Analysis of Telavancin in vitro Activity Tested Against a USA Collection of Staphylococcus aureus Clinical Isolates Causing Hospital-Acquired Pneumonia (2013-2014)

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ABSTRACT
Background: Telavancin is approved in the US and European Union (European Union [EU]) for the treatment of hospital-acquired pneumonia (HAP) and ventilator-associated pneumonia (VAP) caused by S. aureus when multiple treatments are not suitable. This study determined the in vitro activity of telavancin against MRSA and non-MRSA clinical isolates from HAP.

RESULTS
• Telavancin had MIC ≤0.06 μg/mL against all MSSA and 99.9% of MRSA isolates. Telavancin had MIC ≤0.12 μg/mL against 91.6% of non-MRSA and 100.0% of MRSA isolates.

CONCLUSIONS
• These results support the use of telavancin for the treatment of VAP caused by S. aureus in US hospitals.

INTRODUCTION
In the USA, Staphylococcus aureus (S. aureus) is the third most common cause of healthcare-associated infections, and hospital-acquired pneumonia (HAP) is one of the leading causes of bloodstream infections. Telavancin is a new lipoglycopeptide approved by the US Food and Drug Administration (FDA) for the treatment of HAP and ventilator-associated pneumonia (VAP) caused by S. aureus and methicillin-resistant S. aureus (MRSA), respectively.

MATERIALS AND METHODS
A total of 1,353 clinical isolates from USA medical centers causing HAP (Table 1) and 300 clinical isolates from USA medical centers causing VAP (Table 2) were included in this study. These isolates were collected through the TheraVance Biopharma’s Surveillance Program for Resistance (2013-2014), which is part of the SENTRY Antimicrobial Surveillance Program. Isolates were submitted to the monitoring program, which is located in nine USA Census regions. These isolates were part of the TheraVance Biopharma’s Bacterial Strain Collection.

RESULTS
Telavancin had MIC ≤0.06 μg/mL against all MSSA and 99.9% of MRSA isolates. Telavancin had MIC ≤0.12 μg/mL against 91.6% of non-MRSA and 100.0% of MRSA isolates. All MSSA and MRSA isolates were ≤0.015 μg/mL. Telavancin had MIC ≤0.06 μg/mL against 100.0% of non-MRSA and MRSA isolates (Table 1).

CONCLUSIONS
These results support the use of telavancin for the treatment of VAP caused by S. aureus in US hospitals.

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SELECT REFERENCES