included. Patients were excluded if < 18 years old, receiving antibiotics for < 24 hours, treated for a polymicrobial BSI, or receiving concomitant antibiotic therapy for another gram-negative (non-ESBL) infection.

Results. One hundred and fourteen patients were analyzed; 74 (65%) patients received CBPN therapy compared with 40 (35%) patients that received a non-CBPN (CEF N=30, PT N=10). There were no statistically significant differences in baseline characteristics between groups. The overall in-hospital mortality rate was 6% (N=7). Eight percent of patients (N=6) in the CBPN arm died compared to 3% (N=1) of patients in the non-CBPN arm, P = 0.42. No difference in mortality was detected between groups when evaluating subgroups with Pitt bacteremia score ≥4 (N=25), requiring ICU admission (N=50), non-genitourinary source (N=50), or by causative organism (N=76 *E. coli*; N=38 *Klebsiella* spp.). There was no difference between groups for secondary outcomes.

Conclusion. CEF and PT are reasonable options for the treatment of ESBL BSI and did not result in increased mortality or decreased clinical efficacy when compared to CBPNs in this cohort.

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1577. Real-World, Multicenter Experience with Eravacycline for Various Infections

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Session: P-71. Treatment of Antimicrobial Resistant Infections

Background. Eravacycline (ERV) is Food and Drug Administration approved in patients for the treatment of adults complicated intra-abdominal infections in 2018. Real-world data regarding the indications for ERV use are is limited. We evaluated the clinical/safety outcomes of patients treated with ERV in FDA and non-FDA approved indications.

Methods. Multicenter, retrospective, observational study from September 2018 to June 2020. Adult patients treated with ERV for ³ 72 hours were included. The primary outcome was 30-day survival. Secondary outcomes included a lack of 30-day infection-recurrence, resolution of signs/symptoms of infection and safety. All outcomes were measured from ERV start date.

Results. Overall, 108 patients were included from 12 geographically-distinct medical centers across the United States. The median(IQR) age was 60(52-67) years and 60% were male. Median(IQR) APACHE II and Charlson Comorbidity scores were 15(11-21) and 3 (2-6), respectively. The most common sources of infection were intra-abdominal (32%), and respiratory (24%). Common pathogens included *Acinetobacter baumannii* (19%), *Klebsiella pneumoniae* and *Enterococcus faecium* (16%). Infectious diseases consultation was obtained in 98%, and surgical interventions in 51% of cases. Patients often received active therapy prior to ERV(40%). Median(IQR) ERV therapy duration was 7.7(4.4-14.0) days. Among cases with documented cultures, ERV was initiated within a median(IQR) of 4.8(2.5-9.9) days. Combination therapy ³ 48 hours was given in 45%. The primary endpoint was achieved in 79%(85/108). Of patients who died(n=23), 57% were on monotherapy, 39% were critically ill, 39% had intra-abdominal as a source, and 30% had positive blood cultures. For secondary outcomes, 94%(102/108) lacked 30-day infection-recurrence and 74%(80/108) resolved signs/symptoms of infection. ERV was selected primarily for consolidation of the regimen(40%). Eight patients experienced a probable ERV-related adverse event, mainly gastrointestinal(87.5%) and none experienced *clostridium difficile*.

Conclusion. 30-day survival was achieved in the majority of patients treated with ERV. Studies with longer follow-up are required to confirm these findings.

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1578. Treatments for complicated urinary tract infections (cUTI) caused by multidrug resistant (MDR) Gram-negative (GN) pathogens- a systematic review and network meta-analysis (NMA)

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Session: P-71. Treatment of Antimicrobial Resistant Infections

Background. Antimicrobial resistance is a major and growing threat to global public health. Cefiderocol (CFDC) is a new siderophore-cephalosporin with a wide activity spectrum covering all aerobic GN pathogens including all WHO critical priority pathogens, that was recently approved by FDA for the treatment of GN cUTI in susceptible organisms. We aim to understand the relative efficacy and safety of current treatment options for cUTI caused by MDR GN pathogens.

