



RESPIRATORY ROUNDUP: CYSTIC FIBROSIS, ADRs, AND ALLERGY TESTING

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

Cover story objectives and the CE questions approved by Clinical Laboratory Sciences Program, College of Health and Human Sciences, Northern Illinois University, DeKalb, IL.

All three parts of the Cover Story are included in this CE test.

CE QUESTIONS

1. **Cystic fibrosis (CF) is**
 - a. inherited recessively.
 - b. a chronic pulmonary disease.
 - c. characterized by thick secretions in airways and ducts.
 - d. all of the above.
 - e. b and c only.
2. **The most common CF genetic mutation causes loss of the amino acid phenylalanine residue at position 508, in the CFTR protein.**
 - a. TRUE
 - b. FALSE
3. **When selecting a CF testing platform, a laboratory should study**
 - a. appearance within the lab setting.
 - b. size best suited to the laboratory space.
 - c. variety of colors and finishes.
 - d. None of the above.
4. **Of the four CF testing platforms reviewed, the eSensor model is an *in vitro* clinical multiplex genetic test system which tests the least number of CF mutations.**
 - a. TRUE
 - b. FALSE
5. **Among the four platforms mentioned, the Tag-It CF kit cannot confirm CF as well as whether the parents are carry the CFTR gene.**
 - a. TRUE
 - b. FALSE
6. **Both the OLA and In-Plex CF platforms have successfully used DNA extracted from**
 - a. blood spots.
 - b. buccal swabs.
 - c. a and b.
 - d. none of the above.
7. **Adverse drug reactions (ADRs) account for**
 - a. 20% of hospital admissions.
 - b. 10% of hospital admissions.
 - c. 5% of hospital admissions.
8. **The term "drug allergy" should be limited to those ADRs where a(n) _____ has been clearly demonstrated.**
 - a. ingestion of unknown drugs
 - b. immune mechanism
 - c. genetic predisposition to a drug
9. **Penicillin allergy is capable of eliciting _____ Gell-Coombs hypersensitivities.**
 - a. Type I and II.
 - b. Type I and IV.
10. **Most new biotherapeutic drugs (monoclonal antibody drugs) consist of large glycoprotein molecules with the potential for**
 - a. suppressing cytokine production.
 - b. aggravating eczema or rashes.
 - c. stimulating the immune system.
 - d. damaging the central nervous system.
11. **Pseudoallergic (i.e., "anaphalactoid") reactions may be caused by direct effects of a drug on immune cells but are not the result of immune sensitization.**
 - a. TRUE
 - b. FALSE
12. **It is sometimes difficult to sort out ADRs that are due to an additive or excipient in the final drug formulation, such as gelatin, rather than the drug itself.**
 - a. TRUE
 - b. FALSE
13. **The use of *ex-vivo* live blood-cell testing has the potential to**
 - a. detect specific IgE in a relatively high proportion of control subjects.
 - b. reduce the immunogenicity of a new class of drugs.
 - c. confirm an immune-mediated mechanism for many drugs.

14. Drug-specific IgG may be a significant problem in the management of the patient for two primary reasons:

- a. IgG that binds the drug and neutralizes the desired treatment effect.
- b. IgG that alters the pharmacokinetics and leads to an increased clearance rate of the drug.
- c. Both a and b.
- d. None of the above.

15. Drug-specific T cells that may be responsible for delayed drug reactions can be evaluated by T-cell proliferation, CD203c upregulation, or cytokine production.

- a. TRUE
- b. FALSE

16. Currently, the most widely available testing options used to confirm a Type I drug hypersensitivity are those that measure

- a. drug-specific IgE.
- b. drug-specific IgG.
- c. drug-specific T cells.
- d. drug-specific IgA.

17. In the United States, more than 22 million people are known to have asthma and close to ____% of these people are children.

- a. 10
- b. 20
- c. 30
- d. 40

18. The most common form of asthma among children is

- a. allergic.
- b. non-allergic.
- c. intrinsic.
- d. temperature-induced.

19. Advancements in ____ technology have significantly improved the sensitivity and reliability of *in vitro* allergy testing.

- a. nano-
- b. EIA
- c. RFID
- d. imaging

20. Which of the following is not true of EIA-based *in vitro* allergy testing?

- a. It is highly automated.
- b. It give highly correlated results on different assay systems.
- c. It is available for a limited number of allergens.
- d. It provides a quantitative result for IgE.

TEST ANSWER FORM

CE Test on RESPIRATORY ROUNDUP: CYSTIC FIBROSIS, ADRs, AND ALLERGY TESTING

DECEMBER 2009

(This form may be photocopied; it is no longer valid for CEUs after June 30, 2011.)

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

P=Poor; E=Excellent

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P ① ② ③ ④ ⑤ E

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