ERYTHROMYCIN

Read in conjunction with Disclaimer

IV - Formulary: Highly Restricted Requires consultant approval before commencing.	
Oral - Formulary: Unrestricted	
Presentation	**Oral suspension:** 400 mg/5 mL = **80 mg/mL** **Vial (powder for reconstitution):** 1 g = **1000 mg**
Classification	Broad spectrum macrolide antimicrobial agent
Indication	For the treatment of susceptible organisms such as: • *Chlamydia trachomatis* • *Mycoplasma* • *Ureaplasma*
Special Considerations	• **Erythromycin is associated with infantile hypertrophic pyloric stenosis in neonates, especially those aged less than 2 weeks**; the risk appears to be less with azithromycin. Use with caution. • QT interval prolongation and uncorrected hypokalaemia, hypomagnesemia, hypocalcaemia. • **Hepatic impairment:** Use cautiously, erythromycin may worsen impairment. • **Renal impairment:** Increased incidence of ototoxicity in patients with severe renal impairment has been reported.
Monitoring	• Liver function tests and regularly with prolonged use. • Bowel motion frequency, diarrhoea. • **IV use:** Monitor blood pressure and heart rate. • Observe IV site for signs of extravasation.
Compatibility	**Fluids:** Sodium chloride 0.9%, water for injection. **Y-site:** Aciclovir, amiodarone, calcium gluconate, cefotaxime, ceftriaxone, fluconazole, gentamicin, hydrocortisone sodium succinate, labetalol, meropenem, midazolam, morphine sulfate, tobramycin, vancomycin, zidovudine.
Incompatibility	**Fluids:** Glucose solutions. **Y-site:** Cefazolin, cefepime, dexamethasone, flucloxacillin, furosemide, ganciclovir, heparin sodium, linezolid, phenobarbital. ***This list is not exhaustive, contact pharmacy for more information.***
Interactions	• May increase serum levels of midazolam, digoxin, sildenafil, hydrocortisone. • Use with caution with other medications that may prolong QT interval: Hydroxychloroquine, fluconazole, sotalol.
Adverse Effects	**Common:** Pain on injection, phlebitis. **Infrequent:** Gastric irritation. **Rare:** Hypertrophic pyloric stenosis (see Special Considerations), prolongation of QT interval, bradycardia, hypotension, cholestatic hepatitis.

Storage & Stability	**Vial:** Store at room temperature, below 25ºC. **Oral suspension:** • *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.

ORAL

Presentation (for oral use)

Oral suspension: 400 mg/5 mL = **80 mg/mL**

Dosage

Postnatal Age	Dose	Frequency
Less than 7 days	10 mg/kg/dose	Every 12 hours
8 to 28 days	10 mg/kg/dose	Every 8 hours
29 days or older	10 mg/kg/dose	Every 6 hours

Note: Some references use doses up to 12.5 mg/kg/dose. References for preterm neonates are extremely limited; the above doses are based on information available for term neonates.

Dose Adjustment

Renal impairment: Increased incidence of ototoxicity in patients with severe renal impairment has been reported. Consider reducing dose in severe renal impairment.

Preparation

Oral suspension: 400 mg/5 mL = **80 mg/mL**

Step 1 Reconstitution:

- Add 77 mL of sterile water in small volumes to the erythromycin powder for suspension.
- Shake vigorously until no lumps are visible.

Concentration now equal to **80 mg/mL.**

For small oral doses, the above suspension may be further diluted.

Step 2 Dilution:

- Draw up 0.5 mL (40 mg) and make up to 4 mL total volume with sterile water.

Concentration now equal to **10 mg/mL.**

Administration

- Shake well before use.
- Draw prescribed dose into oral/enteral syringe.
- Can be given Oral/OGT/NGT.
- May be given anytime in relation to feeds.

INTRAVENOUS

Presentation (for IV use)	**Vial (powder for reconstitution):** 1 g = **1000 mg**
Dosage	<table><tr><th>Postnatal Age</th><th>Dose</th><th>Frequency</th></tr><tr><td>Less than 7 days</td><td>10 mg/kg/dose</td><td>Every 12 hours</td></tr><tr><td>8 to 28 days</td><td>10 mg/kg/dose</td><td>Every 8 hours</td></tr><tr><td>29 days or older</td><td>10 mg/kg/dose</td><td>Every 6 hours</td></tr></table> ***Note:*** Some references use doses up to 12.5 mg/kg/dose. References for preterm neonates are extremely limited; the above doses are based on information available for term neonates.
Dose Adjustment	**Renal impairment:** Increased incidence of ototoxicity in patients with severe renal impairment has been reported. Consider reducing dose in severe renal impairment.
Preparation	**Vial (powder for reconstitution):** 1 g = **1000 mg** **Step 1 Reconstitution:** • Add 20 mL of water for injection to the erythromycin vial. **Step 2 Dilution:** • Draw up 1 mL (50 mg) and make up to 50 mL total volume with sodium chloride 0.9%. *Concentration now equal to* **1 mg/mL**
Administration	**IV infusion:** • Infuse via syringe driver pump over at least 60 minutes. • IV erythromycin administration may cause venous irritation and pain.

Related Policies, Procedures, and Guidelines

Pharmaceutical and Medicines Management Guidelines:

CAHS Neonatology – Medication Administration Guideline

WNHS Cold Chain Management for Medications and Vaccines

CAHS Medication Refrigerators and Freezers

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	Std 4: Medication Safety				
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