

In Vitro Activity of CEM-101 against *Legionella* Spp.

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Background:

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

Methods:

The *in vitro* activity of CEM-101 was compared with that of telithromycin, azithromycin, erythromycin, levofloxacin and doxycycline against a total of 256 *Legionella* spp. by a standard agar dilution procedure using buffered yeast extract agar. The species tested included *L. pneumophila* serogroup 1 to 9 (206 isolates), *L. dumoffii* (20), *L. micdadei* (20) and *L. longbeacheae* (10).

Results:

CEM-101 (MIC₉₀ 0.016 mg/L) was more active than telithromycin (MIC₉₀ 0.06 mg/L), azithromycin (MIC₉₀ 0.25 mg/L), erythromycin (MIC₉₀ 1 mg/L) and doxycycline (MIC₉₀ 1 mg/L). CEM-101 was as active as levofloxacin (MIC₉₀ 0.016 mg/L) against *L. pneumophila*. CEM-101 was less active against *L. pneumophila* serogroup 1, 3, 4, 5, and 6 strains (MIC₉₀ 0.016 mg/L) than *L. pneumophila* serogroup 2, 7, 8, 9 and 12 (MIC₉₀ 0.008 mg/L). Against *L. micdadei* and *L. dumoffii*, erythromycin (MIC₉₀ 1 mg/L), doxycycline (MIC₉₀ 1 mg/L) and azithromycin (MIC₉₀ 0.25 mg/L) were less active than CEM-101 (MIC₉₀ 0.12 mg/L) and telithromycin (MIC₉₀ 0.12 mg/L). Against *L. longbeacheae*, CEM-101 (MIC₉₀ 0.06 mg/L) was more active than levofloxacin (MIC₉₀ 0.12 mg/L), telithromycin (MIC₉₀ 0.12 mg/L), azithromycin (MIC₉₀ 0.12 mg/L), erythromycin (MIC₉₀ 0.5 mg/L) and doxycycline (MIC₉₀ 1 mg/L).

Conclusions:

These data confirm the interesting activity of this new fluoroketolide, CEM-101 against *Legionella* spp.