



BLUNTING THE SYNERGISTIC EFFECT OF VIRAL INFECTIONS AND ALLERGIES—IgE TESTING FOR AT-RISK ASTHMA PATIENTS

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This CE test covers the cover story. The Cover Story and Clinical Issues published in this month's *MLO* are peer-reviewed.

CE learning objectives and CE questions prepared by Masih Shokrani, PhD, MT(ASCP) Clinical Laboratory Sciences Program, College of Health and Human Sciences, Northern Illinois University, DeKalb, IL.

CE QUESTIONS

- The visit to emergency departments for asthma exacerbation spikes each year in the month of ____.**
 - March
 - January
 - July
 - September
- The risk of hospitalization for asthma patients who have been exposed to allergens and also have viral infection is increased almost ____.**
 - 1 fold
 - 2 fold
 - 20 fold
 - 1000 fold
- Among the effective strategies to protect patients with asthma would be concentrating on the targeted allergen reduction.**
 - TRUE
 - FALSE
- Which of the following is the contributing factor for the peak of emergency department visits in September?**
 - Seasonal outdoor allergens
 - Seasonal viral infections such as circulation of cold and flu viruses
 - Both a & b
 - Neither a nor b

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Verigene[®] RV+ Performance vs. Culture/DFA and Sequencing (n=1,022)^a

Target	Sensitivity (%)	Specificity (%)
Influenza A	100	100 ^b
Influenza A – H3	100	100
Influenza A – H1	100	99.9
Influenza A – 2009 H1N1	99.5	100
Influenza B	100	100
RSV	99.1 ^c	100

^aDiscordant results between RV+ and culture/DFA were resolved by sequencing and/or an independent RT-PCR test. Source: Verigene[®] Respiratory Virus Plus Nucleic Acid Test Package Insert.

^b4 discordant samples failed sequencing and were excluded from these results.

^c1 discordant sample was negative for RSV by RV+ and sequencing, but positive by culture and independent RT-PCR. This sample is included as a false-negative for RV+.

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5. According to studies conducted by Murray and colleagues, neither virus infection nor allergen sensitization and exposure alone could be independently linked to an increased risk of hospital admission.
 - a. TRUE
 - b. FALSE
6. Risk factors for developing asthma in childhood include _____.
 - a. A family history of asthma
 - b. Allergic sensitization and exposure
 - c. Frequent respiratory infections
 - d. All of the above
7. The study conducted by Olenec and colleagues concludes that aeroallergen sensitization might not be a critical factor for severe viral diseases.
 - a. TRUE
 - b. FALSE
8. Approximately what percentage of patients with allergy-like symptoms are treated in primary-care settings?
 - a. 10%
 - b. 30%
 - c. 80%
 - d. 100%
9. In vitro s-IgE testing has the advantage of _____.
 - a. Not requiring knowledge of skin testing technique
 - b. Overcoming poor skin reactivity in very young or old patients
 - c. Performing the test for patients who have extensive eczema
 - d. All of the above
10. In vitro s-IgE testing can be done on patients who are taking medications that suppress the immediate skin prick test.
 - a. TRUE
 - b. FALSE
11. Which of the following methods rely on monoclonal antibodies to bind s-IgE, which can then be measured?
 - a. Liquid-phase enzyme
 - b. Solid-phase method
 - c. Both a & b
 - d. Neither a nor b
12. Fully automated instrumentation for s-IgE assays has increased the _____.
 - a. Speed of the testing
 - b. Efficiency of the testing
 - c. Both a & b
 - d. Neither a nor b
13. The NCCLS recommendation is for a minimum performance target of 15% coefficient of variation for s-IgE assays.
 - a. TRUE
 - b. FALSE
14. Classic allergic diseases are the following:
 - a. Allergic rhinitis (seasonal outdoor allergens)
 - b. Allergic rhinitis (selected indoor allergens)
 - c. Asthma
 - d. All of the above
15. About _____% of children with atopic dermatitis will develop asthma by school age.
 - a. 10
 - b. 40
 - c. 80
 - d. 100
16. The following nonatopic conditions can increase total IgE:
 - a. Hyper-IgE syndrome
 - b. Parasitic infections
 - c. Myeloma
 - d. All of the above
17. Positive s-IgE results can help identify sensitized individuals and _____.
 - a. Determine their allergic triggers
 - b. Guide their treatment
 - c. A & B are correct
 - d. Neither A nor B is correct
18. Primary care providers can use results of s-IgE tests as the basis for referring patients to specialists for immunotherapy.
 - a. TRUE
 - b. FALSE
19. According to a recent study, specific IgE testing increased the percentage of patients correctly diagnosed with allergy from _____.
 - a. 54% to 87%
 - b. 22% to 34%
 - c. 44% to 99%
 - d. 12% to 87%
20. Allergic patients were _____ times more likely to experience moderate-to-severe asthma symptoms than non-allergic patients.
 - a. 2
 - b. 8
 - c. 10
 - d. 5

TEST ANSWER FORM

CE Test on BLUNTING THE SYNERGISTIC EFFECT OF VIRAL INFECTIONS AND ALLERGIES—IgE TESTING FOR AT-RISK ASTHMA PATIENTS

October 2011

(This form may be photocopied; it is no longer valid for CEUs after April 30, 2013.)

Circles must be filled in, or test will not be graded.
 Shade circles like this: ● Not like this: ⊗

P=Poor; E=Excellent

1. To what extent did the article focus on or clarify the objectives?

P ① ② ③ ④ ⑤ E

2. To what extent was the article well-organized and readable?

P ① ② ③ ④ ⑤ E

3. How will you use the CE units?

- state license
- recertification
- employment
- other

A B C D

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