Matching Questions

Figure 17.1

Using Figure 17.1, match the following:
1) Monocyte.
   Answer: B
   Diff: 1 Page Ref: 645; Tbl. 17.2

2) Lymphocyte.
   Answer: D
   Diff: 1 Page Ref: 645; Tbl. 17.2

3) Eosinophil.
   Answer: C
   Diff: 1 Page Ref: 645; Tbl. 17.2

4) Neutrophil.
   Answer: A
   Diff: 1 Page Ref: 645; Tbl. 17.2

5) Most common white blood cell found in whole blood.
   Answer: A
   Diff: 1 Page Ref: 644; Tbl. 17.2

6) Mounts an immune response by direct cell attack or via antibodies.
   Answer: D
   Diff: 1 Page Ref: 646; Tbl. 17.2

7) Kills parasitic worms.
   Answer: C
   Diff: 1 Page Ref: 645; Tbl. 17.2
8) Becomes a macrophage.
Answer:  B
Diff: 1      Page Ref: 646; Tbl. 17.2

9) Main bacteria killer during acute infections.
Answer:  A
Diff: 1      Page Ref: 646; Tbl. 17.2

Match the following:

A) Eosinophil
B) Neutrophil
C) Erythrocyte
D) Monocyte
E) Basophil

10) Nucleus has two lobes; contains granules of lysosomal enzymes; functions in attacking parasitic worms.
Diff: 1      Page Ref: 645; Tbl. 17.2

11) Nucleus is multilobed; functions as a phagocyte; contains fine indistinct granules.
Diff: 1      Page Ref: 644; Tbl. 17.2

12) Transports CO\textsubscript{2} and oxygen.
Diff: 1      Page Ref: 637; Tbl. 17.2

13) Contains a U- or an S-shaped nucleus; granules stain very dark; releases histamine and heparin.
Diff: 1      Page Ref: 646; Tbl. 17.2

14) Largest of the WBCs; crucial in defense against viruses; associated with chronic infections.
Diff: 1      Page Ref: 646; Tbl. 17.2

Match the following:

A) Albumin
B) Fibrinogen

15) The major contributor to plasma osmotic pressure.
Diff: 1 Page Ref: 636; Tbl. 17.1

16) Thrombin catalyzes the activation of these molecules present in plasma.
Diff: 1 Page Ref: 651-652

17) Forms the structural framework of a blood clot.
Diff: 1 Page Ref: 651-652

18) Makes up most of plasma protein.
Diff: 1 Page Ref: 636; Tbl. 17.1

Answers: 15) A 16) B 17) B 18) A

Match the following:

A) Albumin
B) Fibrinogen
C) Gamma globulins
D) Alpha and beta globulins

19) Main contributor to osmotic pressure.
Diff: 1 Page Ref: 636; Tbl. 17.1

20) Antibodies released by plasma cells during immune response.
Diff: 1 Page Ref: 636; Tbl. 17.1

21) Forms fibrin thread of blood clot.
Diff: 1 Page Ref: 651; Tbl. 17.1

22) Transport proteins that bind to lipids, metal ions, and fat-soluble vitamins.
Diff: 1 Page Ref: 636; Tbl. 17.1

Answers: 19) A 20) C 21) B 22) D
Match the following:

A) Monocyte
B) Factor VIII
C) Agglutination
D) Neutrophil
E) Hemoglobin

23) Polymorphonuclear leukocyte.
Diff: 1 Page Ref: 644; Tbl. 17.2

24) White blood cell with dark-staining nucleus.
Diff: 1 Page Ref: 646; Tbl. 17.2

25) Protein capable of changing shape and color in the presence of O₂.
Diff: 1 Page Ref: 638

26) Adverse reaction of donor blood cells with recipient plasma.
Diff: 1 Page Ref: 656

27) Lacking in hemophilia type A.
Diff: 2 Page Ref: 654


Match the following:

