Moxifloxacin (Mfx)

DRUG CLASS: FLUOROQUINOLONE

Activity against TB, mechanism of action, and metabolism	**Bactericidal**; inhibits DNA gyrase; cross-resistance with other fluoroquinolones, but may be more active based on in vitro data.
Dose	**Adults:** 400 mg daily (oral or IV). **Children:** No established dose. **Renal failure/dialysis:** No dose adjustment required.
Route of administration	Oral or IV.
Preparation	Tablets (400 mg); aqueous solution (400 mg/250 ml) for IV injection.
Storage	Store oral and IV products at room temperature (15–25 °C). Do not refrigerate.
Oral absorption	Good oral absorption (90% bioavailable). Moxfloxacin is an anion and taking with divalent cations will result in bonding and not being absorbed: Administrate 2 hours before or 4 hours after ingestion of milk-based products, antacids, or other medications containing divalent cations (iron, magnesium, calcium, zinc, vitamins, didanosine, sucralfate).
CSF penetration	Good penetration in animal model studies.
Special circumstances	**Use during pregnancy/breastfeeding:** Fluoroquinolones are generally avoided during pregnancy and breastfeeding due to observation of arthropathy in animal models. However, there are a few case reports of fluoroquinolones being used safely during pregnancy. **Use in renal disease:** Excretion unchanged during renal failure; no data on effect of dialysis. **Use in hepatic disease:** Rarely associated with hepatotoxicity; use with caution. No dose adjustment required for mild or moderate liver disease.
Adverse reactions	Nausea and diarrhea. Headache and dizziness. Rare tendon rupture; arthralgias. Rare hepatotoxicity. QTc prolongation, hypo/hyperglycaemia.
Contraindications	Fluoroquinolone intolerance, prolonged QTc.
Monitoring	Symptomatic monitoring.

Patient instructions and alerting symptoms	Moxifloxacin can be taken with food, but do not take milk-based products, antacids (especially aluminum-coating), vitamin supplements, or sucralfate within 2 hours of this medication or 4 hours after. **Instruct patients to inform their health care provider right away if any of the following occurs:** • Pain, swelling or tearing of a tendon (such as the back of your ankle, elbow), or muscle or joint pain • Rashes, hives, bruising or blistering, trouble breathing, or tightness in the chest • Diarrhoea • Yellow skin or eyes • Anxiety, confusion or dizziness.