

Guidelines for the use of Ferrous Sulfate (Fer-In-Sol[®])

Recommended Neonatal Dose, Route, and Interval

- **Prophylaxis:**
 - Premature infants: 2 mg/kg/day of elemental iron divided into 1-2 doses. Begin therapy after 2 weeks of age.
 - Term infants: 2-3 mg/kg/day PO starting at 4 months of age
 - For patients receiving Epoetin therapy: 6 mg/kg/day of elemental iron divided into 1-2 doses
- **Treatment of iron deficiency anemia:**
 - Preterm infants: 2-4 mg elemental iron/kg/day PO divided BID or may be given once a day
 - Children: 3-6 mg elemental iron/kg/day PO divided BID - TID
- Give one hour before or two hours after feeds. If vomiting occurs, may be given with the nearest feed, but absorption will be decreased.
- Dose should be written in terms of **mg of elemental iron.**
- **NOTE: Orders must be written in mg, NOT mL**

Chief Indications

1. Iron supplement for prevention or treatment of iron-deficiency anemia

Possible Adverse Reactions

1. Nausea, constipation, black stools, GI upset, erosion of gastric mucosa
2. Acute toxicity: lethargy, vomiting, diarrhea, weak and rapid pulse, hypotension, acidosis, coma, death.
3. In premature infants, may cause increased red cell hemolysis and hemolytic anemia (related to vitamin E deficiency).

CONTRAINDICATIONS/PRECAUTIONS:

1. Hypersensitivity to iron salts
2. Hemolytic anemia
3. Iron should not be administered to patients receiving repeated blood transfusions
4. In growing premature infants, iron should not be started until adequate vitamin E is supplied in the diet, otherwise iron may increase hemolysis.

Nursing Implications

1. Monitor hemoglobin, hematocrit and reticulocyte count
2. Observe for black stools, check for constipation when higher dosage is prescribed
3. May cause false positive guaiac stool test
4. Give one hour before or two hours after feeds. If vomiting occurs, may be given with the nearest feed, but absorption will be decreased.
5. Antacids may decrease absorption

Special Considerations and Calculations

1. Store in tightly-closed, light –resistant containers
2. Well absorbed from stomach
3. Reticulocyte response may begin in 4 days; peak in 7-10 days and return to normal in 2-3 weeks
4. Hct usually increases by 6% in 3 weeks
5. **OVERDOSAGE TREATMENT:** Aspirate stomach contents with 5% Sodium Bicarbonate. Severe overdose: iron chelating agent, deferoxamine mesylate (15 mg/kg/hour) IV.

References:

1. Neofax 2009

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