P1145 *In vitro* activities of ceftazidime-avibactam and comparator agents against *Enterobacteriaceae* and *Pseudomonas aeruginosa* from Turkey collected through the ATLAS Global Surveillance Program 2012-2017

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**Background:** Avibactam (AVI) is a non-β-lactam, β-lactamase inhibitor that can restore the activity of ceftazidime (CAZ) against organisms that possess Class A, C, and some Class D enzymes. This study examined the *in vitro* activity of CAZ-AVI and comparators against Enterobacteriaceae and *Pseudomonas aeruginosa* collected in Turkey through the ATLAS global surveillance program from 2012 to 2017.

**Materials/methods:** A total of 2,177 non-duplicate, clinically isolated Enterobacteriaceae and 563 *P. aeruginosa* were collected from five sites in Turkey during 2012-2017. Susceptibility testing was done using broth microdilution according to CLSI guidelines and interpreted using EUCAST 2018 breakpoints. CAZ-AVI was tested with a fixed concentration of 4 mg/L AVI. The presence of genes encoding resistance mechanisms was previously assessed via multiplex PCR, followed by amplification of the full-length genes and sequencing.

**Results:** Susceptibility data are provided in the table. CAZ-AVI exhibited potent activity against all Enterobacteriaceae (MIC<sub>90</sub> 0.5mg/L; 98.8% susceptible). When MBL-positive isolates were removed from analysis, susceptibility to CAZ-AVI was 100%. CAZ-AVI showed consistently higher % susceptibilities than all comparators against MBL-negative meropenem-nonsusceptible isolates (CRE) and isolates positive for OXA-48. CAZ-AVI also showed good activity against the majority of *P. aeruginosa* isolates (MIC<sub>90</sub> 8 mg/L; 95.0% susceptible).

**Conclusions:** CAZ-AVI showed potent *in vitro* activity against Enterobacteriaceae and *P. aeruginosa* collected in Turkey, including isolates resistant to last-in-line agents.