ECCMID 2023 | Poster #P0217

Activity of Cefiderocol and Comparator Agents against European Isolates of *P e d a ae gi a*, *Aci e bac e ba a ii-calc ace ic* species complex, and *S e h a al hilia* from the SENTRY Antimicrobial Surveillance Program (2020–2022)

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Introduction

- Cefiderocol is a siderophore-conjugated cephalosporin with broad activity against Gram-negative bacteria, including multidrug-resistant organisms.
- Cefiderocol was approved by the EMA for the treatment of infections caused by Gram-negative bacteria in adult patients with limited treatment options and by the US FDA for complicated urinary tract infection, hospital-acquired bacterial pneumonia, and ventilator-associated bacterial pneumonia.
- Non–glucose-fermenting (NGF) species are often extensively drug resistant (XDR), presenting serious treatment challenges.
- The activity of cefiderocol and comparator agents was investigated against European NGF isolates collected in 2020–2022 as part of the SENTRY Antimicrobial Surveillance Program.

Results

- The most common infection that isolates were collected from was pneumonia (=2,151), followed by skin/skin structure infection (=800), bloodstream infection (=755), urinary tract infection (=372), intrabdominal infection (=168), and other sites (=179).
- For all *P. a a* isolates, cefiderocol and BL/BLI susceptibilities were >95%, except meropenem-vaborbactam, which was 90.9% (EUCAST; Table 1).
- Cefiderocol was the most active agent against XDR *P. a a* and *P. a a* isolates resistant to the newer BL/BLI combinations, with >90% being susceptible to cefiderocol (Table 1, Figure 1).
- Cefiderocol had potent activity ($MIC_{50/90}$ 0.25/1 mg/L; 98.4/96.8% susceptibility, CLSI/EUCAST) against *A. ba a -ca c ac c* complex, and susceptibility percentages of >96% against XDR, meropenem-, and imipenem-relebactam–resistant *A. ba a -ca c ac c* complex isolates (Table 2; Figure 1).
- Cefiderocol was very active against *S. a a*, with 99.4/100.0% susceptibility (CLSI/EUCAST; $MIC_{50/90}$ 0.06/0.5 mg/L; Table 2; Figure 1).

Conclusions

References

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2. CLSI. M100Ed32. Performance standards for antimicrobial susceptibility testing: 29th informational supplement. Wayne, PA, Clinical and Laboratory Standards Institute, 2022.
3. EUCAST. Breakpoint tables for interpretation of MICs and zone diameters Version 12.0, 2022.