

CME/CPE QUESTIONS

Continuing Medical Education Accreditation

The Johns Hopkins University School of Medicine designates this educational activity for a maximum of 2 credit hours in category 1 credit toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spends on the educational activity. Credits are available until the expiration date of September 30, 2004. **Test #080004S**

Continuing Pharmacy Education Accreditation



The University of Tennessee College of Pharmacy is approved by the American Council on Pharmaceutical Education as a provider of continuing pharmaceutical education. This continuing education program has been approved by 2 contact hours (0.2 CEUs) by the University of Tennessee College of Pharmacy. A statement of continuing education hours will be mailed within 3 weeks of receipt of examination to those pharmacists who successfully complete (with a minimum score of 70%) the course examination. This course expires September 30, 2004. **ACPE Program #064-999-02-203-H01.**

Instructions

After reading this supplement, complete the program evaluation and select the 1 best answer to each of the following questions. At least 14 of the 20 answers must be correct to receive continuing medical or pharmacy education credit.

1. For patients with type 2 diabetes, which of the following statements is true?

- Cardiovascular disease complications are substantially more common than microvascular complications
- Cardiovascular disease complications are slightly more common than microvascular complications
- Microvascular complications and cardiovascular disease complications are equally common
- Microvascular complications are more common than cardiovascular disease complications

2. Type 2 diabetes and cardiovascular disease share which of the following risk factors in common?

- Hypertension
- Hyperlipidemia
- Hyperglycemia
- All of the above

3. Insulin resistance is a risk factor for development of which of the following conditions?

- Hypertension
- Hyperlipidemia
- Hyperglycemia
- All of the above

4. Which of the following statements best describes hypertension, hyperlipidemia, and hyperglycemia seen in association with the insulin resistance or metabolic syndrome?

- They occur together coincidentally
- They are caused by 1 underlying physiologic process
- They occur together to a greater degree than expected by chance
- They are not related to obesity

5. Which of the following statements best describes the impact of risk factor clustering in type 2 diabetes and cardiovascular disease?

- Risk for type 2 diabetes is higher than risk for cardiovascular disease
- Risk for cardiovascular disease is higher than risk for type 2 diabetes
- Risk for type 2 diabetes and cardiovascular disease are approximately equal
- No significant increase in risk for type 2 diabetes or cardiovascular disease

6. Which of the following is an important distinguishing feature of the National Cholesterol Educational Program Adult Treatment Panel III (NCEP ATP III) criteria for the metabolic syndrome?

- High triglyceride levels and low high-density lipoprotein cholesterol (HDL-C) levels
- Waist circumference greater than 102 cm in men and 88 cm in women
- Elevated blood pressure
- Hyperglycemia

7. Which of the following is an important distinguishing feature of the World Health Organization (WHO) criteria for the metabolic syndrome?

- A large waist-hip ratio
- Elevated blood pressure
- Impaired glucose tolerance
- High triglyceride levels and low HDL-C levels

8. Which of the following traits is generally accepted by most experts to be an important clinical feature of the metabolic syndrome?

- Central obesity
- Hyperinsulinemia
- Type 2 diabetes
- Microalbuminuria

9. Which of the following constitute criteria for the metabolic syndrome according to the NCEP ATP III?

- 2 or more of: abdominal obesity, elevated triglycerides, low HDL-C, hyperglycemia, hypertension
- 3 or more of: abdominal obesity, elevated low-density lipoprotein cholesterol (LDL-C), low HDL-C, hyperglycemia, hypertension
- 3 or more of: abdominal obesity, elevated triglycerides, low HDL-C, hyperglycemia, hypertension
- 3 or more of: abdominal obesity, elevated triglycerides, low HDL-C, hyperuricemia, hypertension

10. According to the WHO, which of the following constitute criteria for the metabolic syndrome?

- a) Hyperglycemia and/or hyperinsulinemia and 2 or more of: obesity, dyslipidemia, hypertension, microalbuminuria
- b) Hyperglycemia and/or hyperinsulinemia and 3 or more of: obesity, dyslipidemia, hypertension, microalbuminuria
- c) Hyperinsulinemia and/or obesity and 2 or more of: hyperglycemia, dyslipidemia, hypertension, microalbuminuria
- d) Hyperglycemia and/or obesity and any of: hyperinsulinemia, dyslipidemia, hypertension, microalbuminuria

11. According to national survey data, which of the following statements best describes the prevalence of individual traits of the metabolic syndrome according to NCEP ATP III criteria?

