Activity and Spectrum Evaluation of Dalbavancin, A Novel "Glycopeptide" Class Antimicrobial

R.N. Jones, D.J. Biedenbach, D.M. Johnson, M.A. Pfifer

Univ. of Iowa, Iowa City, IA; and The JONES Group/JMI Laboratories, North Liberty, IA

Abstract

The continued evolution of resistance (R) Gram-positive (G) species requires screening of the chemical libraries of novel therapeutic entities. Dalbavancin (DALBA), a novel

derivative of NOD-25T and it was tested against a worldwide collection of G in

Methods: 126 contemporaries (1998-2000) G strains were selected for testing by

NCCLS MIC procedures versus BALA, vancomycin (VANCO), teicoplanin (TEICO), and 6 other antimicrobial agents. Disc agar was scored by visually

identifying growth inhibition zones. MICs were determined by microdilution. 

Results:

Dalbavancin demonstrated potent activity against oxacillin-susceptible and

resistant to dalbavancin (MIC90 = 32

b-hemolytic streptococci, viridans group streptococci, andinemicrococcus (MSSA), Staph.

Results

• Dalbavancin demonstrated excellent activity against a wide range of Gram-

positive pathogens with MIC4 ≤ 0.25 µg/ml. DALBA was more active than

VANCO or TEICO against S. aureus (MIC90, 0.25 µg/ml). DALBA was also more active

than Teicoplanin against oxacillin-resistant (104) S. aureus, against which it had equal activity. DALBA had little activity against E. faecalis, E. faecium, S. pneumoniae, and

S. anginosus, but bacteriostatic against the

Vancomycin-resistant enterococci of the Van A phenotype were also resistant to dalbavancin (MIC90 = 32 µg/ml).

Dalbavancin was more active than quinupristin/dalfopristin against all tested Gram-positive species with the exception of oxacin-resistant S. aureus, against which it was equipotent (MIC90 = 0.25 µg/ml).

MIC50 for dalbavancin were 0.12-1 µg/ml for S. pneumoniae, b-hemolytic streptococci, and viridans group streptococci.

Dalbavancin was also more active than Vancomycin (MIC90, >16 µg/ml) against ox-acillin-susceptible strains of S. aureus. DALBA was also more active than Vancomycin against oxacillin-resistant (104) S. aureus, against which it had equal activity. DALBA had little activity against E. faecalis, S. faecium, S. pneumoniae, and

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Dalbavancin was also more active than Vancomycin (MIC90, >16 µg/ml) against ox-

References


2. Mikaelin, et. al. 38th ICAAC Abstract # 1509.


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