

Indication	<p>1. Prevention of iron-deficiency anaemia in infants at risk of reduced body stores</p> <ul style="list-style-type: none"> -Preterm infants <1800g -Term infants 1800-2500g -Ex-preterm infants not tolerating feeds of 180 mL/kg/day with iron containing fortifier or formula -When ceasing iron containing fortifier or formula prior to discharge <p>2. Treatment of iron deficiency anaemia</p>
Action	Iron is needed for the production of haemoglobin and certain iron-containing enzymes. Ferrous sulphate corrects iron deficiency by re-saturating iron storage organs.
Drug Type	Iron supplement
Trade Name	Ferro-Liquid
Dosage / Interval	<p>Recommended daily intake for preterm infants: 2-3 mg/kg/day</p> <p>Prophylaxis for anaemia: 2 mg/kg of elemental iron daily. To commence at 2-6 weeks of age (2-4 weeks of age in extremely low-birthweight infants)</p> <p>Treatment: 2 mg/kg of elemental iron 12 hourly.</p>
Maximum daily dose	<p>15 mg daily INDEPENDENT OF WEIGHT</p> <p>Prophylaxis: 2-3 mg/kg/day of elemental iron. Commence only when on full feeds in hospital or prior to discharge when fortification is stopped or preterm formula changed to term formula. Delay in infants with multiple transfusions and increased Serum Ferritin levels (>350 microgram/L) or have received a transfusion in last 2 weeks. Prophylaxis dose >5 mg/kg/day should be avoided in preterm infants because of possible risk of retinopathy of prematurity</p> <p>Treatment: Can commence on 3 mg/kg/day of elemental iron and may need to go up to 6 mg/kg/day in iron deficiency anaemia or on erythropoietin. It is suggested to undertake iron studies to titrate the dose.</p>
Total cumulative dose	Doses >5 mg/kg/day should be avoided in preterm infants because of possible risk of retinopathy of prematurity
Presentation	Ferrous sulphate liquid: 150 mg ferrous sulfate /5 mL equivalent to 30 mg elemental iron /5 mL=6 mg/mL of elemental iron
Route	Oral
Administration	Oral or intragastric tube
Monitoring	<p>Periodic haemoglobin and reticulocyte count during therapy. Can take 2 weeks for haemoglobin concentrations to rise.</p> <p>Regular serum ferritin if treating iron deficiency anaemia.</p>
Contraindications	Haemolytic anaemia, haemochromatosis, haemosiderosis
Precautions	<p>Excessive iron supplementation can lead to increased risk of infection, poor growth and disturbed absorption or metabolism of other minerals.</p> <p>Being a potent pro oxidant, non-protein bound iron can cause free oxygen radicals and increase risk of retinopathy of prematurity, especially when given in high doses as a component of blood transfusions or as adjunct to erythropoietin therapy.</p> <p>Risk of iron induced haemolysis in preterm infants with Vitamin E deficiency is more in first 6 weeks.</p>
Drug interaction	Zinc supplementation does not impede iron absorption. There is no effect of iron supplementation on zinc or selenium absorption. Iron absorption from fortified milk is intact in spite of its high calcium content.
Adverse Reactions	<p>GI irritation: epigastric pain, diarrhoea, constipation, dark stools (green or black), erosion of gastric mucosa</p> <p>Increased RBC haemolysis and haemolytic anaemia in premature infants with low vitamin E levels</p> <p>Rickets - with large doses of iron over a prolonged period of time.</p> <p>Acute toxicity - more severe GI effects including haematemesis and malaena, lethargy, pallor, cyanosis and shock</p>

Compatibility	Can be administered with Penta-vite.																																																																				