A) Heparin
B) Spectrin
C) Erythropoietin
D) Interleukins and CSFs
E) Prostaglandin derivates such as Thrombozane A₂

28) Produced by platelets.
Diff: 3 Page Ref: 650

29) A fibrous protein that gives shape to an RBC plasma membrane.
Diff: 3 Page Ref: 637

30) Hormone that stimulates production of RBCs.
Diff: 3 Page Ref: 639

31) Stimulates WBC production.
Diff: 3 Page Ref: 646

32) Natural anticoagulant found in basophils.
Diff: 3 Page Ref: 653

Figure 17.2

*Using Figure 17.2, match the following:*

33) Type O.
Answer: D
Diff: 2  Page Ref: 656; Fig. 17.16

34) Type A.
Answer: B
Diff: 2  Page Ref: 656; Fig. 17.16

35) Type AB.
Answer: A
Diff: 2  Page Ref: 656; Fig. 17.16

36) Type B.
Answer: C
Diff: 2  Page Ref: 656; Fig. 17.16

37) Universal donor.
Answer: D
Diff: 3  Page Ref: 656; Fig. 17.16
38) Universal recipient.
Answer: A
Diff: 3    Page Ref: 656; Fig. 17.16

Match the following:
A) Leukemia
B) Anemia
C) Polycythemia
D) Embolism

39) Cancerous condition involving white blood cells.
Diff: 1    Page Ref: 648

40) Condition in which blood has abnormally low oxygen-carrying capacity.
Diff: 1    Page Ref: 641

41) Abnormal excess of erythrocytes resulting in an increase in blood viscosity.
Diff: 1    Page Ref: 643

42) Free-floating thrombus in the bloodstream.
Diff: 1    Page Ref: 653

Answers: 39) A 40) B 41) C 42) D

True/False Questions

1) The primary source of RBCs in the adult human being is the bone marrow in the shafts of the long bones.
Answer: FALSE
Diff: 1    Page Ref: 638

2) Leukemia refers to cancerous conditions of white blood cells.
Answer: TRUE
Diff: 1    Page Ref: 648

3) The immediate response to blood vessel injury is clotting.
Answer: FALSE
Diff: 1    Page Ref: 649

4) The process of fibrinolysis disposes of bacteria when healing has occurred.
Answer: FALSE
Diff: 1    Page Ref: 652

5) The RBC "graveyard" is the liver.
Answer: FALSE
Diff: 1    Page Ref: 641
6) Hemorrhagic anemias result from blood loss.
Answer: TRUE
Diff: 1 Page Ref: 641-642

7) White blood cells are produced through the action of colony-stimulating factors.
Answer: TRUE
Diff: 1 Page Ref: 646

8) Hemoglobin is made up of the protein heme and the red pigment globin.
Answer: FALSE
Diff: 1 Page Ref: 638

9) Each heme contains an atom of iron and can transport one molecule of oxygen.
Answer: TRUE
Diff: 1 Page Ref: 638

10) Each hemoglobin molecule can transport two molecules of oxygen.
Answer: FALSE
Diff: 1 Page Ref: 638

11) Diapedesis is the process by which red blood cells move into tissue spaces from the interior of blood capillaries.
Answer: FALSE
Diff: 1 Page Ref: 643

12) Positive chemotaxis is a feedback system that signals leukocyte migration into damaged areas.
Answer: TRUE
Diff: 1 Page Ref: 643

13) A condition of leukocytosis indicates over 11,000 white blood cells per cubic millimeter in the blood.
Answer: TRUE
Diff: 1 Page Ref: 643

14) Basophils increase in number when parasitic invasion occurs.
Answer: FALSE
Diff: 1 Page Ref: 645-646

15) Leukopenia is an abnormally low number of leukocytes.
Answer: TRUE
Diff: 1 Page Ref: 646-647

