The Activity of Tedizolid Against Gram-Positive Pathogens Isolated From Patients in United States Medical Centers: 2014 Surveillance

Introduction

Tedizolid is approved for the treatment of skin and skin structure infections caused by Staphylococcus aureus and Streptococcus pyogenes.

Objectives

• To describe the in vitro activity of tedizolid when tested against clinical isolates from patients in the United States.
• To determine the susceptibility of isolates to tedizolid and linezolid.

Materials and methods

A total of 5999 nonduplicate, single-patient clinical isolates of Staphylococcus aureus (4724 isolates), streptococci (BHS; 563 isolates), viridans group streptococci (260 isolates), and coagulase-negative staphylococci (CoNS; 344 isolates), enterococci (524 isolates), β-hemolytic streptococci (343 isolates), and Staphylococcus caprae (207 isolates) were obtained from clinical samples collected across the United States in 2014.

Antimicrobial susceptibility testing

Minimum inhibitory concentration (MIC) values were determined using the reference Clinical and Laboratory Standards Institute (CLSI) broth microdilution method and for staphylococci using the CLSI reference disk diffusion method (M11-A7 and EUCAST 2015 guidelines version 5.08). All organisms were tested for susceptibility to linezolid, ampicillin, ceftriaxone, clindamycin, erythromycin, levofloxacin, penicillin, tigecycline, and vancomycin, using standard MIC interpretive breakpoints.

Results

• 100% of isolates were susceptible to tedizolid (MIC ≤0.06 µg/mL) and linezolid (MIC ≤0.25 µg/mL).
• Higher susceptibility rates were found for tetracycline (84.3%), trimethoprim/sulfamethoxazole (77.9%), daptomycin (100.0%), and Clindamycin (98.5%).

Conclusions

Tedizolid was very active against Gram-positive pathogens in vitro, with 100% of isolates susceptible to tedizolid (MIC ≤0.06 µg/mL).

References


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