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Adult Smoking Cessation Strategies: A Rural Healthcare Continuing Education Initiative

Consensus Recommendations from an Expert Panel

Learning Objectives:

- Outline effective behavioral modification strategies for patients with nicotine addiction/dependence on smoking.
- Describe the pharmacologic interventions useful for smoking cessation.
- Identify programs that support successful smoking cessation for patients.
- Discuss the issues in reimbursement for smoking cessation care.

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Smoking-Related Health Risks and the Benefits of Cessation

The 2004 Surgeon General's report, *The Health Consequences of Smoking*, concluded that "smoking harms nearly every organ of the body."[1] Evidence is sufficient to infer a causal relationship between smoking and a variety of cancers, cardiovascular diseases, respiratory disorders, reproductive effects, and other disorders, including macular degeneration and peptic ulcer disease. Smoking has been associated with losses in glomerular filtration rate, an effect on renal function that extends beyond populations that have primary or secondary renal disease.[2] An estimated 50% of current smokers will die from smoking if they do not quit;[3] prolonged cigarette use from early adult life triples age-specific mortality rates.[4]

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Exposure to secondhand smoke causes lower respiratory tract infections in 150,000-300,000 children younger than 18 months[5] and results in 2 million asthma-related office visits each year.[6]

Cessation substantially reduces the risk of all-cause mortality among patients with coronary heart disease[7, 8] and significantly decreases mortality among patients who have experienced myocardial infarction.[9] Among middle-aged men, smoking cessation is also associated with a decreased risk of stroke, particularly in persons who smoke <20 cigarettes/day.[10] Smokers with airflow obstruction benefit from stopping intake despite previous heavy smoking, advanced age, poor baseline lung function, or airway hyperresponsiveness.[11] Smoking cessation also substantially decreases cancer risk, returning to near-normal levels with in 15 years for most cancers.[3] Although the risk of adenocarcinoma of the lung remains elevated for up to 30 years following cessation,[12] quitting postpones the onset of the disease.[13]

Smoking is the nation's leading cause of preventable disability and death (440,000 premature deaths/year).[14]

Patient Evaluation in the Primary Care Setting: Assessment

Nicotine dependence is a chronic condition, and smoking cessation requires behavioral modifications and lifestyle adjustments. Merely wanting to quit does not lead all smokers to actually attempt it; slightly more than half of those who want to stop will actually attempt to do so in a given year.[15] Of those, only about 3% will remain abstinent for 12 months. Most smokers will attempt to quit several times before achieving success, cycling though several periods of remission and relapse.[16, 17] The provider should initially assess a patient's degree of addiction and be prepared to offer encouragement, assistance, and guidance as the smoker adjusts to the lifestyle changes associated with successful interventions.

Assessing Nicotine Addiction. The cigarette provides a highly efficient, engineered vehicle to deliver nicotine, facilitating a complex addiction that involves physical, biochemical, psychological, behavioral, and social aspects.[18, 19] The act of smoking becomes incorporated into daily routines and is often associated with ritualized behaviors, and the degree of nicotine dependence has been identified as the key predictor of cessation success in several large-scale prospective studies.[20, 21] The provider can assess the degree of nicotine addiction by asking three questions:

- How much do you smoke (e.g., how often, how many cigarettes/day)?
- When do you smoke your first cigarette of the day?
- What is the longest period of time between cigarettes before you crave another cigarette?

Patients who smoke more than 20 cigarettes per day, and those who smoke 10-20 cigarettes per day with the first cigarette within the first 30 minutes of waking, are likely to be addicted to nicotine. Those who smoke 10-20 cigarettes per day, with the first cigarette more than 30 minutes after waking, are less likely to be addicted. Fewer than ten cigarettes per day suggests social smoking rather than addiction, although patients in this category may demonstrate moderate amounts of addiction. The pattern of smoking during the course of the day may also provide insight into the level of addiction; e.g., a person who smokes only during the evening is likely less addicted than one who smokes a cigarette immediately upon waking. Nicotine addiction may also be seen in conjunction with other addictive behaviors, such as alcohol dependence.

Practice Recommendation: Providers should screen all adults for tobacco use and provide tobacco cessation interventions for those who use tobacco products.

