Algorithm of suggested approach to diagnosis and management of iron-deficiency anemia in pregnancy*

Diagnosis of Anemia in Pregnancy Hemoglobin<11.0 g/dl

Draw Ferritin Level

Diagnosis of IDA in Pregnancy FERRITIN <30 ug/ml

FERRITIN >/30 ug/ml

MCV< 80 fL
- Recommend hemoglobin electrophoresis,
- α- thalassemia testing

MCV>90-100 fL
Recommend obtaining B12 and folate levels

Suspect cause other than isolated iron deficiency

<14 weeks: Oral Iron* trial and recheck CBC in 4-6 weeks

14-28 weeks: Hemoglobin 9-11 g/dL
- Oral Iron trial and recheck CBC in 4-6 weeks
- Recommend IV iron* if persistent. Anemia after oral iron trial

Hemoglobin<9 g/dL or high – risk factors**
- Recommend IV iron

>28 weeks: Recommend IV iron to replace iron deficit, usually at least 1000 mg. For moderate-severe anemia

First trimester

Second trimester

Third trimester

Oral iron 325 BID for 2 weeks

Hb ≥ 10.5g/dL

Hb < 10.5g/dL

Intravenous Iron

Hb rise ≥ 1 g/dL

Hb rise < 1 g/dL

Oral iron **

Gestation ≤ 13 weeks

Gestation > 13 weeks

Check counts 6 weeks postpartum

Depending on Hb, give IV iron in 2nd trimester or give PRBC transfusion now

Intravenous Iron

Check counts 6 weeks postpartum

***Recommended iron dosing**
- **Oral:** Daily or every other day iron
  Avoid dosing 2-3 times daily
- IV: Iron sucrose 200-300 mg (or alternative formulation) every other day or weekly to replete 1000mg
- After completion of IV iron, repeat CBC in 4-6 weeks

****High-risk factors**
- Bleeding disorders
- Chronic placental abruptions
- History of gastric by-pass
- Jehovah's Witness · Multifetal gestation
- Placenta previa or accrete
- At physician discretion

****Oral iron treatment should not be interrupted once normal Hb values are achieved, but rather supplementation should continue to replenish iron stores (generally for at least 2-3 months, and until 6 weeks postpartum). BID, twice a day; IDA, iron-deficiency anemia; PRBC, packed red blood cells.**

- World Health Organization. Iron Deficiency Anaemia: Assessment, Prevention and Control: A Guide for Programme Managers. Geneva, Switzerland: World Health Organization; 2001.
- Mast AE, Blinder MA, Gronowski AM, Chumley C, Scott MG. Clinical utility of the soluble transferrin receptor and comparison with serum ferritin in several populations. Clin Chem. 1998;44(1):45-51.
- Achebe and Gafter-Gvili, Blood. 2017;129(8):940-949. · Denic S, Agarwal MM, Al Dabbagh B, et al. Hemoglobin A2 Lowered by Iron Deficiency and α -Thalassemia: Should Screening Recommendation for β -Thalassemia Change?. ISRN Hematol. 2013;2013:858294. doi:10.1155/2013/858294
- Conclusions of a WHO technical consultation on folate and vitamin B12 deficiencies. Food and Nutrition Bulletin. 2008;29(2):238-44. · Achebe and Gafter-Gvili, Blood. 2017;129(8):940-949.
- Api O, Breyman C, Çetiner M, Demir C, Ecder T. Diagnosis and treatment of iron deficiency anemia during pregnancy and the postpartum period: Iron deficiency anemia working group consensus report. Turk J Obstet Gynecol. 2015;12(3):173-181. doi:10.4274/tjod.0170
- Cançado RD, Muñoz M. Intravenous iron therapy: how far have we come?. Rev Bras Hematol Hemoter. 2011;33(6):461-469. doi:10.5581/1516-8484.20110123
- WHO/UNICEF/UNO; IDA. Prevention, assessment and control. Report of a WHO/UNICEF/UNO Consultation. Geneva: WHO; 1998 · James AH. Iron Deficiency Anemia in Pregnancy. Obstet Gynecol. 2021 Oct 1;138(4):663-674. doi: 10.1097/AOG.0000000000004559. PMID: 34623079