

Management of Asthma in Pregnancy

AMA/CME Test 223

CONTINUING MEDICAL EDUCATION

Goal

To promote close monitoring and control of asthma during pregnancy as a means of optimizing both maternal and fetal health and minimizing complications.

Objectives

1. To elucidate the impact of normal respiratory changes during pregnancy on asthma assessment and symptoms.
2. To explain the US Food and Drug Administration's classification of asthma drugs in pregnancy in clinical terms that will facilitate better prescribing practices.
3. To present a stepped approach to medication for the pregnant asthmatic with disease ranging from mild to severe.

Accreditation

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of Albert Einstein College of Medicine and Quadrant HealthCom Inc. Albert Einstein College of Medicine is accredited by the ACCME to provide continuing medical education for physicians.

This activity has been peer reviewed and approved by Brian Cohen, MD, professor of clinical OB/GYN, Albert Einstein College of Medicine. Review date: May 2002. It is designed for Primary Care Physicians.

The Albert Einstein College of Medicine designates this educational activity for a maximum of 1 hour in category 1 credit toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she spent in the educational activity. Participants who answer 70% or more of the questions correctly will obtain credit.

To earn credit, see the instructions on page 49 and mail your answers according to the instructions on page 50.

DISCLOSURE

The Faculty Disclosure Policy of the College of Medicine requires that faculty participating in a CME activity disclose to the audience any relationship with a pharmaceutical or equipment company that might pose a potential, apparent, or real conflict of interest with regard to their contribution to the activity. This disclosure also applies to any discussion of unlabeled or investigational use of any commercial product or device not yet approved in the United States. Drs Revan, Sun, and McMorris all report no conflict of interest. Dr Brian Cohen reports no conflict of interest.

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(Test valid through June 30, 2003)

This activity has been planned and produced in accordance with ACCME Essentials.

The estimated time to complete this activity is 1 hour.

Instructions: Read the article beginning on page 10 and select the best answer for each of the following questions. Test form and mailing instructions are on the next page.

1. What percentage of pregnant women have asthma that requires medical management?
 - a. 0.5% to 1%
 - b. 5% to 7%
 - c. 1% to 4%
 - d. 12% to 15%
2. Which of the following statements is true?
 - a. Asthma poses no danger to the fetus.
 - b. Asthma symptoms remain unchanged in 33% of pregnant women.
 - c. Asthmatics can expect their symptoms to worsen as pregnancy progresses.
 - d. Most asthmatics require hospitalization during the third trimester.
3. Normal respiratory changes during pregnancy include:
 - a. a 25% drop in minute ventilation.
 - b. an increase in CO₂ production.
 - c. a significant decline in the peak respiratory flow rate (PEFR).
 - d. a 10% rise in residual volume (RV).
4. Pregnancy-related respiratory changes that can exacerbate asthma symptoms include:
 - a. increased protein-binding of bronchodilators.
 - b. higher levels of plasma histamines.
 - c. pulmonary resistance to cortisol effects.
 - d. a significant decrease in bronchodilator half-life.
5. In addition to acting as a major asthma trigger, smoking during pregnancy can cause:
 - a. miscarriage.
 - b. abnormal fetal lung development.
 - c. low birthweight.
 - d. all of the above.
6. The risk of using newer asthma medications with inadequate data in pregnant women must be weighed against:
 - a. the risk of using older, less effective medications.
 - b. the benefits of comprehensive environmental control.
 - c. the possibility of side effects such as hypertension and preeclampsia.
 - d. the increased risk of perinatal mortality despite specialist management.
7. Although drugs such as theophylline and inhaled corticosteroids have an overall record of safety and efficacy during pregnancy, they:
 - a. have been contraindicated during pregnancy by the American College of Obstetricians and Gynecologists.
 - b. are still classified as pregnancy Category C by the US Food and Drug Administration.
 - c. have been completely supplanted by newer agents.
 - d. may have long-term adverse effects on neurologic development.
8. Inhaled albuterol and metaproterenol are:
 - a. contraindicated during the first trimester.
 - b. best used in conjunction with antihistamines.
 - c. ineffective during pregnancy.
 - d. among the mainstays of asthma therapy during pregnancy.
9. Other therapies that can be used alone or adjunctively during pregnancy include all of the following, *except*:
 - a. cromolyn sodium and nedocromil.
 - b. beclomethasone and budesonide.
 - c. long-term oral or systemic prednisone.
 - d. montelukast and zafirlukast.
10. Obstetric medications that can aggravate asthma symptoms include:
 - a. β -Blockers and prostaglandins.
 - b. magnesium sulfate.
 - c. calcium-channel blockers.
 - d. ketamine.

TheFEMALE PATIENT® / Test 223

Management of Asthma in Pregnancy Vidyashankar B. Revan, MD; Eleanor Y. Sun, MD; Marc S. McMorris, MD

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

Record your answers here by circling the appropriate letter:

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

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I have read this article and completed this activity in _____ hours.

Signature

Date

For you to obtain credit, 70% or more of your answers must be correct. To cover costs of processing, please enclose a check for \$10, which is tax-deductible, payable to the Division of Continuing Medical Education (TFP), and mail with this answer sheet to:

TFP-CME BOX #2
QUADRANT HEALTHCOM INC.
26 Main St., Chatham, NJ 07928-2402

Participants will receive certification for their records in approximately 10 to 12 weeks.

Course Evaluation

Albert Einstein College of Medicine would like to have your opinion. Your evaluation will help us to plan future CME tests for *The Female Patient*®. We urge you to complete this questionnaire and mail it back to us with your completed test. Thank you for your cooperation.

1. How do you rate the information in this article?
 Superior Satisfactory Unsatisfactory
2. Will the materials presented influence the way you treat your patients?
 Yes No
3. Did this activity meet its objectives?
 Yes No
4. What recommendations do you have to improve this activity?

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Comments