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EBM Source: Agency for Healthcare Research and Quality. US Preventive Services Task Force (USPSTF). *Counseling to Prevent Tobacco Use*, 2003. http://www.ahrq.gov/clinic/uspstf/uspstbac.htm

Strength of Recommendation: "A" Level Evidence. The USPSTF found good evidence that brief smoking cessation interventions, including screening, brief behavioral counseling (< 3 min), and pharmacotherapy delivered in primary care settings, are effective in increasing the proportion of smokers who successfully quit smoking and remain abstinent after 1 year. The USPSTF found good evidence that smoking cessation lowers the risk for heart disease, stroke, and lung disease and concluded that there is good indirect evidence that even small increases in the quit rates from tobacco cessation counseling would produce important health benefits, and that the benefits of counseling interventions substantially outweigh any potential harms.

Motivating and Counseling Patients

Implementing Multi-Component Programs. Just as each patient is unique, so will be the intervention required to achieve success. Multi-component interventions, which combine behavioral and pharmacologic therapies, are more effective than single-component interventions. By targeting numerous aspects of nicotine addiction (e.g., teaching coping skills, providing withdrawal relief), multi-component therapies may enhance overall compliance and affect patients who would otherwise not respond to certain isolated strategies. When health care providers counsel all smokers and recommend/prescribe pharmacotherapy when indicated, cessation rates may increase as much as six-fold over community-wide base rates (Table 1).[22]

Table 1 Typical Long-Term Quit Rates

	No Therapy	Brief Advice	Behavior Therapy
Placebo or No Medication	5%	10%	15%
First-Line Medication	10%	20%	30%

Source: Hughes JR. *CA Cancer J Clin* 2000;50:147.

Table 2 Key Techniques for the Provider	
Individualize	• Tailor motivational approach to the patient's needs and personality • Appeal to specific characteristics, such as age, occupation, or avocation • Motivate appropriately (e.g., fear of disease, humor of how smoking looks or how brands are named, anger at manufacturers for deceiving consumers)
Personalize	• Indicate that you care • Discuss health, financial, or cosmetic benefits of stopping
Demythologize	• De-bunk common smoking myths: - Low-tar/lights/filtered cigarettes are not safer. - Smoking does not keep weight down in most persons. - Smoking does not relieve stress (it only satisfies the nicotine craving).

Source: Blum AM and Solberg EJ. *In Fundamentals of Clinical Practice: A Textbook on the Patient, Doctor, and Society*. Eds. Mengel MB, Hollemann WL, Fields SA. New York: Plenum, 2002.

Understanding the Provider's Role. If smoking cessation interventions are to work, the patient and the provider must be motivated to succeed. Successful intervention should be based on three strategies: individualize, personalize, and demythologize. Suggestions for each concept are provided in Table 2.

Reviewing the 5 "R's" of Quitting. The "5 R's" of quitting — relevance, risks, rewards, roadblocks, and repetition — should be discussed with each patient who is motivated to quit smoking and can be used as a teaching tool for patients who are unmotivated to quit. For greatest success, the provider must tailor the message and strategy to the needs of the individual. Providers should discuss the **relevance** of stopping smoking in terms of its effects on the smoker's lifestyle and health and outline the **risks** of smoking, including cosmetic and functional side-effects (e.g., impotence, wrinkled skin, yellowed teeth). Physical, emotional, and financial **rewards** of stopping should be outlined. Enabling the patient to develop practical strategies to overcome **roadblocks** associated with quitting, such as nicotine withdrawal and environmental pressures that encourage relapse (e.g., social settings, stressful events, habitual patterns), is an essential component of patient support. Finally, the patient should be reassured that stopping smoking is a process of relapse and **repetition** for most people; repeated attempts to stop are a common and accepted pathway to abstinence.

Shifting the Focus from the User to the Product. Successful smoking cessation interventions are based on a positive approach; care should be taken to avoid stigmatizing the tobacco user.[23] Smokers generally know that their habit is unhealthy; nonetheless, they may be resistant to or have difficulty with quitting. While it is critical for the provider to point out the health risks of smoking, he/she should emphasize the benefits of not smoking at least as strongly. By carefully choosing dialogue, the primary care provider can shift the focus away from a resistant smoker and onto the product when individualizing an intervention (Table 3).

