

**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>	May develop from inadequate intake, malabsorption, blood loss, or hemolysis	Group of diseases involving inadequate production of normal Hgb, which then decreases RBC production	Absence of intrinsic factor which is needed for cobalamin absorption	Decrease in folic acid which is needed for DNA synthesis leading to RBC maturation and formation
<b>Clinical Manifestations</b>	Asymptomatic in beginning Pallor, glossitis, cheilitis, headache, paresthesia, burning sensation of tongue as it becomes chronic	Often asymptomatic with minor Growth deficits, pale skin, anemia, jaundice, splenomegaly, hepatomegaly, cardiomyopathy with major	Sore tongue, anorexia, nausea, weakness, ataxia, impaired cognition	Stomatitis, cheilosis, dysphagia, flatulence, diarrhea, neuro symptoms
<b>Diagnostic Studies</b>	Labs, stool occult studies, EGD or colonoscopy, bone marrow biopsy	Low hgb, high iron, low transferrin, low folate	Low cobalamin, normal folate,	Low folate, normal cobalamin
<b>Drug Therapy</b>	Iron therapy	Deferasirox, deferiprone, deferoxamine, reblozyl	Cobalamin, vitamin B12	Folic acid
<b>Nursing Management</b>	Treat underlying problem, replace the iron, pt. education	Blood transfusions, monitor lab values, pt education,	Cobalamin administration, B12 administration, assess for neuro symptoms, educate on reduction of injury	Pt education specifically to diet, medication administration

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>	Underproduction of RBC and mild shortening of RBC survival	Due to autoimmune activity by autoreactive T lymphocytes. T cells target and destroy stem cells	Occurs with sudden and excessive bleeding	Chronic blood loss leading to depleted iron stores
<b>Clinical Manifestation</b>	Fatigue, weakness, pale skin, SOB, dizziness	Fatigue, dyspnea, cardiovascular response, cerebral response, bleeding	Depends on amount of blood lost Postural hypotension, air	Postural hypotension, rapid pulse, clammy skin, shock

s			hunger, rapid pulse, clammy skin, shock, death	
<b>Diagnostic Studies</b>	High ferritin, high iron, normal folate and cobalamin	Hgb, WBC, platelet values decreased	Normal for a few days RBC, hgb, Hct low	Low RBC, Hgb, Hct
<b>Drug Therapy</b>	EPO therapy	HSCT therapy, cyclosporin, ATG	Blood transfusion, platelets, iron	Blood transfusion, platelets, iron
<b>Nursing Management</b>	Correct underlying problem, blood transfusion, pt education	Identify causative agent, supportive care, pt education, prevent complications	Replace blood volume, prevent shock, promote coagulation, find source of bleeding	Identify source, stop the bleeding, administer iron supplements

Table 3	<b>Acquired Hemolytic Anemia</b>	<b>Hemochromatosis</b>	<b>Polycythemia</b>
<b>Etiology</b>	RBC normal, external factors causing damage	Iron overload disorder characterized by increased intestinal iron absorption	Production and presence of increased numbers of RBC
<b>Clinical Manifestations</b>	Typical anemia signs and symptoms plus jaundice	Fatigue, arthralgia, impotence, abdominal pain, weight loss, cirrhosis, diabetes, pigment changes,	Hypertension, headache, vertigo, dizziness, visual changes, itching, angina, HF
<b>Diagnostic Studies</b>	Increased bilirubin levels, increased Hgb	Very high iron, high TIBC, high ferritin, genetic testing, liver Biopsy,	High Hgb, Hct, RBC, platelets, cobalamin Bone marrow exam Presence of gene mutation
<b>Drug Therapy</b>	NA	Iron chelating drugs	Iron after removal of blood, aspirin
<b>Nursing Management</b>	Maintain renal function, pt education	Minimize symptoms, administer medications, monitor for organ involvement, pt education	Removal of blood, hydration therapy, ongoing evaluation of pt condition, pt education

***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.***