

Improving Outcomes in Chronic Kidney Disease: Optimizing Management of Cardiovascular Diseases

Instructions

After reading “Improving Outcomes in Chronic Kidney Disease: Optimizing Management of Cardiovascular Diseases,” complete the program evaluation and select the 1 best answer to each of the posttest questions.

A statement of continuing education hours will be provided to those physicians and pharmacists who successfully complete and return the answer form and program evaluation and receive a passing grade of 70% or higher.

Physician Credit

Accreditation Statement

Physicians' Education Resource is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Credit Designation

Physicians' Education Resource designates this journal-based CME activity for a maximum of 2.5 AMA PRA Category 1 Credit(s)TM. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Pharmacist Credit



Pharmacy Times Office of Continuing Professional Education is accredited by the Accreditation Council for Pharmacy Education (ACPE) as a provider of continuing pharmacy education.

This activity is approved for 2.5 contact hours (0.25 CEUs) under the ACPE universal activity number 0290-9999-11-054-H01-P. The activity is available for CE credit through November 10, 2012.

Type of activity: Knowledge.

Posttest Questions

1. Which of the following is most appropriate for estimating GFR in practice?
 - a. Age
 - b. Serum creatinine
 - c. Estimation equations
 - d. Collected urine over 12 hours
2. A GFR of 10 mL/min/1.73 m² is most consistent with which stage of CKD?
 - a. Stage 2
 - b. Stage 3
 - c. Stage 4
 - d. Stage 5
3. The presence of proteinuria with a GFR of 65 mL/min is most consistent with which stage of CKD?
 - a. Stage 2
 - b. Stage 3
 - c. Stage 4
 - d. Stage 5

4. Which of the following associations is most accurate regarding the impact of CKD on CVD?

- a. As kidney function declines, the risk of CVD is unchanged
- b. As kidney function declines, there is a decrease in risk of CVD
- c. As kidney function declines, there is an increase in risk of CVD
- d. There is no association between renal function and risk of CVD

5. Which of the following associations is most accurate regarding the impact of CKD on hospitalization?

- a. As kidney function declines, the risk of hospitalization is unchanged
- b. As kidney function declines, there is a decrease in risk of hospitalization
- c. As kidney function declines, there is an increase in risk of hospitalization
- d. There is no association between kidney function and risk of hospitalization

6. Which of the following are important modifiable CVD risk factors in CKD?

- a. Smoking
- b. Hypertension
- c. Dyslipidemia
- d. All of the above

7. Which is the most accurate statement regarding proteinuria in CKD?

- a. Proteinuria is associated with CVD risk only when GFR is less than 60 mL/min
- b. Proteinuria is associated with CVD independent of CKD stage
- c. Proteinuria is associated with CVD only in the presence of diabetes
- d. Proteinuria is not a CVD risk factor

8. Which of the following patients have the highest risk of stroke?

- a. Nondiabetics without CKD
- b. Nondiabetics with CKD
- c. Diabetics without CKD
- d. Diabetics with CKD

9. Which of the following kidney-related factors have been linked to increased mortality?

- a. Hemoglobin below 11 g/dL
- b. Hemoglobin above 12 g/dL
- c. Vitamin D deficiency
- d. All of the above

10. Which of the following is the most prevalent CVD risk factor in patients with CKD?

- a. Hypertension

- b. Dyslipidemia
- c. Diabetes
- d. Smoking

11. CKD affects approximately how many Americans?

- a. 15 million
- b. 20 million
- c. 25 million
- d. 30 million

12. According to the 2004 NKF KDOQI guideline for hypertension treatment, the target for blood pressure in the CKD population is less than:

- a. 120/80 mm Hg
- b. 130/80 mm Hg
- c. 135/85 mm Hg
- d. 140/90 mm Hg

13. According to the NKF KDOQI and JNC 7 guidelines, which of the following is the preferred antihypertensive agent in patients with CKD?

- a. Angiotensin receptor blocker
- b. Thiazide diuretic
- c. Dihydropyridine calcium channel blocker
- d. Beta-blocker

14. Which of the following trials prospectively evaluated the diabetic population with CKD to determine the benefit of low-dose ramipril in preventing cardiovascular outcomes?