Table 3 Helpful One-Liners that Shift Focus to the Product
• "Menthol is an anesthetic." (It deadens the throat, masking the sensation of the hot smoke). • "'Light' and 'ultra-light' simply mean additional sweeteners." (Cigarettes derive their unique tastes from added sweeteners, some of which are geared to adolescents). • "The filter is a fraud." (Filters provide no health benefits and often have an effect opposite than that advertised—requiring deeper inhalation or more cigarettes to achieve the same nicotine effect). • "'Low tar' means 'low poison.'" ("Tar" is the concentrate of the more than 4000 chemicals in cigarette smoke, at least 40 of which are known carcinogens). • "Buying a pack of cigarettes for $4 is like spending $40 for a sandwich or $400,000 for a used car." (Cigarettes cost less than 15 cents a pack to manufacture; most of the increase in price is set by tobacco manufacturers). • "Ammonia is what makes cigarette smoke smell like urine." (Cigarette smoke also contains formaldehyde, cyanide, and carbon monoxide). • "Cigarettes are dead leaves." (These leaves are laden with chemicals so that they will continue to burn no matter what, requiring the user to purchase more).

Source: Rakel RE, Blum A. In: Rakel R, ed. *Textbook of Family Practice*. 6th ed. Philadelphia: WB Saunders; 2002:1523-1538.

Preventing Relapse. Relapse is common among smokers as they attempt to quit. The critical timeframe for relapse is during the first three months of abstinence, with the first few days following the quit date being especially crucial.[24] To help prevent relapse, the provider should counsel the patient about the benefits, milestones, and difficulties of stopping smoking and encourage continued abstinence for those who have quit. Unsuccessful attempts to quit should also be supported by the provider, as these forays indicate that the patient is willing to take action. Intervention strategies that enhance partner support as an adjunct to a smoking cessation program may also increase

the likelihood of success. A recently-published meta-analysis indicates that intervention strategies that focus on enhancing supportive behaviors from live-in, married, and equivalent-to-married partners may enhance abstinence from six months to one year after treatment.[25]

Help to Prevent Relapse through:

- Face-to-face contact
- Telephone follow-up
- Self-help materials
- *Quitlines* and online support sites
- Enhancing partner support

Smoking and Depression: A Common Combination. Persons with psychiatric conditions are twice as likely to smoke as the general population and generally smoke more heavily than do average smokers.[26] Moreover, it is estimated approximately one in three smokers is depressed and smokes to self-medicate.[23, 27] These patients present unique challenges and concerns for the provider. Concrete recommendations with regard to smoking cessation in depressed patients are difficult to establish due to limited and sometimes conflicting evidence.[28] However, several studies have indicated that tailored psychotherapy (e.g., a combination of standard and cognitive behavioral therapy specifically for depression) or combined psycho- and pharmacotherapy, are more likely to result in abstinence.[29, 30] Nonetheless, smoking cessation during episodes of depression has been shown to have no effect in some studies and to exacerbate the depression in others.[31] Unless contraindicated, bupropion (which is FDA-approved for smoking cessation and the treatment of depression) can be considered.

Intervention—Non-pharmacologic Therapies

Smokers who wish to quit have numerous non-pharmacologic options, including counseling, self-help materials, hypnotism, and acupuncture.

Self-Help Materials. Self-help materials, whether tailored or not, appear to increase long-term abstinence approximately 1.5-fold compared to no intervention.[32] The Expert Panel recommends that self-help materials be readily available in the office and provided to all smokers.

Brief Advice. The primary care setting offers numerous opportunities for brief (< 3 min) advice, a relatively easy intervention that may be offered by a clinician or nurse. Such advice should include a firm quit recommendation and call attention to health outcomes and practical issues with cessation. A recent review found that brief advice increased the odds of quitting by approximately 1.7-fold when compared with no advice or usual care,[33] although the absolute benefit of brief advice appears greater for motivated patients.

Individual Counseling. Tobacco-cessation counseling by healthcare providers is effective in improving quit rates among adults,[34] and it has also been recommended by the U.S. Public Health Service for adolescents who smoke.[16] Approximately 3% of smokers will quit per year without the benefit of counseling intervention from the provider. However, as few as three minutes of counseling from the provider is sufficient to enable 6% of smokers to quit for at least six months.[34] One recent meta-analysis indicates that individual counseling from the provider may be more effective than that from multidisciplinary teams.[35] A meta-analysis of randomized clinical trials has also demonstrated that one or more face-to-face counseling sessions (> 10 minutes) with a trained specialist can help smokers quit.[36]

Elements of a Counseling Intervention. All counseling interventions should contain a series of standard elements, including discussing previous quit experience, anticipating challenges, assessing the patient's alcohol use and household environment, and providing the patient with alternatives/options for dealing with nicotine cravings. Although this list is not exhaustive, Table 4 presents several strategies to cope with withdrawal.

