Anemia

(February 2017)

Rationale

Anemia is a common problem; however, making the diagnosis may be complex. Anemia may be the sole manifestation of serious medical disease.

Causal Conditions

(list not exhaustive)

- Normocytic

    a. Red blood cell loss

        - Obvious (e.g., trauma, metro/menorrhagia)

        - Occult

    b. Decreased red blood cell production

        - Marrow production (e.g., stem cell disorder, bone marrow replacement)

    c. Increased destruction (e.g., sickle cell anemia, immune-mediated, mechanical)

    d. Multi-factorial (e.g., anemia of chronic disease)

- Microcytic (e.g., iron deficiency, hemoglobinopathies)
- Macrocytic (e.g., vitamin B12 or folate deficiency, alcohol use)

Key Objectives

Given a patient with anemia, the candidate will diagnose the cause, severity, and complications, and will initiate an appropriate management plan. Particular attention should be paid to red cell morphology, identification of common causes in specific patient populations, and risk factors for serious underlying conditions.

Enabling Objectives

Given a patient with anemia, the candidate will

- list and interpret critical clinical findings, including

    a. common causes in specific patient populations;

    b. risk factors for or features suggestive of serious underlying conditions;

- list and interpret critical investigations, including

    a. red cell morphology;

    b. specific investigations according to red cell morphology and history and physical findings;

- construct an effective initial management plan, including

    a. counselling and educating the patient for prevention of recurrence or further complications;

    b. referral for specialized care (e.g., suspicion of colon cancer), if necessary.