

to the emergency department with a 2-week history of diarrhea that has gotten progressively worse during the past several days. He has minimal urine output and is admitted to the hospital for dehydration. His stool specimen is positive for parasitic eggs. Which type of WBC would have an elevated

- A. Eosinophils
- B. Neutrophils
- C. T lymphocytes
- D. B lymphocytes
- E. Monocytes



A 24-year-old man came to the emergency department with a broken leg. A blood test revealed his WBC count to be $22 \times 10^3/\mu\text{l}$. Five hours later, a second blood test revealed values of $7 \times 10^3/\mu\text{l}$. What is the cause

- A) Increased production of WBCs by the bone marrow
- B) Release of pre-formed, mature WBCs into the circulation**
- C) Decreased destruction of WBCs
- D) Increased production of selectins

A 40-year-old woman visits the clinic complaining of fatigue. She had recently been treated for an infection. Her laboratory values are as follows: red blood cell (RBC) count, 1.8×10^6 / μ l; hemoglobin (Hb), 5.2 g/dl; hematocrit (Hct), 15; white blood cell (WBC) count, 7.6×10^3 / μ l; platelet count, 320,000/ μ l; mean corpuscular volume (MCV), 92 fL; and reticulocyte count, 24%. What is the most likely explanation for this?

- A) Aplastic anemia
- B) Hemolytic anemia
- C) Hereditary spherocytosis
- D) B12 deficiency

65-year-old experienced chest pain and cough with an expectoration of sputum. A blood sample revealed that his WBC count was $21,000/\mu\text{l}$. What is the origin of these WBCs?

- A) Pulmonary alveoli
- B) Bronchioles
- C) Bronchi
- D) Trachea
- E) Bone marrow

• An 8-year-old boy frequently comes to the clinic for persistent skin infections that do not heal within a normal time frame. He had a normal recovery from the measles. A check of his antibodies after immunizations yielded normal antibody responses. A defect in which of the following cells would most likely be the cause of the continual infections?

- A) B lymphocytes
- B) Plasma cells
- C) Neutrophils
- D) Macrophages
- E) CD4 T lymphocytes

1 year-old child who has had frequent ear infections is found to have reduced immunoglobulin levels and is unresponsive to vaccination with tetanus toxoid. However, the child has normal skin test reactivity (delayed redness and induration) to a common environmental antigen. Which cell lineage is not functioning normally?

- A) Macrophages
- B) Helper T cells
- C) Cytotoxic T cells
- D) B cells

A patient with human immunodeficiency virus (HIV) exhibit abnormal functioning of which of the following mechanisms?

- A) Antibody production only
- B) T cell-mediated cytotoxicity only
- C) Degranulation of appropriately stimulated mast cells
- D) Both antibody production and T cell-mediated cytotoxicity

A woman whose blood type is A positive and who has always been healthy just delivered her second child. The father's blood type is O negative. Because the child's blood type is O negative (O⁻ Rh negative), what would you

- A) Erythroblastosis fetalis due to rhesus incompatibility
- B) Erythroblastosis fetalis due to ABO blood group incompatibility
- C) Both A and B
- D) The child would not be expected to

Which statement is true?

- A) In a transfusion reaction, agglutination of the recipient blood occurs
- B) Shutdown of the kidneys after a transfusion reaction occurs slowly
- C) Blood transfusion of Rh-positive blood into any Rh-negative recipient will result in an immediate transfusion reaction
- D) A person with type AB Rh-positive blood is considered a universal recipient

A 2-year-old boy bleeds excessively from minor injuries and has previously had bleeding gums. The maternal grandfather has a bleeding disorder. The child's physical examination shows slight tenderness of his knee with fluid accumulation in the knee joint. He has pT 13 sec, and aptt of 2 min, platelet count of 200,000 /ul. You suspect this patient is deficient in which coagulation factor(s)?

- A) Prothrombin activator
- B) Factor II
- C) Factor VIII or Factor IX
- D) Factor X

A 55-year-old man who has been undergoing stable and successful anticoagulation with warfarin for recurrent deep vein thrombosis is treated for pneumonia, and 8 days later he presents with lower intestinal bleeding. His prothrombin time is quite prolonged. What is the appropriate therapy?

- A) Treatment with tissue plasminogen activator
- B) Infusion of calcium citrate
- C) Treatment with fresh-frozen plasma and vitamin K
- D) Rapid infusion of