

CIPROFLOXACIN EYE DROPS

Trade Name	Ciprofloxacin Eye Drops (Teva) Ciloxan® (Novartis)
Class	Antibiotic (quinolone)
Mechanism of Action	Inhibits DNA-gyrase and relaxation of supercoiled DNA promoting breakage of double stranded DNA
Indications	Susceptible eye infections, resistant to other antibiotics
Contraindications	<p>Known family history of allergy to ciprofloxacin or other quinolone antibiotics.</p> <p>Use with caution:</p> <p>In neonates and children due to results of pre-clinical trials on animals that showed evidence of arthropathy of weight-bearing joints in immature animals.</p> <p>Quinolones may cause CNS stimulation, use with caution in patients with a history of epilepsy or seizures (quinolone antibiotics lower seizure threshold).</p> <p>In babies receiving phototherapy for jaundice as ciprofloxacin increases the light sensitivity of the skin.</p>
Supplied As	Ciprofloxacin eye drop solution 0.3% (=3mg/mL) 5mL
Dilution	Not usually required
Dosage ^{3,4}	<p>To be advised as per consultant</p> <p>Severe bacterial conjunctivitis First 48 hours: 1 drop every 2-4 hours in the affected eye Then if clinical improvement: 1 drop 6 hourly day 3-7.</p> <p>Bacterial Keratitis: First 24 hours: 1 drop every 15 minutes for the first 6 hours, then once every 30 minutes. From day 2: 1 drop every hour. From day 3 until healed: 1 drop every 4 hours.</p> <p><i>Note: NZFc recommends maximum duration of treatment = 21 days (to help prevent potential development of antimicrobial resistance)</i></p>
Interval	Frequency depends on severity of the infection -see dosage section
Administration	Instil ONE drop into the affected eye(s) by tilting the bottle and gently tapping the base of the dropper bottle. Then, carefully press on the inner corner of the eye to help block the tear duct and prevent systemic absorption of the ciprofloxacin

Compatible With	Do Not mix in the same container with any other types of eye drop.
Incompatible With	Do Not mix in the same container with any other types of eye drop.
Interactions	If the baby is prescribed other eye drops wait at least 5 minutes after administering ciprofloxacin before administering the next one.
Monitoring	Renal function, hepatic function, full blood count
Stability	Discard 4 weeks after opening
Storage	Store at room temperature, protect from light. Do not refrigerate or freeze
Adverse Reactions	<p>Ocular side effects include: unpleasant taste, burning, itching, corneal deposits; <i>less commonly</i> hyperaemia, dermatitis, photophobia, corneal infiltrates, keratitis, corneal staining, visual disturbances, lacrimation, foreign body sensation, lid margin crusting, oedema, eyelid exfoliation, eyelid erythema; <i>rarely</i> stye, corneal epithelium defect, hypoesthesia</p> <p>Systemic side effects are less likely but may include: Stomach upset, dark urine, rash, hypoglycaemia, arthralgias/tendonitis, photosensitivity reactions, thrombophlebitis, altered kidney function, pancreatitis, cardiac arrhythmias including QT prolongation.</p>
Metabolism	No data on ocular pharmacokinetics of ciprofloxacin in neonates
Comments	Excipients in both Teva and Novartis brands include: benzalkonium chloride, sodium acetate, acetic acid, mannitol, disodium edetate, hydrochloric acid/ sodium hydroxide buffers and purified water. Solution pH =4.5
References	<ol style="list-style-type: none"> 1. www.nzf.org.nz 2. www.medsafe.govt.nz. 3. https://www.micromedexsolutions.com/micromedex2/librarian/PFActionId/evidencexpert.GetNeofaxDrugMonograph?navitem=neofaxDrugMonographDocRetrieval&drugName=Ciprofloxacin&tabSelected=neonatal# 4. www.anmfonline.org
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