South Australian Neonatal Medication Guidelines

Ferrous sulfate
6mg/mL elemental iron oral mixture (Ferro-liquid®)

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.

Synonyms
Iron

Dose and Indications
Dose should be prescribed in milligrams of elemental iron OR mL of Ferro-liquid®

Formulas and milk fortifiers contain iron and this should be taken into account when considering whether a patient requires supplemental iron to meet their recommended daily intake (e.g. preterm infant recommended nutrient intake 2-3mg/kg/day1). Whenever a formula or fortifier is changed or ceased the need for supplemental iron should be reassessed. Please refer to ‘Nutritional delivery comparison tables: Preterm Infants’ Neonatal Medication Guideline available at www.sahealth.sa.gov.au/neonatal.

Prevention of iron deficiency anaemia in preterm infants < 2000g at birth or < 34 weeks gestation

Oral

<table>
<thead>
<tr>
<th>Weight</th>
<th>Dose</th>
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<tbody>
<tr>
<td>≤1.5kg</td>
<td>3mg (0.5mL) elemental iron /day</td>
</tr>
<tr>
<td>&gt;1.5kg to ≤3kg</td>
<td>6mg (1mL) elemental iron /day</td>
</tr>
<tr>
<td>&gt;3kg</td>
<td>9mg (1.5mL) elemental iron /day</td>
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</table>

Commence at 4 weeks postnatal age or when tolerating full feeds (whichever is later)

Treatment of iron deficiency

Oral
3mg to 6mg/kg daily
In conjunction with erythropoietin therapy

**Oral**

6mg/kg daily
Commence at 2 weeks postnatal age or when tolerating full feeds (whichever is later)

**Preparation and Administration**

**Oral**

The oral mixture contains 6mg/mL elemental iron.

<table>
<thead>
<tr>
<th>Dose</th>
<th>3mg</th>
<th>6mg</th>
<th>9mg</th>
<th>12mg</th>
<th>15mg</th>
<th>18mg</th>
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<tbody>
<tr>
<td>Volume</td>
<td>0.5mL</td>
<td>1mL</td>
<td>1.5mL</td>
<td>2mL</td>
<td>2.5mL</td>
<td>3mL</td>
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</table>

Best given on an empty stomach to optimise absorption; however may be given with or after feeds to minimise gastro-intestinal side effects

**Adverse Effects**

**Common**
Abdominal pain, vomiting, constipation, diarrhoea (all dose-related), black discolouration of faeces

**Rare**
Gastro-intestinal erosion (with high doses)

**Monitoring**

> Periodic full blood count and serum ferritin if treating iron deficiency anaemia

**Practice Points**

> If breastfed, continue on this dose until 6 months of corrected age
> If formula fed, continue on this dose until 3 months of corrected age
> Contraindications:
  - anaemia not due to iron deficiency
  - haemochromatosis
  - haemosiderosis
> The administration of an iron supplement can precipitate a haemolytic crisis in vitamin E deficient neonates
> Patients with transfusion dependant anaemia run the risk of iron overload: avoid iron supplementation
> Gastro-intestinal disease may be exacerbated by oral intake of iron.
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References

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: 12/02/2024
ISBN number: 978-1-76083-056-4
PDS reference: CG289
Policy history:
- Is this a new policy (V1)? N
- Does this policy amend or update and existing policy? Y
- If so, which version? V1.1
- Does this policy replace another policy with a different title? N
- If so, which policy (title)?

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<td>V2</td>
<td>SA Health Safety and Quality Strategic Governance Committee</td>
<td>Formally reviewed in line with 1-5 year scheduled timeline for review.</td>
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