Abstract 1100

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Objectives:
To address therapy of MLSB-resistant (R) species, CEM-101 (a new macrolide-ketolide), was developed with enhanced potency against wildtype (WT) respiratory tract (RTI) and cutaneous (SSSI) pathogens. Results of CEM-101 susceptibility (S) testing against 452 staphylococci and selected streptococci are described here.

Methods:
A collection of 2006-2007 clinical isolates were S tested by CLSI methods (M7-A7) with associated interpretive criteria (M100-S18) and supplements (2-5% LHB) for streptococcal tests. CEM-101, telithromycin (TEL) and 10 comparators were used versus 201 S. aureus (75 WT-MRSA, 75 WT-MSSA, 30 CA-MRSA, 17 VISA or hVISA, 7 VRSA), 100 coagulase-negative staphylococci (CoNS; 10 species), 100 Beta-haemolytic (BHS; 30 group A, 31 group B, 14 group C, 9 group F, 16 group G) and 51 viridans group streptococci (VGS; 5 species), see Table.

Results:
MSSA strains were slightly more CEM-101-S (MIC<sub>50</sub>, 0.06 mg/L) that MRSA or CA-MRSA strains (MIC<sub>90</sub>, 0.12 mg/L). VISA, hVISA and VRSA were generally more refractory to CEM-101 and TEL. CEM-101 was 2-fold more potent than TEL against all staphylococci. Streptococci were very S to CEM-101 (MIC<sub>90</sub>, 0.03-0.06 mg/L) and TEL was 4-fold less active with non-S isolates of BHS observed. ERY-R staphylococci remained CEM-101-S except for TEL- and clindamycin (CC)-R isolates, but all BHS and VGS were S to CEM-101.

Conclusions:
CEM-101, a novel macrolide-ketolide, was potent against all staphylococci (MIC<sub>50</sub>, 0.06 mg/L), except CC-R strains; and inhibited all streptococci at ≤0.12 mg/L. The activity was greater than TEL by 2- to 4-fold. CEM-101 warrants further development for RTI and SSSI indications.