

1. Molecules unique to microorganisms and not associated with human cells that trigger innate immune responses such as inflammation are called:

- A. PRRs
- B. adhesins
- C. PAMPs
- D. invasins

2. Molecules found on a variety of defense cells of the body that bind PAMPs and trigger innate immunity are called:

- A. adhesins.
- B. invasins.
- C. cytokines
- D. pattern-recognition receptors.

3. Bacterial PAMPs binding to PRRs on the body's defense cell triggers the synthesis and secretion of:

- A. bacterial adhesins.
- B. bacterial invasins
- C. inflammatory cytokines.
- D. teichoic acids.

4. The mechanism by which body defense cells and defense chemicals leave the blood and enter the tissue around an injured or infected site is:

A. inflammation.

B. antibodies binding to PAMPs.

C. the coagulation pathway.

5. The reversible opening of the junctional zones between endothelial cells of the blood vessels that results in increased blood vessel permeability is called:

- A. adaptive immunity.
- B. coagulation.
- C. vasodilation.
- D. innate immunity

6. During SIRS, the excessive inflammatory response triggered by overproduction of inflammatory cytokines is triggered by:

- A. high levels of PAMPs binding to PRRs on cytokine-producing cells.
- B. defense cells possessing excessive numbers of PRRs.
- C. the person being immunosuppressed.

7. During SIRS, the damage to the capillary walls and leakage of blood into surrounding tissue is primarily a result of:

- A. prolonged cytokine-induced vasodilation.
- B. cytokine-induced activation of the blood coagulation pathway.
- C. cytokine-induced extracellular killing by neutrophils.

8. During SIRS, hypotension is largely a result of:
- A. prolonged cytokine-induced vasodilation.
 - B. cytokine-induced activation of the blood coagulation pathway.
 - C. cytokine-induced extracellular killing by neutrophils.

9. During SIRS, damage to the capillaries, as well as prolonged vasodilation, results in blood and plasma leaving the bloodstream and entering the surrounding tissue can result in:

- A. hypertension.
- B. hypovolemia.
- C. disseminated intravascular coagulation (DIC).

10. Cytokine-induced disseminated intravascular coagulation (DIC) can result in:

- A. hypotension
- B. microthrombi forming within the blood vessels throughout the body.
- C. extracellular killing by neutrophils.

11. As a result of cytokine-induced acute respiratory distress syndrome (ARDS):

- A. blood does not become oxygenated.
- B. clots form in blood vessels throughout the body.
- C. hypotension occurs.
- D. hypovolemia occurs.

12. The inability to deliver nutrients and oxygen via arterial blood to a capillary bed in tissue is termed:

- A. hypotension.
- B. hypovolemia.
- C. hypoperfusion.
- D. DIC.

13. A restriction in blood supply that results in damage or dysfunction of tissues or organs is called:

- A. ARDS.
- B. ischemia.
- C. DIC.
- D. septicemia.

14. A blood pH range between 6.8 and 7.8 is needed for normal cellular metabolic activities in humans. Changes in the pH of arterial blood extracellular fluid outside of this range that leads to irreversible cell damage is a result of:

- A. hypotension and hypovolemia.
- B. ARDS and DIC.
- C. hypoperfusion.
- D. all of the above.