TR-700, a Novel Oxazolidinone, Tested Against Linezolid-Resistant Gram-positive Species with Well-Characterized Resistance Mechanisms

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**ABSTRACT**

TR-700 is the active component of orally administered produg TR-701. TR-700 has demonstrated potent activity against linezolid-resistant Gram-positive species. In this study, TR-700 was compared against a panel of multidrug-resistant (MDR) clinical isolates from North and South America. Most strains were multidrug-resistant and at least MDR (nearly 90%) to linezolid. MIC ranges of TR-700 for 88, 96 and >99% of LZD-R strains were ≤0.06-0.12-0.5 μg/mL, respectively. TR-700 was 16-fold more active than linezolid (data not shown).

**REFERENCES**

1. TR-700 was determined by clinical laboratories to be more active than linezolid (MICs, ≤0.12 vs. 0.5 μg/mL).

**INTRODUCTION**

Linezolid, the first approved antibiotic drug of the oxazolidinone class, has become an important agent for the treatment of various infections caused by Gram-positive (G+) cocci. Since the regulatory approval in 2000, several species of Gram-positive pathogens have been identified with elevated MIC values (≥64 μg/mL) to linezolid. The mechanism of resistance has been generally determined and is now predominated by 23S rRNA target mutations, usually at sites G2505A and G2576T in the 23S rRNA gene.

**METHODS**

TR-700 was tested in this study against a panel of MDR clinical isolates from North and South America. Most strains were multidrug-resistant (MDR) and at least MDR (nearly 90%) to linezolid. MIC ranges of TR-700 for 88, 96 and >99% of LZD-R strains were ≤0.06-0.12-0.5 μg/mL, respectively. TR-700 was 16-fold more active than linezolid (data not shown).

**RESULTS**

1. TR-700 MIC ranges for the compared strains showed no major increases (data not shown). The tests with the non-compared strains indicated a consistent two-fold range of MIC values for TR-700 for S. aureus, S. epidermidis, S. mutans, S. mutans, and S. mitis.

**CONCLUSIONS**

TR-700 was determined by clinical laboratories to be more active than linezolid (MICs, ≤0.12 vs. 0.5 μg/mL) for S. aureus, S. epidermidis, S. mutans, S. mutans, and S. mitis.

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1. TR-700 was determined by clinical laboratories to be more active than linezolid (MICs, ≤0.12 vs. 0.5 μg/mL) for S. aureus, S. epidermidis, S. mutans, S. mutans, and S. mitis.