Unit 7: Hematology
Chapter 33 & 34
ONLINE CONTENT (2H)

Complete the worksheet and submit in the Unit 7: Hematology dropbox by March 18, 2024 at 0800. Please be sure to bring a copy to class on March 18, 2024.

Table 1	Iron Deficiency Anemia	Thalassemia	Cobalamin (Vitamin B_{12}) Deficiency	Folic Acid Deficiency
Etiology	Inadequate dietary intake of iron, Increased iron loss through chronic bleeding, Impaired absorption of iron due to gastrointestinal disorders	genetic mutations that affect the production of hemoglobin, the protein in red blood cells responsible for carrying oxygen	Dietary insufficiency, malabsorption, intrinsic factor deficiency, medications	Inadequate diet (leafy greens, fruits), medication interference, Increased demand during pregnancy
Clinical Manifestations	Fatigue, brittle nails, pale skin, pica, headaches dissiness.	Jaundice, Splenomegaly, severe anemia fatigue.	Anemia, Neuropathy, weakness, loss weight, loss appetite, Depression, glossitis	Megaloblastic anemia, fatigue and weakness, SOB, Pallor, Glossitis, Diarrhea
Diagnostic Studies	CBC, blood smear, serum Ferritum, TIBC	CBC, Genetic testing, Chronic Villus Sampling during pregnancy, Blood smear	Serum B12, CBC< Blood Smear, Homocystenine and Methylmalonic acid levels,	CBC, Folate levels, RBC Folate, Bone Marrow, Homocysteine and Methylmalonic Acid Levels
Drug Therapy	Iron Supplements, IV Iron	Folic acid, blood transfusion, bone marrow transplant, iron therapy	Vitamin B12,	Folic acid supplements
Nursing Management	Assess- skin, diet habits, signs bleeding. Monitor- Hgb, HCT, Educate on food high in iron.	Blood transfusion management, educate genetic testing, Administering iron chelation therapy to prevent iron overload	Educate proper B12 diet, Monitor blood levels, Take B12 supplements	Manage symptoms, Educate diet, Monitor lab levels

Table 2	Anemia of Chronic Disease	Aplastic Anemia	Acute Anemia due to Blood Loss	Chronic Anemia due to Blood Loss
Etiology	Rheumatoid arthritis, Inflammatory Bowel Disease, Lupus, Cancer, ACD	Toxin exposure, Viral infection, No clear cause	Blood loss due to trauma, surgery, GI bleed, Hemorrhage	Peptic ulcer, gastritis, IBD, Tumor, Menstrual disorder, Trauma
		Fatigue, Pallor, Infection, Bleeding, SOB	Weakness, pale skin, tachycardia, SOB,	Fatigue weakness, pale skin, dizziness, tachycardia

Clinical Manifestations	Fatigue, weakness, pallor, SOB, tachycardia		Hypotension	
Diagnostic Studies	CBC, Serum Ferritin, CRP,	CBC, Blood smear, Bone marrow biopsy	CBC Blood Smear, Coag test, Endoscopy	CBC, Blood smear, Iron, endoscopoy, ct scan
Drug Therapy	Iron supplements, Erythropoietin,	Immunosuppressive therapy, Hematopoietic growth factors	Blood transfusion, EPO	Iron, EPO
Nursing Management	Regular assessments, Educate about underlying diseases, medication adherence,	Monitor for infection, Transfusion support,	VS, Oxygen management, Fluid replacement, Pain mangement	VS, Administer Medications, Transfusion, Educate on monitor s/s

Table 3	**Acquired Hemolytic Anemia**	**Hemochromatosis**	**Polycythemia**
Etiology	Autoimmune Hemolytic Anemia, Malaria, antimalaria drugs, Toxins,	mutated gene leads to increased absorption of iron from the diet in the small intestine, resulting in iron overload.	Chronic hypoxia, tumor releasing erythropoietin, increase HCT Hgb levels
Clinical Manifestations	Jaundice, SOB, fatigue, Splenomegaly	Joint pain, abdominal pain (splenomegaly enlarged liver), skin color(grayish tint) HF, DM, Hypothyroidism,	Enlarged spleen, fatigue weakness dizziness, pruritus after a warm bath
Diagnostic Studies	CBC, Bilirubin, Coombs test, Blood smear	Iron levels, AST,ALT, genetic testing Liver biopsy,	CBC, Bone marrow biopsy, Erythropoietin levels, Genetic teting
Drug Therapy	Prednisone, Rituximab, Blood transfusion	Iron Chelation therapy, Dialysis	Regular removal of blood, aspirin, Myelosuppressive drugs
Nursing Management	Monitor VS, Oxygen, Transfusion management, Educate on medication compiance	Assist patient on diet changes limit iron rish foods, Regular assessment of blood levels, educate on genetic testing, assess dialysis	Monitor VS, Educate medication adherence, Encourage hydration to prevent thrombtic events,

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.