

Pharmacy and Therapeutics Committee
Levofloxacin (Levaquin®)
11/98

Recommendations: MEC approved

Levofloxacin (Levaquin) the P&T preferred fluoroquinolone and is recommended to be automatically substituted for ofloxacin unless the physician has checked the dispense as written block. The pharmacist will check the patient's renal function to ensure the dose is renally adjusted.

Dosage Equivalence

Ofloxacin (Floxin®)	Levofloxacin (Levaquin®)
400 mg q12h	500 mg q24h
400 mg q24h	250 mg q24h
200 mg q12h	250 mg q24h
200 mg q24h	250 mg q48h

Assessment:

1. Levofloxacin is the pure active enantiomer of ofloxacin providing an peak concentration, 2 times higher than the active drug contained in ofloxacin and a daily area under the curve of active drug equivalent to ofloxacin at recommended doses. Note: Fluoroquinolones display concentration dependent killing; higher peak levels provide more efficient killing of bacteria.
2. Levofloxacin is active against pathogens causing community acquired pneumonia including atypical pathogens (legionella pneumophila, chlamydia pneumoniae, mycoplasma pneumoniae) and is less expensive than dual therapy of ceftriaxone (Rocephin®) plus a oral or IV macrolide.
3. Levofloxacin is active against penicillin resistant strep. pneumoniae, ceftriaxone is active in approximately 27% of isolates.
4. Levofloxacin is 87% renally excreted unchanged and is indicated for uncomplicated/complicated UTI.
5. Levofloxacin is administered once daily versus twice daily for ofloxacin.
6. Levofloxacin is 99% bioavailability allowing the same dose to be administered IV and PO.
7. Levofloxacin IV is supplied in a premixed form.
8. Levofloxacin does not interact with warfarin or theophylline unlike ciprofloxacin.
9. Culture data showing sensitivity to ofloxacin indicates levofloxacin sensitivity.

Levofloxacin Dosage Recommendations per Package Insert

	Levofloxacin	Ofloxacin
Community Acquired Pneumonia	500 mg QD	400 mg q12h
Acute Bacterial Exacerbation of Chronic Bronchitis	500 mg QD	400 mg q12h
Acute Sinusitis	500 mg QD	
Skin & Skin Structure (Uncomplicated)	500 mg QD	400 mg q12h
UTI (Uncomplicated/Complicated)	250 mg QD	200 mg q12h
Acute Pyelonephritis	250 mg QD	

Renal Dosing per Package Insert

Clcr (ml/min)	Ofloxacin	Levofloxacin
> 50	400 mg q12h	250-500 QD
20-49	400 mg q24h	250 QD
10-19	400 mg q24h	250 Q48H
< 10	200 mg q24h	250 Q48H
Hemodialysis or CAPD		250 Q48H

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