

Katelynn Walker, April 10, 2025.

## Evaluation and management of iron deficiency anemia in pregnancy.

**1. Definition or Key Clinical Information (Grace et al., 2023; King et al., 2019; Pavord et al., 2019):** Iron deficiency anemia in pregnancy can be defined as a condition in which there are insufficient amounts of iron to meet the increased physiological needs during pregnancy, which results in a decrease of hemoglobin concentrate. Anemia can be defined as below 11 g/mL in the first and third trimesters and below 10.5 g/mL in the second trimester. Iron is crucial for oxygen transport, energy production, and fetal development. During pregnancy, iron requirements increase significantly due to the expansion of maternal blood volume, fetal growth, and placental development.

## 2. Assessment

### i. Risk Factors (Grace et al., 2023; King et al., 2018)

- Nutritional Deficiencies
- Low socioeconomic status
- Closely spaced pregnancies
- Heavy menstrual bleeding pre-pregnancy
- multiple gestation
- Teen pregnancy
- History of bariatric surgery or gastrointestinal malabsorption conditions

**ii. Subjective Symptoms (Grace et al., 2023; King et al., 2018)** Individuals with iron deficiency anemia may report symptoms that are often nonspecific and may overlap with normal pregnancy discomforts. Common subjective complaints include:

- Fatigue or persistent tiredness
- Weakness or decreased stamina
- Shortness of breath
- Palpitations
- Dizziness or lightheadedness
- Headaches
- Pica (craving non-nutritive substances such as ice, dirt, or starch)
- Restless legs, especially at night

### iii. Objective Signs (American Society of Hematology, 2025)

- Pallor
- Tachycardia
- Brittle nails
- Smooth Tongue

### v. Clinical Test Considerations (CDC, 2014; Grace et al., 2023; King et al., 2018; Pavord et al., 2019)

- CBC at initial prenatal visit
- Repeat CBC at 28 weeks
- Serum ferritin: Best indicator of iron stores; levels <30 ng/mL suggest iron deficiency

**vi. Differential Diagnosis (Grace et al., 2023)** *When evaluating anemia in pregnancy, consider other possible causes:*

- *Anemia of chronic disease*

- *Thalassemia trait*
- *Vitamin B12 or folate deficiency anemia*
- *Hypothyroidism*
- *Pulmonary embolism*
- *Chronic Fatigue Syndrome*
- *Postural orthostatic tachycardia syndrome (POTS)*

### 3. Management plan

#### **i. Therapeutic measures to consider within the CPM scope (CDC, 2014; Grace et al., 2023; King et al., 2018; Pavord et al., 2019)**

- Promote consumption of iron-rich foods (e.g., red meat, leafy greens, legumes).
- Encourage pairing with vitamin C-rich foods to enhance iron absorption (e.g., citrus, bell peppers).
- Ferrous sulfate (commonly used)
- Iron bisglycinate (gentler on the stomach)
- Utilize hydrotherapy for circulation and relaxation
- Encourage adequate rest and stress reduction
- Provide emotional support to enhance overall wellness and energy levels

#### **ii. Therapeutic measures commonly used by other practitioners (CDC, 2014; Grace et al., 2023; King et al., 2018)**

Other providers may prescribe higher-dose or prescription iron supplements or recommend intravenous iron therapy if oral options are ineffective. Evaluation and treatment of underlying causes, such as malabsorption, GI bleeding, or hemoglobinopathies, may be managed by OB/GYNs, primary care providers, or hematologists.

**iii. Ongoing care (Grace et al., 2023; King et al., 2018)** Follow-up includes rechecking hemoglobin and ferritin 4–6 weeks after starting treatment. If levels normalize, supplementation should continue for at least three months and into the postpartum period. If anemia persists or worsens, reassess for absorption issues or other causes. Ongoing monitoring throughout pregnancy helps reduce the risk of complications like fatigue, growth restriction, or preterm labor.

#### **iv. Indications for Consult, Collaboration, or Referral (Grace et al., 2023; King et al., 2018)**

Referral is appropriate when hemoglobin drops below 9 g/dL in the second trimester or 10 g/dL in the third, if oral iron is not tolerated or ineffective, or if another cause is suspected. IV iron therapy and complex medical management are outside the CPM scope. Consultation is also appropriate when symptoms are severe or if pica involves ingestion of harmful substances.

**v. Client and family education (Grace et al., 2023; King et al., 2018)** Clients should understand the importance of iron in pregnancy and how to take supplements properly. Clients should be educated on iron-rich food options, tips to improve absorption, and how to manage side effects.. Encourage rest, self-care, and family support, and engage in shared decision-making around testing, treatment, and referrals.

#### 4. References

American Society of Hematology. (2025). *Iron-Deficiency Anemia*. Hematology.org.

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