This subgroup had an average antibiotic exposure of 4.27 ± 1.79 days. Documented rationale for therapy included severity of illness (4 of 11), radiograph consolidation (4 of 11), and provider disagreement with radiograph interpretation (3 of 11). **Conclusions:** Pediatric respiratory infections represent a significant opportunity for antimicrobial stewardship. In this study, as many as 40% of pediatric patients may have received unnecessary antibiotic exposure. Use of the VALS-DANCE criteria may help clinicians identify patients with low likelihood of bacterial infection and reduce antimicrobial use. The national surge of viral infections serves to highlight the vital importance of appropriate diagnostic stewardship.
Disclosure: None

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Presentation Type:
Poster Presentation - Top Poster Award
Subject Category: *C. difficile*

Integrated efficacy analysis from phase 3 studies of investigational microbiome therapeutic, SER-109, in recurrent *Clostridioides difficile* infection

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Background: Antibiotics alone are often insufficient to treat recurrent *C. difficile* infection (rCDI) because they have no activity against *C. difficile* spores that germinate within a disrupted microbiome. SER-109, an investigational, oral, microbiome therapeutic comprised of purified *Firmicutes* spores, was designed to reduce rCDI through microbiome repair. We report an integrated efficacy analysis through week 24 for SER-109 from phase 3 studies, ECOSPOR III and ECOSPOR IV. **Methods:** ECOSPOR III was a randomized, placebo-controlled phase 3 trial conducted at 56 US or Canadian sites that included 182 participants with ≥2 CDI recurrences, confirmed via toxin EIA testing. Participants were stratified by age (<65 years or ≥65 years) and antibiotic regimen (vancomycin, fidaxomicin) and were randomized 1:1 to placebo or SER-109 groups. ECOSPOR IV was an open-label, single-arm study conducted at 72 US or Canadian sites including 263 participants with rCDI enrolled in 2 cohorts: (1) rollover participants from ECOSPOR III who experienced on-study recurrence diagnosed by toxin EIA (n = 29) and (2) participants with ≥1 CDI recurrence (diagnosed by PCR or toxin EIA), inclusive of the current episode (n = 234). In both studies, the investigational product was administered orally as 4 capsules over 3 consecutive days following symptom resolution after standard-of-care antibiotics. The primary efficacy end point was rCDI (recurrent toxin-positive diarrhea requiring treatment) through week 8. Other end points included CDI recurrence rates and safety through 24 weeks. **Results:** These 349 participants received at least 1 dose of SER-109 in ECOSPOR III or ECOSPOR IV (mean age 64.2; 68.8% female). Overall, 77 participants (22.1%) enrolled with their first CDI recurrence. Four participants received blinded SER-109 in ECOSPOR III followed by a second dose of open-label SER-109 in ECOSPOR IV. Overall, the proportion of participants who received any dose of SER-109 with rCDI at week 8 was 9.5% (33 of 349; 95% CI, 6.6 %–13.0%), and the CDI recurrence rate remained low through 24 weeks (15.2%, 53 of 349; 95% CI, 11.6%–19.4%), corresponding to sustained clinical response rates of 90.5% (95% CI, 87.0%–93.4%) and 84.8% (95% CI, 80.6%–88.4%), respectively (Fig. 1). Most rollover participants (25 of 29, 86.2%) were from the placebo arm; 13.8% had rCDI by week 8. **Conclusions:** In this integrated analysis, the rates of rCDI were low and durable in participants who received the investigational microbiome therapeutic SER-109, with sustained clinical response rates of 90.5% and 84.8% at weeks 8 and 24, respectively. These data further support the potential benefit of microbiome repair with SER-109 following antibiotics for rCDI to prevent recurrence in high-risk patients.

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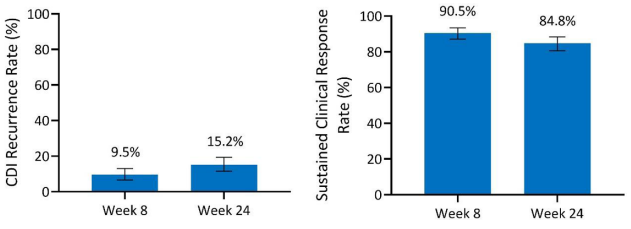

Presentation Type:
Poster Presentation - Top Poster Award
Subject Category: *C. difficile*

Utilizing vancomycin as secondary prophylaxis for the prevention of recurrent *Clostridioides difficile* infection

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Background: Recurrent *Clostridioides difficile* infection (CDI) is associated with significant morbidity, mortality, and healthcare-related costs. Although data are minimal, agents including oral vancomycin have been used as secondary prophylaxis to prevent recurrent CDI. **Methods:** We conducted a randomized, double-blind, placebo-controlled trial to determine the effectiveness of vancomycin at preventing CDI from October 2019 to September 2022. Eligible patients had a history of at least 1 episode of CDI and were receiving systemic antibiotics for another condition. Participants were randomized 1:1 to oral vancomycin 125 mg by mouth twice daily and were interviewed at 1, 2, and 3 months thereafter to assess recurrence. We enrolled 26 patients: 15 completed the 1-month interview, 12 completed the 2-month interview, and 11 completed the full study. Those 15 participants who did not complete the 3-month interview were considered dropouts. The final sample for this study included those 11 participants who completed all interviews. Demographics and outcomes are shown in Table 1. **Results:** One case of recurrent CDI was reported at the 1-month interview and a second was reported at 3 months; both cases had received the placebo. The study was terminated early due to low enrollment. **Conclusions:** Although our results did not reach statistical significance and this study was limited in small sample size, our findings suggest that secondary prophylaxis with oral vancomycin may be beneficial in patients who are actively receiving antibiotics, which is consistent with prior retrospective studies. Future studies with larger sample sizes are still needed to examine this important question of whether secondary prophylaxis is useful for preventing recurrent CDI.
Disclosure: None

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Table 1: Baseline Characteristics and Outcomes

Patient Characteristics	All Participants (n = 11)	Vancomycin (n = 4)	Placebo (n = 7)	p-value
Age > 65 years, n (%)	5 (45)	2 (50)	3 (42)	1
Gender, n (%)				
Female	7 (63)	3 (75)	4 (57)	1
Male	4 (36)	1 (25)	3 (42)	
Primary CDI Infection, n (%)				
<1 Year Before Enrollment	4 (36)	2 (50)	2 (29)	0.58
≥1 Year Prior to Enrollment	7 (64)	2 (50)	5 (71)	
Systemic Antibiotic Duration > 7 days n (%)	3 (27)	0	3 (42)	0.24
Immunocompromised n (%)	5 (45)	2 (50)	3 (42)	1
Patient Outcomes				
Diagnosed with CDI at 3-month Interview	2 (18)	0	2 (28)	0.49