Stability	Solution may be used up to one month after opening (document date of opening on label).																																																																				
Storage	Store below 25°C. Protect from light																																																																				
Special comments	Infants on erythropoietin or infants with uncompensated blood loss may initially need higher doses and could be receiving iron supplementation in addition to preterm formula or fortified human milk.																																																																				
	<p>Iron content in common Fortifiers and Formulas at various mL/kg/day:</p> <table border="1"> <thead> <tr> <th></th> <th colspan="3">Iron content</th> </tr> <tr> <th></th> <th>140 mL/kg/day</th> <th>160 mL/kg/day</th> <th>180 mL/kg/day</th> </tr> </thead> <tbody> <tr> <td>S-26 Premgro</td> <td>1.68 mg/kg/day</td> <td>1.92mg/kg/day</td> <td>2.16mg/kg/day</td> </tr> <tr> <td>Nan ProGold/ Nan Supreme 1</td> <td>0.98 mg/kg/day</td> <td>1.12mg/kg/day</td> <td>1.26 mg/kg/day</td> </tr> <tr> <td>Aptamil Gold +1</td> <td>1.05 mg/kg/day</td> <td>1.2 mg/kg/day</td> <td>1.35 mg/kg/day</td> </tr> <tr> <td>S-26 Gold Newborn/ S-26 Original Newborn</td> <td>1.12 mg/kg/day</td> <td>1.28 mg/kg/day</td> <td>1.44 mg/kg/day</td> </tr> <tr> <td>Karicare + Stage 1</td> <td>1.12 mg/kg/day</td> <td>1.28 mg/kg/day</td> <td>1.44 mg/kg/day</td> </tr> <tr> <td>Preterm EBM</td> <td>0.04 mg/kg/day</td> <td>0.05 mg/kg/day</td> <td>0.054 mg/kg/day</td> </tr> <tr> <td>EBM+S26 HMF</td> <td>0.04 mg/kg/day</td> <td>0.05 mg/kg/day</td> <td>0.054 mg/kg/day</td> </tr> <tr> <td>EBM+FM 85</td> <td>2.1 mg/kg/day</td> <td>2.4 mg/kg/day</td> <td>2.7 mg/kg/day</td> </tr> <tr> <td>EBM+Nutricia BMF</td> <td>0.04 mg/kg/day</td> <td>0.05 mg/kg/day</td> <td>0.054 mg/kg/day</td> </tr> <tr> <td>Neocate Gold</td> <td>1.4 mg/kg/day</td> <td>1.6 mg/kg/day</td> <td>1.8 mg/kg/day</td> </tr> <tr> <td>Pre Nan Gold</td> <td>2.5 mg/kg/day</td> <td>2.9 mg/kg/day</td> <td>3.2 mg/kg/day</td> </tr> <tr> <td>Aptamil Gold + Preterm</td> <td>2.2 mg/kg/day</td> <td>2.6 mg/kg/day</td> <td>2.9 mg/kg/day</td> </tr> <tr> <td>S26LBW</td> <td>2.0 mg/kg/day</td> <td>2.2 mg/kg/day</td> <td>2.5 mg/kg/day</td> </tr> <tr> <td>Elecare/Elecare LCP</td> <td>1.7 mg/kg/day</td> <td>1.9 mg/kg/day</td> <td>2.2 mg/kg/day</td> </tr> <tr> <td>Pepti-Junior</td> <td>1 mg/kg/day</td> <td>1.2 mg/kg/day</td> <td>1.4 mg/kg/day</td> </tr> </tbody> </table>		Iron content				140 mL/kg/day	160 mL/kg/day	180 mL/kg/day	S-26 Premgro	1.68 mg/kg/day	1.92mg/kg/day	2.16mg/kg/day	Nan ProGold/ Nan Supreme 1	0.98 mg/kg/day	1.12mg/kg/day	1.26 mg/kg/day	Aptamil Gold +1	1.05 mg/kg/day	1.2 mg/kg/day	1.35 mg/kg/day	S-26 Gold Newborn/ S-26 Original Newborn	1.12 mg/kg/day	1.28 mg/kg/day	1.44 mg/kg/day	Karicare + Stage 1	1.12 mg/kg/day	1.28 mg/kg/day	1.44 mg/kg/day	Preterm EBM	0.04 mg/kg/day	0.05 mg/kg/day	0.054 mg/kg/day	EBM+S26 HMF	0.04 mg/kg/day	0.05 mg/kg/day	0.054 mg/kg/day	EBM+FM 85	2.1 mg/kg/day	2.4 mg/kg/day	2.7 mg/kg/day	EBM+Nutricia BMF	0.04 mg/kg/day	0.05 mg/kg/day	0.054 mg/kg/day	Neocate Gold	1.4 mg/kg/day	1.6 mg/kg/day	1.8 mg/kg/day	Pre Nan Gold	2.5 mg/kg/day	2.9 mg/kg/day	3.2 mg/kg/day	Aptamil Gold + Preterm	2.2 mg/kg/day	2.6 mg/kg/day	2.9 mg/kg/day	S26LBW	2.0 mg/kg/day	2.2 mg/kg/day	2.5 mg/kg/day	Elecare/Elecare LCP	1.7 mg/kg/day	1.9 mg/kg/day	2.2 mg/kg/day	Pepti-Junior	1 mg/kg/day	1.2 mg/kg/day	1.4 mg/kg/day
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