- a. DIABHYCAR
- b. EUROPA
- c. HOPE
- d. PROGRESS

15. Which of the following angiotensin-converting enzyme inhibitors have shown reductions in cardiovascular events in subanalyses of the CKD populations in large outcome trials?

- a. Enalapril
- b. Lisinopril
- c. Perindopril
- d. Trandolapril

16. According to the 2004 NKF KDOQI guideline for dyslipidemia treatment, the target for LDL-C in the CKD population is less than:

- a. 70 mg/dL
- b. 100 mg/dL
- c. 130 mg/dL
- d. 160 mg/dL

Posttest

17. Which of the following trials prospectively evaluated the role of pravastatin in patients with microalbuminuria and showed improvements in cardiovascular outcomes?
- ASCOT-LLA
 - CARE
 - JUPITER
 - PREVEND IT
18. The ALERT trial, which evaluated statin therapy in the post-kidney transplant population, used which agent?
- Atorvastatin
 - Fluvastatin
 - Pravastatin
 - Simvastatin
19. Which of the following statin therapy trials in patients with CKD showed a significant reduction in the primary CV composite among the dialysis population?
- AURORA
 - 4D
 - SHARP
 - None of the above
20. What was the treatment regimen in the SHARP trial which showed reductions in cardiovascular outcomes in the overall CKD population (those requiring dialysis and those not)?
- Atorvastatin + ezetimibe
 - Pravastatin + ezetimibe
 - Rosuvastatin + ezetimibe
 - Simvastatin + ezetimibe
21. Approximately what percentage of patients who develop a creatinine clearance less than 60 mL/min are expected to develop ESRD requiring dialysis or transplantation?
- 4%
 - 10%
 - 15%
 - 22%
22. In managed care analyses, inappropriate care is delivered how often?
- 10%
 - 30%
 - 60%
 - 90%
23. Which of the following groups have the highest annual costs?
- Patients without CKD
 - Patients with uncomplicated CKD
 - African American patients with CKD and diabetes
 - Patients with CKD and heart failure
24. In which of the following patient types would the most cost-effective CKD screening be achieved?
- A patient over 65 years of age
 - A patient with dyslipidemia
 - A patient with diabetes
 - A patient with hypertension
25. Which of the following is not true regarding referral to a specialist when CKD is identified?
- Referral at stage 3a is cost-effective
 - Referral at stage 4 is cost-effective
 - Referral at 30 mg/g urine albumin-to-creatinine ratio is cost-effective
 - Specialist care of CVD is similar to that of primary care givers
26. The goals of therapy for CKD do not include which of the following?
- Limit hospitalization
 - Limit CVD progression
 - Limit the number of drugs prescribed
 - Limit CKD progression to dialysis
27. In a 2007 survey of patients with ESRD and a Medicare Part D prescription plan, approximately what percentage reported non-adherence to prescription medication in the past 6 months?
- 10%
 - 30%
 - 50%
 - 80%
28. Which of the following was not attributed to statins in CKD?
- Improved creatinine clearance
 - Reduced cardiovascular death
 - Reduced LDL cholesterol
 - Reduced 24-hour urine protein excretion
29. Which of the following is most accurate regarding an economic analysis of benazepril in CKD over 7 years?
- It reduced costs
 - It increased costs but reduced deaths
 - It was cost-effective, but increased MI
 - It increased costs and worsened CVD outcomes
30. Which of the following is true regarding ACEIs and ARBs in short-term studies of patients with diabetic nephropathy?
- They slowed progression of kidney disease
 - They failed to reduce deaths
 - They failed to reduce CVD outcomes
 - All of the above

Physician Credits

(PLEASE PRINT CLEARLY)

Name/Degree _____

Street _____

City _____

State/Zip _____

Daytime Phone _____

Fax _____

E-mail (required) _____

Date of Birth _____

Release Date: **November 10, 2011**

Expiration Date: **November 10, 2012**

CME Test Form

Improving Outcomes in Chronic Kidney Disease: Optimizing Management of Cardiovascular Diseases

