



WEST NILE VIRUS: THE CURRENT CLIMATE

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Cover story objectives were approved by Shirley Richmond, Dean of the College of Health and Human Sciences, and the CE questions prepared by Gail S. Williams, PhD, MT(ASCP)SBB, CLS(NCA), Clinical Laboratory Sciences Program, College of Health and Human Sciences, Northern Illinois

CE QUESTIONS

1. **West Nile virus (WNV) is transmitted by**
 - a. *Aedes* mosquitoes.
 - b. *Culex* mosquitoes.
 - c. *Anopheles* mosquitoes.
 - d. All of the above.
2. **WNV is maintained in nature by what cycle?**
 - a. mosquito-human-mosquito
 - b. mosquito-horse-mosquito
 - c. mosquito-bird-mosquito
 - d. mosquito-rodent-mosquito
3. **Which of the following statements is true?**
 - a. WNV was first seen in the United States in 1998.
 - b. In the United States, WNV cases have continued to increase each year.
 - c. In 2008, there were fewer WNV cases but more of them were serious.
 - d. In Australia, there are more cases of encephalitis every year than in the United States.
4. **WNV encephalitis is associated with**
 - a. hypertension.
 - b. immunosuppression.
 - c. cardiovascular disease.
 - d. All of the above.
5. **What is linked to increased cases of WNV in the United States?**
 - a. pollution.
 - b. irrigation.
 - c. increased bird populations.
 - d. None of the above.
6. **Standard serological assays detecting IgM in a single sample are preferred for diagnosis of WNV.**
 - a. TRUE
 - b. FALSE
7. **Fluorescence resonance energy transfer technology is used in**
 - a. real-time PCR.
 - b. serological assays.
 - c. lateral flow detection of IgM.
 - d. plaque-reduction neutralization test.
8. **The current most accurate testing for diagnosis of WNV includes**
 - a. viral RNA testing.
 - b. viral specific IgM testing.
 - c. both a and b.
 - d. neither a nor b.
9. **A WNV vaccine for humans is**
 - a. due out this year (2009).
 - b. cannot be produced.
 - c. the same as the animal vaccine.
 - d. crossreactive with many other arboviruses.
10. **WNV can be transmitted through breast milk.**
 - a. TRUE
 - b. FALSE
11. **WNV is in what family of viruses?**
 - a. Parvoviridae (Parvoviruses)
 - b. Herpesviridae (Herpes viruses)
 - c. Flaviviridae (Flaviviruses)
 - d. Filoviridae (Filoviruses)
12. **The peak incidence of WNV in the United States was/is**
 - a. 1999.
 - b. 2003.
 - c. 2004.
 - d. 2009.
13. **Most infections with WNV tend to be severe cases of meningitis and/or encephalitis.**
 - a. TRUE
 - b. FALSE

14. Which serological assay distinguishes between WNV and related species?

- a. IgM capture ELISA
- b. IgG ELISA
- c. Plaque reduction neutralization.
- d. IgG avidity test

15. Viral culture is commonly used to diagnose WNV.

- a. TRUE
- b. FALSE

16. Chikungunya virus uses what vector?

- a. Mosquitoes
- b. Ticks
- c. Black flies
- d. Reduvid bugs

17. The vectors that spread Chikungunya virus in Africa are found in what region of the United States?

- a. Southern
- b. Eastern
- c. Western
- d. Northern

18. There was new outbreak of Chikungunya virus in what country in 2007?

- a. United States
- b. China
- c. Italy
- d. South Africa

19. The genus of the vector that spreads Chikungunya virus is

- a. *Culex*
- b. *Anopheles*.
- c. *Aedes*.
- d. *Ixodes*.

20. One problem with using PCR to detect WNV is

- a. that viremia is brief.
- b. false positives occur.
- c. that it does not discriminate among related viruses.
- d. All of the above.

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April 2009

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