

Unit 7: Hematology
Chapter 29 & 30
ONLINE CONTENT (1.5 H)

Complete the worksheet and submit in the Unit 7: Hematology dropbox by March 20, 2023 at 0800. Please be sure to bring a copy to class on March 20, 2023.

Table 1	Iron Deficiency Anemia	Thalassemia	Cobalamin (Vitamin B ₁₂) Deficiency	Folic Acid Deficiency
Etiology	Develops D/T inadequate dietary intake, malabsorption, blood loss, or hemolysis.	Inadequate production of normal hemoglobin, which decreases RBC production.	Lack of IF, cobalamin wont absorb.	Chronic alcoholism, hemodialysis, celiac disease and more can cause this. Lack of Folic acid.
Clinical Manifestations	At first, not many symptoms. Pallor, Glossitis, cheilitis, headache, burning of tongue.	Asymptomatic, bronze color of skin	Sore, red, beefy, shiny tongue. n/v, anorexia, abdominal pain.	Flatulence, diarrhea, dysphagia. Similar to cobalamin.
Diagnostic Studies	Stool occult blood test, endoscopy, colonoscopy, bone marrow.	Bone marrow	Lab draw, possible GI endoscopy, biopsy	Lab draw, serum folate level low.
Drug Therapy	Oral iron	No specific drug	Vitamin b12, oral cobalamin	Replacement therapy.
Nursing Management	Educate on nutrition to consume healthy iron through food.	Measure iron, give zinc.	Assess neuro difficulties, reduce risk for injury	Educate on nutrition with high folic acid

Table 2	Anemia of Chronic	Aplastic Anemia	Acute Anemia due	Chronic Anemia
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	Disease		to blood loss	due to blood loss
Etiology	Anemia of inflammation. Caused by cancer, autoimmune and infectious disease.	Has peripheral blood pancytopenia, and hypocellular bone marrow. Autoimmune disease, toxic injury	Occurs d/t sudden hemorrhage from trauma, surgery, diseases. This can lead to hypovolemic shock.	Depletion of iron, chronic injury, menstrual cycle.
Clinical Manifestations	Symptoms of underlying disease.	Fatigue, dyspnea, at risk for infection.	Hypotension, pain, shock	Hypotension, pain, shock
Diagnostic Studies	Lab draw, type & screen.	Hgb, wbc, platelets.	Hmg, hct, rbc,	Blood labs,
Drug Therapy	Blood transfusions, replacement therapy.	Erythropoietin therapy, or blood transfusion.	Replacing blood loss, fluids, dietary source of iron.	Replacing blood, iron replacement
Nursing Management	Treat underlying disorder.	Removing the causative agent, prevent infections, and hemorrhage.	Prevent further blood loss, assess VS	Prevent further bleeding, VS

Table 3	Acquired Hemolytic Anemia	Hemochromatosis	Polycythemia
Etiology	Destruction or hemolysis of RBC. There is a defect of RBC. Destroying old RBC.	Iron overload. Liver diseases, or chronic blood transfusion could cause this.	Production, and presence of rbc. Involves RBC and WBC.
Clinical Manifestation	Jaundice, spleen and liver may enlarge,	Pain, weight loss, fatigue	Headache, vertigo, dizziness, visual changes.

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Diagnostic Studies	Lab draw	Dna testing, lab values,	Hmb, rbc, wbc, platelet count, bone marrow exam.
Drug Therapy	rbc	Removal of blood	Reducing blood volume, avoid iron supplements. Hydration is key.
Nursing Management	Monitor labs, vs, prevent bleeding	Manage organ involvement, prevent excess iron. vs	Educate, vs, phlebotomy, avoid fluid overload.