- | | | | | |
|-----|---|---|---|---|
| 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 |
| 11. | a | b | c | d |
| 12. | a | b | c | d |
| 13. | a | b | c | d |
| 14. | a | b | c | d |
| 15. | a | b | c | d |
| 16. | a | b | c | d |
| 17. | a | b | c | d |
| 18. | a | b | c | d |
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| 20. | a | b | c | d |
| 21. | a | b | c | d |
| 22. | a | b | c | d |
| 23. | a | b | c | d |
| 24. | a | b | c | d |
| 25. | a | b | c | d |
| 26. | a | b | c | d |
| 27. | a | b | c | d |
| 28. | a | b | c | d |
| 29. | a | b | c | d |
| 30. | a | b | c | d |

Answer Form Instructions for Physician Credit (CME)

Testing and Grading Information

1. This lesson is free online at http://www.ajmc.com/publications/supplement/2011/ACE002_11nov where you will be directed to the posttest and evaluation form to receive instant grading and downloadable CME certificate.
2. Mailed and/or faxed posttests and evaluation forms will be processed for a nominal fee of \$10 (see below for address and fax number).

Testing and Grading Directions

1. Each participant evaluating the activity and achieving a passing grade of 70% or higher on the examination will receive a CME certificate stating the number of 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 a CME certificate, please detach and mail or fax the test portion of this page to:
Physicians' Education Resource
666 Plainsboro Road, Suite 356
Plainsboro, NJ 08536
Phone: 800-597-6372; Fax: 609-257-0705
Please print clearly to ensure receipt of CME credit.
5. To receive credit and an immediate certificate online, go to http://www.ajmc.com/publications/supplement/2011/ACE002_11nov and complete the online evaluation form and online posttest (achieving a passing grade of 70% or better) and you will be able to print your certificate of credit.

Physician Credit (CME) Activity Evaluation

Please rate the following aspects of this activity:	Poor	Average	Average	Average	Excellent
1. Overall, how would you rate this activity?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. Overall, how would you rate the authors?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. How would you rate the quality of the instructional materials?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. How would you rate the method of presentation?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. Were the learning objectives of this activity met?	Not at All	Partially	Partially	Partially	Completely
a. Identify the prevalence trends of chronic kidney disease (CKD) and evaluate the relationships between CKD and cardiovascular disease (CVD)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Evaluate evidence for various therapies in helping to improve cardiovascular outcomes in patients with CKD	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Review cost factors and cost-effectiveness of strategies used to improve outcomes in patients with CKD	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. Was this activity useful and relevant to your practice?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
	Yes	No			
7. The content of this activity was fair, balanced, and free of commercial bias.	<input type="checkbox"/>	<input type="checkbox"/>			
If no, please explain:					
	Yes	No			
8. Based on what you learned in this activity, do you intend to make a change in your practice?	<input type="checkbox"/>	<input type="checkbox"/>			
If yes, please describe the change(s) you intend to make.					
	Yes	No	Don't Know		
9. Do you anticipate any barriers in trying to implement changes in your practice?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
If YES, what barriers do you anticipate?					
	Knowledge	Competence	Performance		
10. This activity improved my:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
11. What other topics would you like to explore in future CME activities?					
12. I certify that I have participated in the CME activity, <i>Improving Outcomes in Chronic Kidney Disease: Optimizing Management of Cardiovascular Diseases</i> , for:	Choose One <input type="checkbox"/> 1.25 AMA PRA Category 1 Credit(s) TM <input type="checkbox"/> 1.75 AMA PRA Category 1 Credit(s) TM <input type="checkbox"/> 2.0 AMA PRA Category 1 Credit(s) TM <input type="checkbox"/> 2.25 AMA PRA Category 1 Credit(s) TM <input type="checkbox"/> 2.5 AMA PRA Category 1 Credit(s) TM				

Pharmacy Credits

Instructions

Scoring Options

1. This lesson is FREE online; receive instant grading and download your certificate at **www.PharmacyTimes.com**
2. Mail and/or fax will be processed for a nominal fee of \$10 (see below for address and fax number).

Please mail completed forms to this address:

Pharmacy Times Office of Continuing Professional Education
666 Plainsboro Road, Suite 356
Plainsboro, NJ 08536

Testing and Grading Procedures

1. Each participant achieving a passing grade of 70% or higher on any examination will receive a statement of credit giving 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 extra cost.
3. All answers should be recorded on the answer form. For each question, decide which choice is the best answer, and circle the letter of the response representing your choice.
4. Go to www.PharmacyTimes.com to submit your responses at no fee; or, for a nominal fee of \$10, mail completed exam form to:

Pharmacy Times Office of Continuing Professional Education
666 Plainsboro Road, Suite 356
Plainsboro, NJ 08536
or fax the form to: 609-257-0000

Please e-mail all inquiries to ceinfo@pharmacytimes.com or call us at 800-597-6372.

