

Jason Lancaster, PharmD  
Assistant Clinical Professor  
Northeastern University

Adult Immunization Training Program

**Animal Vector Infections Assessment Questions**

JB a 52 yo Caucasian man was outdoors at his home clearing brush and trees from his property during the month of June approximately 2 weeks ago.

JB lives in the Northwest United States and lives within 5 miles of a lake. JB is an avid fly fisherman and tries to go fly fishing at least 2-3 times per week.

JB is a cancer survivor, and currently is disease free. Aside from taking an occasional antihistamine for seasonal allergies, JB does not take any other medications. JB has a history of airway constriction with tetracycline and minocycline.

Yesterday JB noticed a large red and white circular rash on his leg after showering, and has had a headache for the past 2 days, but otherwise feels fine.

*Please use this case to answer the following questions*

1. Which one of the following is a risk factor that JB possess increasing his risk of becoming infected with an animal vector disease such as WNV or EEE?
  - a. JB is a Caucasian man
  - b. JB lives within 5 miles of a lake
  - c. JB is an avid fly fisherman
  - d. JB is a cancer survivor
  
2. JB is most likely suffering from which one of the following infections based on this presentation?
  - a. Eastern Equine Encephalitis
  - b. Lyme disease
  - c. Rabies disease
  - d. West Nile Virus
  
3. Based on your above-selected condition and JB's case, which one of the following would be the best treatment recommendation?
  - a. Amoxicillin 500 mg three times daily for 14 days
  - b. Amoxicillin 500 mg four times daily for 14 days
  - c. Doxycycline 100 mg twice daily for 7 days
  - d. Doxycycline 100 mg twice daily for 14 days

Jason Lancaster, PharmD  
Assistant Clinical Professor  
Northeastern University

Adult Immunization Training Program

**Animal Vector Infections Assessment Questions**

4. JB is now coming to your pharmacy a month after his infection and JB reports that he was treated and his infection was resolved. However, JB has not been able to go fly fishing, per his treating provider, until after he completed his treatment regimen. JB is requesting your recommendation for an over-the-counter product to help prevent re-infection. Which one of the following represents the best option for JB?
- a. Isopropyl alcohol wipes
  - b. Permethrin topical cream
  - c. Povidone iodine solution
  - d. Sunscreen with DEET

*Please use this case to answer the following two questions:*

RM is a 53 yo man who is a physician at your primary care clinic. Earlier this morning RM was jogging when a raccoon, that was later tested and determined to be rabid, chased and subsequently bit him on his leg. All of RM's routine vaccinations are up to date, including hepatitis A and B, and tetanus.

5. Which one of the following represents the most appropriate recommendation for RM?
- a. Recommend wound washing with povidone iodine + 5 doses of rabies vaccine + 1 dose of immune globulin
  - b. Recommend wound washing with povidone iodine + 5 doses of rabies vaccine + 1 dose of rabies immune globulin
  - c. Recommend wound washing with povidone iodine + 2 doses of rabies vaccine
  - d. Recommend wound washing with povidone iodine + 2 doses of rabies vaccine + 1 dose of rabies immune globulin
  - e. Recommend only rabies immune globulin
6. If RM were to receive both the rabies vaccine + rabies immune globulin, which one of the following represents the correct immunity designations?
- a. Rabies vaccine represents active immunity and the rabies immune globulin represents passive immunity
  - b. Rabies vaccine represents passive immunity and the rabies immune globulin represents active immunity
  - c. Rabies vaccine represents active immunity and the rabies immune globulin represents active immunity
  - d. Rabies vaccine represents passive immunity and the rabies immune globulin represents passive immunity

Jason Lancaster, PharmD  
Assistant Clinical Professor  
Northeastern University

Adult Immunization Training Program

**Animal Vector Infections Assessment Questions**

7. Which one of the animals listed below is the vector for transmission for the West Nile Virus and/or Eastern Equine Encephalitis?
  - a. Bats
  - b. Deer ticks
  - c. Mosquitoes
  - d. Tsetse flies
  
8. Which one of the following symptoms best describes the typical presentation of West Nile Virus?
  - a. Asymptomatic
  - b. Malaise
  - c. Neurological changes
  - d. Vision Loss
  
9. Which one of the serious symptoms best differentiates the progression of Eastern Equine Encephalitis from West Nile Virus?
  - a. Increased rates of body ache
  - b. Increased rates of death
  - c. Increased rates of fever
  - d. Increase rates of heart block
  
10. Which one of the following is the most appropriate treatment recommendation for a patient diagnosed with either West Nile Virus or Eastern Equine Encephalitis?
  - a. Cefuroxime axetil 500 mg twice daily monotherapy
  - b. Cefuroxime axetil 500 mg twice daily + intravenous fluids
  - c. Doxycycline 100 mg twice daily + intravenous fluids
  - d. Intravenous fluid monotherapy