
Putting Prevention into Practice

An Evidence-Based Approach

Primary Care Interventions to Prevent Tobacco Use in Children and Adolescents

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► See related U.S. Preventive Services Task Force Recommendation Statement at <http://www.aafp.org/afp/2014/1115/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 evidence on the USPSTF website (<http://www.uspreventiveservices.taskforce.org>). The practice recommendations in this activity are available at <http://www.uspreventiveservices.taskforce.org/Page/Topic/recommendation-summary/primary-care-interventions-to-prevent-tobacco-use-in-children-and-adolescents>.

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CME This clinical content conforms to AAFP criteria for continuing medical education (CME). See CME Quiz Questions on page 696.

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Case Study

A 14-year-old male high school student presents for a preparticipation physical examination. He just started the 9th grade and is trying out for his school's football team. He is a nonsmoker and has never used illicit drugs. However, his parents are longtime smokers, and some of his older friends on the football team smoke.

Case Study Questions

1. When assessing this patient's risk of future tobacco use, which one of the following does the U.S. Preventive Services Task Force (USPSTF) consider the strongest factor associated with smoking initiation in school-aged children and adolescents?

- A. Exposure to tobacco promotions.
- B. Low levels of parental monitoring.
- C. Parental smoking.
- D. Perception that friends or peers smoke.
- E. Ease of access to cigarettes.

2. Based on the recommendations of the USPSTF, which one of the following statements about primary care interventions to prevent tobacco use in school-aged children and adolescents is correct?

- A. The USPSTF recommends against primary care interventions.
- B. The USPSTF found insufficient evidence to assess whether the benefits of primary care interventions outweigh the harms.
- C. The USPSTF recommends selectively offering and providing primary care interventions based on professional judgment and patient preferences.
- D. The USPSTF recommends providing primary care interventions because there is moderate certainty that the net benefit is moderate.
- E. The USPSTF recommends providing primary care interventions because there is high certainty that the net benefit is substantial.

3. According to the USPSTF recommendations, which of the following interventions to prevent tobacco use in children and adolescents are appropriate for this patient?

- A. Mailed educational materials to the patient's home.
- B. Face-to-face behavior counseling on the harms of tobacco use.
- C. Intensive intervention focused on universal substance abuse and problem behavior prevention for families.
- D. No primary care intervention is appropriate at this time.

Answers appear on the following page.

Answers

1. The correct answer is C. The USPSTF states that two of the strongest factors associated with smoking initiation in children and adolescents are parental smoking and parental nicotine dependence. Other factors include low levels of parental monitoring, easy access to cigarettes, the perception that peers smoke, and exposure to tobacco promotions. In 2009, 8.2% of middle school students and 23.9% of high school students reported current use of any tobacco product. The prevalence of smoking in the United States is higher in male high school students (19.8%) than female students (19.1%). Children are susceptible to smoking experimentation and initiation. It can take up to two years for early experimentation to progress to addiction, although nicotine dependence may progress to addiction more rapidly in some children and adolescents. Although younger children may be susceptible to smoking, research indicates that adolescents may be especially vulnerable to nicotine addiction.

2. The correct answer is D. The USPSTF concludes with moderate certainty that primary care–relevant behavioral interventions to prevent tobacco use in school-aged children and adolescents have a moderate net benefit. This recommendation applies only to school-aged children and adolescents. The USPSTF will issue an updated separate recommendation statement on tobacco use counseling in adults and pregnant women. There is adequate evidence that behavioral counseling interventions can reduce the risk

of smoking initiation in school-aged children and adolescents. In addition, although there was no direct evidence on the harms of behavioral interventions to prevent tobacco use, the USPSTF concludes that the potential harms of primary care interventions are probably small to none.

3. The correct answers are A, B, and C. According to the USPSTF, behavioral counseling interventions (such as face-to-face or phone interaction with a health care professional, print materials, and computer applications) can reduce the risk of smoking initiation in school-aged children and adolescents. The type and intensity of effective behavioral interventions varied substantially based on the evidence reviewed by the USPSTF, ranging from no in-person interaction with a health care professional to seven group sessions totaling more than 15 hours. Even minimal interventions, such as mailing materials to a youth's home, had substantial effects on reducing smoking initiation.

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

Patnode CD, O'Connor E, Whitlock EP, Perdue LA, Soh C, Hollis J. Primary care-relevant interventions for tobacco use prevention and cessation in children and adolescents: a systematic evidence review for the U.S. Preventive Services Task Force. *Ann Intern Med.* 2013;158(4):253-260.

U.S. Preventive Services Task Force. Primary care interventions to prevent tobacco use in children and adolescents: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med.* 2013;159(8):552-557. ■