



NEONATAL

ERYTHROMYCIN

(ANTIMICROBIAL)

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




Highly Restricted (IV): Requires consultant approval before commencing

Unrestricted (Oral): Any prescriber may initiate treatment as per guideline

Presentation	Oral suspension : 400mg/5mL Vial: 1g powder for reconstitution														
Classification	Broad spectrum macrolide antimicrobial agent														
Indication	For the treatment of susceptible organisms <ul style="list-style-type: none"> • Chlamydia trachomatis • Mycoplasma • Ureaplasma 														
Precautions	Erythromycin is associated with infantile hypertrophic pyloric stenosis in neonates, especially those aged <2 weeks; the risk appears to be less with azithromycin.														
Dose	IV/Oral: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Postnatal Age</th> <th>Dose</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>≤7 days</td> <td>10mg/kg</td> <td>Every 12 hours</td> </tr> <tr> <td>8-28 days</td> <td>10mg/kg</td> <td>Every 8 hours</td> </tr> <tr> <td>≥29 days</td> <td>10mg/kg</td> <td>Every 6 hours</td> </tr> </tbody> </table>			Postnatal Age	Dose	Frequency	≤7 days	10mg/kg	Every 12 hours	8-28 days	10mg/kg	Every 8 hours	≥29 days	10mg/kg	Every 6 hours
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≥29 days	10mg/kg	Every 6 hours													
Monitoring	Liver function tests, bowel motion frequency, diarrhoea IV use: monitor blood pressure and heart rate Observe IV site for signs of infiltration and extravasation														
Dose Adjustment	Reduce dose in severe renal impairment														
Guidelines & Resources	Sepsis Calculator														

Compatible Fluids	Sodium Chloride 0.9%
Preparation	<p><u>IV Infusion:</u></p> <p><i>Step 1: Reconstitution</i> Add 20 mL of Water for Injections to 1g vial Concentration is $1000\text{mg}/20\text{mL} = \underline{50\text{mg/mL}}$</p> <p><i>Step 2: Dilution</i> Take 1 mL (50mg) of the above solution and dilute to 50mL with Sodium Chloride 0.9% Concentration is $50\text{mg}/50\text{mL}$ <u>Final concentration = 1mg/mL</u></p> <p><u>Oral:</u> Add 77mL of Water for Irrigation, in small volumes and shake vigorously until no lumps are visible. <u>Final concentration is $400\text{mg}/5\text{mL} = 80\text{mg/mL}$</u></p> <p>For small oral doses the oral suspension may be further diluted Take 0.5mL (40mg) and dilute to 4mL with water for irrigation Concentration is $40\text{mg}/4\text{mL} = \underline{10\text{mg/mL}}$</p>
Administration	<p><u>IV Infusion:</u> Infuse over 20 – 60 minutes via syringe pump.</p> <p><u>Oral:</u> Shake well before use May be given at any time with regard to feeds.</p>
Adverse Reactions	<p>Common: Pain on injection, phlebitis, gastric irritation</p> <p>Infrequent: Bradycardia, hypotension</p> <p>Rare: Hypertrophic pyloric stenosis, prolongation of QT interval, caution with concomitant use of drugs that prolong QT interval</p>

Storage	<p>Vial: Store at room temperature - below 25 °C. Reconstituted solution: stable for 24 hours at room temperature</p> <p>Oral Mixture: Dry granules: Store at room temperature - below 25 °C Prepared suspension: Refrigerate at 2 to 8 °C, Do not freeze Discard 10 days after reconstitution</p>
Interactions	<p>Drugs that inhibit CYP3A4 may increase erythromycin concentration May increase serum levels of digoxin, theophylline, carbamazepine</p>
Notes	<p>Erythromycin administration may cause venous irritation and pain, dilute infusions are preferred where possible</p>
References	<p>Truven Health Analytics. Erythromycin. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2019 [cited 2019 Sep 6]. Available from: https://neofax.micromedexsolutions.com/</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, P751-754.</p> <p>Society of Hospital Pharmacists of Australia. Erythromycin. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2019 [cited 2019 Sep 6]. Available from: http://aidh.hcn.com.au</p> <p>Australian Medicines Handbook Children's Dosing Companion. Erythromycin. In: Australian Medicines Handbook [Internet]. Adelaide (South Australia): Australian Medicines Handbook; 2019 [cited 2019 Sep 6]. Available from: https://amhonline.amh.net.au/</p>

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