16) A person with type B blood could receive blood from a person with either type B or type O blood.
Answer: TRUE
Diff: 1 Page Ref: 655; Tbl. 17.4
17) Leukocytes move through the circulatory system by amoeboid motion.
Answer: FALSE
Diff: 2 Page Ref: 643

18) Granulocytes called neutrophils are phagocytic and are the most numerous of all white blood cell types.
Answer: TRUE
Diff: 2 Page Ref: 644

19) All lymphocytes are leukocytes, but not all leukocytes are lymphocytes.
Answer: TRUE
Diff: 2 Page Ref: 646; Tbl. 17.2

20) Myelocytic leukemia involves a cancerous condition of lymphocytes.
Answer: FALSE
Diff: 2 Page Ref: 648

Multiple-Choice Questions

1) Which of the following is a pivotal molecule associated with the external surfaces of aggregated platelets and is involved in the intrinsic and extrinsic mechanisms of blood clotting?
   A) PGI2
   B) PF3
   C) Thrombin
   D) Thromboplastin (prothrombin activator)
Answer: B
Diff: 3 Page Ref: 651

2) What is the average normal pH range of blood?
   A) 8.35—8.45
   B) 7.75—7.85
   C) 7.35—7.45
   D) 4.65—4.75
Answer: C
Diff: 1 Page Ref: 635

3) The special type of hemoglobin present in fetal red blood cells is ________.
   A) hemoglobin A
   B) hemoglobin B
   C) hemoglobin F
   D) hemoglobin S
Answer: C
Diff: 1 Page Ref: 657
4) Which of the choices below is the parent cell for all formed elements of blood?
A) megakaryocyte
B) NK cell
C) pluripotent stem cell (hemocytoblast)
D) polymorphonuclear cell
Answer: C
Diff: 2 Page Ref: 639

5) Which blood type is called the universal donor?
A) A
B) B
C) AB
D) O
Answer: D
Diff: 1 Page Ref: 656

6) Which of the following is a regulatory function of blood?
A) delivery of oxygen to body cells
B) transport of metabolic wastes from cells
C) prevention of blood loss
D) maintenance of normal pH in body tissues
Answer: D
Diff: 1 Page Ref: 636

7) Which of the following is a protective function of blood?
A) prevention of blood loss
B) maintenance of adequate fluid volume
C) maintenance of normal pH in body tissue
D) maintenance of body temperature
Answer: D
Diff: 1 Page Ref: 636

8) Which of the statements below is an incorrect or false statement?
A) Transfusion of incompatible blood can be fatal.
B) Unique to the ABO blood group is the presence in the plasma of preformed antibodies.
C) Blood typing for the Kell, Lewis, and Duffy factors is always done before a blood transfusion.
D) When a transfusion reaction occurs, the oxygen-carrying capacity of the transfused blood cells is disrupted and the clumping of RBCs in small vessels hinders blood flow to tissues beyond those points.
Answer: A
Diff: 2 Page Ref: 654
9) Which of the following might trigger erythropoiesis?
A) hypoxia of EPO-producing cells
B) decreased tissue demand for oxygen
C) an increased number of RBCs
D) moving to a lower altitude
Answer: A
Diff: 1 Page Ref: 639

10) As red blood cells age ________.
A) ATP production increases
B) membranes "wear out" and the cells become damaged
C) they will eventually be excreted by the digestive system
D) iron will be excreted by the kidneys
Answer: B
Diff: 1 Page Ref: 641

11) An individual who is blood type AB negative can ________.
A) receive any blood type in moderate amounts except that with the Rh antigen
B) donate to all blood types in moderate amounts
C) receive types A, B, and AB, but not type O
D) donate to types A, B, and AB, but not to type O
Answer: A
Diff: 1 Page Ref: 654-655

12) The most abundant plasma protein is ________.
A) globulin
B) clotting protein
C) albumin
D) bile
Answer: C
Diff: 1 Page Ref: 636

