Putting Prevention into Practice
An Evidence-Based Approach

Behavioral and Pharmacotherapy Interventions for Tobacco Smoking Cessation in Adults, Including Pregnant Women

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▶ **See related U.S. Preventive Services Task Force Recommendation Statement at http://www.aafp.org/afp/2016/0515/od1.html.**

This PPIP quiz is based on the recommendations of the USPSTF. More information is available in the USPSTF Recommendation Statement and the supporting documents on the USPSTF website (http://www.uspreventiveservicestaskforce.org). The practice recommendations in this activity are available at http://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/tobacco-use-in-adults-and-pregnant-women-counseling-and-interventions1.

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CME This clinical content conforms to AAFP criteria for continuing medical education (CME). See CME Quiz Questions on page 822.

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Case Study

A 40-year-old woman presents for a routine antepartum visit. She is 20 weeks pregnant and smokes half a pack of cigarettes per day despite efforts to quit. She has no other concerns, and her physical examination findings are normal. The patient asks if your clinic offers services to help with tobacco smoking cessation and if she should try using e-cigarettes to stop smoking.

Case Study Questions

1. The U.S. Preventive Services Task Force (USPSTF) found convincing evidence that achievement of tobacco cessation in pregnant women results in which one of the following outcomes?

- ❑ A. Improved infant Apgar scores.
- ❑ B. Increased infant birth weight.
- ❑ C. Increased infant head circumference at birth.
- ❑ D. Decreased rates of cesarean delivery.

2. Based on the USPSTF recommendation statement, which one of the following tobacco smoking cessation interventions should you recommend to this patient?

- ❑ A. Behavioral interventions and pharmacotherapy combined, because there is convincing evidence that these methods improve achievement of tobacco smoking cessation in pregnant women.
- ❑ B. Electronic nicotine delivery system (ENDS), because there is adequate evidence that this method alone improves achievement of tobacco smoking cessation in pregnant women.
- ❑ C. Pharmacotherapy, because there is adequate evidence that its harms are small to none in pregnant women.
- ❑ D. Behavioral interventions, because there is convincing evidence that this method alone improves achievement of tobacco smoking cessation in pregnant women.

3. Which of the following statements about tobacco cessation interventions are correct?

- ❑ A. There is adequate evidence to determine that the harms associated with the use of ENDS in nonpregnant adults are small to none.
- ❑ B. There is inadequate evidence to assess the balance of benefits and harms for the use of ENDS in adults or pregnant women.
- ❑ C. There is convincing evidence that behavioral interventions or pharmacotherapy alone or in combination substantially improves the achievement of tobacco smoking cessation in nonpregnant adults.
- ❑ D. Behavioral interventions should be formally structured with specifically designed components, such as intensity, duration, frequency, format, provider, and content.

Answers appear on the following page.

Answers

1. The correct answer is B. Approximately one in six pregnant women 15 to 44 years of age smokes. Smoking during pregnancy increases the risk of congenital anomalies; perinatal complications, such as preterm birth, fetal growth restriction, and placental abruption; miscarriage and stillbirth; and neonatal or pediatric complications, such as sudden infant death syndrome and impaired lung function in childhood. The USPSTF found convincing evidence that tobacco smoking cessation in pregnant women increases infant birth weight and reduces the risk of preterm delivery.

2. The correct answer is D. The USPSTF found convincing evidence to support the use of behavioral interventions to improve tobacco smoking cessation in pregnant women. There was inadequate evidence or no evidence to support the use of other methods of tobacco smoking cessation in pregnant women, such as pharmacotherapy or ENDS. There were no studies that evaluated the effectiveness of bupropion (sustained release) or varenicline for tobacco smoking cessation in pregnant women, and the evidence on nicotine replacement therapy was too limited to draw definitive conclusions. Therefore, the USPSTF neither recommends for or against the use of pharmacotherapy in pregnant women. In the absence of clear evidence on the balance of benefits and harms of pharmacotherapy in pregnant women, clinicians are encouraged to consider the severity of smoking behavior in each patient and engage in shared decision making to determine the best individual treatment course.

3. The correct answers are B, C, and D. In nonpregnant adults and pregnant women, there is insufficient evidence to assess the balance of benefits and harms of the use of ENDS for tobacco smoking cessation. The lack of well-designed randomized controlled trials on ENDS has been identified by the USPSTF as a critical gap in the literature. In nonpregnant adults, there is convincing evidence to support the use of behavioral interventions or pharmacotherapy alone or in combination. Combination therapy is the most effective, and all forms should be offered. The best and most effective therapies are those that consider the patient's medical history and personal preferences. In pregnant women, there is convincing evidence to support the use of behavioral interventions for tobacco smoking cessation. However, there is inadequate or no evidence to assess the benefits and harms of the use of pharmacotherapy. When offered, behavioral interventions should be carefully planned and structured. More frequent or longer sessions have been shown to be more effective than shorter sessions; however, some studies have found that minimal interventions as short as a few minutes can increase cessation rates. In-person individual or group sessions, telephone counseling, and print-based self-help materials are all potentially effective methods of counseling, depending on the patient's medical history and preferences. Counseling can be provided by physicians, nurses, psychologists, social workers, or cessation counselors. Effective content should be designed to provide social support and training in practical problem-solving skills.

The views expressed in this work are those of the authors, and do not reflect the official policy or position of the Uniformed Services University of the Health Sciences, the Department of Defense, or the U.S. government.

SOURCES

Behavioral and pharmacotherapy interventions for tobacco smoking cessation in adults, including pregnant women: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med.* 2015;163(8):622-634.

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