South Australian Neonatal Medication Guidelines

erythromycin

1g injection, 40mg/mL oral mixture

© Department of Health, Government of South Australia. All rights reserved

Note

This guideline provides advice of a general nature. This statewide guideline has been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. The guideline is based on a review of published evidence and expert opinion. Information in this statewide guideline is current at the time of publication.

SA Health does not accept responsibility for the quality or accuracy of material on websites linked from this site and does not sponsor, approve or endorse materials on such links.

Health practitioners in the South Australian public health sector are expected to review specific details of each patient and professionally assess the applicability of the relevant guideline to that clinical situation.

If for good clinical reasons, a decision is made to depart from the guideline, the responsible clinician must document in the patient’s medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

This statewide guideline does not address all the elements of clinical practice and assumes that the individual clinicians are responsible for discussing care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes:

• The use of interpreter services where necessary,
• Advising consumers of their choice and ensuring informed consent is obtained,
• Providing care within scope of practice, meeting all legislative requirements and maintaining standards of professional conduct, and
• Documenting all care in accordance with mandatory and local requirements
Dose and Indications

**Infection due to susceptible organisms**

**Intravenous, Oral**

10mg/kg/dose every six hours

Length of treatment should be guided by pathology and clinical picture.

**Gut dysmotility**

**Oral**

5mg/kg/dose every six to eight hours

Preparation and Administration

**Intravenous**

There are **TWO STEPS** to this process.

**STEP ONE:** Add 20mL of water for injection to the erythromycin 1g vial and shake gently to dissolve. The resulting solution contains 50mg/mL erythromycin.

**STEP TWO:** Further dilute 1mL of the 50mg/mL erythromycin solution with 9mL of sodium chloride 0.9% (to a total volume of 10mL). The resulting solution contains 5mg/mL erythromycin.

<table>
<thead>
<tr>
<th>Dose</th>
<th>5mg</th>
<th>10mg</th>
<th>20mg</th>
<th>30mg</th>
<th>40mg</th>
<th>50mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume</td>
<td>1mL</td>
<td>2mL</td>
<td>4mL</td>
<td>6mL</td>
<td>8mL</td>
<td>10mL</td>
</tr>
</tbody>
</table>

Infuse over at least 60 minutes

Flush with sodium chloride if glucose in line (erythromycin is incompatible with glucose)

**Oral**

There are various brands available refer to product information for reconstitution volume. The resulting solution after reconstitution contains 40mg/mL erythromycin.

<table>
<thead>
<tr>
<th>Dose</th>
<th>5mg</th>
<th>10mg</th>
<th>20mg</th>
<th>30mg</th>
<th>40mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume</td>
<td>0.13mL</td>
<td>0.25mL</td>
<td>0.5mL</td>
<td>0.75mL</td>
<td>1mL</td>
</tr>
</tbody>
</table>

Give with feeds to minimise gastrointestinal irritation.

The reconstituted solution is usually stable for 10 days stored under refrigeration; however this may change according to brand available. Please consult product information.
erythromycin
1g injection, 40mg/mL oral mixture

Compatible Fluids
Sodium chloride 0.9%

Adverse Effects

Common
Thrombophlebitis (intravenous), vomiting, diarrhoea, infantile hypertrophic pyloric stenosis (see below) and Candida infections

Infrequent
Transient deafness (intravenous), torsades de pointes (intravenous), prolonged QT interval

Rare
Cholestatics, myasthenia-like syndrome, blood dyscrasias

There have been reports of infantile hypertrophic pyloric stenosis in neonates receiving erythromycin for pertussis prophylaxis. The risk is increased with increasing length of treatment; no increased risk in infants receiving erythromycin after 2 weeks of age.

Monitoring

- Heart rate and blood pressure during intravenous administration
- Periodic full blood count and liver function

Practice Points

- AzITHROMYCIN is the preferred macrolide for treatment for susceptible infections in infants < 1 month
- Erythromycin has been associated with increased prevalence of pyloric stenosis
- Erythromycin prolongs the QT interval. Avoid use with other agents that prolong the QT interval
- Current clinical data indicate that the use of erythromycin for gut dysmotility should be reserved for only a very small subset of high risk preterm neonates with persistent or severe feed intolerance while limiting the duration of exposure and ensuring long term follow up. Side effects appear to limit use of erythromycin beyond 1 month.

Version control and change history

PDS reference: OCE use only

<table>
<thead>
<tr>
<th>Version</th>
<th>Date from</th>
<th>Date to</th>
<th>Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>November 2012</td>
<td>current</td>
<td>Original version</td>
</tr>
</tbody>
</table>

ISBN number: 978-1-74243-394-3
Endorsed by: South Australian Maternal & Neonatal Clinical Network
Last Revised: 06/11/2012
Contact: South Australian Neonatal Medication Guidelines Workgroup at: NeoMed@health.sa.gov.au

Page 3 of 3
Policy

Clinical Guideline
South Australian Neonatal Medication Guidelines – erythromycin 1g injection, 40mg/mL oral mixture

Policy developed by: SA Maternal & Neonatal Clinical Network
Approved SA Health Safety & Quality Strategic Governance Committee on: November 2012
Next review due: November 2015

Summary
Medication guideline for the management of the neonate requiring erythromycin

Keywords
erythromycin, thrombophlebitis, vomiting, diarrhoea, pyloric stenosis, candida, deafness, torsades de pointes, cholestasis, QT interval

Policy history
Is this a new policy? Y
Does this policy amend or update an existing policy? N
Does this policy replace an existing policy? N
If so, which policies?

Applies to
All SA Health Portfolio
All Department for Health and Ageing Divisions
All Health Networks
CALHN, SALHN, NALHN, CHSALHN, WCHN, SAAS
Other

Staff impact
All Clinical, Medical, Nursing, Allied Health, Emergency, Dental, Mental Health, Pathology

PDS reference
OCE use only

Version control and change history

<table>
<thead>
<tr>
<th>Version</th>
<th>Date from</th>
<th>Date to</th>
<th>Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>November 2012</td>
<td>current</td>
<td>Original version</td>
</tr>
</tbody>
</table>