13) When neither anti-A sera nor anti-B sera clot on a blood plate with donor blood, the blood is type ________.
A) A
B) B
C) AB
D) O
Answer: D
Diff: 1 Page Ref: 656; Fig. 17.16
14) Select the correct statement regarding blood cell formation.
A) The main sites of blood cell production in adults are the spleen and the liver.
B) Before the seventh month of fetal development, yellow marrow is the main site of blood cell formation.
C) Red marrow is the main site of blood cell formation throughout adult life.
D) Yellow marrow is the main site of leukocyte formation.
Answer: C
Diff: 1 Page Ref: 657

15) Blood volume restorers include all of the following except ________.
A) dextran
B) albumin
C) packed cells
D) saline solutions
Answer: C
Diff: 2 Page Ref: 656

16) James has a hemoglobin measurement of 16 g/100 ml blood. This is ________.
A) above normal
B) normal only if James is an infant
C) abnormally low
D) within the normal range
Answer: D
Diff: 2 Page Ref: 638

17) Which of these is not a normal plasma protein?
A) fibrinogen
B) gamma globulin
C) thromboplastin
D) albumin
Answer: C
Diff: 2 Page Ref: 636

18) All of the following can be expected with polycythemia except ________.
A) high hematocrit
B) low blood viscosity
C) increased blood volume
D) high blood pressure
Answer: B
Diff: 2 Page Ref: 643

19) No visible cytoplasmic granules are present in ________.
A) monocytes
B) basophils
C) eosinophils
D) neutrophils
Answer: A
Diff: 2 Page Ref: 646
20) Which of the following is not a phase of hemostasis?
A) vascular spasm
B) fibrinolysis
C) platelet plug formation
D) coagulation
Answer: B
Diff: 2 Page Ref: 649

21) Place the following in correct developmental sequence:

1. reticulocyte
2. proerythroblast
3. normoblast
4. late erythroblast

A) 1, 2, 3, 4
B) 1, 3, 2, 4
C) 2, 1, 3, 4
D) 2, 4, 3, 1
Answer: D
Diff: 2 Page Ref: 639

22) A lack of intrinsic factor, leading to a deficiency of vitamin B\textsubscript{12} and large pale cells called macrocytes, is characteristic of ________.
A) aplastic anemia
B) polycythemia
C) pernicious anemia
D) sickle-cell anemia
Answer: C
Diff: 2 Page Ref: 642

23) The slowest step in the clotting process is ________.
A) formation of prothrombin activator
B) production of fibrin strands
C) binding fibrin strands
D) release of PF\textsubscript{3}
Answer: A
Diff: 2 Page Ref: 651

24) Thromboembolic disorders ________.
A) result in uncontrolled bleeding
B) include thrombus formation, a clot in a broken blood vessel
C) include embolus formation, a clot moving within the circulatory system
D) are caused by vitamin K deficiency
Answer: C
Diff: 2 Page Ref: 653
25) Which of the following is not a cause of bleeding disorders?
A) thrombocytopenia, a condition of decreased circulating platelets
B) excess secretion of platelet-derived growth factor (PDGF)
C) a defect in the clotting cascade
D) vitamin K deficiency
Answer: B
Diff: 2 Page Ref: 653-654

26) Which of the following is characteristic of all leukocytes?
A) They are nucleated.
B) They have cytoplasmic granules.
C) They are phagocytic.
D) They are the most numerous of the formed elements in blood.
Answer: A
Diff: 2 Page Ref: 643

27) Which of the following is true about blood plasma?
A) It is the same as serum but without the clotting proteins.
B) The main protein component is hemoglobin.
C) It is about 90% water.
D) It contains about 20 dissolved components.
Answer: C
Diff: 2 Page Ref: 636

28) Platelets ________.
A) stick to the damaged area of a blood vessel and help seal the break
B) have a life span of about 120 days
C) are the precursors of leukocytes
D) have multiple nuclei
Answer: A
Diff: 2 Page Ref: 648

29) Which sequence is correct for the following events?

