

CME QUESTIONS

Continuing Medical Education Accreditation

The University of Wisconsin Medical School designates this continuing medical education activity for a maximum of 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 are actually spent on the educational activity. Credits are available until the expiration date of June 30, 2003.

Instructions

After reading this supplement, select the one best answer to each of the following questions. At least 14 of the 19 answers must be correct to receive continuing medical education credit.

1. **The combined economic impact of the direct medical costs for acute otitis media (AOM), sinusitis, and acute exacerbations of chronic bronchitis (AECB) is significant. What are the estimated combined annual expenditures for these illnesses?**
 - a) \$5 billion
 - b) \$7 billion
 - c) \$10 billion
 - d) \$20 billion
2. **Which of the following statements about respiratory tract infections (RTIs) and quality of life is accurate?**
 - a) Pain and discomfort affect a patient's ability to perform normal daily activities.
 - b) The costs of treating RTIs can also impact quality of life.
 - c) An acute episode of an RTI may have a negative impact on the patient's quality of life for a prolonged period of time.
 - d) All of the above
3. **Which of the following does NOT contribute to the spread of antimicrobial resistance?**
 - a) Inappropriate prescribing of antibiotics
 - b) Increase in occurrence of *Streptococcus pneumoniae* isolates in upper RTIs
 - c) Increased use of broad-spectrum antibiotics
 - d) Misuse of antibiotics by patients
4. **In encouraging appropriate treatment strategies, clinicians and managed care organizations (MCOs) should focus on:**
 - a) Developing and implementing clinical practice guidelines
 - b) Acquisition cost of a drug
 - c) Patient counseling and education
 - d) a and c
5. **The term "nonsusceptible" refers to organisms that are:**
 - a) Intermediate resistant
 - b) Resistant
 - c) Either of the above
 - d) Neither of the above
6. **In 1998 the highest rate of resistant *S pneumoniae* isolates was found in which geographic area of the United States?**
 - a) Southwest
 - b) North-central
 - c) Northwest
 - d) Southeast
7. **Resistance to *Haemophilus influenzae* is triggered by the production of beta-lactamase. In 1998, the percentage of β -lactamase-positive strains in this country had reached approximately:**
 - a) 10%
 - b) 25%
 - c) 37%
 - d) 42%
8. **Which of the following statements is true, according to a 1998 study of the susceptibility of oral antibiotics commonly used in the treatment of RTIs?**
 - a) Macrolides demonstrated strong activity against both *S pneumoniae* and *H influenzae*.
 - b) Cefuroxime demonstrated an effectiveness of 90% or more against all 3 major pathogens.
 - c) Only amoxicillin/clavulanate and some fluoroquinolones were effective against 90% or more of strains of all 3 major pathogens.
 - d) Cefprozil, cefaclor, and loracarbef all demonstrated excellent activity against *H influenzae* strains, but poor activity against strains of *S pneumoniae* and *Moraxella catarrhalis*.
9. **The symptom that most often indicates that a child has AOM and not a viral upper RTI is which of the following?**
 - a) Middle ear effusion
 - b) Earache
 - c) Signs of inflammation
 - d) Recent onset of signs and symptoms of local or systemic illness
10. **It is recommended that all cases of AOM be treated with an antibiotic.**

(CME QUESTIONS CONTINUED ON FOLLOWING PAGE)

- a) True
- b) False

11. Antibiotic treatment is recommended for the treatment of sinusitis because it:

- a) Reduces the likelihood of severe sequelae
- b) Reduces the progression to chronic sinusitis
- c) Rapidly relieves uncomfortable and painful symptoms
- d) All of the above

12. Although not all cases of AECB are bacterial in origin, antibiotic treatment is recommended because of the short- and long-term benefits it provides.

Which of the following is NOT a benefit of antibiotic therapy?

- a) Reduced rate of clinical deterioration
- b) Clinical cure of chronic bronchitis
- c) Prevention of progressive airway injury
- d) Lengthening of infection-free time between exacerbations

13. With increasing pathogen resistance, the most important factor in antibiotic selection may be which of the following?

- a) Local resistance patterns and bacteriologic and clinical efficacy against suspected causative pathogens
- b) Ease of compliance
- c) Antibiotic safety profile
- d) None of the above

14. Clinical practice guidelines can help improve the quality of healthcare and reduce costs by aiding the clinician in determining an accurate diagnosis and providing evidence-based treatment recommendations.

- a) True
- b) False

15. Implementing clinical practice guidelines for an acute RTI such as AOM can help an MCO obtain National Committee for Quality Assurance accreditation if the disease:

- a) Has a large impact on healthcare expenditures
- b) Has a high risk of adverse outcomes
- c) Is relevant to a significant proportion of the

- membership
- d) All of the above

16. Which of the following is NOT a barrier to clinician acceptance of clinical guidelines?

- a) Lack of knowledge of local resistance patterns
- b) Lack of awareness of guidelines
- c) Negative attitude about guidelines
- d) Insufficient time and staff support

17. Guidelines for the treatment of AOM, sinusitis, and AECB all recommend that the ideal therapy is effective against which 3 pathogens?

- a) *S pneumoniae*, *Streptococcus pyogenes*, *M catarrhalis*
- b) *S pneumoniae*, *H influenzae*, *M catarrhalis*
- c) *H influenzae*, *Staphylococcus aureus*, *M catarrhalis*
- d) *S aureus*, *S pyogenes*, *S pneumoniae*

18. In order to control the spread of resistance, which of the following should be included in patient education on the appropriate use of antibiotics?

