Objective: CEM-101 is a novel ketolide 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, erythromycin, levofloxacin and levofloxacin 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 (26), 5 (50) and serogroup 7,8,9,12 (11).

Results: CEM-101 (MIC0.016 mg/L) was as active as levofloxacin (MIC0.016 mg/L) against L. pneumophila and was more active than telithromycin (MIC0.06 mg/L), azithromycin (MIC0.25 mg/L), erythromycin (MIC0.1 mg/L) and doxycycline (MIC0.1 mg/L). Against the most frequent L. pneumophila serogroup such as serogroup 1, the MIC90 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 MIC90 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 (MIC0.016 mg/L) than L. pneumophila serogroup 7, 8, 9 and 12 (MIC0.008 mg/L).

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