1. fibrinogen → fibrin
2. clot retraction
3. formation of thromboplastin
4. prothrombin → thrombin

A) 3, 4, 1, 2
B) 1, 2, 3, 4
C) 4, 3, 1, 2
D) 3, 2, 1, 4
Answer: A
Diff: 3 Page Ref: 650-651
30) Fred's blood was determined to be AB positive. What does this mean?
A) There are no antibodies to A, to B, or to Rh antigens in the plasma.
B) Antibodies to A and B are present in the red cells.
C) His blood lacks Rh factor.
D) He can only receive blood from a donor who is AB positive.
Answer: A
Diff: 3 Page Ref: 655

31) Sickling of red blood cells can be produced in those with sickle-cell anemia by ________.
A) travel at high altitude
B) vigorous exercise
C) malaria and travel at high altitude
D) travel at high altitude and vigorous exercise
Answer: D
Diff: 3 Page Ref: 642-643

32) All of the following conditions impair coagulation except ________.
A) vascular spasm
B) vitamin K deficiency
C) severe hypocalcemia
D) liver disease
Answer: A
Diff: 3 Page Ref: 653

33) When can erythroblastosis fetalis not possibly happen in the child of an Rh negative mother?
A) if the child is type O positive
B) if the child is Rh+
C) if the father is Rh+
D) if the father is Rh-
Answer: D
Diff: 3 Page Ref: 655

34) Complications of aplastic anemia generally do not include ________.
A) increase of leukocytes as a result of erythrocyte loss
B) suppressed immunity
C) impaired formation of all formed elements
D) bleeding disorders
Answer: A
Diff: 2 Page Ref: 642

35) Blood is a ________.
A) colloid
B) homogeneous compound
C) heterogeneous compound
D) suspension
Answer: D
Diff: 2 Page Ref: 635
36) What organ in the body regulates erythrocyte production?
A) kidney  
B) brain  
C) liver  
D) pancreas  
Answer: A  
Diff: 2  
Page Ref: 638-639

Fill-in-the-Blank/Short Answer Questions

1) The formed element ________ can kill parasitic worms.  
Answer: eosinophil  
Diff: 1  
Page Ref: 645

2) A(n) ________ is a committed granular leukocyte stem cell that produces neutrophils.  
Answer: myeloblast  
Diff: 1  
Page Ref: 646

3) The rarest leukocyte is the ________.  
Answer: basophil  
Diff: 1  
Page Ref: 646

4) Potent platelet aggregates that attract more platelets to the site of an injury are ________ and ________.
Answer: adenosine diphosphate (ADP); thromboxane A2  
Diff: 2  
Page Ref: 650

5) The universal recipient blood type is ________.  
Answer: AB  
Diff: 1  
Page Ref: 656

6) When monocytes migrate into the interstitial spaces, they are called ________.
Answer: macrophages  
Diff: 1  
Page Ref: 646

7) Destruction of the hematopoietic components of red marrow leads to a condition called ________.
Answer: aplastic anemia  
Diff: 2  
Page Ref: 642

8) ________ is the stage of development in the life of an erythrocyte during which the nucleus is ejected.  
Answer: Normoblast  
Diff: 2  
Page Ref: 639
9) Hemoglobin is composed of ________ polypeptide chains.
Answer: four
Diff: 1 Page Ref: 638

10) List the general factors that limit normal clot growth.
Answer: Rapid removal of coagulation factors and inhibition of activated clotting factors.
Diff: 2 Page Ref: 652

11) When are whole blood transfusions routinely given?
Answer: When there is rapid and substantial blood loss.
Diff: 2 Page Ref: 654

12) List the most common causes of bleeding disorders.
Answer: Platelet deficiency (thrombocytopenia); deficiency of procoagulants due to liver disorders; or certain genetic conditions (hemophilias).
Diff: 2 Page Ref: 653-654

