Background: Delafloxacin, an investigational fluoroquinolone, has demonstrated clinical activity against pathogenic skin and skin structure infections (ABSSSI) in vitro and in vivo, as well as against recent clinical isolates of penicillin-resistant Streptococcus pneumoniae (PRSP).

Methods: Delafloxacin MICs were determined for recent clinical isolates of PRSP collected from US hospitals: results of the CANWARD 2007 antimicrobial susceptibility testing: 26th informational supplement. Delafloxacin susceptibility testing was performed by broth microdilution (CLSI, 2015). Delafloxacin (≤0.004/0.25 μg/mL) was the most active agent tested against PRSP. Against 2 PRSP isolates, delafloxacin was 50/90 times more active than levofloxacin (1/1.1, 1.0, ≤0.06/≤0.06). All delafloxacin MIC values were ≤0.06/2 μg/mL; 98.3% S), and improved potency against ESBL-resistant strains, and improved potency against Pseudomonas aeruginosa. Delafloxacin was equally active against Gram-negative species.

Results: Delafloxacin was very active against 2007. Delafloxacin was very active against 2 60/60 MIC values were ≤0.06/2 μg/mL; 98.3% S), and improved potency against ESBL-resistant strains, and improved potency against Pseudomonas aeruginosa. Delafloxacin was equally active against Gram-negative species.

Conclusions: Delafloxacin is an investigational fluoroquinolone that has demonstrated clinical activity against penicillin-resistant Streptococcus pneumoniae and methicillin-resistant Staphylococcus aureus (MRSA) and methicillin-resistant and vancomycin-resistant strains, and improved potency against Pseudomonas aeruginosa. Delafloxacin was tested against recent clinical isolates of PRSP collected from US hospitals: results of the CANWARD 2007 antimicrobial susceptibility testing: 26th informational supplement. Delafloxacin (≤0.004/0.25 μg/mL) was the most active agent tested against PRSP. Against 2 PRSP isolates, delafloxacin was 50/90 times more active than levofloxacin (1/1.1, 1.0, ≤0.06/≤0.06). All delafloxacin MIC values were ≤0.06/2 μg/mL; 98.3% S), and improved potency against ESBL-resistant strains, and improved potency against Pseudomonas aeruginosa. Delafloxacin was equally active against Gram-negative species. Delafloxacin is an investigational fluoroquinolone that has demonstrated clinical activity against penicillin-resistant Streptococcus pneumoniae and methicillin-resistant Staphylococcus aureus (MRSA) and methicillin-resistant and vancomycin-resistant strains, and improved potency against Pseudomonas aeruginosa.