Activity of Omadacycline When Tested against Gram-Positive Bacteria Isolated from Patients in the USA During 2015 as Part of a Global Surveillance Program

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Amended Abstract

Background

Omadacycline (JNJ-66282628) is a novel tetracycline-class antibiotic with a long elimination half-life that was developed for the treatment of infections caused by Gram-positive bacteria including community-acquired pneumonia that is being evaluated as both oral and intravenous formulations.

Methods

A total of 11,505 Gram-positive bacteria isolated from 5,353 patients in 90 hospitals in 62 geographical areas across the USA were collected between January and December 2015 (90-day collection) as part of the Global Surveillance Program. Susceptibility testing was performed using broth microdilution methods for OMC and comparator agents.

Results

OCM was active against Staphylococcus aureus (98.2%) and Enterococcus faecalis (97.0%), followed by Staphylococcus epidermidis (90.0%) and Streptococcus pneumoniae (83.9%). OMC demonstrated activity against methicillin-resistant and methicillin-susceptible Staphylococcus aureus (MIC ≤0.06/0.12 µg/ml) and Enterococcus faecalis (MIC ≤0.06/0.12 µg/ml). OMC was also highly active against Streptococcus pyogenes (99.2%) and Enterococcus faecium (99.2%). OMC was highly active against Streptococcus anginosus (87.8%), and Actinomyces spp. (89.7%), and showed slight activity against Propionibacterium acnes (29.6%). OMC was active against 100.0% of Staphylococcus lugdunensis and Staphylococcus saprophyticus isolates tested.

Conclusions

OMC was active against Gram-positive bacteria including MSSA, S. aureus resistant to tigecycline, S. pneumoniae, and S. simulans. No enzyme inducible activity to OMC was observed in isolates tested.

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References