

Neonatal Drug Guideline

FERROUS SULFATE (IRON)

DESCRIPTION AND INDICATION FOR USE

Healthy term newborns iron stores are usually laid down during the third trimester; preterm infants therefore have reduced accretion of iron.

Iron salts are compounds used primarily for the prophylaxis and treatment of iron deficiency anaemia. The body stores iron in ferritin and hemosiderin for future use in the production of haemoglobin. Haemoglobin is a protein that contains iron and is essential for transporting oxygen around the body. Iron supplementation replenishes iron stores and helps increase haemoglobin levels. The ferrous form of iron is more readily absorbed.

DOSE

NOTE: Doses are to be prescribed as milligram (mg) of elemental iron or mL of Ferro-liquid®

PROPHYLAXIS – Prevention of iron deficiency anaemia in pre-term infants

Commence in all infants with a **gestational age less than 34 weeks AND/OR birth weight less than 2 kg**, on day 14 of life or when tolerating full enteral feeds (whichever is later).

ORAL/NGT:

Current Weight	Prophylactic Dose *NOTE – dose is NOT per kg*
Less than 2 kg	0.5 mL (3 mg) elemental iron ONCE daily Increase dose to 1 mL daily when current weight reaches 2 kg, as below
2 kg and over	1 mL (6 mg) elemental iron ONCE daily

Exceptions:

Neonates on preterm formula or Human Milk Fortifier (HMF) do NOT require additional iron supplementation, as these preparations both contain adequate iron. Refer to table below.

Whenever a formula feed or HMF is changed or ceased the need for supplemental iron should be reassessed.

Feeding method:	EBM Only/ Term Formula	EBM+HMF/ Preterm Formula
	Supplement as per prophylactic dosing	Iron supplement not required

TREATMENT OF IRON DEFICIENCY

ORAL/NGT:

3 mg/kg (0.5 mL/kg) elemental iron 12 hourly

PREPARATION

Oral liquid (Ferro-liquid® = ferrous sulfate) contains 6 mg/mL elemental iron

ADMINISTRATION

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

SIDE EFFECTS

- Abdominal pain, vomiting, constipation, black discolouration of stools
- Gastro-intestinal erosion with high doses (rare)

NURSING RESPONSIBILITIES

- Observations/Monitoring:
 - Risks of excessive iron supplementation exist therefore care should be taken with dosage and periodic full blood count and serum ferritin should be monitored if treating iron deficiency anaemia
- For prophylaxis, continue iron supplementation until infant is commenced on and tolerating solids (around 6 months of age) if breastfeeding, or until 3 months of age if formula fed