

Progression of Training and Skills Hematology

Preamble

Hematologic problems are common in both hospital and outpatient settings. They may be primarily hematologic or secondary to other conditions and the family physician should be knowledgeable of appropriate workup and available therapies. Some hematologic problems are life threatening, and in others, the opportunity for intervention is time limited and these situations should be recognized. Additionally, hematologic abnormalities frequently indicate primary disease elsewhere in the body. End-of-life issues, aggressiveness of care issues in patients with incurable malignancies, use of Hospice programs and discussion of pain control are regularly encountered when hematologic disorders are addressed. Universal precautions and the handling of blood products, complications of blood transfusions, including antibody reactions and infectious complications such as HIV and Hepatitis C are not only logically classified as hematologic problems, they are also part of the practice of general medicine and family medicine.

Goals

- Understand the clinical presentations and rationale workup of:
 - anemia
 - bleeding disorders
 - clotting disorders
 - hemoglobinopathies
 - multiple myeloma
 - myeloproliferative disorders
 - platelet disorders
 - acute leukemias and hematologic effects of chemotherapeutic agents
- Understand the mechanism of iron transport and storage

Objectives

- Able to recognize indications for, and complete workup of, iron deficiency anemia
- Able to recognize indications for, and complete workup of, anemia of chronic disease
- Able to recognize indications for, and complete workup of, macrocytic anemia
- Able to recognize hemolysis and complete initial workup
- Understand role, interplay, and interpretation of basic hematologic parameters:
 - red cell distribution width
 - mean corpuscular volume
 - reticulocyte index and reticulocytosis
 - peripheral smear
 - erythrocyte morphology
- Ability to appropriately order and interpret serum iron, total iron binding capacity, and ferritin

These goals and objectives are achieved through a combination of structured experience, together with didactic instruction. Daily opportunities to manage hematology problems present themselves on the family practice teaching and internal medicine services.

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Suggested readings:

['Common' uncommon anemias](#)

[Evaluation of anemia in children](#)

[Evaluation of macrocytosis](#)

[Hemolytic anemia](#)

[Iron deficiency anemia](#)

[Leukocytosis: basics of clinical assessment](#)

[Normocystic anemia](#)