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	a condition in which blood lacks adequate healthy red blood cells	an inherited blood disorder that causes your body to have less hemoglobin than normal.	a condition in which your body does not have enough healthy red blood cells, due to a lack (deficiency) of vitamin B_{12}	Lack of folic acid or B9 in blood
Clinical Manifestations	Extreme fatigue, weakness, pale skin, chest pain, dizziness, cold hands and feet, brittle nails, poor appetite, inflammation or soreness of tongue	Fatigue, weakness, pallor or jaundice, slow growth, abdominal swelling, dark urine	Weakness, numbness or tingling in extremities, nausea, anorexia, weight loss, fatigue, irritability, smooth tender tongue	Fatigue, weakness, lightheadedness, pallor, heart palpitations, dyspnea
Diagnostic Studies	Hgbb, hct, MCV, reticulocytes, serum iron, TIBC, transferrin, ferritin, bilirubin, serum B12, Folate	Hgbb, hct, MCV, reticulocytes, serum iron, TIBC, transferrin, ferritin, bilirubin, serum B12, Folate	Hgbb, hct, MCV, reticulocytes, serum iron, TIBC, transferrin, ferritin, bilirubin, serum B12, Folate	Hgbb, hct, MCV, reticulocytes, serum iron, TIBC, transferrin, ferritin, bilirubin, serum B12, Folate
Drug Therapy	Replace iron by dietary needs, oral supplements, or parenterally. Sodium ferrous gluconate and iron sucrose are alternatives.	If you have mild thalassemia, you might not need treatment. But more severe forms might require regular blood transfusions. Transfusions are used in conjunction with chelation therapy	Parenteral vitamin B12 or intranasal cyanocobalamin is needed. High dose oral cobalamin and sublingual cobalamin are options for those with GI in tact	Treated with replacement therapy
Nursing Management	Treat underlying cause, stress adherence to diet and drug therapy	Treat underlying cause, stress adherence to diet and drug therapy	Treat underlying cause, stress adherence to diet and drug therapy, assess for neurologic impairment, protect pt from harm	Treat underlying cause, stress adherence to diet and drug therapy, teach pt about high folic acid foods.

Table 2	**Anemia of Chronic Disease**	**Aplastic Anemia**	**Acute Anemia due to blood loss**	**Chronic Anemia due to blood loss**

Etiology	Caused by cancer, autoimmune, infectious disorders, HR, or chronic inflammation.	a condition that occurs when your body stops producing enough new blood cells.	Occurs because of a hemorrhage of acute blood loss such as trauma, complications of surgery, and conditions or diseases that disrupt vascular integrity	The effects of chronic blood loss are usually related to the depletion of iron stores and is considered an iron deficiency anemia
Clinical Manifestations	Fatigue, pallor, lightheadedness, SOB, tachycardia, chest pain, irritability	Fatigue, SOB, pale skin, prolonged frequent infections, headache, fever, easy bruising, nosebleeds, or bleeding gums	Tachycardia, hypotension, air hunger, thready pulse, clammy cold skin, shock	Tachycardia, hypotension, air hunger, thready pulse, clammy cold skin
Diagnostic Studies	Hgbb, hct, MCV, reticulocytes, serum iron, TIBC, transferrin, ferritin, bilirubin, serum B12, Folate	Hgbb, hct, MCV, reticulocytes, serum iron, TIBC, transferrin, ferritin, bilirubin, serum B12, Folate	Hgbb, hct, MCV, reticulocytes, serum iron, TIBC, transferrin, ferritin, bilirubin, serum B12, Folate	Hgbb, hct, MCV, reticulocytes, serum iron, TIBC, transferrin, ferritin, bilirubin, serum B12, Folate
Drug Therapy	Blood transfusions may be needed, erythropoietin therapy.	HSCT, ATG, steroids, cyclosporine or cyclophosphamide	Finding source of bleeding and stopping it, packed RBC, lactated ringers	Management of chronic blood loss anemia involves finding source and iron supplements
Nursing Management	Treat underlying cause, stress adherence to diet and drug therapy	Treat underlying cause, stress adherence to diet and drug therapy	Assess source of bleed, stop bleed. Assess patients pain Treat underlying cause, stress adherence to diet and drug therapy	Treat underlying cause, stress adherence to diet and drug therapy, manage blood loss

Table 3	**Acquired Hemolytic Anemia**	**Hemochromatosis**	**Polycythemia**
Etiology	Hemolytic anemia is a blood disorder that typically happens when your red blood cells break down or die faster than your body can replace them with new blood cells.	causes your body to absorb too much iron from the food you eat. Excess iron is stored in your organs, especially your liver, heart, and pancreas.	an abnormally high number of red blood cells in the blood, as a primary disease or secondary condition
Clinical Manifestation	Jaundice, SOB, fatigue, tachycardia, low blood pressure, hematuria, splenomegaly	Joint pain, abdominal pain, fatigue, weakness, memory fog, bronze or gray skin color, liver or heart failure	Itchiness, numbness, tinging, burning, feeling of fullness after eating, unusual bleeding, painful swelling of

s			one joint, SOB
Diagnostic Studies	Hgbb, hct, MCV, reticulocytes, serum iron, TIBC, transferrin, ferritin, bilirubin, serum B12, Folate	Hgbb, hct, MCV, reticulocytes, serum iron, TIBC, transferrin, ferritin, bilirubin, serum B12, Folate	Hgbb, hct, MCV, reticulocytes, serum iron, TIBC, transferrin, ferritin, bilirubin, serum B12, Folate
Drug Therapy	Aggressive hydration, electrolyte replacement, corticosteroids, blood products, folate replacement	Remove access iron from the body by removing 500 ml removed each week for 2-3 weeks. Chelating agents may be used	300 – 500 ml of blood may be removed every day, myelosuppressive agents, anagrelide, low dose aspirin
Nursing Management	Treat underlying cause, stress adherence to diet and drug therapy	Treat underlying cause, stress adherence to diet and drug therapy, management of organ involvement	Treat underlying cause, stress adherence to diet and drug therapy