Anemia: Treatment of Fe Deficiency

Iron deficiency identified as etiology of patient’s anemia (see Anemia Diagnosis protocol)

- Treat with oral FeSO₄ (325 mg PO BID plus prenatal vitamin)
- Somewhat decreased iron absorption if taken with meals or antacids
- Reinforce need to continue prenatal vitamins to assure adequate supplementation with 250 mg Vit C
- Consider Colace 100 mg PO BID if constipation present
- Nutrition consult (consider PICA)

If poor tolerance, consider oral iron elixir (5 ml PO BID; take with straw to prevent staining of teeth)

Recheck hematocrit and reticulocyte count in 4 weeks

No longer anemic

Hct improved and Hct >27%

- Assess compliance
- Consider change to oral elixir if on Fe tabs
- Perform stool guaiac
- Nutrition consult
- Consider pica

Still anemic

No improvement

Maintain supplementation with FeSO₄ 325 mg PO daily (plus prenatal vitamin)

Maintain supplementation with FeSO₄ 325 mg PO BID (plus prenatal vitamin)

intravenous Iron Protocol (LMW IV Iron Dextran, INFeD ®)

- Consider IV iron if Hct remains below 27%
- Total iron dose: 1000 mg, given as a total dose infusion x 1
- Admit to L&D or antepartum unit as outpatient for infusion
- Notify OB anesthesia
- Start 18-20 gauge IV: check serial BP’s and pulse q 15 min during infusion and continue until 30 minutes after completion of infusion
- Premedicate with Benadryl 25 mg IV and Tylenol 650 mg PO.
- May be at increased risk of anaphylactic-type reactions if history of significant allergies, atopic disease (severe eczema), and/or asthma. In such patients, avoid iron dextran and consider Ferrlecit.
- Order “Emergency Orders (Inpatient HSR Protocol Medications)” which make PRN anaphylaxis medications available to RN should they be needed
- Baseline FHR tracing 20-30 minutes pre-infusion
- Administer test dose followed by total dose infusion (2 separate orders in Epic):
  1) Test dose: 25 mg in NS given over 15 minutes (supplied as separate bag). Test dose is necessary even if patient has tolerated iron dextran before.
  2) Total dose infusion dose: to be given 60 min after test dose if no signs or symptoms of reaction (1000 mg in 250 mL NS over one hour)
- Post-infusion FHR tracing 20-30 minutes

IF ANY SIGNS OR SYMPTOMS OF ANAPHYLAXIS, STOP TREATMENT AND EVALUATE PATIENT. Mild symptoms (sweating, warm sensation, mild flushing/itching, joint pains, truncal myalgia/back pain, mild chest discomfort/tightness, hypertension): if resolve within 15 minutes after stopping infusion, may restart infusion cautiously.
**Iron Deficiency References:**

1. Auerbach M. Am J Hematol 2014; 89(7):789. Given the preponderance of published evidence on the safety and efficacy of IV iron in pregnancy, the failure to address its use is an unmet clinical need and a more liberal use if IV iron will minimize the likelihood that the neonatal born to an iron deficient mother will be iron deficient at birth.

2. Auerbach M, Pappadakis JA, Bahrain H, et al. Safety and efficacy of rapidly administered (one hour) one gram of low molecular weight iron dextran (INFeD) for the treatment of iron deficient anemia. Am J Hematol 2011; 86:860-862. The data in this large population of consecutive, unselected patients (162 were pregnant) with iron deficient anemia provide support for the safety and effectiveness of replacement doses of 1 g LMW ID given IV over 1 hr, without premedication.

**NOTIFICATION TO USERS**

These algorithms are designed to assist the primary care provider in the clinical management of a variety of problems that occur in pregnancy. They should not be interpreted as standard of care but instead represent guidelines for the management of these patients. Variation in practice should be taken into account such factors as characteristics of the individual patient, health resources, and regional experience with diagnostic and therapeutic modalities. The algorithms remain the intellectual property of the University of North Carolina School of Medicine at Chapel Hill. They cannot be reproduced in whole or part without the expressed permission of the school.

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