CEM-101, a novel ketolide; *in vitro* activity against *Legionella pneumophila*

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Objective: CEM-101 is a new fluoroketolide that has potent activity against respiratory tract pathogens. The activity against a variety of *Legionella pneumophila* serogroup was investigated.

Methods: The *in vitro* activity of CEM-101 was compared with that of telithromycin, azithromycin, erythromy-cin, levofloxacin and doxycycline against a total of 300 *Legionella pneumophila* by a standard agar dilution procedure using buffered yeast extract agar. The species tested included *L. pneumophila* serogroup 1 (125 isolates), serogroup 2 (28), 3 (25), 4 (36), 5 (25), 6 (50) and serogroup 7,8,9,12 (11).

Results: CEM-101 (MIC_{90} 0.016 mg/L) was as active as levofloxacin (MIC_{90} 0.016 mg/L) against *L. pneumophila* and was more active than telithromycin (MIC_{90} 0.06 mg/L), azithromycin (MIC_{90} 0.25 mg/L), erythromycin (MIC_{90} 1 mg/L) and doxycycline (MIC_{90} 1 mg/L). Against the most frequent *L. pneumophila* such as serogroup 1, the MIC_{90} of CEM-101 (0.03 mg/L) was superior to telithromycin (0.06 mg/L), azithromycin (0.5 mg/L), erythromycin (1 mg/L) and doxycycline (1 mg/L). Against *L. pneumophila* serogroup 1, the MIC_{90} of CEM-101 (0.03 mg/L) was similar to levofloxacin (0.016 mg/L). CEM-101 was less active against *L. pneumophila* serogroup 1, 2, 3, 4, 5, and 6 strains (MIC_{90} 0.016 mg/L) than *L. pneumophila* serogroup 7, 8, 9 and 12 (MIC_{90} 0.008 mg/L).

Conclusions: These data confirm the interesting activity of this new fluoroketolide CEM-101 against *Legionella pneumophila.*