13) List one example for each of these three functions of blood: distribution, regulation, and protection.
Answer: Distribution: deliver oxygen from lungs and nutrients from the digestive system to cells, transport hormones, remove wastes. Regulation: maintain body temperature, pH, fluid volume. Protection: prevent blood loss and infection.
Diff: 2 Page Ref: 635-636

14) List the granulocytes and describe their granules.
Answer: neutrophils: pale, indistinct; eosinophils: red; basophils: dark purple.
Diff: 2 Page Ref: 644-646

15) Why is iron not stored or transported in its free form? In what form(s) is it stored or transported in blood?
Answer: Because free iron is toxic to body cells, iron is stored within cells as protein-iron complexes such as ferritin and hemosiderin. It is transported loosely bound to a protein called transferrin.
Diff: 3 Page Ref: 640

16) Explain why blood is classified as a connective tissue.
Answer: It has both solid (cells) and liquid (extracellular) components. The formed elements (cells) are suspended in a nonliving fluid matrix (plasma). Blood develops from mesenchyme.
Diff: 2 Page Ref: 635

17) What determines whether blood is bright red or a dull, dark red?
Answer: In bright red blood, oxygen is bound to hemoglobin (oxygenated blood). In dull, dark-red blood, oxygen has been released from the hemoglobin (deoxygenated blood).
Diff: 2 Page Ref: 638
18) Why is hemoglobin enclosed in erythrocytes rather than existing free in plasma?
Answer: Enclosed within erythrocytes, hemoglobin is prevented from breaking into fragments that would leak out of the vascular system through porous capillaries. Additionally, because it's enclosed, hemoglobin cannot contribute to blood viscosity and osmotic pressure.
Diff: 3 Page Ref: 638

19) What is the buffy coat found in centrifuged whole blood?
Answer: The buffy coat is a layer of centrifuged whole blood that contains leukocytes and platelets.
Diff: 2 Page Ref: 635

20) Where and how is iron stored in the body?
Answer: Iron is mostly stored in hemoglobin of RBCs. Additional free ions are bound to protein-iron molecules like ferritin, hemosiderin, and transferrin. Ferritin and hemosiderin molecules are stored in the liver, spleen, and bone marrow. Transferrin transports iron in the blood.
Diff: 2 Page Ref: 640

21) Name the granulocytes and state their average percentage in whole blood.
Answer: neutrophils: 50—70%; eosinophils: 2—4%; basophils: 0.5—1%
Diff: 2 Page Ref: 644; Fig. 17.9

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 the second child is RH+ and she did not take RhoGAM, there is a chance the second child will develop erythroblastosis fetalis and die before birth.
Diff: 3 Page Ref: 655

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.
Diff: 2 Page Ref: 657

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.
Diff: 2 Page Ref: 657
4) A patient 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.
Diff: 2 Page Ref: 657

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.
Diff: 3 Page Ref: 642

6) A 68-year-old male is admitted to the hospital for emphysema. He is hypoxic and his lab tests 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 patient tells the nurse that he does not understand what that means. How would the nurse explain this in terms the patient could 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 term for excessive RBC production. The low oxygen level stimulates erythropoietin (a hormone) production in the kidneys to stimulate the production of more red blood cells."
Diff: 3 Page Ref: 643

7) An elderly patient 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. The patient states that 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 patient'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.
Diff: 3 Page Ref: 641-642

8) A 17-year-old black male is admitted to the hospital in sickle-cell crisis. Pain management is a top priority for patients in sickle-cell crisis. Explain why.
Answer: Sickle-cell anemia results from a defective hemoglobin S-producing gene that 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.
Diff: 3 Page Ref: 642-643
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 the touch and she has a low-grade fever of 100.2°F. The neutrophil blood count is less than 1000/μl. 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.

Diff: 3  Page Ref: 644, 657