

CME/CE Quiz

CONTINUING MEDICAL EDUCATION ACCREDITATION

The University of Cincinnati College of Medicine designates this educational activity for a maximum of 2 Category I CME credits toward the AMA Physician's Recognition Award. Each physician should claim only those hours that he/she actually spends in the educational activity.

The University of Cincinnati College of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor medical education for physicians.

CONTINUING PHARMACY EDUCATION ACCREDITATION

The MWC Office of Continuing Professional Education is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmaceutical education.

Instructions

After reading "Statin Drug Interactions and Implications for Managed Care," complete the program evaluation and select the 1 best answer to each of the following questions. A statement of continuing education hours will be mailed to those who successfully complete (a minimum score of 70%) the examination at the conclusion of the program.

Questions

.....

1. The most common cause of statin-related rhabdomyolysis is:

- a) liver failure.
- b) renal failure.
- c) excessive doses of statins.
- d) drug-drug interactions.

2. Which of the following statements is false?

- a) Simultaneous use of a CYP3A4-dependent statin and another drug that binds to that enzyme may increase metabolism of the statin.
- b) Simultaneous use of a CYP3A4-dependent statin and another drug that binds to that enzyme may decrease metabolism of the statin.
- c) A drug may be a potentially interacting medication with one statin but not another.
- d) Exposure to a potentially interacting medication may result in increased healthcare costs.

3. Risk factors that increase the risk of statin-induced myotoxicity include all of the following except:

- a) higher doses.
- b) hyperthyroidism.
- c) renal insufficiency.
- d) female sex.

4. Risk factors for statin-induced hepatotoxicity include all of the following except:

- a) higher doses.
- b) preexisting elevations in transaminase levels.
- c) concurrent use of drugs that induce formation of cytochrome P450 (CYP450) enzymes.
- d) concurrent use of fibrates or niacin.

5. Which form of statin-related myotoxicity is defined correctly?

- a) Myalgia: muscle aches or fatigue with no significant elevation in creatine kinase (CK).
- b) Myoglobinuria: the presence of CK in urine.
- c) Myopathy: CK elevated to no more than 10 times normal.
- d) Rhabdomyolysis: CK elevated beyond 10 times normal.

6. Which of the following statements is true?

- a) Onset of myalgia dictates a change in therapy regardless of CK levels.
- b) If the patient experiences myalgia but CK levels are normal, the statin can be continued with careful monitoring.
- c) A normal CK level rules out muscle pathology.
- d) Switching to a different statin is not an option if a patient experiences myopathy with elevated CK levels.

7. Because lovastatin and simvastatin are administered in the lactone form, they are:

- a) hydrophilic and immediately active.
- b) hydrophilic and inactive until hydrolyzed to the active acid form.
- c) lipophilic and immediately active.
- d) lipophilic and inactive until hydrolyzed to the active acid form.

(Questions continued)

8. All lipid-soluble statins:

- a) must be metabolized to a water-soluble form to become pharmacologically active.
- b) must be metabolized to a water-soluble form to be eliminated by the renal system.
- c) depend on CYP450 3A4 for metabolism.
- d) are administered in the lactone form, whereas all water-soluble statins are administered in the active acid form.

9. Which statement is true concerning the interactions between statins and warfarin?

- a) The international normalized ratio (INR) achieved by a given dose of warfarin is lowered by concurrent use of a statin that is metabolized by the CYP450 system.

- b) Concurrent use of warfarin accelerates the metabolism of statins that depend on the CYP450 system.
- c) Pravastatin has little or no effect on the INR for warfarin.
- d) Rosuvastatin can lower the INR for warfarin by interfering with its protein binding.

10. Pravastatin undergoes all of the following processes except:

- a) hydrolysis in stomach acid.
- b) biotransformation by CYP450 3A4.
- c) conjugation.
- d) renal filtration and biliary excretion.

For Physicians

.....

CME TEST FORM

Statin Drug Interactions
and Implications for
Managed Care

Please circle your answers:

1. a b c d
2. a b c d
3. a b c d
4. a b c d
5. a b c d
6. a b c d
7. a b c d
8. a b c d
9. a b c d
10. a b c d

(PLEASE PRINT CLEARLY)

Name/Degree _____

Street _____

City _____

State/ZIP _____

Daytime Phone _____

Fax _____

E-mail _____

Sponsored by the University of Cincinnati for
2 hours of Category I CME credit.

Release Date: November 2004

Expiration Date: November 30, 2005

**Answer Form Instructions:
Testing and Grading Procedures**

1. Each participant achieving a passing grade of 70% or higher on any examination will receive an official computer form stating the number of CME credits earned. This form should be safeguarded and may be used as documentation of credits earned.
2. Participants receiving a failing grade on any exam will be notified and permitted to take 1 reexamination at no cost.
3. All answers should be recorded on the answer form.
4. To receive credit certification electronically, please provide your e-mail address. Detach and mail or fax the test portion of this page to: University of Cincinnati, Office of CME, PO Box 670567, Cincinnati, OH 45267-0567; phone: 513-558-7277; fax: 513-558-1708. Please print clearly to ensure receipt of CME credit.
5. Take the test online for FREE at <http://cme.uc.edu/onlinestudy.cfm>.

CME Activity Evaluation**Activity Evaluation**

How long did it take you to complete this activity?
_____ minutes

How well did this activity achieve its educational objectives?
 Very well Well Somewhat Not at all

What overall grade would you assign this activity?
 A B C D

Did this activity exhibit promotional bias for any pharmaceutical agents? Yes No

Will you make changes in your practice as a result of information presented in this lesson?
 Yes No

PROJ A108

For Pharmacists

.....

ANSWER CARD INSTRUCTIONS

Testing and Grading Procedures

1. Each participant achieving a passing grade of 70% or higher on any examination will receive an official computer form stating the number of CE credits earned. This form should be safeguarded and may be used as documentation of credits earned.
2. Participants receiving a failing grade on any exam will be notified and permitted to take 1 reexamination at no cost.
3. All answers should be recorded on the answer form. Please print clearly to ensure receipt of CE credit.
4. To receive credit certification electronically, please provide your e-mail address. Detach and mail completed exam form with your \$10.00 payment to Pharmacy Times CE Department, 405 Glenn Drive, Suite 4, Sterling, VA 20164-4432.
5. Take the test online for FREE at www.pharmacytimes.com and receive immediate grading and CE credits, and download your CE statement of credit.

Please photocopy the test form for additional test takers



The MWC Office of Continuing Professional Education is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmaceutical education. This program is approved for 2 contact hours (0.2 CEUs) under the ACPE universal program number of 290-999-04-023-H01. The program is available for CE credit through November 30, 2005.

Lesson Evaluation

How long did it take you to complete this lesson? _____ minutes

How well did this lesson achieve its educational objectives?

- ___ Very well
- ___ Well
- ___ Somewhat
- ___ Not at all

What overall grade would you assign this lesson?

- ___ A
- ___ B
- ___ C
- ___ D

Did this activity exhibit promotional bias for any pharmaceutical agents?

- ___ Yes ___ No

Will you make changes in your practice as a result of information presented in this lesson?

- ___ Yes ___ No

ANSWER FORM

Please circle your answers:

1	2	3	4	5	6	7	8	9	10
a	a	a	a	a	a	a	a	a	a
b	b	b	b	b	b	b	b	b	b
c	c	c	c	c	c	c	c	c	c
d	d	d	d	d	d	d	d	d	d

PROJ A108