensitivity analysis was conducted to compare cure rates of both delivery methods and found that NGT delivery is cost effective as cure rates approach colonoscopy delivery cure rates within 5 percentage points.

Conclusion. Contrary to our hypothesis, our decision model supports FMT by colonoscopy as the preferred delivery method in outpatients with RCDI relative to NGT delivery. Additional costs of colonoscopy delivery are off-set by the improved cure rate leading to lower overall costs. As cure rates from NGT delivery are optimized, NGT may become the preferred method for FMT delivery.

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1265. Ribotypes Matter, Significance of *Clostridium difficile* Ribotypes in Cancer Patients with Diarrhea

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Background. Cancer patients are at increased risk for *Clostridium difficile* infection (CDI) due to frequent health care contact, chemotherapy, use of antibiotics, and immunosuppression. Distinct ribotypes are associated with CDI adverse outcomes. Ribotypes 14-020 are the predominant ribotypes in many hospitals. We examined the contribution of *C. difficile* ribotypes to CDI severity, response to therapy and outcomes in this population.

Methods. Demographic and clinical data were collected from 90 cancer patients with a first episode or first recurrence of CDI identified by two-step PCR followed by EIA for A/B toxins. Fluorescent PCR ribotyping (FPCR) was performed on fecal isolates. We identified 27 distinct ribotypes between October 2016 and January 2017. Clinical outcomes were studied in three FPCR subgroups. Group I (GI, $n = 27$) included F014-020, group II (GII, $n = 17$) included virulent types 002, 027, 078–126, 244 and group III (GIII, $n = 46$) included the rest. Treatment failure was defined as no response after at least 3 days of a CDI treatment regimen. CDI severity was determined using Zar's criteria, presence of bacteremia and ICU stay.

Results. The proportion of patients >50 yrs. old, with health care onset CDI (31%), primary CDI (92.2%), and on active chemotherapy (70%) was similar across