Gatifloxacin

Gatifloxacin: a new fluoroquinolone

Gatifloxacin is a new 8-methoxy-fluoroquinoline antimicrobial agent. It has enhanced activity against Gram-positive and atypical agents, while retaining broad-spectrum anti-Gram-negative activity. For example, the MIC_{90} values for respiratory tract pathogens are less than or equal to 0.5 μg/ml for organisms such as Streptococcus pneumoniae (regardless of penicillin susceptibility), Haemophilus influenzae (β-lactamase positive or negative), Moraxella catarrhalis (β-lactamase positive or negative), Legionella species, Mycoplasma pneumoniae, methicillin-sensitive Staphylococcus aureus, β-haemolytic Streptococci (macrolide sensitive or resistant), Neisseria species, most Enterobacteriaceae, Neisseria gonorrhoeae, Neisseria meningitidis, Pasteurella species, and Yersinia enterocolitica.

For methicillin-resistant S. aureus, ciprofloxacin-resistant S. aureus, Citrobacter freundii, Providencia species, Serratia species, Pseudomonas aeruginosa and other non-fermentative Gram-negative bacilli, the MIC are elevated. Gatifloxacin is bactericidal and exhibits a post-antibiotic effect against Gram-positive and -negative bacteria.

The standard dose is 400 mg once daily and is available in both oral and IV formulation. Gatifloxacin appears to have a low propensity for the selection of resistant mutants. Clinical trial data supports the use of Gatifloxacin for treatment of patients with respiratory tract, urinary tract, skin and soft tissue infections. The side effect profile for Gatifloxacin is similar to that with other agents.