Ferrous sulfate

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

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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/day[1]). 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

Weight	Dose
≤1.5kg	3mg (0.5mL) elemental iron /day
>1.5kg to ≤3kg	6mg (1mL) elemental iron /day
>3kg	9mg (1.5mL) elemental iron /day

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

Treatment of iron deficiency

Oral

3mg to 6mg/kg daily

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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.

Dose	3mg	6mg	9mg	12mg	15mg	18mg
Volume	0.5mL	1mL	1.5mL	2mL	2.5mL	3mL

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.

References

1. Koletzko B, Poindexter B, Uauy R. Recommended Nutrient Intake Levels for Stable, Fully Enterally Fed Very Low BirthWeight Infants, Nutritional Care of Preterm Infants; Scientific Basis and Practical Guidelines, Karger, 2014, vol 110, pp 297-299

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09/03/18	V1.1	SA Health Safety and Quality Strategic Governance Committee	Review date extended to 5 years following risk assessment. New Template.
13/08/13	V1	SA Maternal & Neonatal Clinical Network	Original SA Maternal & Neonatal Clinical Network approved version.