Dalbavancin was approved (May, 2014) by the Food and Drug Administration (FDA) for the treatment of acute bacterial skin and skin structure infections (ABSSSI) based on data from two phase 3 clinical trials. The FDA approval was based on dalbavancin demonstrating non-inferiority to vancomycin in the treatment of ABSSSI in a phase 2b trial with the primary endpoint of clinical success at 14 days.

Dalbavancin was demonstrated to have a lower MDR phenotype compared to comparator agents. In vitro activity against selected MDR isolates demonstrated that dalbavancin had greater than comparator agents against these populations. In a phase 3 clinical trial, dalbavancin displayed a resistance phenotype (MIC ≤0.06/1 mg/L) with susceptibility rates of 39.2 – 90.1 – 98.8% (CLSI and EUCAST criteria), respectively.

In vitro activity against selected MDR isolates demonstrated that dalbavancin bound to the C-terminal position of D-alanyl D-alanine in the peptidoglycan cell wall formation. In addition, dalbavancin contains a lipophilic side chain that binds to the C-terminal position of D-alanyl D-alanine in the peptidoglycan cell wall formation. In addition, dalbavancin contains a lipophilic side chain that binds to the C-terminal position of D-alanyl D-alanine in the peptidoglycan.

Materials and methods

Bacterial isolates. A total of 14,097 isolates collected from 90 centres in North America (two countries, 172 centres), Latin America (11 countries, 21 centres), Europe (22 countries), Asia-Pacific region (13 countries, 39 centres) and South Africa (1 site) were included. Isolates were identified to the species level by the participating laboratory and bacterial identifications were based on local guidelines and submitted to a central monitoring laboratory site) were included. Isolates were determined to be clinically significant and the MDR phenotype was confirmed by the participating laboratory and bacterial identifications were consistent with the MDR phenotype. In addition, dalbavancin had potency against a MDR phenotype. In addition, dalbavancin had potency against a MDR phenotype. In addition, dalbavancin had potency against a MDR phenotype.

Antimicrobial susceptibility testing. Isolates were tested for susceptibility by broth microdilution following guidelines in the Clinical and Laboratory Standards Institute (CLSI) M07-A9 document. Testing was performed in 2-fold serial dilutions from 2 - 16 mg/L using Thermo Fisher Scientific (Cleveland, Ohio, USA) 96-well microtitre plates. Quality assurance was performed by comparing the results with 30x quality control strains. Vancomycin (MIC) was used as a positive control (2 mg/L), and teicoplanin (MIC) was used as a negative control (MIC ≤0.06 mg/L). All results were interpreted using the CLSI breakpoints. In addition, dalbavancin had potency against a MDR phenotype. In addition, dalbavancin had potency against a MDR phenotype. In addition, dalbavancin had potency against a MDR phenotype.

Conclusions

Dalbavancin had potential and consistent in vitro activity against community-acquired bacterial isolates, including those exhibiting a MDR phenotype. Dalbavancin had potential and consistent in vitro activity against community-acquired bacterial isolates, including those exhibiting a MDR phenotype. Dalbavancin had potential and consistent in vitro activity against community-acquired bacterial isolates, including those exhibiting a MDR phenotype.