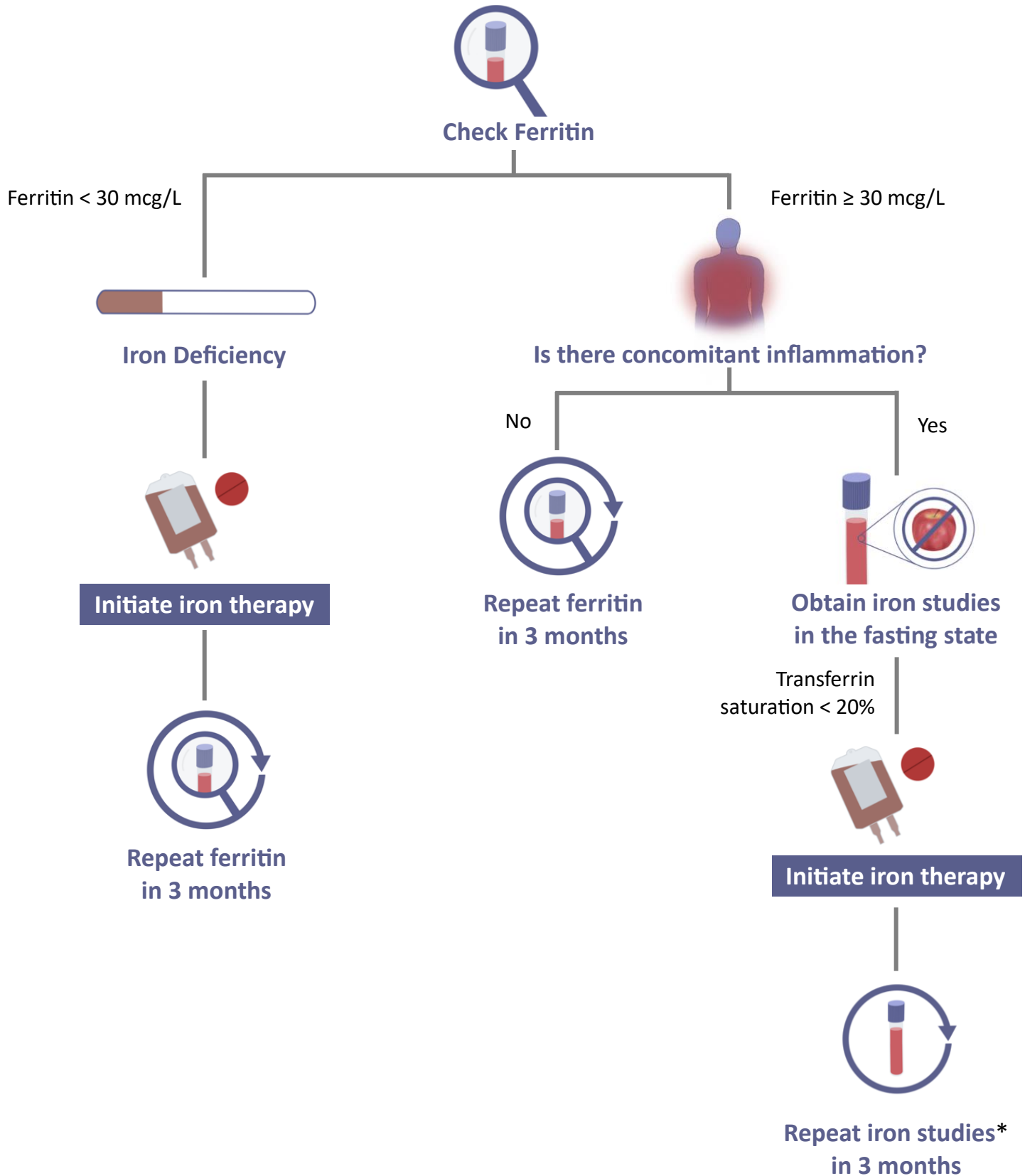


Adult Iron Deficiency Treatment Algorithm



*Note: Iron studies refers to serum iron, TIBC, and transferrin saturation. Assess for improvement in transferrin saturation to ≥ 20%.

Check ferritin

Ferritin levels should be ordered with a complete blood count (CBC) in patients whose history suggests that they have risk factors for iron deficiency. Ferritin is the most sensitive and specific marker for iron deficiency in adults and the pediatric population.

Iron deficiency

Adults with ferritin less than 30 mcg/L are considered iron deficient and should have iron therapy initiated. Patients with ferritin levels between 30-50 mcg/L are considered iron insufficient and may benefit from initiation of iron therapy if symptomatic.

Concomitant inflammation

Patients who have ferritin ≥ 30 mcg/L who have concomitant inflammation (see examples below) should have full iron studies ordered (serum iron, TIBC, and transferrin saturation). Ferritin is a positive acute phase reactant that rises with inflammation even in presence of iron deficiency.

Examples of inflammatory states:

- Acute and chronic infections
- Heart failure
- Chronic kidney disease
- Autoimmune conditions (e.g., systemic lupus erythematosus, rheumatoid arthritis, inflammatory bowel disease, vasculitis, psoriasis)
- Hematological and solid-organ malignancy
- Patients with elevated BMI
- Patient post-transplant

Obtain iron studies in the fasting state

Iron studies refers to serum iron, TIBC, and transferrin saturation.

Initiate iron therapy

Ferritin ≥ 30 mcg/L but transferrin saturation less than 20% is consistent with iron deficiency or restriction and should be treated with iron replacement therapy.