Prevalence of Main Gram-positive Pathogens Causing Bloodstream Infections in US Medical Centers (2010–2015) and Analysis of Oritavancin In Vitro Activity

RE Mendes, HS Sader, MD Huband, RK Flamm
JMI Laboratories, North Liberty, Iowa, USA

Abstract

Background: US healthcare agencies have introduced resources to address the increasing healthcare costs and improve patient outcomes. The impact of healthcare-associated infections (HAI) on hospital resources is considerable. The SENTRY Antimicrobial Surveillance Program (SAP) collects isolates annually from US hospitals to monitor antimicrobial resistance trends. The use of oritavancin, a novel glycopeptide antibiotic, for the treatment of infections caused by Gram-positive pathogens is well-documented.

Methods: Clinical and laboratory standards institute (CLSI) methods were used to assess the susceptibility of clinical isolates collected from 33 US hospitals. The oritavancin activity against enterococci and staphylococci was assessed using techniques described in CLSI document M07-A10. Comparative analysis against vancomycin was performed.

Results: In the last decade, US healthcare agencies have introduced resources to address the increasing healthcare costs and improve patient outcomes. The impact of healthcare-associated infections (HAI) on hospital resources is considerable. The SENTRY Antimicrobial Surveillance Program (SAP) collects isolates annually from US hospitals to monitor antimicrobial resistance trends. The use of oritavancin, a novel glycopeptide antibiotic, for the treatment of infections caused by Gram-positive pathogens is well-documented.

Conclusions: The prevalence of S. aureus and VISA (vancomycin-intermediate S. aureus) continued to decline during the six-year period, although there were small increases in MRSA rates. The clinical isolates were collected from 33 US sites and were identified by standard methods: Tenth edition of the Methods for dilution antimicrobial susceptibility tests for bacteria that grow aerobically; approved standard-M9. All QC results were within published acceptable limits. Oritavancin demonstrated potent activity against the main organisms and organ groups included in this study. In contrast, rates of CA-MRSIs increased from 3.7% in 2010 to 5.1% in 2015.

Disclosures

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References