ERYthromycin ethylsuccinate (Oral) 2021

Newborn use only

<table>
<tr><td>Alert</td><td>Risk of infantile hypertrophic pyloric stenosis is significantly higher in neonates treated with erythromycin.[16]</td></tr>
<tr><td>Indication</td><td>1. Pertussis – post-exposure prophylaxis and treatment (azithromycin is recommended).
2. Chlamydial conjunctivitis and pneumonia
3. Treatment of other susceptible bacterial infections in penicillin-allergic infants
4. Prokinetic agent for gastrointestinal dysmotility (routine use not recommended)</td></tr>
<tr><td>Action</td><td>Inhibits protein synthesis by attaching to the 50S subunit of the bacterial ribosome in susceptible organisms.
Motilin receptor agonist.</td></tr>
<tr><td>Drug type</td><td>Macrolide antibiotic.</td></tr>
<tr><td>Trade name</td><td>E-Mycin Syrup, EES Granules</td></tr>
<tr><td>Presentation</td><td>200 mg/5 mL suspension (granules for reconstitution)
400 mg/5 mL suspension (granules for reconstitution)</td></tr>
<tr><td>Dose</td><td>Pertussis – post-exposure prophylaxis and treatment[1] Use erythromycin only if azithromycin is not available.

Chlamydia infection (conjunctivitis, pneumonia)[2]

Non-chlamydial, susceptible bacterial infection in penicillin-allergic infants[3]
<table>
<tr><th>Condition</th><th>Postnatal age</th><th>Weight</th><th>Dose mg/kg/dose</th><th>Frequency</th><th>Duration</th></tr>
<tr><td>Pertussis</td><td></td><td></td><td>10</td><td>6 hourly</td><td>5-14 days
(14 days preferred)</td></tr>
<tr><td>Chlamydia infection</td><td></td><td></td><td>12.5</td><td>6 hourly</td><td>14 days</td></tr>
<tr><td rowspan="4">Non-chlamydial infection</td><td>≤14 days</td><td><1 kg</td><td>10</td><td>12 hourly</td><td></td></tr>
<tr><td>>14 days</td><td>< 1kg</td><td>10</td><td>8 hourly</td><td></td></tr>
<tr><td>≤7 days</td><td>≥1 kg</td><td>10</td><td>12 hourly</td><td></td></tr>
<tr><td>>7 days</td><td>≥1 kg</td><td>10</td><td>8 hourly</td><td></td></tr>
</table>
Prokinetic dose for gastrointestinal dysmotility:[9,10,11,12,18,19] Routine use not recommended as inconsistent evidence for its efficacy and safety
<table>
<tr><th>Condition</th><th>Dose</th><th>Frequency</th><th>Duration</th></tr>
<tr><td>Gastrointestinal dysmotility</td><td></td><td></td><td></td></tr>
<tr><td>Low dose option one[10]</td><td>2.5 mg/kg/dose</td><td>6-hourly</td><td>up to 10 days</td></tr>
<tr><td>Low dose option two[11]</td><td>5 mg/kg/dose</td><td>8-hourly</td><td>7–14 days</td></tr>
<tr><td>High dose[12]</td><td>10–12.5 mg/kg/dose</td><td>6-hourly</td><td>7–14 days</td></tr>
</table></td></tr>
<tr><td>Dose adjustment</td><td></td></tr>
<tr><td>Maximum dose</td><td></td></tr>
<tr><td>Total cumulative dose</td><td></td></tr>
<tr><td>Route</td><td>Oral</td></tr>
<tr><td>Preparation</td><td>Add 77 mL of sterile water to granules in small volumes and shake vigorously until no lumps are visible.
Suspension expires 10 days after reconstitution.</td></tr>
<tr><td>Administration</td><td>Oral, preferably with feeds.[15]
For prokinetic effect administered 30 minutes prior to feed.</td></tr>
<tr><td>Monitoring</td><td>Liver function.</td></tr>
<tr><td>Contraindications</td><td>Hypersensitivity to erythromycin or any component of the product.
Concomitant therapy with pimozide, cisapride, ergotamine or dihydroergotamine, terfenadine, astemizole, lovastatin or simvastatin.</td></tr>
<tr><td>Precautions</td><td>Use with caution in hepatic impairment.
QT interval prolongation.
Uncorrected hypokalaemia, hypomagnesemia.
Class 1A and Class 3 antiarrhythmic agents.</td></tr>
</table>

Drug interactions	QT interval prolonging drugs: Cisapride, fluconazole, octreotide, cotrimoxazole, verapamil, Class 1A and Class 3 antiarrhythmic agents. Drugs that may increase toxicity of erythromycin: Ketoconazole. Drugs that may reduce erythromycin plasma concentration: Carbamazepine, theophylline. Erythromycin may increase plasma concentrations of following drugs: Carbamazepine, digoxin, theophylline, warfarin, midazolam.
Adverse reactions	Infantile hypertrophic pyloric stenosis (IHPS): Risk of developing IHPS following erythromycin exposure is 0.4 % (95% CI 0.3–0.5%) in those receiving erythromycin at any time and 2.6 % (95% CI 1.5–4.2%) in those receiving erythromycin in the first 14 days.[16] COMMON: Nausea, vomiting and abdominal pain. The incidence of GI reactions may vary with the erythromycin salt preparation and/or dosing regimen. Diarrhoea may occur due to increased gastrointestinal motility caused by erythromycin. LESS FREQUENT OR RARE: Pancreatitis, pyloric stenosis, ileus, pseudomembranous colitis, sensorineural hearing loss, cholestasis, acute hepatitis, hepatic failure, agranulocytosis, thrombocytopenia, haemolytic anaemia, hypothermia, hypovolaemic shock and hypotension, leukocytoclastic vasculitis, acute respiratory distress following an allergic reaction, Schonlein-Henoch syndrome, candidal esophagitis, gingival hyperplasia, contact dermatitis, fixed drug eruptions, toxic pustuloderma, toxic epidermal necrolysis, interstitial nephritis, glomerulonephritis.
Compatibility	Not applicable
Incompatibility	Not applicable
Stability	After reconstituting granules, refrigerate and use within 10 days.
Storage	Store granules below 25°C. Reconstituted suspension should be refrigerated at 2–8°C and used within 10 days; do not freeze.
Excipients	
Special comments	Readily absorbed. Hepatic metabolism by cytochrome P450 enzymes.
Evidence	Refer to full version.
Practice points	Refer to full version.
References	Refer to full version.

VERSION/NUMBER	**DATE**
Original 1.0	**20/06/2018**
Current 2.0	**5/01/2021**
REVIEW	5/01/2026

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