

**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	<b>Iron Deficiency Anemia</b>	<b>Thalassemia</b>	<b>Cobalamin (Vitamin B<sub>12</sub>) Deficiency</b>	<b>Folic Acid Deficiency</b>
<b>Etiology</b>	Inadequate dietary intake, increase iron requirements, blood loss, impaired iron absorption	Inherited blood disorder that affects the productions of hemoglobin	Inadequate dietary intake, malabsorption disorders, PPIs, alcoholism,	Inadequate dietary intake, pregnancy, alcohol, renal disease, hemodialysis
<b>Clinical Manifestations</b>	Fatigue, SOB, lightheaded, brittle nails and hair, headaches, pica	Anemia growth problems, splenomegaly, hepatomegaly, iron overload	Anemia, fatigue weakness, numbness and tingling, memory loss	Fatigue, weakness, pallor, SOB, dizziness, numbness
<b>Diagnostic Studies</b>	Blood test, physical exam	CBC, Hemoglobin, genetic testing	CBC, vitamin B12 levels	CBC, folate levels
<b>Drug Therapy</b>	Iron supplements	Blood transfusion, stem cell/ bone marrow transplantation,	Vitamin B12 supplements (Oral, IM)	Oral supplement, IV or IM, diet changes
<b>Nursing Management</b>	Treat balanced diet, regular follow up appointments,	Assessment, monitoring and managing anemia, monitor pain, teach diet	Assessment, education about medication and diet, monitoring labs, neurological, give B12	Educating of diet, supplement. Give supplement

Table 2	<b>Anemia of Chronic Disease</b>	<b>Aplastic Anemia</b>	<b>Acute Anemia due to Blood Loss</b>	<b>Chronic Anemia due to Blood Loss</b>
<b>Etiology</b>	Chronic infections, inflammatory conditions, cancer, kidney disease	Bone marrow fails to produce blood cells. Can result in pancytopenia	Blood loss can be caused by trauma, surgical procedure, GI bleed, blood disorders	GI bleeding, menstrual bleeding, bleeding disorders, iron deficiency
<b>Clinical Manifestations</b>	Fatigue, weakness, pale SOB, dizziness	Frequent infections, bleeding, SOB, fatigue, tachycardia	Fatigue, weakness, Hypotension, tachycardia, clammy skins, confusion, syncope	Fatigue, weakness, pallor, SOB, dizziness, irritability

<b>Diagnostic Studies</b>	CBC ( low hemoglobin and hematocrit)	CBC, reticulocyte count, bone marrow biopsy	CBC, electrolyte	CBC, iron levels, occult blood, endoscopy, colonoscopy
<b>Drug Therapy</b>	Treat underlying cause, iron supplement erythropoiesis stimulating agent, blood transfusion	Blood transfusion, infection control, bone marrow transplant, stem cell transplantation	IV fluids, blood transfusion, oxygen, control bleeding	Addressing underlying bleeding, iron supplements, blood transfusion, surgical intervention
<b>Nursing Management</b>	Monitor vitals during blood transfusions, monitor for signs of fatigue, weakness, SOB and lab results	Assess for signs of anemia, bleeding. Prevent infection, emotional support	Monitor vitals (blood pressure, heart rate, urine output, O2) Give IV fluids and blood	Symptom management, patient education, monitor heart rate, blood pressure, O2

Table 3	<b>Acquired Hemolytic Anemia</b>	<b>Hemochromatosis</b>	<b>Polycythemia</b>
<b>Etiology</b>	Red blood cells are destroyed prematurely. Not a genetic defect	Excess iron in organs like liver, heart, pancreas, joints and skin, genetic	Increase number of red blood cells. Elevated hematocrit and hemoglobin
<b>Clinical Manifestations</b>	Fatigue, weakness, pallor, dark urine, splenomegaly, fever, tachycardia, abdominal pain	Joint pain, abdominal pain, fatigue, skin color changes	Headache, dizziness blurred vision, fatigue, splenomegaly, bleeding, thrombosis
<b>Diagnostic Studies</b>	CBC, peripheral blood smear, Coombs test	Transferrin saturation, genetic testing,	CBC, erythropoietin levels, bone marrow biopsy
<b>Drug Therapy</b>	Corticosteroids, immunosuppressive drugs, treat underlying cause, blood transfusion	Iron chelation, blood drawn to remove excess iron, dietary changes	Treat underlying cause, phlebotomy,
<b>Nursing</b>			

<b>Management</b>	Monitor vitals and labs, patient education, pain management, blood transfusions	Phlebotomy, education about diet, monitor iron levels, psychosocial support	Monitor for complication like thrombosis, organ damage, gout, education
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***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.***