ABSTRACT

Smoking continues to present a significant public health burden and is responsible for more than 400,000 premature deaths each year. The majority of smokers indicate a willingness to quit smoking, and up to 40% of smokers attempt to quit smoking each year. Unfortunately, many of these attempts are unsuccessful, in part because the quit attempt is made without any aid or without adequate aid. Pharmacists are positioned to interact with smokers and encourage them to quit smoking. Current data suggest that few pharmacists are addressing smoking cessation with patients and smoking-cessation rates could be improved if the frequency of interactions increased. The US Public Health Service’s Treating Tobacco Use and Dependence: Clinical Practice Guideline provides a structure for addressing tobacco use. Addressing barriers to smoking cessation in a proactive manner can improve the success of smoking cessation. In addition to the use of pharmacotherapy to support smoking-cessation attempts, nonpharmacologic interventions—advice and behavioral support—are essential to successful cessation. Psychosocial interventions range from brief advice to more intensive group or individual counseling. There is a strong dose-response relationship between the intensity of counseling and effectiveness. More intensive interventions increase the odds of success. Resources are available to support pharmacists’ efforts in assisting smokers with smoking cessation. National and state-specific programs offer access to individuals who specialize in smoking cessation. Pharmacists can provide specialized brief counseling aimed at improving compliance with smoking cessation medications and educate patients on ways to maximize the benefit of smoking-cessation therapies. (Adv Stud Pharm. 2007;4(8):221-224)

NONPHARMACOLOGIC APPROACHES TO FACILITATE SMOKING CESSATION

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increasing the pharmacist’s role in smoking cessation can have a substantial public health benefit. Although individual smokers are unique, practitioners can use available smoking-cessation guidelines and accompanying tools to develop a standardized approach to assessing smoking status and providing smoking-cessation support for treatment.

**FORMULATING AN APPROACH TO SMOKING CESSATION**

The US Public Health Service’s *Treating Tobacco Use and Dependence: Clinical Practice Guideline* indicates that a key element of addressing tobacco use in the United States involves a healthcare practitioner’s assessment of smoking status with each healthcare system encounter. The guidelines recommend the use of the 5 A’s as the foundation for guiding patients toward successful smoking cessation (Table 1). The 5 A’s are intended to provide a simple guide to brief tobacco intervention and are effective in increasing the proportion of patients who quit smoking in primary care settings.

**BARRIERS TO MAKING A QUIT ATTEMPT**

One of the limitations of the 5 A’s is that it may be less helpful for individuals who are not motivated to consider quitting using tobacco. Many smokers are considered to be “precontemplators,” who are not considering quitting smoking in the next 6 months. Interventions to increase motivation may be helpful for these tobacco users. For the smoker who is unmotivated to quit, practitioner application of the 5 R’s (ie, relevance, risks, rewards, roadblocks, and repetition) can enhance patient motivation (Table 2). A successful motivational intervention requires an empathetic practitioner who acknowledges patient-specific concerns and previous successful lifestyle changes.

Fear of weight gain, especially in female smokers, is often cited as a reason to avoid a cessation attempt. Weight gain associated with smoking cessation (usually <4.5 kg) appears to be mediated by increased energy intake, a decreased resting metabolic rate in the absence of nicotine, decreased physical activity, and increased lipoprotein lipase activity. Weight gain is often delayed or reduced with the use of nicotine-replacement therapies and bupropion. This may provide incentive for using pharmacotherapy for some smokers. Research has demonstrated that when weight concerns are addressed during counseling for smoking cessation, a higher quit rate was achieved.

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**Table 1. The 5 A’s for Facilitating Smoking Cessation**

<table>
<thead>
<tr>
<th>Ask about tobacco use</th>
<th>Smoking status should be determined and documented at each patient encounter.</th>
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<tbody>
<tr>
<td>Advise to quit</td>
<td>Every tobacco user should be encouraged to quit using a definitive tone and a personalized manner.</td>
</tr>
<tr>
<td>Assess willingness to make a quit attempt</td>
<td>A determination should be made as to whether the individual is willing to attempt quitting at this time.</td>
</tr>
<tr>
<td>Assist in quit attempt</td>
<td>If the patient is willing to make a quit attempt, counseling and pharmacotherapy options should be offered to the individual.</td>
</tr>
<tr>
<td>Arrange follow-up</td>
<td>Schedule additional contact, preferably within the first week following the quit date.</td>
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</tbody>
</table>


**Table 2. The 5 R’s to Enhance Motivation to Quit Smoking**

<table>
<thead>
<tr>
<th>Relevance</th>
<th>Identify motivational factors that are relevant for the patient: risk of heart disease, cancer, social situation, second-hand smoke, personal barriers to cessation, and prior quit attempts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risks</td>
<td>Ask the patient about the negative health effects of smoking.</td>
</tr>
<tr>
<td>Rewards</td>
<td>Ask the patient about potential benefits of smoking cessation.</td>
</tr>
<tr>
<td>Roadblocks</td>
<td>Ask the patient to identify barriers that will make a quit attempt difficult. Provide patient with information on how these barriers can be addressed.</td>
</tr>
<tr>
<td>Repetition</td>
<td>Repeat motivational intervention with each patient encounter.</td>
</tr>
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BARREN TO REMAINING ABSTINENT

Most smokers indicate a desire to quit, although only approximately 6% of individuals who attempt to quit remain abstinent for more than 1 month. The biggest barrier to remaining abstinent is the addictive nature of nicotine and the presence of smoking cues, such as seeing other smokers, in the environment. Even smokers who use only 5 cigarettes per day exhibit signs of nicotine addiction and the number of cigarettes smoked per day can sometimes be misleading in determining an individual's level of nicotine dependence. A better question may be to ask smokers how many minutes after awakening in the morning do they smoke their first cigarette. The addictive properties of nicotine have been compared with that of heroin, alcohol, and cocaine. As with all addictions, physical and psychological symptoms present following withdrawal, which often leads to relapse for the addicted individual.

