



THE CONTINUED RISE OF RESPIRATORY VIRUSES

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The Cover Story and Clinical Issues published in this month's *MLO* are peer-reviewed.

Cover story objectives/CE questions written/approved by Jennifer A. Lichamer, MPH, CHES, IC, MT(ASCP), Clinical Laboratory Sciences Program, College of Health and Human Sciences, Northern Illinois University, DeKalb, IL.

CE QUESTIONS

1. **All the inconsequential respiratory viruses, such as rhinovirus, are asymptomatic.**
 - a. TRUE
 - b. FALSE
2. **Which of the following is *not* one of the three key observations modulating the clinical need for accurate diagnosis of respiratory viruses?**
 - a. Respiratory viruses may not be inconsequential.
 - b. Respiratory viruses are misdiagnosed as bacterial infections 29% of the time.
 - c. Respiratory viruses may cause substantial morbidity.
 - d. Respiratory viruses may kill.
3. **Infection with which of the following viruses is known to cause central respiratory failure and central apnea in infants?**
 - a. RSV
 - b. INF V
 - c. hMV
 - d. All of the above
4. **Which of the following statements is accurate?**
 - a. Respiratory viruses kill differently, depending on the virus and the host.
 - b. SARS shows increased mortality in young children as opposed to older adults.
 - c. Cytokine storms do not lead to multiorgan failure.
 - d. RSV and INF V cause 45,000 deaths a year in the U.S.
5. **Physicians agree about the value of viral testing.**
 - a. TRUE
 - b. FALSE
6. **According to the cover story, diagnosis of viral respiratory illnesses should**
 - a. reflect clinical case definitions.
 - b. meet CDC criterion/a.
 - c. require viral testing.
 - d. rely on classical presentation.
7. **Viral bronchiolitis diagnoses can lead to**
 - a. fewer workups in ER patients.
 - b. an increased number of urine catheterizations.
 - c. an increased number of lumbar punctures.
 - d. an increase in antibiotic prescriptions.
8. **Rimantidine is most useful against**
 - a. RSV.
 - b. H3N2.
 - c. INF A.
 - d. H1N1.
9. **Viral testing is relatively inexpensive in relation to physician's fees.**
 - a. TRUE
 - b. FALSE
10. **Samples collected using nasopharyngeal swabs are easier to obtain than those collected by nasopharyngeal aspiration.**
 - a. TRUE
 - b. FALSE
11. **Which of the following sample collection techniques gave the lowest sensitivity for viral recovery?**
 - a. saline washes
 - b. saline washes preserved with modified Hanks solution
 - c. mid-turbinate nylon flocked swabs
12. **An ideal transport media would include features that show instability across a wide range of environmental conditions.**
 - a. show instability across a wide range of environmental conditions
 - b. allow testing without loss of virus-detection rates
 - c. would be cost-prohibitive
 - d. include a short outdate

13. Decreased viral detection via PCR testing can be attributed to all of the following *except*

- a. presence of leukocytes in an unpreserved sample.
- b. 48 hour delay in sample processing.
- c. Presence of cytokines in an unpreserved sample.
- d. Freezing a saline wash at -70°C.

14. Respiratory-virus collection broadly falls into three categories: saline, swab, and solid based.

- a. TRUE
- b. FALSE

15. Rapid antigen testing for viruses is the method of choice for adult populations.

- a. TRUE
- b. FALSE

16. When the physician suspects coronavirus-induced SARS, the testing methodology of choice should be

- a. rapid antigen testing.
- b. PCR-based testing.
- c. immunofluorescence-based testing.
- d. viral culture.

17. The use of microarrays for day-to-day clinical diagnoses of respiratory viruses is rare.

- a. TRUE
- b. FALSE

18. During the discovery phase of a sudden epidemic, what would be the appropriate testing technologies?

- a. Enzyme-linked immunoassay
- b. Immunofluorescence followed by viral culture
- c. Immunochromatographic methods
- d. Microarray followed by PCR

19. Viral lab tests reported by a clinical laboratory are typically _____ in nature.

- a. qualitative
- b. quantitative

20. With respect to a rapid antigen test for influenza, when prevalence is high, a negative test will be a false-negative _____ of the time.

- a. 5%
- b. 24%
- c. 50%
- d. 61%

TEST ANSWER FORM

CE Test on THE CONTINUED RISE OF RESPIRATORY VIRUSES

September 2011

(This form may be photocopied; it is no longer valid for CEUs after March 31, 2013.)

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