

Continuing Education Questions

SPRING 2016

1. How many Americans are suspected to be living with undiagnosed diabetes mellitus?
 - a. 100,000
 - b. 1.1 million
 - c. 8.1 million
 - d. 9.9 million
 - e. 10.2 million
2. Which of the following is NOT a characteristic of type 1 diabetes mellitus?
 - a. Commonly diagnosed in children
 - b. β cells are attacked by the host's immune system
 - c. Hyperglycemia in patients is rare
 - d. Fatigue is a common symptom noted by patients
 - e. Never diagnosed in individuals above 20 years of age
3. The prediabetic range for HbA1c is considered to be:
 - a. 4.0-5.0%
 - b. 5.5-6.7%
 - c. 5.7-6.4%
 - d. 6.5-7.8%
 - e. 8.0-9.3%
4. To avoid missing the presence of hemoglobin variants, what laboratory procedure can be utilized?
 - a. Immunoassay methods
 - b. Hemoglobin electrophoresis
 - c. Capillary flow cells
 - d. Radioactive dyes
5. Recent research suggests the use of what treatment for type 1 diabetes mellitus?
 - a. Chemotherapy
 - b. Stem cell therapy
 - c. Antibiotics
 - d. Ultraviolet light therapy
 - e. Daily insulin injections
6. What additive is used for collection of samples for hemoglobin A1c testing?
 - a. EDTA
 - b. Calcium oxalate
 - c. Heparin
 - d. Gel separator
 - e. No additive
7. Which of the following methods measures hemoglobin A1c based on charge differences using a positively charged resin bed to separate out the negatively charged hemoglobin A1c?
 - a. Immunoassay
 - b. Affinity Chromatography
 - c. Isoelectric Focusing
 - d. Pore-based Filtration
 - e. Ion-Exchange Chromatography
8. Which of the following is an advantage of point-of-care hemoglobin A1c testing?
 - a. Requires little to no training for physicians and nurses
 - b. Only requires a saliva sample
 - c. Provides consistent and accurate results
 - d. Also provides measurements for microalbumin levels
 - e. Allows for more patient-physician interaction
9. Which hemoglobin variant is most prevalent in the United States?
 - a. HbAE
 - b. HbS
 - c. HbE
 - d. HbF
 - e. HbSE

FOCUS: NEW PERSPECTIVES IN DIABETES MELLITUS

10. Which methodology is most commonly used for glycosylated albumin measurements?
 - a. Affinity chromatography
 - b. Immunoassay
 - c. Immunofluorescence
 - d. Colorimetric
 - e. Hematological
11. Which of the following tests is used to measure long-term glycemic control in diabetes mellitus patients?
 - a. HbA1c
 - b. Blood sugar
 - c. Cholesterol
 - d. Blood volume
 - e. HbB1c
12. In the glucose-6-phosphate dehydrogenase method for glucose measurement, hexokinase is used to catalyze the reaction between ____ & glucose in the sample.
 - a. Urine
 - b. Ketones
 - c. ATP
 - d. Phosphates
 - e. Kinase
13. Which of the following is a risk factor for gestational diabetes?
 - a. A BMI of 20 or higher
 - b. Being older than 22 years old
 - c. Having a family history of hypertension
 - d. Being classified as “prediabetic” before becoming pregnant
 - e. Having more than 4 past pregnancies
14. Pre-HbA1c interferes with which methodology used in hemoglobin A1c measurements?
 - a. Isoelectric Focusing
 - b. Immunoassay
 - c. Affinity Chromatography
 - d. Electrophoresis
 - e. Ion-Exchange Chromatography
15. Point-of-care hemoglobin A1c analyzers are not accurate enough to diagnose diabetes mellitus.
 - a. True
 - b. False
16. Hypoglycemia is low blood sugar levels, occurring only in individuals with diabetes mellitus.
 - a. True
 - b. False
16. Treatment for type 1 and type 2 diabetes mellitus do not differ.
 - a. True
 - b. False
- 18 Hemoglobin A1c is the gold standard for the diagnosis of diabetes mellitus.
 - a. True
 - b. False
19. Two individuals having identical glucose profiles will have the same hemoglobin A1c levels.
 - a. True
 - b. False
20. Immunoassays measure hemoglobin A1c using hematological methods.
 - a. True
 - b. False

Continuing Education Registration Form

To earn continuing education (P.A.C.E.[®]) credit, (1) complete the form below, (2) record your answers, and (3) mail a photocopy with a check or money order (\$18 for ASCLS members, \$28 for non-members) to:

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A certificate of completion will be awarded to participants who achieve a passing grade of 70% or better. Participants should allow eight weeks for notification of scores and receipt of certificates.

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Participant Information

Please circle the most appropriate answers.

1. Is this program used to meet your CE requirements for:
(a) state license (b) BOC (c) employment (d) other

2. Did these articles achieve their stated objectives?

3. How long did it take you to complete both the reading and the quiz? _____ minutes

4. What subjects would you like to see addressed in the future Focus articles?

Answers

Circle correct answer.

- 1. a b c d e 14. a b c d e
- 2. a b c d e 15. a b
- 3. a b c d e 16. a b
- 4. a b c d 17. a b
- 5. a b c d e 18. a b
- 6. a b c d e 19. a b
- 7. a b c d e 20. a b.
- 8. a b c d e
- 9. a b c d e
- 10. a b c d e
- 11. a b c d e
- 12. a b c d e
- 13. a b c d e



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2016 ANNUAL MEETING

ASCLS

& CLINICAL LAB EXPO

Philadelphia, PA | July 31st - August 4th

The schedule for the ASCLS Annual Meeting has changed. ASCLS governance is scheduled all-day Sunday and Monday morning. Scientific sessions begin Monday afternoon through Thursday morning.

Our meeting coincides with the AACC Annual Meeting. Attendees can enjoy the benefit of two meetings for the price of one. If you are not involved ASCLS governance, attend the Annual Meeting on Tuesday and Wednesday only and receive two full days of continuing education.



Registration is open

www.ascls.org/annualmeeting