rank sum). None of the azoles prolonged survival despite the significant reduction in the lung fungal burden ($P < 0.002$), possibly due to lack of reduction of fungal burden in kidneys and brains. MICA+ISAV did not enhance survival nor reduce tissue fungal burden vs. placebo.

Conclusion. Despite the *in vitro* activity of tested antifungals, only MICA demonstrated modest efficacy in mice infected with *S. apiospermum*. A combination of MICA+ISAV was ineffective in this model. Continued investigations of other drug combinations to treat scedosporiosis are needed.

Disclosures. **T. Kitt**, Astellas Pharma Inc.: Employee, Salary. **A. S. Ibrahim**, Astellas: Investigator and Research Contractor, Research grant.

2394. Different *Clostridioides difficile* Ribotypes Among Patients With Colonization, Initial Clinical Disease, and Recurrent Clinical Disease

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Background. *C. difficile* is the most common cause of hospital infections with a spectrum of presentation from asymptomatic carriage to severe recurrent diarrhea. Certain *C. difficile* ribotypes are associated with severe disease, but there are little data on ribotypes in asymptomatic carriers or severe recurrent disease. The aim of this study was to compare virulence potential of C.diff ribotypes with clinical disease severity.

Methods. This retrospective study included patients aged ≥18 years at NorthShore University HealthSystem (NUHS) from February 1, 2015 to May 30, 2017. Three groups of patients with positive PCR test for C. diff toxin gene were selected: (1) Asymptomatic patients positive for rectal carriage; (2) symptomatic outpatients with a single positive test (CDI); and (3) patients with recurrent CDI who underwent FMT. Clinical data were extracted from the Enterprise Database Warehouse. Isolates underwent fluorescent PCR ribotyping and were assigned to clades. Ribotypes with "high" (e.g., 027 and 078) and "low" (e.g., 106) virulence potential were defined as such. Virulence potential of cryptic ribotypes were considered "unknown." We used X^2 and independent samples median tests to compare categorical and continuous variables, respectively.

Results. 129 C. diff isolates (asymptomatic, $N = 66$; CDI, $N = 33$; FMT, $N = 30$) were ribotyped with 60 types identified. Median age was higher in asymptomatic patients [80.5 (IQR 70.8–90) years] compared with both CDI and FMT [69 (58–81) and 69 (51–83.5) years, respectively, $P = 0.004$] Low virulence ribotypes were identified more frequently in asymptomatic carriers than those with CDI or FMT (22/66 vs. 8/33 vs. 1/30, respectively, P = 0.006). High virulence ribotypes were found in all groups, with highest frequency in the FMT group (23/30) vs. asymptomatic (25/67) or CDI (13/33), $P = 0.001$).

Conclusion. Patients with severe or recurrent CDI had ribotypes associated with high virulence potential. In addition, asymptomatic carriers were more likely to have ribotypes of C.diff historically associated with a low virulence potential. Molecular C.diff typing may have a role in evaluating asymptomatic C.diff colonization vs. clinical disease.

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

2395. Mechanism-Based-Susceptibility Testing (MBST) Using Disc Diffusion Assays (DDA) to Guide Treatment of Multidrug- and Extensively Drug-Resistant *Pseudomonas aeruginosa* (MDR-XDR-*Pa*) in a Cystic Fibrosis (CF) Lung Transplant Recipient; Are We Ready for Combination Therapy vs. MDR-XDR-*Pa*?

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Background. Lung infections with MDR-XDR-Pa in patients with CF are challenging due to the emergence of antibiotic resistance. We applied MBST with DDA to guide combination antibiotic therapy in an 18-year-old woman with CF. We investigated if this approach can assist in choosing effective regimens.

Methods. Consecutive *Pa* respiratory isolates were collected between 12/16 and 3/18 and typed with MLST. After automated antibiotic susceptibility (AST) and Kirby-Bauer testing, we performed double or triple DDAs. Combinations were based on mechanisms (MBST) of anti-pseudomonal antibiotics (e.g., targeting of penicillin-binding proteins, β-lactamase inhibition, and cell membrane disruption).

