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	• Inadequate Iron Intake:
	  o Liver
	  o Meat
	  o Eggs
	  o Whole-Grain/ Enriched Breads and Cereals
	  o Potatoes
	  o Leafy Green Vegetables
	  o Dried Fruits
	  o Legumes
	  o Citrus Fruits
	• Chronic Blood Loss:
	  o GI
	  o Menstrual
	• Malabsorption
		• Genetic Defect w/ Hemoglobin Synthesis	• Poor Dietary Intake
			• Pernicious Anemia
			• Malabsorption
				• Poor Diet
				• Malabsorption
				• Alcoholism
				• Pregnancy

Clinical Manifestations	• Smooth Tongue
	• Splenomegaly
	• Fatigue
	• Pallor:
	  o Conjunctival
	  o Skin
	  o Nails
	• Altered BP:
	  o >140/90
	  o SBP <90
	  o DBP >40
	• Orthostasis:
	  o HR ↑ > 20 bpm
	• Palpitations
	• Tachycardia
	• Gingival/Mucous Membrane Changes
	• Headache
	• Nuchal Rigidity
		• Hepatomegaly
		• Fatigue
		• Pallor
		• Delayed Development
		• Splenomegaly
			• Fatigue
			• Glossitis
			• Neurologic Symptoms:
			  o Paresthesia:
			  ▪ Hands
			  ▪ Feet
			  o Unsteady Gait
				• Fatigue
				• Irritability
				• Glossitis

	• Weakness • SOB • Brittle Nails • Glossitis			
Diagnostic Studies	• ↓ Hgb/Hct • ↓ MCV • ↓ Ferritin • ↓ Serum Iron • ↑ TIBC	• ↓ Hgb/Hct • ↓ MCV	• ↓ Hgb/Hct • ↑ MCV • ↓ B12 Level	• ↓ Hgb/Hct • ↑ MCV • ↓ Folate Level
Drug Therapy	• Iron Supplements • Iron Therapy	• RBC Transfusions	• B12 Supplements	• Folic Acid Supplements
Nursing Management	• Diet Education • Medication Adherence Education	• Genetic Counseling • Monitor for Severe S/Sx to Report to HCP	• Monitor Neurological Status • Medication Adherence Educate	• Alcohol Cessation • Diet Education

Table 2	**Anemia of Chronic Disease**	**Aplastic Anemia**	**Acute Anemia due to Blood Loss**	**Chronic Anemia due to Blood Loss**
Etiology	• Chronic Inflammation • CKD • Malignancy	• Bone Marrow Failure: o Autoimmune o Drugs o Toxins o Infections	• Trauma • Surgery • Hemorrhage	• GI Bleed • Menstruation
Clinical Manifestations	• Fatigue • Pallor • SOB • Underlying Dx	• Fatigue • Infections • Bleeding • Petechiae	• Hypotension • Tachycardia • Dizziness • Shock	• Fatigue • Pallor • Exertional Dyspnea
Diagnostic	• ↓ Hgb • ↓ Iron • ↓ TIBC	• Pancytopenia • ↓ Reticulocytes	• ↓ Hgb/Hct • S/Sx of	• ↓ Hgb/Hct • ↓ Ferritin

Studies		• Bone Marrow Biopsy	Hypovolemia	• ↓ Iron
Drug Therapy	• Tx Underlying Dx • Erythropoietin	• Immunosuppressants • Bone Marrow Transplant	• Blood Transfusion • IV Fluids	• Iron Supplements • Tx Source of Bleeding
Nursing Management	• Monitor Labs • Manage S/Sx • Tx Underlying Cause	• Infection Control • Bleeding Precautions	• Monitor VS	• Identify Bleeding Source • Iron Intake Education

Table 3	**Acquired Hemolytic Anemia**	**Hemochromatosis**	**Polycythemia**
Etiology	• Autoimmune • Transfusion Reactions	• Genetic Disorder → Iron Overload	• Polycythemia • Hypoxia • ↑ EPO Production

Clinical Manifestations	• Jaundice
	• Dark Urine
	• Splenomegaly
	• Fatigue
		• Fatigue
		• Joint Pain
		• Liver Damage
		• Skin Bronzing
			• Vision:
			  o Blurred
			  o Diplopia
			  o Visual Field Cuts
			• Flushing:
			  o Hands
			  o Feet
			• Headache
			• Hypertension
			• Itching
			• Thrombosis

Diagnostic Studies	• ↑ Reticulocytes • ↑ LDH • ↓ Haptoglobin • Positive Coombs Test	• ↑ Ferritin • ↑ Iron • Genetic Testing	• ↑ RBC/Hgb/Hct • ↑ or ↓ EPO

Drug Therapy	• Immunosuppressants • Corticosteroids • Transfusions •	• Iron Therapy • Phlebotomy	• Phlebotomy • Hydroxyurea • Aspirin
Nursing Management	• Prevent Triggers • Monitor Labs • Pt Education	• Iron-Restricted Diet • Monitor for Organ Damage	• Monitor Hct • Prevent Thrombosis • Hydration 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.