Methods. We conducted a systematic review to identify all relevant trials that investigated the efficacy and safety of antimicrobial regimens, for the treatment of GN pathogens in cUTI. Outcomes of interest included clinical cure and microbiological eradication (ME) at time of cure (TOC) and sustained follow up (SFU), and safety. Evidence networks were constructed using data for outcomes of interest and analyses were conducted in a frequentist framework using NMA methods outlined by the NICE decision support unit using the netmeta package in R.

Results. A total of 5 studies, 6 interventions and 2,349 randomised patients were included in the final analysis. Interventions included CFDC, imipenem-cilastatin (IPM-CIL), ceftazidime-avibactam (CAZ/AVI), doripenem (DOR), levofloxacin and ceftolozane-tazobactam (CEF/TAZ). Trials included predominantly Enterobacterales, and *Pseudomonas aeruginosa* and very few *Acinetobacter baumannii*. The patient population presented some clinical differences across trials, which were not adjusted for the NMA. Overall, there were numerical differences (especially in endpoints at SFU favouring CFDC), but all treatments showed similar efficacy and safety, with exception of higher ME rate at TOC for CFDC vs IPM, Table 1, also observed at SFU, consistent with the data from the individual clinical trial.

Table 1- Results for microbiological eradication

Table 1- Results for microbiological eradication

Comparator	Microbiological eradication at TOC OR (95% CI)* *>1 favours cefiderocol	Microbiological eradication at SFU OR (95% CI)* *>1 favours cefiderocol
ceftolozane-tazobactam	0.83 (0.24 to 2.86)	1.52 (0.61 to 3.80)
ceftazidime-avibactam	1.75 (0.67 to 4.58)	1.52 (0.61 to 3.80)
doripenem	2.44 (0.89 to 6.73)	2.09 (0.80 to 5.47)
imipenem-cilastatin	2.10 (1.33 to 3.32)	1.72 (1.11 to 2.67)
levofloxacin	1.94 (0.61 to 6.17)	-
cefiderocol	Reference	

Conclusion. This NMA, showed superiority of CFDC vs IPM-CIL in ME at TOC and SFU and similar efficacy and safety vs all other comparators, with numeric differences favouring CFDC for outcomes at SFU. These traditional methodologies for NMA, are only valid within a similar pathogens pool and population across the trials, and may not reflect the full value of breadth of coverage that new therapeutic options bring for the treatment of MDR GN pathogens.

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1579. *Burkholderia* Returns: Are Two Drugs Better or Back to Bactrim?

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Session: P-71. Treatment of Antimicrobial Resistant Infections

Background. Trimethoprim-sulfamethoxazole (T/S) and levofloxacin are considered first line agents for the treatment of *Burkholderia cepacia complex* (Bcc). Combination therapy (CT) is frequently utilized despite limited clinical evidence supporting this. The objective of this study is to compare outcomes associated with different regimens for the treatment of Bcc infections.

Methods. This is a retrospective cohort study in non-cystic fibrosis adult patients with infection caused by Bcc from 2015 to 2019. The primary outcome is the composite of overall treatment failure defined as clinical failure, microbiologic failure, or mortality at 30 days. Secondary outcomes include mortality, clinical failure, microbiological failure, development of resistance, recurrence, and safety. Comparisons were performed using Chi-squared or Fischer's exact test for categorical variables and Student's t test or the Mann-Whitney U test for continuous variables, as appropriate. Multivariable logistic regression analysis was used to identify independent risk factors for overall treatment failure.

Results. Sixty-eight patients were included, 50 (74%) received monotherapy (MT) and 18 (26%) received CT. MT regimens included meropenem (n=19), ceftazidime (n=15), T/S (n=10), and other (n=6). Various combination regimens were utilized. MT recipients were significantly older, more likely to have renal disease, less likely to have an immunosuppression, and had a higher severity of illness. The most common site of infection was respiratory (78%). No difference was found for overall treatment failure between MT and CT (36.0% vs. 38.9%; p=0.947). No differences were found in the