- a) The difference between viral and bacterial infections and the role of antibiotics in treating bacterial and not viral infections
- b) The importance of compliance with therapy
- c) The need to avoid self-diagnosis and self-medication
- d) All of the above

19. According to the Centers for Disease Control and Prevention, which of the following supports the use of high-dose amoxicillin in treating infections with penicillin-resistant *S pneumoniae*?

- a) A long history of efficacy and safety
- b) Evidence of high middle ear fluid levels
- c) Absence of substantial dose-related toxicity
- d) All of the above

PROGRAM EVALUATION

I. Please evaluate this educational activity as a whole by checking the appropriate boxes below:

OVERALL EVALUATION

	<i>Excellent</i>	<i>Very Good</i>	<i>Good</i>	<i>Fair</i>	<i>Poor</i>
Applicability to Practice					
Content					
Quality					
Readability					

II. Learning Objectives

Were the following overall learning objectives met?

- Describe the impact of respiratory tract infections (RTIs) on healthcare costs, patient quality of life, and antibiotic prescribing. Yes No
- Discuss the causes and consequences of the development of antibiotic resistance in the 3 predominant pathogens that cause common RTIs. Yes No
- Identify the challenges that the emergence of resistant pathogens pose to managed care organizations in providing cost-effective care for patients with RTIs. Yes No
- Explain the impact of resistance on the selection of appropriate antibiotics for RTIs and the factors that should be considered when prescribing antibiotics. Yes No

- Discuss the rationale for implementing clinical practice guidelines in treating acute RTIs. Yes No
- Summarize treatment recommendations for acute otitis media, acute bacterial sinusitis, and acute exacerbation of chronic bronchitis. Yes No

III. General Comments

A. Do you feel that the program was fair, balanced, and free of commercial bias?

Yes No

If not, please state reasons:

B. Please suggest topics and/or faculty for future programs: _____

C. This educational activity has contributed to my professional effectiveness and has improved my ability to (*please circle*):

	Strongly Agree		Strongly Disagree		
Treat/manage patients	1	2	3	4	5
Communicate with patients	1	2	3	4	5
Manage my medical practice	1	2	3	4	5

Other _____

Please complete this evaluation and enclose it with your CME test form.

CME TEST FORM

New Opportunities to Optimize Antimicrobial Treatment

(Test valid through June 30, 2003. No credit will be given after this date.)

Please circle the correct answer and return the post-test along with the evaluation form to the address below. There is only one correct answer for each question.

**University of Wisconsin
Office of Continuing Medical Education
2715 Marshall Court – Room AB
Madison, WI 53705**

Please enclose a check for \$20 made payable to the University of Wisconsin Office of Continuing Medical Education. This fee covers the cost of scoring the test, issuing the letter of certification, and maintaining records. Upon issuing credit, the Office of Continuing Medical Education will send you the correct answers.

Please be sure to fill out all of the information listed below and complete the following test and program evaluation to ensure processing of your post-test.

(PLEASE PRINT CLEARLY)

Name / Degrees _____

Address _____

City _____

State _____ ZIP _____

Telephone Number _____

Fax Number _____

Specialty _____

Length of time to complete activity _____

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 |
| 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 c d |
| 8. a b c d | 18. a b c d |
| 9. a b c d | 19. a b c d |
| 10. a b | |

New Opportunities to Optimize Antimicrobial Treatment

GOAL

To provide comprehensive and up-to-date information concerning respiratory tract infections (RTIs) and the problem of antibiotic resistance.

TARGET AUDIENCE

This activity is designed for physicians in primary care, specialists in infectious diseases and pulmonary medicine, 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:

- Describe the impact of RTIs on healthcare costs, patient quality of life, and antibiotic prescribing.
- Discuss the causes and consequences of the development of antibiotic resistance in the 3 predominant pathogens that cause common RTIs.
- Identify the challenges that the emergence of resistant pathogens pose to managed care organizations in providing cost-effective care for patients with RTIs.
- Explain the impact of resistance on the selection of appropriate antibiotics for RTIs and the factors that should be considered when prescribing antibiotics.
- Discuss the rationale for implementing clinical practice guidelines in treating acute RTIs.
- Summarize treatment recommendations for acute otitis media, acute bacterial sinusitis, and acute exacerbation of chronic bronchitis.

CONTINUING MEDICAL EDUCATION ACCREDITATION

This activity has been planned and implemented in accordance with the Essentials and Standards of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the University of Wisconsin Medical School and ProCom International. The University of Wisconsin Medical School is accredited by the ACCME to provide continuing medical education for physicians.

The University of Wisconsin Medical School designates this continuing medical education activity for a maximum of 4 hours in Category 1 credit toward the AMA Physician's Recognition Award. Each physician should claim only the hours of credit that he/she actually spent on the educational activity.

Term of approval is for 2 years from the beginning distribution date of June 30, 2001, with an option to request renewal. Estimated time to complete this educational activity is 4 hours.

FUNDING

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The opinions and recommendations expressed by faculty and other experts whose input is included in this program are their own. This enduring material is produced for educational purposes only. Use of the University of Wisconsin Medical School name implies review of educational formal design and materials only.

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