- a) All syndrome traits are approximately equally prevalent
- b) Elevated blood pressure is the most prevalent trait
- c) Large waist circumference is more prevalent in men than in women
- d) Hyperglycemia is the least prevalent trait

12. According to national survey data, which of the following statements best describes the prevalence of individual traits of the metabolic syndrome according to NCEP ATP III criteria when stratified by race/ethnicity?

- a) White subjects tend to have a lower prevalence of most traits than other racial/ethnic groups
- b) Mexican American subjects tend to have a higher prevalence of most traits compared with white subjects
- c) High triglyceride levels are especially prevalent among African American subjects
- d) African American subjects tend to have a lower prevalence of elevated blood pressure compared with white subjects

13. National survey data reveal which of the following prevalence rates of the metabolic syndrome in men and women according to NCEP ATP III criteria?

- a) About 20% in men and 15% in women
- b) About 24% in both men and women
- c) About 15% in men and 20% in women
- d) About 18% in both men and women

14. National survey data reveal which of the following prevalence rates of the metabolic syndrome by age group according to NCEP ATP III criteria?

- a) Less than 10% among subjects 20 to 29 years of age
- b) Over 30% among subjects aged 50 to 59 years of age
- c) Over 40% among subjects older than 60 years of age
- d) All of the above

15. National survey data reveal the prevalence of the metabolic syndrome according to NCEP ATP III criteria, when stratified by race/ethnicity, to be

- a) Less than 20% among African American women
- b) About 36% among Mexican American men
- c) About 36% among Mexican American women
- d) More prevalent among African American subjects than among Mexican American subjects, regardless of sex

16. Potential treatments for the insulin resistance, or metabolic, syndrome include

- a) Weight loss and increased physical activity
- b) Pharmacotherapy aimed at elevated levels of individual syndrome traits
- c) Insulin sensitizing medications
- d) All of the above

17. Treatment of specific traits of the insulin resistance, or metabolic, syndrome has been shown to prevent the complications associated with those traits.

- a) True
- b) False

18. Which of the following statements accurately describes the Diabetes Prevention Program (DPP)?

- a) Eligibility criteria included a BMI \geq greater than or equal to 24 kg/m² and mild hyperglycemia by fasting criteria and after an oral glucose tolerance test
- b) About 7 patients needed to be treated for about 3 years with the goal of about 7% weight loss and about 150 minutes of physical activity per week to prevent 1 case of type 2 diabetes
- c) About 14 patients need to be treated for about 3 years with metformin 850 mg twice daily to prevent 1 case of type 2 diabetes
- d) All of the above

19. Based on results of the DPP, determine if the following statement is true or false: Lifestyle changes are the only evidence-based treatments to lower risk factor levels associated with the metabolic syndrome.

- a) True
- b) False

20. Based on current understanding of the epidemiology and pathogenesis of the insulin resistance, or metabolic syndrome, future findings are most likely to show

- a) increased prevalence associated with increased understanding of genetic components of the syndrome
- b) decreased prevalence as patients become more careful about adhering to prescribed insulin-sensitizing treatments
- c) increased prevalence associated with the prevalence of obesity, sedentary lifestyles, and older age
- d) decreased prevalence because of the high mortality rate associated with its metabolic traits

...CME/CPE QUIZ...

CME PROGRAM EVALUATION

Johns Hopkins University School of Medicine appreciates your opinion on this supplement. Please fill out the questionnaire below and mail it along with your CME test form. We thank you for your evaluation, which is most helpful in planning future programs.

On the whole, how do you rate the information presented in this supplement?

excellent good fair poor

Were the educational objectives achieved?

yes no partially

Which topic was of most interest to you?

Which topic was of least interest to you?

Is the information presented useful in your practice?

yes no

Do you have recommendations to improve this program?

yes no

Comments:

Were any portions of this program unsatisfactory or inappropriate?

yes no

If so, which?

