Background

Omadacycline is the first aminomethylcycline to enter clinical development. OMC is being developed globally as an oral and intravenous antibiotic for use in patients with mild and/or moderate infections caused by susceptible gram-negative and gram-positive bacteria. OMC is bactericidal with MIC90s in the 0.06-0.5 mg/mL range for gram-positive bacteria and in the 0.12-0.25 mg/mL range for gram-negative bacteria. OMC has been shown to be active against nasopharyngeal streptococci and Moraxella catarrhalis. OMC is in Phase 3 clinical development for acute bacterial skin and skin structure infections, uncomplicated urinary tract infections, and AECOPD. This study compares spectra of activity of OMC between 2003, 2007, and 2015.

Materials and Methods

Spectrum of activity studies for OMC were performed in 2003, 2007, and 2015 using the CLSI reference broth microdilution methods.1,2

Clinical isolates tested were <3 years old at the time of testing for >90% of the total isolates for each study.

Known stock isolates were also tested in order to include a variety of resistance mechanisms.

All Mueller Hinton broth lots were <12 hrs old at the time of inoculation. All isolates were stored at -80°C until use.

This study compares studies conducted in 2003, 2007, and 2015. Clinical isolates tested were <3 years old at the time of testing for >90% of the total isolates for each study.