Activity of Telavancin Against a Global Collection of *Staphylococcus aureus* Causing Bacteremia (2011-2014)

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**ABSTRACT**

Background: *Staphylococcus aureus* bloodstream infections (BSIs) are common, often associated with severe outcomes and are a leading cause of healthcare-associated infections. Treatment of BSI caused by methicillin-resistant *S. aureus* (MRSA) is limited and increasingly problematic. This study describes the results of an international surveillance program to determine the in vivo activity of telavancin against a global collection of *S. aureus* bacteremia isolates, including those resistant to other antibiotics.

Methods: A total of 4,191 *S. aureus* bacteremia clinical isolates from a global network of hospitals were included. Isolates were screened in a centralized laboratory as part of a surveillance program (2011-2014). Identification was confirmed and susceptibility testing results were validated through testing of CLSI-recommended quality control reference strains (S. aureus ATCC 29213 and Enterococcus faecalis ATCC 29212). MIC breakpoint interpretation used current USA FDA, CLSI and EUCAST approved criteria. MRSA isolates displaying elevated vancomycin MIC results (i.e. 2 mg/L) has prompted the call for alternative agents.

**RESULTS**

- **Table 1:** S. aureus strains and resistance phenotype to at least three classes of drugs other than -lactam agents were considered multidrug-resistant (MDR).

**CONCLUSIONS**

- Telavancin (100.0% susceptible) demonstrated potent activity against this global and contemporary collection of *S. aureus* bacteremia isolates. Overall, S. aureus isolates (100.0% telavancin susceptible) had telavancin MIC50, MIC90 and MIC100 results of 0.03, 0.06 and ≤0.12 μg/ml, respectively. MSSA, MRSA and CA-MRSA isolates displayed similar susceptibility, with overall susceptibility rates of 100.0%, 100.0% and 99.7%, respectively.

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**REFERENCES**


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