effectiveness in patients at high-risk for recurrence outside of controlled trials. This study aimed to compare BEZ to a historical standard of care (SoC) cohort for the prevention of rCDI in patients at high risk for recurrence.

Methods: A multi-center retrospective cohort study of patients within an academic health-system with one or more risk factors for rCDI. Patients received SoC with oral vancomycin (VAN) or fidaxomicin (FDX) from January 2015 to December 2017 or BEZ, in addition to oral SoC, from September 2017 to September 2019. The primary outcome was rCDI within 90 days of completion of oral VAN or FDX. Secondary outcomes included all-cause readmission, all-cause mortality, and safety events at 90 days.

Results: One-hundred twenty patients received BEZ in addition to SoC (n=47) or SoC alone (n=73). Mean (SD) age was 55 (16) years, mean (SD) number of lifetime CDI was 3 (2) episodes, and 30.8% of patients had severe CDI. Six (12.8%) patients in the BEZ cohort and thirty-one (42.5%) in the SoC cohort experienced rCDI at 90 days [OR (95% CI) = 0.20 (0.07-0.53), p< 0.01]. Incidence of all-cause mortality (2.1% vs 5.5%, p=0.67) and all-cause readmission (42.6% vs 56.2%, p=0.20) within 90 days were not statistically different between groups. Patient body weight, timing of BEZ administration, CDI severity, nor prior receipt of fecal microbiota transplantation significantly affected BEZ effectiveness. BEZ was well tolerated with one infusion-related reaction. There were no heart failure exacerbations among BEZ recipients and two exacerbations identified from control group.

Conclusion: In patients with at least one risk factor for rCDI, BEZ in addition to SoC was associated with lower rates of recurrent infection than SoC alone and may be a reasonable adjunct therapy in high risk patient populations.

Disclosures: matthew miller, PharmD, Allergan (Speaker's Bureau)/Tetraphase (Speaker's Bureau)

790. Evaluation of Connecticut Medical Providers Concordance with 2017 IDSA/ SHEA *Clostridioides difficile* Treatment Guidelines in New Haven County, 2017-2019

Casey M. Luc, MPH¹; Danyel M. Olson, MPH²; David Banach, MD, MPH³; James Hadler, MD, MPH⁴; Paula Clogher, MPH⁵; ¹Yale School of Public Health, NORTHBROOK, Illinois; ²Yale University, New Haven, CT; ³University of Connecticut School of Medicine, Yale School of Public Health, New Haven, Connecticut; ⁴Connecticut Emerging Infections Program, Yale School of Public Health, New Haven, Connecticut; ⁵Connecticut Emerging Infections Program, New Haven, Connecticut

Session: P-32. HAI: C. difficile

Background: Treatment guidelines for *Clostridioides difficile* infection (CDI) were updated by the Infectious Disease Society of America (IDSA) and the Society for Healthcare Epidemiology of America (SHEA) in 2017, notably for disease severity and antibiotic recommendations. Our objectives were to assess Connecticut medical providers' concordance (2017-2019) with the 2017 update. The effect of guideline concordance on the risk of CDI recurrence was also assessed.

Methods: Using data from the Connecticut Emerging Infections Program's CDI surveillance in New Haven County, severity and concordance were defined. For severity, white blood cell count and presence of megacolon and/or ileus were used. Concordant treatment was defined as receiving the recommended first-line antibiotic (vancomycin for adult patients, vancomycin or metronidazole for pediatric patients) for exactly 10 days. In univariate & multivariate analyses, significance was determined by a p-value of < 0.05.

Results: Of 1,216 cases, concordance increased from 10.0% in 2017 to 36.9% in 2019. Concordance with first-line antibiotic increased from 40.2% in 2017 to 80.8% in 2019. Concordance was highest for fulminant cases (62.2%). The recurrence rate was 11.2% and highest for non-severe cases and older cases but was not significantly associated with concordance.

Concordance with selected treatment criteria by year, 2017-2019

Conclusion: From 2017 through 2019, CDI treatment in New Haven County increasingly was concordant with the updated 2017 IDSA/SHEA guidelines, but still low overall in 2019. Although concordance with treatment did not affect recurrence risk, close attention should be paid by medical providers to non-severe cases and older cases as they are at an increased risk for recurrence.

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791. Evaluation of NSAID Exposure as a Risk Factor for *Clostridium difficile* infection: A Propensity-Score-Matched Case-Control Study

Adam M. Ressler, MD¹; Alieysa Patel, MPH¹; Krishna Rao, MD, MS²; ¹University of Michigan, Ann Arbor, Michigan; ²Department of Internal Medicine, Infectious Diseases Division University of Michigan, Ann Arbor, Michigan, Ann Arbor, MI

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Background: Exposure to certain medications, particularly antibiotics and proton pump inhibitors, has been associated with increased risk for *Clostridium difficile* infection (CDI). Studies have suggested an increased risk for CDI associated with exposure to certain non-steroidal anti-inflammatory drugs (NSAIDs). We conducted a retrospective case-control study to evaluate the risk for CDI associated with NSAID use.

