**ABSTRACT**

**INTRODUCTION**

AAI101 is a novel extended-spectrum β-lactamase inhibitor belonging to the cephamycin family of antibiotics (Fig 1), whose restoration of activity against carbapenem-resistant Enterobacteriaceae is distinctive from that of fosfomycin (1).

In this study, the activity of AAI101 against a diverse collection of clinical isolates of Enterobacteriaceae and KPC-producing Enterobacteriaceae was evaluated, with isolates coming from the abdominal and lower respiratory tracts. The data generated using this assay were then compared with those obtained for a panel of similar clinical isolates collected from US and European hospitals during 2014/2015.

The results demonstrated that AAI101 outperformed existing β-lactamase inhibitors against a broad range of Enterobacteriaceae and KPC-producing Enterobacteriaceae, including those exhibiting resistance to carbapenems.

**RESULTS**

- **Figure 1. Chemical structure of AAI101**

- **Table 1. Overview MIC₅₀ (μg/L) (%) susceptibility by pathogen**

- **Table 2. Summary MIC and susceptibility data for all Enterobacteriaceae (n=1956)**

- **Table 3. Summary MIC and susceptibility data for all ESBL-producing Enterobacteriaceae (n=197)**

- **Table 4. Summary MIC and susceptibility data for all E. coli (n=337)**

- **Table 5. Summary MIC and susceptibility data for all K. pneumoniae (n=550)**

- **Table 6. Summary MIC and susceptibility data for ESBL-only producing K. pneumoniae (n=53)**

- **Table 7. Summary MIC and susceptibility data for KPC-only producing Enterobacteriaceae (n=17)**

**REFERENCES & ACKNOWLEDGMENT**