A first attempt at cessation rarely results in sustained abstinence. On average, smokers report that at least 6 attempts were made before success was achieved. Confidence in the ability to successfully quit can impact the outcome of a cessation attempt. Concomitant disease also can affect the success of a cessation attempt. For example, individuals with depression are twice as likely to smoke and may experience more difficulty during cessation attempts. Some smokers report that stress is a reason for continuing to smoke or reinitiating smoking after a cessation attempt. Helping these individuals learn to deal with stress through physical activity or stress management techniques is essential to improving their success.

ENABLING THE SMOKER TO SUCCEED

The most effective method of assisting a smoker to successfully quit combines pharmacotherapy with non-pharmacologic interventions (ie, advice and behavioral support). Used alone, both approaches are considered equally effective, but combining them appears to multiply chances for success. Psychosocial interventions for smoking cessation range from brief advice to more intensive group or individual counseling. Self-help manuals are easily distributed to large numbers of individuals and have an efficacy rate of approximately 5%. This intervention is most beneficial for smokers who are highly motivated, more confident in their ability to quit, and less dependent on nicotine. Counseling that is delivered in person and interactive telephone counseling are more effective than simply providing educational or self-help materials.

EVIDENCE-BASED NONPHARMACOLOGIC INTERVENTIONS

Psychosocial treatments for nicotine dependence are among the first-line treatments in several recent practice guidelines. Although the combination of psychosocial and pharmacologic therapies produces enhanced quit rates when compared with either alone, only 5% of smokers who make a 24-hour quit attempt receive counseling as part of their treatment.

The provision of brief advice—verbal instructions to stop smoking with or without added information about the harmful effects of smoking—to all smokers improves smoking cessation. Approximately 1 in 40 smokers will achieve abstinence following brief advice. Brief advice should take no more than 5 minutes and is often accomplished in less than 2 minutes. Brief counseling should be tailored to the individual. Topics that can be covered in these discussions include the health benefits associated with smoking cessation, acknowledgment that nicotine is addictive, introducing the availability of pharmacotherapy to assist with a quit attempt, and gauging the smoker's feelings related to smoking and smoking cessation. Follow-up is critical to the success of a cessation attempt.

Pharmacists can provide specialized brief counseling aimed at enhancing compliance and effectiveness of over-the-counter nicotine-replacement products. This may be of particular importance for patients who are less likely to use instructional booklets or self-help materials effectively. Nicotine absorption is markedly reduced when it is administered with acidic beverages, such as soda, coffee, and juice. Simple instructions not to use the gum, lozenge, or inhaler in conjunction with these beverages can greatly increase the nicotine absorption. Individuals concerned about the addictiveness of nicotine medications should be reminded that nicotine delivery from medication is not addicting the way smoking nicotine is and that there is virtually no risk of becoming addicted to the products.

Although brief treatment is effective, there is a strong dose-response relationship between the intensity of counseling and its effectiveness; more frequent contact increases the odds of quitting. More intensive interventions, usually offered by specially trained individuals, also increase success rates.

Participation in support groups gives the individual
smoker mutual support from others who are also facing the challenges of smoking cessation. Local smoking-cessation group sessions can be identified by contacting the local health department, the American Cancer Society, or the American Lung Association.

A national quit line (1-800-QUITNOW) and an Internet site (www.smokefree.gov) connect those seeking help with trained counselors who specialize in smoking cessation. In addition to these national programs, each state funds its own Tobacco Control Program that may have unique community resources, specialized tobacco treatment clinics, and programs for subsidized medications. Many states also now provide smoking-cessation counseling through their own toll-free telephone quit lines. These services are available to callers regardless of their geographic location, race/ethnicity, or socioeconomic status and are often available in multiple languages. Often, these state offices will provide free pamphlets and posters that publicize local resources.

**COMPLEMENTARY AND ALTERNATIVE THERAPIES**

Interventions, such as hypnosis, acupuncture, diet aids, smoking deterrents, and low-level laser therapy, have been suggested for smoking cessation. Evidence does not support improved quit rates with these types of interventions. However, on an individual basis, these therapies may provide the patient with added confidence that improves their ability to be successful in their quit attempt. Discussions of these types of therapies should include a review of their overall effectiveness and acceptance within the medical community.

**CONCLUSIONS**

Pharmacists are positioned to play a major role in decreasing the public health impact of smoking by developing an approach to each patient that includes the 5 As. The number of potential interventions initiated by a pharmacist could have a significant impact on the overall smoking-cessation rate in the United States. Any smoking-cessation effort should include pharmacologic and nonpharmacologic interventions. National programs offer the pharmacist a ready resource of well-trained individuals to help patients with smoking cessation.

**REFERENCES**


