

Clinical Questions

- 1) Why would there be cause for concern if a young pregnant mother is Rh⁻, her husband is Rh⁺, and this is their second child?

Answer: If the mother was given RhoGAM before or shortly after the birth of the first child, there is little concern, because the RhoGAM prevented the mother from sensitizing herself against her child. If she did not take RhoGAM, there is a chance the second child will develop erythroblastosis fetalis and die before birth.

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- 2) A total WBC count and a differential WBC count have been ordered for Mrs. Johnson. What information is obtained from the differential count that the total count does not provide?

Answer: The differential count determines the relative proportion of individual leukocyte types (a valuable diagnostic tool). The total WBC count indicates an increase or decrease in number of WBCs.

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- 3) List three blood tests that might be ordered if anemia is suspected.

Answer: The tests for anemia are hematocrit, complete blood count, and microscopic study of erythrocytes.

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- 4) A person complains of no energy, a chronic sore throat, a low-grade fever, and is tired and achy. His doctor notes an enlarged spleen upon examination. What diagnosis would you expect and what definitive test would you request?

Answer: The test would be a differential white blood cell count to look for elevated numbers of monocytes and atypical lymphocytes. The diagnosis would be possible infectious mononucleosis, pending test results.

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- 5) A man of Mediterranean ancestry goes to his doctor with the following symptoms. He is very tired all of the time. He has difficulty catching his breath after even mild exercise. His doctor orders the following tests: CBC, hematocrit, differential WBC count. The tests show immature erythrocytes, fragile erythrocytes, and less than 2 million RBCs per cubic millimeter. What would be a tentative diagnosis and suggested treatment?

Answer: The diagnosis is thalassemia. The treatment is blood transfusion.

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- 6) A 68-year-old male is admitted to the hospital for emphysema. He is hypoxic and his labs reveal low oxygen levels. His hematocrit is 65%. The physician has told him that he has a type of polycythemia in which he has an increased number of erythrocytes circulating in his bloodstream. The client tells the nurse that he does not understand what that means. How would the nurse explain this in terms the client would understand?

Answer: "Because you have decreased oxygen levels in your blood, your body has responded by producing more red blood cells, causing a type of polycythemia. The low oxygen level stimulates erythropoietin production in the kidneys to stimulate more red blood cells."

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- 7) An elderly client tells the nurse that she has been very tired lately and has difficulty walking to her mailbox, without getting very short of breath. The nurse notes the mucous membranes are pale. She states since her husband died three months ago, she has not been eating well. The physician confirms that she has iron-deficiency anemia. How are the client's clinical manifestations and iron deficiency anemia related?

Answer: The clinical manifestations are directly attributed to the reduction in the amount of oxygen available to tissues. Anemic individuals are fatigued, often pale, short of breath, and chilly.

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- 8) A 17-year-old black male is admitted to the hospital in sickle-cell crisis. Pain management is a top priority for clients in sickle-cell crisis. Explain why.

Answer: Sickle cell anemia results from a defective hemoglobin S-producing gene which causes red blood cells to roughen and become sickle-shaped. Such sickling can produce hemolysis. The altered cells tend to pile up in capillaries and smaller blood vessels, making the blood more viscous. Normal circulation is impaired, causing severe pain and swelling.

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- 9) A 52-year-old woman was diagnosed with leukemia and has been receiving chemotherapy as an outpatient. She tells the RN that she hasn't been feeling well. The patient's skin is warm to touch and she has a low-grade fever of 100.2 F. The neutrophil blood count is less than 1000/ul. The nurse is concerned about the possibility of infection because of the neutropenia and low-grade fever. Explain why.

Answer: A low-grade fever in someone who has neutropenia is a major concern for survival. Neutropenia is a concern because of the neutrophil's role in phagocytosis. This patient has a decreased ability to fight off infection

