

**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 diet intake, malabsorption, blood loss, hemolysis	Absent or reduced globulin protein leading to inadequate production of hgb	Lack of intrinsic factor leads to lack of cobalamin absorption, GI surgery, Crohn disease	Chronic alcohol use, diet deficiency, celiac disease, increased requirement (pregnancy), intestinal malabsorption
<b>Clinical Manifestations</b>	Pallor, glossitis, cheilitis, headaches, paresthesia, burning sensation of the tongue	Jaundice, splenomegaly, hepatomegaly, cardiomyopathy, endocrine problems	Anorexia, nausea, vomiting, abdominal pain, weakness, paresthesia, ataxia, impaired cognition	Similar to cobalamin deficiency; stomatitis, dysphagia, diarrhea
<b>Diagnostic Studies</b>	Decreased hgb/hct, decreased MCV, decreased serum iron, decreased ferritin	Decreased hgb/hct, increased reticulocytes, increased iron, increased bilirubin, decreased folate	Decreased hgb/hct, increased MCV, increased ferritin, decreased B12	Decreased hgb/hct, decreased folate
<b>Drug Therapy</b>	Ferrous sulfate taken with vitamin C to increase absorption 2 hour before meals	Deferasirox, deferiprone, deferoxamine, luspatercept-aamt	Parenteral vitamin B12, cyanocobalamin	Folic acid replacement therapy
<b>Nursing Management</b>	Treat underlying problem causing iron loss, replace iron with supplementation, educate on iron rich foods	Monitor liver, heart, and lung function	Assess for neurological problems, administer vitamin B12 and cyanocobalamin	Assess for neurological problems, administer folic acid

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>	Cancer, autoimmune disorders, infectious disorders, HF, chronic inflammation	Autoimmune activity by autoreactive T lymphocytes, toxic injury to bone marrow, stem cell defect	Trauma, surgery complications, disruption in vascular integrity	Bleeding ulcers, hemorrhoids, menstrual blood loss
<b>Clinical Manifestations</b>	Fatigue	Fatigue, dyspnea, petechiae, bruising, nosebleeds	Increased HR, decreased BP, pain	Fatigue
<b>Diagnostic Studies</b>	Decreased hgb/hct, decreased iron,	Decreased hgb/hct, decreased reticulocytes,	Decreased hgb/hct	Decreased hgb/hct, decreased iron
<b>Drug Therapy</b>	Correct underlying problem, blood transfusions	immunosuppressive therapy, thrombopoietin receptor agonist	Blood transfusions, IV fluids	Iron supplements
<b>Nursing Management</b>	Assess past medical history, administer blood transfusions	Monitor for infection, monitor for bleeding	Monitor for bleeding, administer blood transfusions	Identify sources of chronic blood loss

Table 3	<b>Acquired Hemolytic Anemia</b>	<b>Hemochromatosis</b>	<b>Polycythemia</b>
<b>Etiology</b>	Hemolysis of RBCs due to physical destruction, antibody reactions, infectious agents/toxins	Genetic defect	Increased production and presence of increased number of RBCs
<b>Clinical Manifestations</b>	Fatigue	Fatigue, arthralgia, abdominal pain, weight loss, cirrhosis	Hypervolemia, hyperviscosity, HA, vertigo, dizziness, itching
<b>Diagnostic Studies</b>	Decreased hgb/hct, increased reticulocytes, increased bilirubin	Increased iron, increased ferritin	Increased hgb/hct, increased WBC, hypercellularity of RBCs, WBCs, platelets

<b>Drug Therapy</b>	IV fluids, electrolyte replacement, folate replacement	Remove iron by removing 500 mL of blood each week, deferoxamine	Removal of 300-500 mL of blood every few days, myelosuppressive agents
<b>Nursing Management</b>	Monitor kidney function, administer fluids	Monitor for signs of liver failure	Assess intake/output, assess nutritional status

***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.***