Development of a Smoking Cessation Algorithm for Primary Care Providers

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ABSTRACT

The primary care setting is an ideal location to promote smoking cessation through counseling and pharmacological aids. Effective smoking cessation options should be offered by primary care providers (PCPs) at each office visit. Smokers report receptiveness to smoking cessation advice given by PCPs. The US Preventive Services Task Force recommends asking about tobacco use in all adults. Counseling using the 5-A model can be performed during a visit. This article discusses development of an evidence-based algorithm using the 5-A model to help PCPs implement a smoking cessation protocol.

Keywords: 5-A model, algorithm, meaningful use, primary care, smoking cessation

Smoking remains one of the most preventable causes of death worldwide. Half of all smokers will die prematurely from a related illness or complication.[1] Smoking is harmful even when the person smokes occasionally or socially, and each cigarette causes damage to multiple organ systems. There are benefits to smoking cessation, regardless of the patient's age or the number of years spent smoking. While the prevalence of smoking has decreased during recent years, the Centers for Disease Control and Prevention (CDC) estimate that 19.3%, or 1 in 5 adults, smoke cigarettes in the United States.[1] In 2010, 52.4% of adult smokers stopped smoking for more than a day in an attempt to quit smoking.[2] The Healthy People 2020 initiative has established a goal of reducing smoking in adults 18 and older to 12%.[3]

Many market forces are encouraging smoking cessation. The cost of tobacco-related death and disease was approximately $96 billion in 2009. In the same year, approximately $97 billion was lost as a result of lack of productivity from workers suffering from tobacco-related illnesses.[4] In 2006, US consumers spent approximately $83.6 billion on cigarettes and $3.2 billion on cigars.[5] Additionally, for every pack of cigarettes purchased, $10.47 is spent on direct medical costs related to smoking and lost productivity.[6]

Considering the current US economic climate, these numbers are alarming. Public and private institutions have also been a driving force in the campaign for smoking cessation. Policies have been adopted by employers, businesses, and entire cities banning use of tobacco products in public areas. Also, health insurance agencies/companies have adopted changes in the areas of coverage, reimbursement, and policy premiums to promote smoking cessation.[1]

The primary care setting is an ideal location to promote smoking cessation through counseling and pharmacological aids. Effective smoking cessation options should be promoted by primary care providers (PCPs) at every opportunity. Providers can be reimbursed through private and public health care programs for smoking cessation counseling during a regular office visit. The American Medical Association has developed a list of Current Procedural Terminology (CPT) codes used to bill for services provided (Table 1). Medicare will reimburse providers for 4 counseling sessions during each quit attempt, up to 2 quit attempts per year. Medicare prescription drug coverage will also cover smoking and tobacco cessation agents.[7] Although smokers report being receptive to advice given by PCPs, only a small number of providers actually give advice to smokers during a visit.[8]

Table 1. CPT Codes for Smoking Cessation Interventions

CPT Code	Code Descriptor
1000F	Tobacco use assessed
4000F	Tobacco use treatment and interventional counseling
4001F	Tobacco use treatment, interventional counseling and pharmacological management
99406	Behavioral change—smoking cessation counseling 3-10 minutes
99407	Behavioral change—smoking cessation counseling > 10 minutes
G0436	Tobacco use counseling 3-10 minutes
G0437	Tobacco use counseling > 10 minutes

American Medical Association. Alphabetical Clinical Topics Listing. http://www.ama-assn.org/resources/doc/cpt/cpt-cat2-codes-alpha-listing-clinical-topics.pdf. Accessed August 10, 2013.

EVIDENCE

The US Preventive Services Task Force (USPSTF)[9] is an evidence-based prevention resource for nurse practitioners and other PCPs. The Agency for Healthcare Research and Quality (AHRQ), in conjunction with the USPSTF, evaluates clinical recommendations on the basis of quality and strength of evidence for each intervention, the net health benefit associated with the service, and the amount of certainty that the level of benefit will be realized if the service is provided in primary care. Information and recommendations from the AHRQ can be accessed at http://www.ahrq.gov/.

AHRQ recommendations are linked to a letter grade that addresses the amount of net benefit and the strength and certainty of the evidence supporting the implementation of a specific preventive service. The recommendations are graded from A to D. Services graded an A have a high probability of substantial benefit and should be offered to eligible clients. Services graded B have a moderate certainty of substantial benefit and should also be encouraged. Grade C recommendations should be offered only if other considerations support the service for an individual client. Services with a grade of D are discouraged. A grade of I is used when there is insufficient evidence to determine net benefit. For this particular grade, health care providers should read the clinical considerations section for guidance to help clients understand the uncertainty of these services.[9]

The USPSTF gives an A recommendation to clinicians screening all adults for tobacco use and for providing tobacco cessation interventions to those who use tobacco products.[10] Increased 6-month abstinence rates among smokers are found when providers implement a guideline-based smoking cessation intervention into practice.[11]

The 5 As model for treating tobacco dependence outlines guidelines for providers to follow regarding asking about tobacco usage, advising patients to quit through clear, personalized questions, assessing willingness to quit, assisting to quit, and arranging for follow-up and client support. The 5 As stand for ask, advise, assess, assist, and arrange. Counseling using the 5-A model can be performed during an office visit or a telephone encounter. Telephone quit-line counseling can reach a broad range of diverse populations and is a viable option in smoking cessation counseling. During a counseling encounter, whether face-to-face or by telephone, a complement to the 5 As—the 5 Rs—can assist in motivational counseling. The issues of relevance, risks, rewards, roadblocks, and repetition may be discussed with the client.[4]

During the counseling process, providers should note that simply giving standardized self-help materials to a patient may have little positive effect on his or her success. In order to promote long-term success, providers should use self-help materials that can be tailored to the patient's lifestyle and pre-existing disease processes. For example, a patient with coronary artery disease may benefit from self-help materials that address the benefit of smoking cessation in relation to a coronary event. Using a combination of behavioral support and pharmacotherapy when treating tobacco dependence also promotes smoking cessation. These 2 types of treatment are complimentary and increase long-term tobacco abstinence rates.[12]

BARRIERS AND FACILITATORS TO THE 5-A MODEL AND CLINICAL PRACTICE GUIDELINES

Multiple barriers to providing smoking cessation services and use of the 5-A model and clinical practice guidelines have been cited in the literature. In a 2010 national survey of 7 health care provider groups, 87.3% to 99.5% of respondents reported asking patients about smoking status during a visit. However, the same survey identified that a much lower