

Fluoroquinolones Antibiotics (Ciprofloxacin, Moxifloxacin, Levofloxacin, Ofloxacin)

Prescription validation & counselling

This advice relates to systemic administration of fluoroquinolone antibiotics and is intended as a guide only. For further information, refer to trust guidelines, the SPC, BNF or discuss with a senior pharmacist in infection.

Neurological effects

Q: Does the patient have a history of neurological effects or tendon damage related to quinolones (**see the effects listed below**)?

If **YES**, quinolones are **contraindicated**

Q: Does the patient take corticosteroids (prednisolone or hydrocortisone)?

If **YES**, consider discussion with prescriber as increased risk of tendinopathy

Q: Is the patient over 60 years or has a history of kidney problems or organ transplant?

If **YES**, consider discussion with prescriber as risk of tendon problems increased

If treatment with a fluoroquinolone is appropriate, ALL patients should be advised to STOP treatment and contact their prescriber immediately if any of the following effects occur:

- Tendon pain or swelling, often beginning in the ankle or calf – if this happens, **rest the painful area until assessed by a doctor**
- Pain in the joints or swelling in the shoulders, arms or legs
- Abnormal pain or sensations e.g. pins and needles, tingling, tickling or burning
- Severe tiredness, anxiety, depression, poor memory or severe problems sleeping
- Changes in hearing, sight, taste or smell

Convulsions

Q: Does the patient have a history of seizures or a condition that may predispose to seizure, e.g. recent stroke, head injury? If **YES**, contact prescriber to discuss alternative

Q: Is the patient concomitantly taking an NSAID? If **YES**, contact prescriber and discuss alternative or withhold NSAID

Cardiac Disorders

Consider the following in all patients - in those with a history of cardiac disease, consider contacting the prescriber to determine clinical significance and possible alternative.

- Fluoroquinolones **may** prolong the QT interval (most significant effect with moxifloxacin)
- Must be used cautiously in patients who have risk factors for prolonged QT e.g. concomitant drugs that may prolong QT, electrolyte imbalance, heart failure, bradycardia, myocardial infarction, congenital or acquired QT prolongation
- Additional monitoring or alternative therapy may be necessary
- Elderly or female patients **may** be more susceptible to drug-associated effects on the QT interval

Photosensitivity

Key counselling point: avoid direct exposure to sunlight or artificial UV rays (e.g. sunbed) during and immediately (48 hours) after treatment. **DISCONTINUE IMMEDIATELY** if photosensitivity occurs

Drug Interactions

Q: Does the patient take other medications?

If **YES**, check drug interactions on BNF, SPC or Stockleys (NOTE – drug interactions vary depending on the choice of fluoroquinolone).

Paediatrics – **CONFIRM** appropriateness (e.g. clinical letter or discussion with prescriber)

- Ciprofloxacin is licensed for use in children and adolescents but is not a first line agent and is limited to specialist use. Treatment should be initiated only after a careful benefit/risk evaluation, due to possible adverse events related to joints and/or surrounding tissue.
- Other fluoroquinolones are contraindicated in children and adolescents.

Pregnancy & Breast Feeding

Q: Is the patient pregnant or breast feeding?

If **YES**, contact prescriber and discuss for possible alternative as quinolones are not advised.

Administration Advice

- **All fluoroquinolones** - administer 1-2 hours before or at least 4 hours after preparations containing magnesium, aluminium, iron or antacids.
- **Ciprofloxacin** - administer calcium-containing supplements as per above advice. Avoid taking at the same time as dairy products (e.g. milk, yoghurt, calcium-fortified orange juice) as ciprofloxacin absorption may be reduced.