30.5% susceptible to CAZ-AVI (and) 2) NS to all drugs except colistin and amikacin (n = 97, 21% of all MDR isolates; 70.1% susceptible to CAZ-AVI).

**Conclusion.** These in vitro data suggest that CAZ-AVI can be an effective treatment option for infections caused by MDR Enterobacteriaceae and _P. aeruginosa_ collected in Latin America.

**Table 1: Organisms/Phenotypes (Number Tested)**

| Organism/Phenotype | MIC (µg/mL) | Gentamicin (µg/mL) | Meropepen (µg/mL) |
|--------------------|-------------|--------------------|-------------------|
| Gentamicin susceptible (n=57) | 0.5 | 0.25 | 0.06 |
| Gentamicin nonsusceptible (n=57) | 0.5 | 0.5 | 0.06 |
| MDR (n=57) | 0.5 | 0.5 | 0.06 |

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

**References:**

1. QPX9003: Pharmacology of a Novel Polymyxin in Mice and Rats
2. Current available polymyxins are limited by toxicity and poor efficacy at tolerated doses. We have developed a new series of polymyxin derivatives with improved safety profiles and in vitro potency against major MDR bacteria. The following describes studies on the in vivo antimicrobial activity and toxicity of QPX9003 in mice and rats.

**Methods.** Mouse studies. The minimal lethal dose (MLD by IV bolus) and nephrotoxicity (6 IP doses administered 2 hours apart) of QPX9003 and polymyxin B (PMB) were determined in Swiss mice. For the neutropenic mouse thigh infection using _A. baumannii_, Swiss mice were infected with ~10^8 CFU/thigh. Doses were administered IP at various intervals starting 2-hour post-infection and continued over 24 hours. For the rat lung infection model, Sprague-Dawley rats were infected intranasally with 10^7 cfu. QPX9003 was administered IV every 4 hours starting 2 hours post-infection and continued for 24 hours. For both infection models, animals were infected with _A. baumannii_ AB1016 (QPX9003 MIC of 0.5 µg/mL and PMB MIC of 1.0 µg/mL). Untreated control groups were sacrificed at the start of treatment and both untreated and treated groups were sacrificed 24 hours after the start of treatment, infected tissues harvested, homogenized, and plated to determine colony counts.

**Results.** QPX9003 had reduced acute toxicity and nephrotoxicity compared with PMB in mice. QPX9003 showed better bacterial killing of _A. baumannii_ than PMB at similar plasma exposures in both the mouse thigh model (~0.41 vs. ~0.83 log CFU/thigh) and rat lung infection model (~1.10 vs. ~1.44 log CFU/lung). QPX9003 was less acutely toxic, less nephrotoxic, and was more efficacious in mouse and rat infection models compared with PMB. QPX9003 is a promising new polymyxin. (This work was supported in part by federal funds from the Biomedical Advanced Research and Development Administration and the Office of the Assistant Secretary for Preparedness and Response; Biomedical Advanced Research and Development Authority (BARDA), under OTA number HS010201600026C.)

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

**708. In Vitro Activity of Plazomicin vs. Clinical Isolates of Gram-Negative Bacilli, Including Aminoglycoside Nonsusceptible and Multidrug-Resistant Subsets, Recovered from Patients Across Canada as Part of the CANDWAR study, 2011–2018**

**Background.** The genus _Burkholderia_ contains several pathogenic species with distinctive etiologies, including _Burkholderia pseudomallei_ and _Burkholderia mallei_ (melioidosis and glanders, respectively). These organisms are known to cause serious and life-threatening infections, particularly in patients with compromised immune systems. The limited therapeutic options available for the treatment of these infections include _β_-lactams, _β_-lactamase inhibitors, and polymyxins. Resistance to these agents is a growing concern.

**Methods.** A. _β_-lactamase inhibitor with intrinsic antibacterial activity against _A. baumannii_. (This work was supported in part by federal funds from the Biomedical Advanced Research and Development Administration and the Office of the Assistant Secretary for Preparedness and Response; Biomedical Advanced Research and Development Authority (BARDA), under OTA number HS010201600026C.)

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

**709. In Vitro Antibacterial Activity and In Vivo Efficacy of Sulbac-tam– Durlobac-tam (ETX2514SUL) Against Pathogenic _Burkholderia_ Species**

**Background.** The _Burkholderia_ genus contains several pathogenic species with distinctive etiologies, including _Burkholderia pseudomallei_ and _Burkholderia mallei_ for melioidosis and glanders, respectively. These organisms are known to cause serious and life-threatening infections, particularly in patients with compromised immune systems. The limited therapeutic options available for the treatment of these infections include _β_-lactams, _β_-lactamase inhibitors, and polymyxins. Resistance to these agents is a growing concern.

**Methods.** The antibacterial activity of sulbactam alone or in combination with durlobactam (ETX2514) was tested in a preclinical model of melioidosis. Sulbactam (SUL) is an Ambler Class A _β_-lactamase inhibitor with intrabacterial activity against a limited number of species, including _Acinetobacter_ spp. SUL–DUR is currently in Phase 3 clinical testing for the treatment of carbapenem-resistant infections caused by _Acinetobacter_ spp. In this study, SUL–DUR was tested for in vitro antibacterial activity against _B. pseudomallei_ and _B. mallei_ as well as for in vivo efficacy in a preclinical model of melioidosis.

**Results.** See table. S, susceptible; NS, nonsusceptible; ESBL, extended-spectrum _β_-lactamase; MDR, multidrug-resistant (NS to antimicrobials from three or more classes); n.d., not defined.

**Conclusion.** PLZ demonstrated excellent in vitro activity vs. _E. coli_ and _K. pneumoniae_ clinical isolates, including aminoglycoside NS, ESBL-positive, and MDR subsets.

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

**710. In Vitro Activity and Performance of Available Susceptibility Testing Methods for Eravacycline Against Carbapenem-Resistant Enterobacteriaceae (CRE)**

**Background.** _Eravacycline_ (ERV) is a novel agent for the treatment of carbapenem-resistant enterobacteriaceae (CRE). The mechanism of action of ERV involves a unique combination of pharmacokinetics and pharmacodynamics, which may allow for improved efficacy compared to existing agents. The present study evaluated the in vitro activity of ERV against a panel of CRE isolates and compared the performance of available susceptibility testing methods to determine the most accurate method for clinical use.

**Methods.** The in vitro activity of ERV against a panel of CRE isolates was determined using the broth microdilution method. The performance of available susceptibility testing methods (E-test, Vitek 2, and phoenix) was evaluated using the CLSI guidelines and compared to the results obtained with the broth microdilution method.

**Results.** See table. S, susceptible; NS, nonsusceptible; ESBL, extended-spectrum _β_-lactamase; MDR, multidrug-resistant (NS to antimicrobials from three or more classes); n.d., not defined.

**Conclusion.** The performance of available susceptibility testing methods for ERV against CRE isolates was compared to the results obtained with the broth microdilution method. The E-test and Vitek 2 methods showed the highest agreement with the broth microdilution method, while the phoenix method showed the lowest agreement. Further studies are needed to determine the optimal method for clinical use.

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

**Table 1: Organism/Phenotype (Number Tested)**

| Organism/Phenotype | MIC (µg/mL) | Gentamicin (µg/mL) | Meropepen (µg/mL) |
|--------------------|-------------|--------------------|-------------------|
| Gentamicin susceptible (n=57) | 0.5 | 0.25 | 0.06 |
| Gentamicin nonsusceptible (n=57) | 0.5 | 0.5 | 0.06 |
| MDR (n=57) | 0.5 | 0.5 | 0.06 |

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