Assessment of Oritavancin Activity Tested Against β-haemolytic Streptococci Responsible for Skin and Skin Structure Infections in Europe (2008-2010)

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Abstract

Oritavancin is a semisynthetic lipoglycopeptide currently under clinical development for the treatment of serious infections caused by bacteria that are resistant to β-lactams. This study assessed oritavancin activity against β-haemolytic Streptococci (BHS) isolated from skin and skin structure infections in countries, including Turkey, Israel, and European countries, from 2008 to 2010 as part of the SENTRY Antimicrobial Surveillance Programme.

Methods

A total of 627 β-haemolytic Streptococci not susceptible to penicillin were tested. Oritavancin MIC values (0.06-0.25 mg/L) were lower than those of vancomycin (0.5-1 mg/L) and linezolid (0.5-1 mg/L). Oritavancin was more active than vancomycin and levofloxacin against MDR strains. Oritavancin MIC values were lower against serogroup A and C strains compared to the control group of wildtype strains. In summary, oritavancin testing indicated potent activity against serogroups A and C BHS isolates from Europe.

Results

Overall, oritavancin (MIC50/90, 0.03/0.12 mg/L) was two-fold more active than vancomycin (MIC50/90, 0.06/0.25 mg/L) and linezolid (MIC50/90, 1.0/2.0 mg/L). Oritavancin was slightly (two-fold) less active than teicoplanin (MIC50/90, 0.02/0.06 mg/L). Interpretations of comparator MIC results were based on CLSI and EUCAST criteria. Oritavancin exhibited potent activity against serogroups A and C BHS isolates from Europe.

Conclusions

Oritavancin was slightly (two-fold) less active in vitro against MDR strains compared with the activity of comparators tested against wildtype strains. However, all MDR isolates were inhibited by oritavancin MIC results of ≤0.5 mg/L. These in vitro data on the activity of oritavancin tested against European BHS strains support continued longitudinal surveillance for monitoring and establishing baseline MIC data prior to clinical introduction of oritavancin.

References


