Anemia: low rbc and or low hgb

Anemia: Low RBC and/or low HgB Causes: Hypoproliferative (not producing enough): Deficiencies, Cancer. Hemolytic (destruction of): Disease, hyperslenism, mech. Heart valves. Blood loss. S/S: Fatigue, weakness, malaise, pallor, jaundice, cardiac and respiratory symptoms, tongue/nail changes, pica, Nail changes, angular cheilosis (cracks at corners of mouth) PT w/ hypothytoid may be asymptomatic. PT w/ CV or Pulmonary disease may have severe symptoms. Elderly: More pronounced. Dementia, cognitive, fragility, falls, mobility. Complications: HF, paresthesias, delirium, angina TX: Correct cause, PRBC, Diet, supplementation, immunosuppressive, BMT (bone marrow), PBSCT (stem cells) NI: PMH, exam, Labs, symptoms, nutrition, meds, CV+GI+Neuro assesments, blood loses (menses/GI), manage fatigue, tissue perfusion, compliance with TX, balance activity/rest, monitor VS, O2, education, Sickle Cell Disease: Increased HgB S, autosomal recessive. Trait: One defective gene. Carrier. Rarely has symptoms Disease: Both defective genes. Has crisis. Low Hct, Low HgB Syndrome: Cell has a C shape instead of S shape. Most common type in AA population. Same problems as Disease. Sickle cell/Beta thalassemia: Mediterranean. Crisis in SCD is triggered by: hypoxia, temperature extremes, excessive exercise, anesthesia, dehydration, fever, hi altitude, vomiting, pregnancy, EtOH, acidosis, elevated HgB, elevated Reticulocytes. DX: HgB electrophoresis. Sickle-turbidity test (SickleDex) => 6mths of age. Reticulocyte counts measured regularly S/S: Acute and chronic manifestations, Pallor, fatigue, jaundice, irritability, Pain, Shortened RBC lifespan, compromised erythropoiesis can lead to profound aplastic anemia Complications: Splenomegaly, Acute chest syndrome @ 2-4 years of age(infection, infarction, PE, Fat embolism), CVA, Hematuria, dehydration, Tachycardia, HF, Bone infarction, jaundice, gallstone,

hepatomegaly, skin ulcers, dec wound healing, eye scaring, eye hemorrhage, retina detachment, impotence. TX: Primarily supportive. HOLP (Heat, O2, Liquids, Pain). Pneumococcal vaccine recommended. Hydroxyurea: Increases Fetal HgB. Shown to reduce number of crisis'. S/E: dec leukocytes, teratogensesis, malignancy. PBSCT: Contra in pts. w/ organ damage PRBC: S/E iron overload, alloimmunization, increased blood visc.. Daily folic acid Aggressive infection treatments, particularly pneumococcal. Splenectomy Genetic counseling NI: : PMH, exam, Labs, symptoms, nutrition, meds, CV+GI+Neuro assesments, blood loses (menses/GI), manage fatigue, tissue perfusion, compliance with TX, balance activity/rest, monitor VS, O2, education, NI: Pain relief, monitor for infections, coping skills, education, monitor for complications (ulcers, priapism leading to impotence, substance abuse, promoting self care. Delayed growth: Hi protein/calorie diet. Folic acid/vit c. Monitor growth. Fluid maintenance requirements (100mL/Kg for 1st 10, then 50mL/Kg next 10kg, then 20mL/Kg) Normal WBC per book (4500-11000) HBSS PAIN HRSS Hemolysis, Bone marrow, Stroke, Skin ulcer, Pain, Anemia, Infections, Nocturia, HF, Renal, Sequestration, Sepsis 1 The nurse is teaching a group of parents whose children have sickle cell anemia. When a parent asks the cause of the symptoms, the nurse responds with which of the following? " The sickled cells mix with normal cells, which causes the immune system to be depressed. " " Sickled cells increase the blood flow through the body, which causes pain. " " Sickled cells clump in the smaller blood vessels and obstruct blood flow. " " Sickled cells cause bone marrow depression. " 2 A child with suspected sickle cell disease (SCD) is in the clinic for laboratory studies. The parents ask the nurse what results will tell the physician that their child has SCD. The nurse responds that which of

the following is increased in this disease? Hemoglobin Reticulocyte count Platelet count Hematocrit 3 The nurse is instructing the mother of a child with sickle cell disease about the risk factors for precipitation of sickle cell crisis. Which of the following, if identified by the mother as a precipitating factor, indicates the need for further teaching? Infection Trauma Fluid overload Stress 4 A pregnant woman tells the nurse that there is a history of sickle cell disease in her family and she is afraid that the baby will have the disease. The nurse provides the client with which of the following information? Both the mother and father must carry the gene for the baby to be affected. Genetic testing will be needed to determine if the baby is affected. Sickle cell is a male disease and would be passed on by the baby's father. The baby needs only one parent to be a carrier to be affected. 5 The nurse is caring for a child who is in the hospital experiencing sickle cell crisis. The parents are asking the nurse which treatment will help cure the child. The nurse responds with which of the following? Treatment with an exchange transfusion of blood will cure the child. Treatment with morphine will cure sickle cell disease. There is no treatment for sickle cell crisis. Treatment is aimed at pain control, oxygen therapy, and hydration, but does not provide a cure. 6 The nurse is admitting a 7-year-old client who is experiencing sickle cell crisis and plans care based on which of the following nursing diagnoses? Ineffective Airway Clearance Risk for Bleeding Risk for Constipation Delayed Growth and Development 7 The nurse is evaluating a child in sickle cell crisis who was at risk for a cerebrovascular accident. The nurse monitors the child by evaluating which of the following? Gastrointestinal system Renal system Cardiovascular system Neurovascular system 8 The nurse is planning care for a child who is newly diagnosed with sickle cell disease. Which of the

following would the nurse plan with the family to best promote the child’s growth and development? Individualized school health plan Renal health plan Nutritional support during hospitalizations Emergency care in the school setting Answers: C, B, C, A, D, D, D, A