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 B_{12}) Deficiency**	**Folic Acid Deficiency**
Etiology	Develops from inadequate diet intake, malabsorption, blood loss, hemolysis.	Group of diseases involving inadequate production of normal Hgb.	Can occur in patients who have had GI surgery. Lack intrinsic factor to absorb cobalamin	Needed for synthesis of DNA leading to RBC formation. Caused by alcohol use, hemodialysis.
Clinical Manifestations	May not have symptoms, pallor, glossitis, cheilitis,	Can be asymptomatic, bronzed skin, mild splenomegaly	Sore, red, beefy shiny tongue. Anorexia nausea, and vomiting. Abdominal pain, weakness, parasthesia, of feet and hands, ataxia	Cirrhosis, GI disturbance, dysphagia,
Diagnostic Studies	Hgb, reticulocytes, serum iron, tibc, transferrin, bilirubin, b12, folate, ferritin.	CBC, H&H,	Decreased hemoglobin, increased iron ferritin, decreased b12	Hgb, increased serum iron, increased ferritin, decreased folate, increased transferrin.
Drug Therapy	Iron supplement	Thalassemia major needs Blood transfusion. Minor does not require TX	IM injections.	Oral drug replacement.
Nursing Management	Give with vitamin c or something acidic.	Transfusions, careful lab monitoring	Will die in 1-3 years without treatment. Assess for neuro problems.	Discuss care plan, medication management, monitor labs.

Table 2	Anemia of Chronic Disease	Aplastic Anemia	Acute Anemia due to Blood Loss	Chronic Anemia due to Blood Loss
Etiology	Caused by cancer or autoimmune issues. HIV, hepatitis, malaria, HF, chronic inflammation.	Due to autoimmune activity by autoreactive t lymphocytes, toxic injury to bone marrow.	Result of trauma, surgery, problems that disrupt vascular integrity.	Due to bleeding ulcer, or hemorrhoids. Due to depleted iron stores.
Clinical Manifestations	Under production of RBC,	Fatigue, dyspnea, cardiovascular, and cerebral response.	Hypotension decreased cardiac output, dizziness, shortness of breath, rapid thready pulse, cold clammy skin.	Chronically low Hgb.
Diagnostic Studies	Hogh serum ferritin, and increased iron stores.	Hgb, WBC, and platelet values decrease. Reticulocyte will be low, iron and tibc will be elevated.	H&H, RBC	Hbg, Hematocrit,
Drug Therapy	EPO, blood transfusions.	Remove active agent.	Blood transfusion,	Transfusions, identify the source and resolve the issue.
Nursing Management	Monitor labs, diet, education.	Aimed at preventing complications. Infection, managing cardiovascular symptoms. m	Prevent any further bleeding, omit any anticoagulants. Administer blood as ordered.	Monitor labs, symptoms, education on symptoms and when to seek help.

Table 3	Acquired Hemolytic Anemia	Hemochromatosis	Polycythemia
Etiology	Hemolysis of RBC from extrinsic factor.	Iron overload disorder, increased intestinal iron absorption.	Production and increase in RBC.
Clinical Manifestations	Fatugue, pale skin, jaundice, dark urine, rapid heart rate, shortness of breath,	Genetic, symptoms after age 40, non specific symptoms, fatigue, liver enlargement, excess iron deposits in the liver, and causes enlargement and cirrhosis.	Chronic disorder. Increased blood viscosity. Hypervolemia. Angina HF

Diagnostic Studies	CBC, Hgb, combs test,	High serum iron, TIBC,	High hgb, high hematocrit, and high rbc,
Drug Therapy	Corticosteroids, blood transfusions,	Removal of 500 mL blood each week.	Phlebotomy is treatment.
Nursing Management	Patient education on symptoms, management, medication management.	Manage organ involvement HF,	Reduce blood volume every 2-3 months. Monitor labs. Provide educations.

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.