When discussing individual strategy with a patient, the provider should identify elements that aided and discouraged the smoker during previous attempts to quit, challenges that may trigger the desire for a cigarette, and ways that the patient will overcome them. Since alcohol can promote relapse, the provider should suggest that the patient consider limiting or abstaining from alcohol while stopping smoking. Finally, quitting is more challenging when other smokers are in the household, and patients should encourage housemates either to quit with them or not to smoke in their presence during the attempt to quit.

Telephone Counseling. Telephone counseling initiated by healthcare personnel has also been identified as an effective intervention, especially when multiple contacts are timed with the smoker's attempt to quit.[37] Telephone counseling is also effective as part of an multicomponent intervention; one study (n=616) indicates that basic advice to quit, when combined with either telephone-based motivational advice or reduction counseling plus nicotine-replacement therapy (NRT), increases the likelihood of future cessation compared to no treatment.[38] This evidence is supported by a recent randomized, controlled trial of 2163 adult smokers who received phone counseling as part of a holistic approach that included an offer of free nicotine-replacement therapy, use of a modified vital signs stamp, and tutorial and feedback for primary care providers.[39]

***Quitlines* and External Counseling.** Toll-free *quitlines* (see Table 4 for examples) and referral to individual or group counseling are options that may be appropriate for select patients. Such external counseling may include cognitive/behavioral therapies, practical

problem solving, and social support. Cessation rates for users of telephone *quitlines* and integrated health care systems are comparable with those counseled by individual clinicians.[40]

A relative comparison of the quit rates after one year with various behaviorally-based interventions is provided in Figure 1. In this Figure, it should be noted that the addition of medication to a behaviorally-based program effectively doubles the success rate at one year.

The toll-free Illinois Tobacco Quitline is 1-866-QUIT-YES (7 AM -7 PM; M-F).

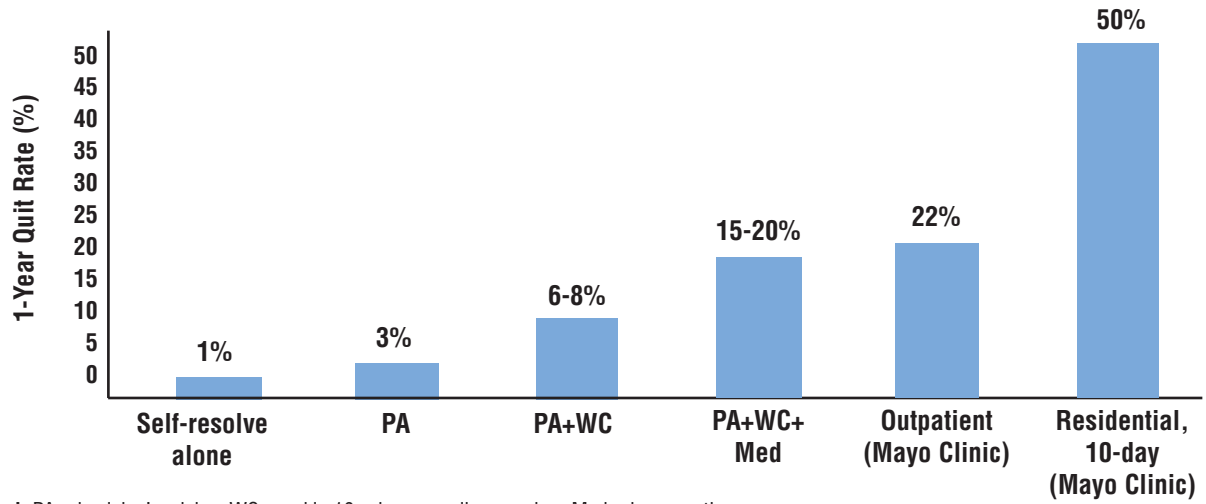
Exercise. Exercise has been shown to have an acute effect on nicotine craving and withdrawal symptoms,[41] although it is only weakly linked to improved quit rates when used alone or in addition to a structured cessation program.[42] However, exercise confers numerous health benefits. It can reduce post-cessation weight gain,[43] assist with stress management, and provide a healthy diversion from thoughts of tobacco. It should be recommended to all smokers.

Alternative Therapies—Hypnotherapy and Acupuncture. While anecdotal evidence is available for the success of hypnotherapy and acupuncture, such reports have not been supported in rigorously designed clinical trials.[44-46] No reliable conclusions can therefore be drawn at present regarding the effectiveness of these approaches. Smokers who preferentially choose one of these interventions should not be discouraged, but the provider must clearly inform them of the limitations of the supporting evidence.

