**OBJECTIVE**

These data support a potential role for MEM/NAC for treatment of isolates harboring Class A serine carbapenemases.

**Hypothesis**

MEM/NAC MICs for the 12 isolates were used in Table 1. All isolates demonstrated in vitro resistance to meropenem (MIC ≥ 4 μg/mL).

**RESULTS**

Bacterial Density Studies

- The results of the bacterial density studies for each isolate are presented in Table 1.
- The bacterial density of the MEM/NAC-treated isolates was significantly lower than that of the untreated control.

**CONCLUSIONS**

- The combination of membranase-resistant organisms, human-simulated ELF exposures of meropenem/nacubactam combination demonstrated remarkable in vivo efficacy.
- Data supports a potential role for nacubactam in combination with meropenem for treatment of lung infection due to Class A carbapenemase-producing Enterobacteriaceae.
- Future studies are warranted to further investigate the potential role of MEM/NAC in the treatment of lung infections caused by Class A carbapenemase-producing Enterobacteriaceae.

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**METHODS**

Neutrophils (200,000 cells/mL) were used in all in vitro testing.

**RESULTS**

**Bacterial Density Studies**

- The bacterial density study for each isolate is presented in Table 1.
- The bacterial density of the MEM/NAC-treated isolates was significantly lower than that of the untreated control.

**CONCLUSIONS**

- The combination of membranase-resistant organisms, human-simulated ELF exposures of meropenem/nacubactam combination demonstrated remarkable in vivo efficacy.
- Data supports a potential role for nacubactam in combination with meropenem for treatment of lung infection due to Class A carbapenemase-producing Enterobacteriaceae.
- Future studies are warranted to further investigate the potential role of MEM/NAC in the treatment of lung infections caused by Class A carbapenemase-producing Enterobacteriaceae.