Methods: The population included 1338 patients tested for CDI from February–December 2016 at the University of Michigan. NSAID use within 30 days of CDI testing was determined by chart review. Both scheduled and as-needed NSAID use met the definition for exposure, but aspirin use alone did not. Additional clinical data such as comorbid disease and baseline laboratory parameters were extracted through electronic query. A random forest model imputed missing data. A propensity score for NSAID use was developed via logistic regression and included gender, back pain, baseline serum creatinine, osteoarthritis, rheumatoid arthritis, serum albumin, and use of anticoagulant or antiplatelet medications. Cases were matched 1:1 with *C. difficile* negative controls by propensity score, with a matching caliper of 0.2 x standard deviation of the logit of the score. The final study population consisted of 1256 cases and their matched controls, however 6 cases could not be matched to controls as none had scores within the matching caliper. Conditional logistic regression was used to compare cases to controls.

Results: NSAID use was similar between the two groups on unadjusted analyses. The adjusted, multivariable model demonstrates that non-aspirin NSAID use is not a significant risk factor for CDI ($P = .816$), after adjustment for comorbid disease burden, age, and history of prior CDI (Table). Older age and prior CDI were independent risk factors for CDI (Table).

Table: Study population and modeling results

Variable, n (%) or mean $\pm$ SD	Cases (N=628)	Controls (N=628)	OR	P	OR (95% CI)	P
Age	58.9 $\pm$ 18.2	56.2 $\pm$ 17.4	1.01	.05	1.09 [1.01, 1.17]	.02
Weighted Elixhauser score	11.6 $\pm$ 10.8	13.99 $\pm$ 11.8	0.98	<.001	0.98 [0.97, 0.99]	<.001
White race	542 (86.3)	522 (83.1)	1.28	.13		
BMI	27.4 $\pm$ 6.8	28.4 $\pm$ 8.6	0.98	.02		
Non-aspirin NSAID*	140 (22.3)	161 (25.6)	0.82	.15	0.97 [0.72, 1.29]	.816
Proton pump inhibitor use	234 (37.3)	282 (44.9)	0.72	.006		
Baseline hemoglobin (g/dl)	10.3 $\pm$ 2.3	10.0 $\pm$ 2.4	1.06	.02		
Serum 25-OH vitamin D (ng/ml)	25.9 $\pm$ 6.9	25.1 $\pm$ 6.5	1.02	.05		
Inflammatory bowel disease	108 (17.3)	96 (15.3)	1.15	.36		
Prior CDI	185 (29.5)	82 (13.1)	2.69	<.001	2.64 [1.96, 3.56]	<.001
# Hospitalizations for Crohn's prior to CDI	2.3 $\pm$ 11.6	2.8 $\pm$ 16.1	1.0	.52		
# Hospitalizations for ulcerative colitis prior to CDI	1.8 $\pm$ 9.4	1.6 $\pm$ 9.0	1.00	.66		
# Hospitalizations in year prior to CDI	0.13 $\pm$ 0.4	0.16 $\pm$ 0.4	0.82	.19		
# Positive prior CDI episodes	0.6 $\pm$ 1.3	0.3 $\pm$ 1.0	1.35	<.001		

*In prior 30 days

per 10-year increase

Abbreviations: BMI, body mass index; CDI, *C. difficile* infection; NSAID, non-steroidal anti-inflammatory drug; OR, odds ratio.

Conclusion: In this retrospective case-control study, non-aspirin NSAID use was not associated with an increased risk of CDI. To our knowledge, this is the first study of NSAID use as a risk factor for CDI that accounted for bias due to treatment assignment using a propensity score. Future studies should account for frequency or chronicity of NSAID use, which may affect the results.

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792. Evaluation of Persistent Diarrhea and Recurrence Following Fecal Microbiota Transplantation for Recurrent *Clostridioides difficile* Infection

Noah Botton, MD¹; Jiaqi Ni, n/a¹; Anthony Mack, n/a¹; Gregory Eschenauer, PharmD, BCPS (AQ-ID)²; Twisha S. Patel, PharmD, BCPS, BCIDP²; John Kao, MD³; Krishna Rao, MD, MS⁴; ¹University of Michigan, Ann Arbor, Michigan; ²Michigan Medicine, Ann Arbor, MI; ³University of Michigan, Department of Internal Medicine, Gastroenterology, Ann Arbor, MI; ⁴Department of Internal Medicine, Infectious Diseases Division University of Michigan, Ann Arbor, Michigan, Ann Arbor, MI

Session: P-32. HAI: C. difficile

Background: Patients treated for *C. difficile* infection (CDI) have high rates of recurrence. Fecal microbiota transplantation (FMT) is an effective therapy for patients with recurrent CDI. While highly successful, there are limited data to help clinicians predict which patients are more likely to have adverse outcomes following FMT. Here we aim to identify factors that are associated with recurrent CDI or persistent diarrhea following FMT for treatment of recurrent CDI.

Methods: At a large academic medical center, we conducted a retrospective cohort study of patients receiving their first FMT for recurrent CDI using product from