

APPROACH TO ANEMIA

Normovolemic

Reticulocytes increased

Reticulocytes decreased

Coombs' test positive

Coombs' test negative

Warm Ab

Cold Ab

Spleen palpable

Normal spleen

Consider:
- Autoimmune hemolytic anemia
- Drug-induced AIHA

Consider:
- Primary cold agglutinin
- PCH
- Secondary cold agglutinin (mycoplasma, virus)

Consider:
- Hypersplenism
- Thalassemia
- Abnormal hemoglobin (e.g., HbSC)

Congenital

Acquired

Consider:
- G6PD deficiency
- Enzyme defect
- Spherocytosis
- Hemoglobinopathy (e.g., HbSS)

Consider:
- MAHA
- DIC
- PNH
- Malaria

Microcytic RBC

Normocytic RBC

Macrocytic RBC

Normal Fe, reduced or normal TIBC

Reduced Fe & TIBC

Reduced Fe, increased TIBC

Consider:
- Anemia of chronic disease

Consider:
- Fe deficiency

Normal Fe, TIBC

Reduced Fe, TIBC

Consider:
- Anemia of chronic disease

Bone Marrow Aspiration and Biopsy

Hypoplasia

Myelophthisic

Other

Consider:
- Aplastic anemia

Consider:
- Leukemia
- Solid tumors
- Myelodysplasia
- Myeloproliferative syndromes

Consider:
- Starvation
- Uremia

Normal vitamin B12 and folate

Reduced vitamin B12

Reduced folate

Consider:
- Pernicious anemia
- Ileal surgery
- Malabsorption
- Bile salt deconjugation

Consider:
- Drug induced
- Ethanol
- Dietary

Bone Marrow Aspiration and Biopsy

Acquired

Congenital

Consider:
- Myelodysplasia

Consider:
- Dyserythropoietic anemia

Consider:
- Lead poisoning
- Thalassemia minor