**FERROUS SULFATE**

### Indication
- Infants born at less than 32 weeks gestation\(^1\) OR with birthweight less than 1800g\(^2\), AND who are predominantly fed unfortified breastmilk OR term infant formula
- Iron supplement for treatment/prevention of:
  - Iron deficiency\(^3\)
  - Iron deficiency anaemia\(^3\)
  - Anaemia of prematurity\(^4\)

### Presentation
- Oral solution: 30 mg in 1 mL (equivalent elemental iron 6 mg in 1 mL)

### Dosage
- 2–3 mg/kg/day of elemental iron\(^1,2,5,6\)
  - Refer to Quick guide below

### Preparation
- Nil required

### Administration
- Draw up prescribed dose in an enteral/oral syringe
- Oral, NGT/OGT
- To enhance absorption administer separate from milk feeds\(^7\)
- May be given in 1 or 2 divided doses\(^1\)

### Special considerations
- Document prescribed dose of elemental iron in mg/kg/day
- Recommended from 14 days of age\(^2,5\) if feed volume of 120 mL/kg/day tolerated
- At discharge, consider continuation of 6 mg (1 mL) daily until 6–12 months corrected age (or solids introduced)\(^2\)
- May require higher dosage if:
  - Birthweight less than 1 kg (4 mg/kg/day)\(^8\)
  - Receiving erythropoietin (6 mg/kg/day)\(^2,8,9\)
  - Iron deficiency anaemia (3–6 mg/kg/day)\(^1\)
- For low birth weight infants tolerating 160 mL/kg/day of oral feeds:
  - Iron fortified preterm formula and breast milk fortified with human milk fortifier supplies recommended daily requirement
  - Term infant formula is insufficient to meet the daily requirement
- Excessive iron supplementation can increase infection risk, inhibit growth, disturb the absorption of other minerals, and potentially increase the risk of free oxygen radical formation and ROP

### Monitoring
- For constipation
- Iron studies as indicated

### Compatibility
- Nil known

### Incompatibility
- Nil known

### Interactions
- Food can decrease absorption of iron\(^10\)

### Stability
- Store below 25 °C\(^11\). Protect from light
- Discard 4 weeks after opening

### Side effects
- Digestive: laxative effect, diarrhoea, gastro-intestinal irritation, constipation, black stool\(^7\)

### Actions
- Stored as ferritin and hemosiderin for future use in the production of haemoglobin\(^10\)

### Abbreviations
- NGT: nasogastric tube, OGT: oral gastric tube, ROP: retinopathy of prematurity

### Keywords
- Ferrous Sulfate, ferro-liquid, iron, anaemia, anaemia of prematurity, iron deficiency, ferrous sulfate heptahydrate

### Quick guide: elemental iron (6 mg/mL) oral

<table>
<thead>
<tr>
<th>Elemental iron dosage 2–3 mg/kg/day</th>
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<tbody>
<tr>
<td><strong>Use the oral solution of elemental iron 6 mg/mL</strong></td>
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<tr>
<td><strong>Volume to administer</strong></td>
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</tbody>
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The Queensland Clinical Guideline *Neonatal Medicines* is integral to and should be read in conjunction with this monograph. Refer to the disclaimer. Destroy all printed copies of this monograph after use.

**References**


**Document history**

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<th>ID number</th>
<th>Effective</th>
<th>Review</th>
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<tr>
<td>NMedQ20.036-V1-R25</td>
<td>01/03/2020</td>
<td>01/03/2025</td>
<td>Endorsed by Queensland Neonatal Services Advisory Group (QNSAG)</td>
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