



NEONATAL

CIPROFLOXACIN




This document should be read in conjunction with this [DISCLAIMER](#)

Highly Restricted: Requires Microbiologist approval before commencing

Presentation	Infusion: 200mg/100mL = 2mg/mL Oral Suspension: 50mg/mL (prepared in Pharmacy)
Classification	Broad Spectrum quinolone antibiotic
Indication	Treatment of susceptible organisms, including <i>Pseudomonas aeruginosa</i>
Dose	<u>Treatment of susceptible organisms</u> IV/Oral: 10mg/kg/dose every 12 hours <u>Note:</u> Doses up to 20mg/kg/dose have been used to treat <i>Pseudomonas aeruginosa</i> <i>Consult Microbiology</i>
Monitoring	Full blood count, Hepatic markers, renal function Ensure adequate hydration prior to and during therapy to avoid crystalluria in long term therapy.
Dose Adjustment	Reduce dose in renal impairment
Compatible Fluids	Glucose 5%, Glucose 10%, Sodium Chloride 0.9%
Preparation	<u>IV Infusion:</u> Use undiluted at a concentration of 2mg/mL For infants with renal impairment consider a concentration reduction. Take 1mL (2mg) and make upto a final volume of 4mL Concentration = 2mg/4mL = <u>0.5mg/mL</u>

Preparation	<p>Oral: use solution prepared in Pharmacy</p> <p>If solution not available – prepare the following solution using ciprofloxacin 500mg tablets</p> <ul style="list-style-type: none"> • Dispense HALF a ciprofloxacin tablet (250mg) in 10mL of water. Tablet will disperse within 5 minutes • Concentration is 250mg/10mL = 25mg/mL • Discard any unused solution
Administration	<p>IV: Infuse over 60 minutes</p> <p>Oral: Ciprofloxacin should be given 2 hours before or 2 hours after feeds, iron or calcium intake. Iron, Calcium and Milk bind to ciprofloxacin in the GIT and can reduce its absorption. Separate administration times where possible.</p>
Adverse Reactions	<p>Common: rash diarrhoea, abdominal pain, raised liver enzymes</p> <p>Serious: Hypoglycaemia, blood dyscrasias, convulsions, photosensitivity, anaphylaxis, antibiotic associated colitis, raised liver enzymes, prolonged QT interval (very rare)</p>
Storage	<p>Vials: Store at room temperature. Protect from light.</p> <p>Oral Suspension: refrigerate – do not freeze</p>
Interactions	<p>Ciprofloxacin inhibits the metabolism of caffeine with potential increase in caffeine effects</p>
Notes	<p>Ensure adequate hydration and avoid alkaline urine (increased risk of crystalluria)</p> <p>May cause burning, pain, redness and swelling at the infusion site especially if the infusion is given over less than 1 hour</p>
References	<p>Society of Hospital Pharmacists of Australia. Ciprofloxacin. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2019 [cited 2019 Aug13]. Available from: http://aidh.hcn.com.au</p> <p>Ainsworth SB. Neonatal formulary 7: drug use in pregnancy and the first year of life. Seventh ed. Chichester (West Sussex): John Wiley & Sons Inc.; 2015. 631 p.156</p>

	<p>Phelps SJ, Hageman TM, Lee KR, Thompson AJ. Pediatric injectable drugs : the teddy bear book. Tenth ed. Bethesda (Maryland): American Society of Health-System Pharmacists; 2013. 796 p152.</p> <p>Takemoto CK, Hodding JH, Kraus DM. Pediatric & neonatal dosage handbook with international trade names index : a universal resource for clinicians treating pediatric and neonatal patients. 24th ed. Hudson (Ohio): Lexicomp; 2401. 2, p. 437-442</p> <p>Ciprofloxacin. In British national formulary for children Joint Formulary Committee (September 2018-19) <i>BNF 74: September 2018-19</i>. London: Pharmaceutical Press</p>
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