Do you find the information presented in this supplement to be fair, objective, and balanced?

yes no

Is there subject matter you would like included in the future?

yes no

Comments:

In your opinion, was the author biased in his discussion of any commercial product or service?

yes no

Comments:

Advances in Diabetes Care: Epidemiology of the Metabolic Syndrome

Physician Name (optional)

Address

City, State, ZIP

Specialty

CME TEST FORM

AJMC Test #080004S

Advances in Diabetes Care: Epidemiology of the Metabolic Syndrome

(Test valid through September 30, 2004. No credit will be given after this date.)

Please circle your answers:

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

(PLEASE PRINT CLEARLY)

Name _____

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"I certify that I have completed this educational activity and post-test."

Physician's Name

Please enclose a check for \$10, payable to American Medical Publishing, and mail with this form to:

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...CME/CPE QUIZ...

CPE TEST FORM

**Advances in Diabetes Care:
Epidemiology of the Metabolic Syndrome**
ACPE Program Number: 064-999-02-203-H01

Please circle your answers:

(PLEASE PRINT CLEARLY)

Name _____

Home Address _____

City _____

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Daytime Phone # _____

States in Which CE Credit Is Desired _____

Social Security # _____

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

Please complete the Program Evaluation below and send with \$10 fee, payable to the University of Tennessee, to:

Glen E. Farr, PharmD
University of Tennessee College of Pharmacy
600 Henley Street, Suite 213
Knoxville, TN 37902

CPE PROGRAM EVALUATION

The University of Tennessee College of Pharmacy would like to have your opinion. Please fill out the questionnaire below, tear off along the dotted line, and mail along with your CPE test form. We thank you for your evaluation, which is most helpful.

Please circle your answers:

My pharmacy practice setting is:	Independent	Chain	Hospital	Consultant
The objectives of the lesson were achieved.	Yes	No		
The quality of presentation of the material was:	Excellent	Good	Fair	Poor
The information presented will be useful to me in my practice.	Strongly agree	Mildly agree	Mildly disagree	Strongly disagree

How long did it take you to read the material and respond to the Continuing Education questions? (Please specify the number of hours.)

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University of Tennessee College of Pharmacy
600 Henley Street, Suite 213
Knoxville, TN 37902

*Advances in Diabetes Care:
Epidemiology of the Metabolic Syndrome*

GOAL

To provide comprehensive and current information concerning the epidemiology of the metabolic syndrome.

TARGET AUDIENCE

This activity is designed for pharmacy and therapeutics committee members, group practice directors, hospital directors, chief medical staff, home healthcare directors, specialists in diabetes and endocrinology, pharmacists, and physicians in primary care.

LEARNING OBJECTIVES

Upon completion of this educational supplement, the participant should be able to:

- Discuss the prevalence of the metabolic syndrome in the United States.
- Describe the current definitions of the metabolic syndrome.
- Explain the current methods of preventing and treating the metabolic syndrome.

CONTINUING MEDICAL EDUCATION ACCREDITATION

This activity has been planned and produced in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the Johns Hopkins University School of Medicine and *The American Journal of Managed Care*. The Johns Hopkins University School of Medicine is accredited by the ACCME to provide continuing medical education for physicians and takes responsibility for the content, quality, and scientific integrity of this CME activity.

The Johns Hopkins University School of Medicine designates this educational activity for a maximum of 2 hours in category 1 credit toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spends on the educational activity. Credits are available until the expiration date of September 30, 2004.

This CME activity was produced for accreditation under the supervision of Christopher D. Saudek, MD, Professor, Department of Endocrinology; Director, Johns Hopkins Diabetes Center, Johns Hopkins University School of Medicine; and Program Director, General Clinical Research Center, Johns Hopkins Medicine, Johns Hopkins Health System, Baltimore, Maryland.

CONTINUING PHARMACY EDUCATION ACCREDITATION



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The Johns Hopkins University School of Medicine program on *Advances in Diabetes Care: Epidemiology of the Metabolic Syndrome* may include articles on drugs or devices, or uses of drugs or devices that have not been approved by the Food and Drug Administration (FDA) or have been approved by the FDA for specific uses only. The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or device he or she wishes to use in clinical practice. Faculty will disclose discussion of unlabeled/unapproved uses of drugs or devices in their articles.

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