Plazomicin Activity against Enterobacteriaceae Collected from Europe, Latin America, and Asia- 
Pacific during 2016, Including Those with Aminoglycoside and Beta-Lactam Resistance 
Mechanisms

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Table 1: Activity of plazomicin and clinically available aminoglycosides

![Table 1](image)

Materials and Methods

- A total of 2,239 Enterobacteriaceae isolates collected during 2016 from 62 hospitals and 4 countries were included in the study. 
- Isolates were susceptibility tested using the reference broth microdilution method described by the Clinical and Laboratory Standards Institute (2016).

Amended Abstract

Background: Plazomicin, in next generation aminoglycoside, was developed to overcome common aminoglycoside resistance mechanisms. This project evaluated plazomicin activity against Enterobacteriaceae isolates collected in Europe (n=3,238), Asia-Pacific (n=97), and Latin America (n=1,115) during 2016. 

Materials and Methods: A total of 2,239 Enterobacteriaceae isolates were susceptibility tested using the reference broth microdilution method described by the Clinical and Laboratory Standards Institute (2016), and QC MIC results were within acceptable ranges as published in CLSI documents.

Results: Plazomicin displayed activity against 83% of the Enterobacteriaceae (831 of 975) and displayed plazomicin MIC values at ≥128 mg/L. One isolate exhibiting plazomicin evident, impaired, and non-responsive MIC values at ≤2 mg/L. Plazomicin inhibited 94.7% and 94.8% of the Enterobacteriaceae isolates at ≤2 mg/L and ≤4 mg/L, respectively. Amikacin, gentamicin, and tobramycin inhibited 75.1%, 17.5%, and 1.1% of the Enterobacteriaceae isolates at ≤2 mg/L and ≤4 mg/L, respectively. 

• Sequences were then realigned and gene sequences were searched against a large database applying a cutoff of 94%, sequence identity and 94% query coverage alignment. 

Conclusions: Plazomicin displayed activity against Enterobacteriaceae isolates collected on 5 continents. Plazomicin is a promising activity against Enterobacteriaceae with gene encoding GBLD, carbapenemases, and ABL, with good activity against aminoglycoside resistance genes. 

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