Ranitidine
25mg/mL and 10mg/mL injection, 15mg/mL oral mixture, 150mg dispersible tablet

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.

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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

Treatment of gastric or duodenal ulcers, upper gastrointestinal bleeding and gastro-oesophageal reflux

Intravenous

<table>
<thead>
<tr>
<th>Corrected Age (weeks)</th>
<th>Dose and Frequency (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Gestational Age PLUS Postnatal Age]</td>
<td></td>
</tr>
<tr>
<td>&lt; 37 weeks</td>
<td>0.5mg/kg per dose every 12 hours</td>
</tr>
<tr>
<td>≥ 37 weeks</td>
<td>1mg/kg per dose every 8 hours</td>
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</table>

Oral

2 to 3 mg/kg per dose every twelve hours. Maximum of 6mg/kg/day
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Preparation and Administration

**Intravenous**

⚠️ **CAUTION:** There are two vial concentrations available.

**If using 10mg/mL** ranitidine injection, dilute 2.5mL of the 10mg/mL ranitidine solution with 7.5mL of compatible fluid (to a total volume of 10mL). The resulting solution contains 2.5mg/mL ranitidine.

**If using 25mg/mL** ranitidine injection, dilute 1mL of the 25mg/mL ranitidine solution with 9mL of compatible fluid (to a total volume of 10mL). The resulting solution contains 2.5mg/mL ranitidine.

<table>
<thead>
<tr>
<th>Dose</th>
<th>0.25mg</th>
<th>0.5mg</th>
<th>1mg</th>
<th>2mg</th>
<th>3mg</th>
<th>4mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume</td>
<td>0.1mL</td>
<td>0.2mL</td>
<td>0.4mL</td>
<td>0.8mL</td>
<td>1.2mL</td>
<td>1.6mL</td>
</tr>
</tbody>
</table>

Administer as a slow intravenous injection over at least 5 minutes

**Oral Mixture**

The oral mixture contains 15mg/mL ranitidine.

<table>
<thead>
<tr>
<th>Dose</th>
<th>1.5mg</th>
<th>3mg</th>
<th>4.5mg</th>
<th>6mg</th>
<th>7.5mg</th>
<th>9mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume</td>
<td>0.1mL</td>
<td>0.2mL</td>
<td>0.3mL</td>
<td>0.4mL</td>
<td>0.5mL</td>
<td>0.6mL</td>
</tr>
</tbody>
</table>

**Oral Dispersible Tablets**

Disperse one ranitidine dispersible tablet (150mg) in 10mL of water, allow 10 minutes. The resulting solution contains 15mg/mL ranitidine.

<table>
<thead>
<tr>
<th>Dose</th>
<th>1.5mg</th>
<th>3mg</th>
<th>4.5mg</th>
<th>6mg</th>
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<th>9mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume</td>
<td>0.1mL</td>
<td>0.2mL</td>
<td>0.3mL</td>
<td>0.4mL</td>
<td>0.5mL</td>
<td>0.6mL</td>
</tr>
</tbody>
</table>

Once prepared this solution is stable for 24 hours. Refrigerate after preparation.

**Compatible Fluids**

Glucose 5%, glucose 10%, sodium chloride 0.9%, sodium chloride/glucose solutions
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Adverse Effects

**Infrequent**
Bradyarrhythmia (following rapid intravenous administration), hypotension

**Rare**
Increased risk of late onset sepsis (preterm infants) diarrhoea, constipation, rash, thrombocytopenia, agranulocytosis, leucopenia, hepatitis, vasculitis, hypersensitivity reactions

Monitoring

- Periodic full blood count and liver function tests recommended with long term treatment.
- Gastric pH may be measured to assess efficacy.

Practice Points

- Oral liquid contains 7.4% ethanol.
- Oral absorption in neonates is unreliable; higher doses may be required.
- Elimination half life may be prolonged in renal or hepatic insufficiency.
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Document Ownership & History
Developed by: SA Maternal, Neonatal & Gynaecology Community of Practice
Contact: Health.NeoMed@sa.gov.au
Endorsed by: SA Health Safety and Quality Strategic Governance Committee
Next review due: 12/08/2019
PDS reference: CG164
Policy history:
Does this a new policy (V1)? N
Does this policy amend or update and existing policy? Y
If so, which version? V3
Does this policy replace another policy with a different title? N
If so, which policy (title)?

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<td>9/03/2018</td>
<td>V3.1</td>
<td>SA Health Safety and Quality Strategic Governance Committee</td>
<td>Review date extended to 5 years following risk assessment. New Template.</td>
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<td>12/8/14</td>
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<td>SA Health Safety and Quality Strategic Governance Committee</td>
<td>Minor review</td>
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<td>17/6/14</td>
<td>V2</td>
<td>SA Health Safety and Quality Strategic Governance Committee</td>
<td>Formally reviewed in line with 3 year scheduled timeline for review.</td>
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