Evaluation form follows.

ACE002

CE Answer Form: November 2011 • IMPROVING OUTCOMES IN CHRONIC KIDNEY DISEASE: OPTIMIZING MANAGEMENT OF CARDIOVASCULAR DISEASES					
PROGRAM 0290-9999-11-054-H01-P (TEST VALID THROUGH NOVEMBER 10, 2012. NO CREDIT WILL BE GIVEN AFTER THIS DATE.)					
1. a b c d	6. a b c d	11. a b c d	16. a b c d	21. a b c d	26. a b c d
2. a b c d	7. a b c d	12. a b c d	17. a b c d	22. a b c d	27. a b c d
3. a b c d	8. a b c d	13. a b c d	18. a b c d	23. a b c d	28. a b c d
4. a b c d	9. a b c d	14. a b c d	19. a b c d	24. a b c d	29. a b c d
5. a b c d	10. a b c d	15. a b c d	20. a b c d	25. a b c d	30. a b c d
<input type="checkbox"/> Presently Enrolled in CE Program		<input type="checkbox"/> Nonsubscriber Participant Pharmacist			
Name:		E-mail:			
Address:					
City:		State:	Zip:	Daytime Phone:	
Specialty: <input type="checkbox"/> Pharmacist <input type="checkbox"/> Pharmacy Technician <input type="checkbox"/> Other (Specify)					
NABP e-Profile Number:			Date of Birth (MM/DD):		

CE Evaluation Form: November 2011 • IMPROVING OUTCOMES IN CHRONIC KIDNEY DISEASE: OPTIMIZING MANAGEMENT OF CARDIOVASCULAR DISEASES					
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Please rate the effectiveness of this activity. Your input and comments are encouraged and appreciated.

	Poor		Average		Excellent
1. Overall, how would you rate this activity?	1	2	3	4	5
2. Overall, how would you rate the work of the instructor(s)?	1	2	3	4	5
3. How would you rate the quality of the instructional materials?	1	2	3	4	5
4. Were the learning objectives of this activity met?	Not at all		Partially		Completely
(Objective 1)	1	2	3	4	5
(Objective 2)	1	2	3	4	5
(Objective 3)	1	2	3	4	5
(Objective 4)	1	2	3	4	5
5. Was the activity useful and relevant to your practice?	1	2	3	4	5

6. Do you believe the subject matter was presented objectively? **Yes No**
 If no, please explain: _____

<p>7. Do you intend to make any changes to your practice based on learnings from this program?</p> <p>a. Yes b. No</p> <p>If yes, which of the following changes do you intend to implement? <i>(Please select all that apply)</i></p> <p>a. Provide more in-depth counseling to patients b. Proactively talk to patients with this disease/problem/issue c. Educate staff to better help patients d. Seek more resources to provide to patients e. Implement disease management program f. Improve monitoring for adherence/persistence g. Other _____ h. None</p>	<p>8. Do you anticipate any barriers in trying to implement changes in your practice?</p> <p>a. Yes b. No c. Don't know</p> <p>If yes, what barriers do you anticipate? <i>(Please select all that apply)</i></p> <p>a. Lack of time b. Lack of resources c. Lack of pharmacy technician help d. Corporate focus is elsewhere e. Legal issues f. Insurance issues/restrictions g. Patients don't want this service or have no time h. Other _____ i. None</p>	<p>9. Based on the learning from this activity, overall how confident are you in your ability to counsel/educate/manage the disease/condition/problem <i>(1 being NOT confident and 5 being VERY confident)?</i></p> <p>a. 1 (Not confident) b. 2 c. 3 (Somewhat confident) d. 4 e. 5 (Very confident)</p> <p>10. What other topics related to this topic would you like to explore in future CE activities?</p> <p>_____</p> <p>_____</p> <p>_____</p>
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Please mail this form to: Pharmacy Times Office of Continuing Professional Education, 666 Plainsboro Road, Suite 356, Plainsboro, NJ 08536