

CME QUESTIONS: TEST #060024S

The Johns Hopkins University School of Medicine designates this continuing medical education activity for 4 credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association. Each physician should claim only those hours of credit that he or she actually spends on the educational activity. Credits are available until the expiration date of December 31, 2002.

Instructions

After reading this Special Report supplement, select the one best answer to each of the following questions. At least 7 of the 10 answers must be correct to receive continuing medical education credit.

1. A Centers for Disease Control and Prevention (CDC)-authored study of more than 7000 pediatric patient encounters in Georgia revealed that:

- a) 43% of all encounters resulted in antibiotic prescription
- b) 18% of all patient/parent telephone contacts resulted in antibiotic prescription
- c) 97% of physicians reported that they were aware of antibiotic overuse as a factor in resistance
- d) 81% of pediatricians and 93% of family physicians prescribed antibiotics inappropriately for bronchitis
- e) All of the above

2. Maintaining concentrations of antibiotic above the minimum inhibitory concentration (MIC) within the space where the organism replicates allows the best opportunity for:

- a) Resistance development
- b) Pathogen eradication
- c) *In vivo* disposition differences
- d) Sufficient extracellular concentrations
- e) None of the above

3. Which of the following has occurred as a result of the National Committee for Clinical Laboratory Standards change in the breakpoints for *Streptococcus pneumoniae*?

- a) Rates of resistance to amoxicillin and amoxicillin/clavulanate fall to approximately 6% from 25%.
- b) Cefuroxime resistance rates fell by 2%.
- c) Five cephalosporins had breakpoints established when none were previously established.
- d) Charges have been made that even the modified breakpoints are too conservative for predicting clinical outcome in patients with pneumococcal lower respiratory tract infections.
- e) All of the above

4. Which of the following is NOT true of macrolide resistance among *S pneumoniae*?

- a) An efflux pump, encoded for by the *mefA* gene, is a primary mechanism of resistance.
- b) An *ermB*-mediated ribosomal methylase is a primary mechanism of resistance.
- c) Presence of a single resistance mechanism results in cross-resistance to all macrolides.
- d) Reports of treatment failures are common.
- e) a, b, and c

5. Fluoroquinolone resistance:

- a) Has remained low in the United States
- b) Has not changed significantly in the United States during the past 5 years
- c) Increased in Canada in proportion to use
- d) Is an area of grave concern according to recent community-acquired pneumonia (CAP) guidelines
- e) All of the above

6. Provider selection of antimicrobial therapy is predicated on which of the following criteria?

- a) Outcome and potency
- b) Cost and formulary inclusion
- c) Risk of resistance and safety

(CME QUESTIONS CONTINUED ON FOLLOWING PAGE)

CME TEST FORM	Please circle your answers:	(PLEASE PRINT CLEARLY)
AJMC Test #060024S	1. a b c d e	Name _____
The Latest Clinical Advances in Antimicrobial Use—A Managed Care Perspective	2. a b c d e	Address _____
(Test valid through December 31, 2002. No credit will be given after this date.)	3. a b c d e	City _____
	4. a b c d e	State/ZIP _____
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	7. a b c d e	Please enclose a check for \$10, payable to American Medical Publishing, and mail with this form to:
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PROGRAM EVALUATION

Johns Hopkins University School of Medicine would like to have your opinion. Please fill out the questionnaire below, tear off along the dotted line, and mail along with your CME test form. We thank you for your evaluation, which is most helpful.

On the whole, how do you rate the information presented in these articles?

___ excellent ___ good ___ fair ___ poor

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 these articles 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, were the authors biased in their discussion of any commercial product or service?

___ yes ___ no

Comments:

Program Title

Physician Name

Address

City, State, ZIP

Specialty

- d) a and c
- e) All of the above

7. A paradox exists in that *in vitro* resistance to antimicrobial agents is widely documented, yet patients are frequently treated successfully with those therapies. The paradox may be explained by:

- a) Resistance/susceptibility breakpoints are initially based on the first pass on serum levels achievable by drugs, not the tissues
- b) Microbes change their physiologic state during infection
- c) Drugs are altered by the host, defying laboratory measurement
- d) Drugs can have nonbacterial effects on the host directly
- e) All of the above

8. Infectious Diseases Society of American guidelines for the diagnosis and management of CAP deemphasize:

- a) Microbiologic issues
- b) Economic issues
- c) Adherence issues
- d) The use of narrow-spectrum agents
- e) All of the above

9. The CDC guidelines express grave concern about the use of fluoroquinolones for empiric treatment of outpatient CAP because of:

- a) A lack of data on the efficacy of these agents in critically ill patients
- b) The broad spectrum of activity of the fluoroquinolones
- c) The possibility of emergence of resistance
- d) Unpublished data suggesting an increasing prevalence of fluoroquinolone resistance in the United States
- e) All of the above

10. Which of the following statements are true?

- a) Respiratory tract infections account for as many as 120 million physician office visits per year.
- b) As many as 3 million to 4 million cases of pneumonia are diagnosed each year.
- c) \$8.4 billion a year is spent in treatment of CAP.
- d) Eight percent of CAP costs are for antibiotic therapies.
- e) All of the above

*The Latest Clinical Advances in Antimicrobial Use—
A Managed Care Perspective*

GOAL

To provide comprehensive and up-to-date information concerning the latest developments in antimicrobial use, including the result of guideline recommendations on therapy and the cost implications to patients, healthcare providers, and society.

TARGET AUDIENCE

This activity is designed for physicians in primary care, specialists in infectious disease and immunology, managed care decision makers, healthcare policy planners, and pharmacy and therapeutics committee members.

LEARNING OBJECTIVES

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

- Discuss the issue of antimicrobial resistance.
- Evaluate current community-acquired pneumonia guidelines.
- Describe appropriate use of antimicrobials.
- Discuss the pharmacoeconomics of antimicrobial use.

CONTINUING MEDICAL EDUCATION ACCREDITATION

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The Johns Hopkins University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians. This CME activity was planned and produced in accordance with the ACCME Essentials and Standards for Commercial Support.

This CME activity was produced under the supervision of William Bishai, MD, PhD, Associate Professor of Medicine and International Health, Johns Hopkins University School of Public Health.

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