

# PharmaCE™

a continuing education program for *JPT* readers

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## May/June CE Questions

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### ACCREDITATION

PharmaCE is approved by the Accreditation Council for Pharmacy Education as a provider of continuing pharmaceutical education.

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## SMOKING CESSATION DURING PREGNANCY (see page 161)

### Goal

To review the clinical trials involving nicotine replacement products and bupropion to assist pharmacy practitioners in counseling pregnant women on methods to quit smoking.

### Objectives

After reading this article, the reader should be able to:

1. describe the pathophysiologic impact of smoking on pregnant women and their fetuses;
2. outline the clinical trial data on the safety and efficacy of transdermal nicotine products for smoking cessation in pregnancy;
3. compare the use of other nicotine replacement products in pregnant women with use of transdermal nicotine products;
4. list the potential teratogenic effects of bupropion;
5. identify a treatment plan for pregnant women who want to quit smoking.

### Test Questions

1. Which of the following statements is *true*?
  - (a) The number of pregnant women who smoke is decreasing due to better smoking cessation programs in this population.
  - (b) Approximately 11% of women smoke during their pregnancy.
  - (c) A higher percentage of pregnant women smoke than of nonpregnant women.
  - (d) Smoking during pregnancy does not increase health-care costs of the infant.
  - (e) Each year, a higher percentage of women is able to quit smoking.
2. Smoking is harmful to the fetus in many ways, including all of the following *except*:

- (a) lower birth weight.
- (b) hyperactivity and impulsivity as children.
- (c) greater incidence of cleft palate.
- (d) attention problems as children.
- (e) greater infant mortality.

3. Nicotine replacement therapy:
  - (a) is designed to ease the irritability associated with smoking cessation.
  - (b) contains all of the toxins also present in cigarettes.
  - (c) exposes the fetus to more nicotine than would occur if the mother continued to smoke.
  - (d) delivers more total nicotine than do cigarettes.
  - (e) does not help with insomnia associated with smoking cessation.
4. The results of the largest nicotine replacement study in pregnant women (Wisborg et al.<sup>8</sup>) demonstrated that:
  - (a) premature delivery was equal in both groups.
  - (b) transdermal nicotine therapy greatly enhanced a woman's ability to quit smoking.
  - (c) many women stopped therapy due to adverse effects.
  - (d) the infants of women receiving NRT had higher birth weights.
  - (e) continuous smoking abstinence was greater in the nicotine replacement group.
5. Based on clinical trials of transdermal NRT, which of the following statements regarding safety is *true*?
  - (a) No congenital abnormalities occurred.
  - (b) Nicotine concentrations in the mother were always lower in the groups receiving replacement therapy.
  - (c) Nicotine concentrations in cord blood were always lower in the groups receiving replacement therapy.
  - (d) Abrupt nicotine withdrawal can negatively impact the mother.
  - (e) Infants of mothers receiving NRT were consistently of lower birth weight.
6. Nontransdermal nicotine replacement products:
  - (a) may be more beneficial due to noncontinuous nicotine exposure.
  - (b) are more widely studied in the pregnant population.
  - (c) are not efficacious for smoking cessation in pregnancy.
  - (d) result in higher nicotine concentrations in the fetus than do transdermal products.
  - (e) result in more congenital abnormalities than do transdermal products.
7. Which of the following statements regarding the study of bupropion for smoking cessation in pregnancy is *true*?
  - (a) More women were able to quit smoking with bupropion than with placebo.
  - (b) The average number of daily cigarettes smoked decreased more in the bupropion versus the placebo group.
  - (c) There were a number of congenital abnormalities associated with bupropion.
  - (d) This was a small, placebo-controlled study.
  - (e) Infants born to women receiving bupropion were smaller in size.

Answer sheet appears on page 203.

8. Which of the following anatomical areas appears to be most susceptible to congenital abnormalities in babies exposed to bupropion in utero?
- (a) central nervous system
  - (b) urinary tract, including the kidneys
  - (c) gastrointestinal tract
  - (d) pulmonary system
  - (e) cardiovascular system.
9. A pregnant woman presents to your pharmacy asking about products to help her quit smoking. She specifically wants to know which of the OTC nicotine replacement products she should use. Your response is:
- (a) It doesn't really matter; they've all been well studied and found to be safe in pregnancy.
  - (b) The nicotine transdermal products have been studied the most and appear to be safe in pregnancy.
  - (c) The nicotine gum products have been proven best because they decrease nicotine exposure.
  - (d) The nicotine transdermal products are more efficacious in pregnancy than other smoking cessation products.
  - (e) She should talk to her physician since the prescription product bupropion was shown to be much better than nicotine replacement products.
10. A pregnant woman asks which drug options are best to help her quit smoking. How do you respond?
- (a) Bupropion is the best option and can be used throughout pregnancy.
  - (b) Bupropion is significantly better than any of the nicotine products but should only be used after the first trimester.
  - (c) Nicotine replacement products are significantly better than bupropion and are not associated with any fetal adverse effects.
  - (d) Nicotine replacement products have been studied the most and should be used before trying bupropion.
  - (e) Drugs should not be used to help her quit smoking; she should rely on counseling alone.