



Supplement: Guidance on the use of fluoroquinolones

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Explanation/Purpose

These slides contain the answers from the TASP faculty in response to a question from one of our participating hospitals about when to use fluoroquinolones in general, as well as how to choose between them and their IV vs. PO formulations. We have posted them here as a reference for others.



Levofloxacin vs. Ciprofloxacin

They have fairly similar gram negative coverage but levofloxacin also has gram positive coverage, most notably of Pneumococcus and other Strep species, whereas cipro doesn't. Levo is also more useful for many of the atypical bacteria that we worry about in respiratory infections. But the gram positive coverage in particular is why it's an appropriate agent for respiratory infections whereas cipro is not. For any infection where gram negatives are the major concern and gram positives are not involved, either is probably fine.



Use of IV Fluoroquinolones

It's totally reasonable to have levofloxacin as the only available IV fluoroquinolone at your facility. In fact, this was the case at most of the TASP hospitals when we did our formulary survey. We almost never use IV fluoroquinolones because the oral bioavailability is so good. IV fluoroquinolones should only be used when a patient cannot take pills or has absorption issues or a non-functional GI tract. As long as they can take pills, oral FQ's work just as well and are less expensive.



When not to use FQ's

Times when FQ's should not be used unless there are no other options:

- Uncomplicated UTI (cystitis in a female patient)
- Acute bacterial sinusitis
- Uncomplicated bronchitis or a COPD exacerbation
- CAP in a patient who can receive beta lactams



When to consider FQ's

Times when FQ's can be considered:

- Pseudomonas infections where an oral antibiotic is desired
- Infections where high blood levels of an antibiotic are necessary and FQ's allow you to spare the patient prolonged IV antibiotics due to their excellent oral bioavailability. Examples include:
 - Pyelonephritis/complicated UTI
 - Prostatitis
 - Intraabdominal abscesses
 - Bone infections



When to consider FQ's (cont.)

Times when FQ's can be considered:

- Pneumonia in a patient with a true, significant penicillin allergy (use levo, not cipro for respiratory infections given need for gram positive coverage)
- Any type of infection where the patient has a true, significant penicillin allergy and no other non-quinolone options exist (but remember that true penicillin allergies are much rarer than people report!)

