**INDICATIONS FOR TESTING**
Fatigue, weakness, pallor, dizziness, fainting

**ORDER**
- CBC with Platelet Count and Automated Differential (including RBC indices and morphology on manual differential)
- Reticulocytes, Percent & Number

Anemia present on CBC (males Hgb <13g/dL, females Hgb <12g/dL)
**AND**
Corrected reticulocyte index ≥2.5

- No
- Classify by RBC indices
  - Normocytic, normochromic (normal MCV, MCHC) (suggests hypoproliferation)
    - Bone marrow disorder (eg, infiltration, aplasia)
    - Inflammation
    - Autoimmune disease
    - Chronic renal disease
    - Critical illness
    - Chronic endocrine disorders
    - Aplastic anemia, pure red cell aplasia
  - Microcytic, hypochromic (low MCV, MCHC) (suggests maturation defects)
    - Iron deficiency
    - Chronic disease
    - Thalassemia – see Hemoglobinopathies topic
    - Sideroblastic anemia
    - Lead toxicity
  - Macrocytic (high MCV) (suggests maturation defects)
    - B₁₂ deficiency, (rarely folate deficiency) – see Megaloblastic Anemia Testing Algorithm
    - Drugs
    - Excessive alcohol use
    - Hypothyroidism
    - Myelodysplasia – see Myelodysplastic Syndromes Consult topic

- Yes
  - ORDER
    - Peripheral smear
      - Fragmented cells on peripheral smear
  - Yes (suggests hemolysis)
    - ORDER
      - Vitamin B₁₂ & Folate
        - Acute blood loss
        - Consider other workup based on smear findings (eg, bone marrow biopsy)
        - See the following Consult topics based on presentation
          - Hemolytic Anemias
          - Thrombotic Microangiopathies
          - HELLP Syndrome
          - Cold Agglutinin Disease
          - Paroxysmal Nocturnal Hemoglobinuria
          - Unstable Hemoglobinopathies
          - Disseminated Intravascular Cogulation

**Abbreviations and Formula**

\[
\text{MCV} = \text{mean cell volume} \\
\text{MCHC} = \text{mean cell hemoglobin concentration} \\
\text{TIBC} = \text{total iron binding capacity}
\]

Reticulocyte correction for anemia:

\[
\text{ReticCount}\% = \frac{\text{Hgb}}{\text{Htc}} \times \frac{1}{\text{Maturation time correction}}
\]

(Use 2% for most patients)