

Unit 7: Hematology
Chapter 33 & 34
ONLINE CONTENT (2H)

Complete the worksheet and submit in the Unit 7: Hematology dropbox by March 17, 2025 at 0800. Please be sure to bring a copy to class on March 17, 2025.

Table 1	Iron Deficiency Anemia	Thalassemia	Cobalamin (Vitamin B₁₂) Deficiency	Folic Acid Deficiency
Etiology	Develops from inadequate diet intake, malabsorption blood loss, or hemolysis,	Inadequate production of hemoglobin.	An absence of the parietal cells of the gastric mucosa to secrete IF.	Diet insufficiencies or malabsorption syndromes.
Clinical Manifestations	Pallor, glossitis, and cheilitis.	Mild splenomegaly, bronzed skin, and bone marrow hyperplasia.	Sore, red, beefy, shiny tongue, nausea, vomiting, Abd pain.	Stomatitis, dysphagia. Diarrhea.
Diagnostic Studies	Stool occult, hemoglobin, hematocrit	Hgb, Hct, Reticulocytes, Serum iron.	Hemoglobin, hematocrit, serum B12 levels.	Decreased serum folate level with a normal cobalamin level.
Drug Therapy	Oral iron suspensions.	No drug treatment; rather than the infusion of blood products.	Administer B12.	Replacement therapy of folic acid.
Nursing Management	Treat the underlying problem	Properly infuse blood.	Thorough neurological assessments.	Teach the patient to eat foods that are high in folic acid.

Table 2	Anemia of Chronic Disease	Aplastic Anemia	Acute Anemia due to Blood Loss	Chronic Anemia due to Blood Loss
Etiology	1-2 months of disease process from cancer, autoimmune, or infectious disorders.	A decrease in all types of blood cells.	Trauma, surgery, or factors affecting the vascular integrity.	Bleeding ulcer, hemorrhoids, menstrual and post-menopausal blood loss.

Clinical Manifestations	No specific manifestations of this disorder.	Fatigue, dyspnea, cardiovascular, or cerebral response.	Shock, lactic acidosis, death, and more.	Not listed in the chapter.
Diagnostic Studies	High serum ferritin and increased iron stores with normal folate and cobalamin levels.	Decrease in hemoglobin, white blood cells, and platelet values.	RBC, Hgb, and Hct.	Depleted iron stores.
Drug Therapy	No specific treatment, correct the underlying problem.	Whole transfusions if indicated.	Whole transfusions.	Iron supplements.
Nursing Management	Correct the underlying problem.	Identifying and removing the causative agent.	Assess for pain, monitor vitals, administer fluids, blood products.	Identifying the source and stopping it.

Table 3	Acquired Hemolytic Anemia	Hemochromatosis	Polycythemia
Etiology	Destruction or hemolysis or red blood cells.	A genetic effect or liver disease or sideroblastic anemia.	The production and presence of increased red blood cells.
Clinical Manifestations	Jaundice, spleen, and liver enlargement.	Early symptoms are nonspecific; fatigue, abdominal pain, weight loss, etc.	Headache. Vertigo, dizziness, tinnitus, and visual changes.
Diagnostic	Hgb and RBC's.	High serum iron, TIBC, and serum ferritin.	High hgb, hematocrit, RBC's, WBCs and platelets.

Studies			
Drug Therapy	No specific drug treatment.	Iron-chelating drugs.	Myelosuppressive agents such as hydroxyurea or busulfan.
Nursing Management	Maintain adequate renal function.	Remove any possible excess iron from the body.	Reduce blood volume, viscosity, and bone marrow activity.

In order to receive full credit (2H class time) for this assignment, it must be completed in its entirety by the due date/time assigned. Any assignment not completed in its entirety by the due date and time will result in missed class time and must be completed by the end of the semester to pass the course.