Results. During therapy, 1859 antibiotic-days were administered. Fifteen *Pa* isolates, (9 sequence type (ST) 2100 and 1 ST463) with varying AST patterns were found (figure). MBST with DDA revealed active combinations for isolates resistant to individual antibiotics (table). These combinations led to a microbiological response permitting lung transplantation. Antibiotic regimens were also informed by allergies, clinical and radiologic findings.

Conclusion. Strains with evolving resistance profiles recapitulate the dynamic nature of respiratory infections in CF. Double or triple DDAs identified potential treatment options, e.g., vs. MDR-XDR *Pa*. MBST can support the management of challenging infections.

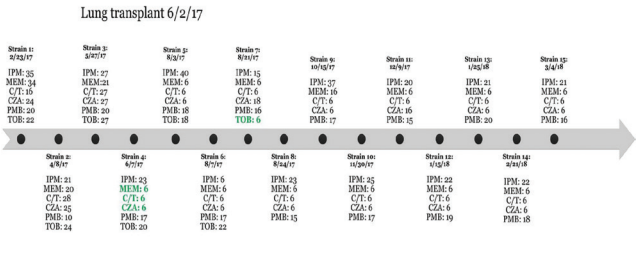
Table: Antimicrobial combinations reflecting zones of inhibition by strain and date.

CZA: ceftazidime–avibactam; C/T: ceftolozane-tazobactam; TOB: tobramycin; PMB: polymyxin B; FOF: fosfomycin; TZP: piperacillin–tazobactam; CIP: ciprofloxacin; IPM: imipenem; MEM: meropenem.

Bold: largest zone

		Combinations + inhibition zones (mm)		
Strain	Date	Combo 1	Combo 2	Combo 3
1	February 23, 2017	CZA + TOB 35	PMB + IPM 38	FOF 40+
2	April 8, 2017	CZA + TOB 31	FOF + CZA 35	PMB + C/T + MEM 39
3	May 27, 2017	FOF + TZP 40	C/T + TOB 37	PMB + CZA 33
4	June 7, 2017	FOF + TZP 15	PMB + CZA + IPM 22	C/T + IPM 24
5	August 3, 2017	FOF + TZP 18	PMB + CZA + IPM 38	C/T + IPM 42
6	August 7, 2017	FOF + TZP 19	PMB + IPM 21	
7	August 21, 2017	FOF + TZP 32	FOF + CZA 26	CZA + TOB 22
8	August 24, 2017	FOF + TZP 28	PMB +I PM 35	C/T + IPM 39
9	October 15, 2017	FOF + IPM 30	PMB + IPM 30	C/T + IPM 30
10	November 30, 2017	PMB+CIP 19	PMB + CZA + IPM 25	PMB + FOF + IPM 25
11	December 9, 2017	FOF + TZP 30	PMB + IPM 25	
12	January 15, 2018	PMB + IPM 23		
13	January 25, 2018	PMB + IPM 26		
14	February 21, 2018	FOF + TZP 20	PMB + CIP 21	
15	March 4, 2018	C/T + IPM 21	CZA + IPM 23	

Timeline of *pseudomonas aeruginosa* isolates depicting gradual emergence of antimicrobial resistance and results of single antibiotic disc diffusion



Bold green items illustrate first instance of resistance to a given antibiotic class
disk diffusion zones are in millimeters
Antibiotic abbreviations are as follows: IPM for imipenem; MEM for Meropenem; C/T for ceftolozane-tazobactam; CZA for ceftazidime-avibactam; PMB for polymyxin; TOB for tobramycin

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2396. Fosfomycin Resistance Among Carbapenem-Resistant Enterobacteriaceae Clinical Isolates in Connecticut, 2017

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