Table 4 Strategies to Cope with Nicotine Withdrawal

Symptom	Strategy
Cravings/Urges	• Distract self • Postpone cigarette • Breathe deeply • Reconsider necessity of cigarette • Call supportive person
Irritability	• Breathe deeply • Engage in pleasurable activity • Take a hot bath
Increased hunger	• Select oral substitutes (gum, cinnamon sticks, jawbreakers, toothpicks) • Drink water and low-calorie drinks
Difficulty concentrating	• Take brisk walk • Simplify schedule • Take a break
Depression	• Schedule pleasurable events • Talk to supportive friend or family member • Get ample rest • Reward self for working hard at stopping
Sleep disturbance	• Pace oneself • Ask for help

Source: Cofta-Woerpel L, et.al. *Behav Med* 2007;32:135-149.



Legend: PA, physician's advice; WC, weekly 10-min counseling session; Med, pharmacotherapy.
Source: Mayo Clinic. Mayo Clinic Nicotine Dependence Center Newsletter 2006, Issue 2.
www.mayoclinic.org/clinical-update-2006/22-2-2006-nicotine-dependence.html

Figure 1. 1-Year Quit Rates for Interventions Based on Behavioral Modification.

Intervention—Pharmacotherapy

FDA-approved first-line smoking cessation therapies for adults can be divided into three categories: NRT, the antidepressant bupropion, and the nicotine partial receptor agonist varenicline (Table 5). NRT is available in three over-the-counter forms (gum, dermal patch, and lozenge) and two prescription formulations (inhaler and nasal spray). Several non-FDA-approved second-line therapies, including clonidine, mecamylamine, anxiolytics, opioid antagonists, and antidepressants other than bupropion, are available.

Practice Recommendation: Providers should recommend nicotine replacement therapy (NRT) in any formulation as part of a strategy to promote smoking cessation.

EBM Source: Cochrane Database of Systemic Reviews. Silagy C, et.al. "Nicotine replacement therapy for smoking cessation." *Cochrane Database Syst Rev* 2007(3):CD000146. http://www.cochrane.org/reviews/en/ab000146.html

Strength of Evidence: Meta-analysis of 103 randomized trials (duration > 6 months) that compared NRT to placebo/no treatment or compared different doses of NRT. All forms of NRT were found to increase abstinence rates by 1.5-2.0-fold, regardless of setting.

Table 5 FDA-Approved Pharmacotherapy for Smoking Cessation

Category	Agent	Duration (up to…)	Relative Cost 1 ppd= $$ (avg $120/mo)	Possible Side Effects	Contraindications	FDA Pregnancy Category	Abstinence Rate (1 Year)*
NRT	Patch	10 wks	$	• Headache • Insomnia • Jaw pain • Site irritation	• Recent MI • Arrhythmias • TMJ	D	7-13%[47]
	Gum	12 wks	$			C	17%[47]
	Lozenge	12 wks	$$			D	15-18%[48]
	Inhaler	3 mo	$$			D	7-14%[47]
	Nasal Spray	3-6 mo	$$$			D	7%[47]
Medications	Bupropion	12 wks; maintenance 6 mo	$	• Headache • Dry mouth • Tremor • Rash	• Eating disorders • Seizure disorders • Bipolar disorder • Recent MAOI use	C	6-30%[49-51]
	Varenicline	12 wks + 12 wks to enhance cessation	$$	• Nausea • Insomnia • Headache	• Nausea • Sleep disturbance • Headache	C	14-23%[49-51]

Notes: *Reported abstinence rates vary widely. Quit rates cannot be compared across treatment types because of substantial differences between studies.
Legend: MI: myocardial infarction; TMJ: temporomandibular joint disease; MAOI: monoamine oxidase inhibitor.
Sources: Okuyemi KS, et.al. *Am Fam Physician* 2006;74:262-271, 276; FDA Package Inserts for listed products.

NRT. NRT reduces nicotine withdrawal symptoms, including anxiety, cravings, hunger, and difficulty concentrating.[52] A recent meta-analysis of 123 clinical trials that compared NRT to placebo or to no treatment with a follow-up of at least six months demonstrated that all commercially available forms of NRT are effective as part of a strategy to promote smoking cessation.[47] The effectiveness of NRT appears to be largely independent of the intensity of additional support programs, and NRT is compatible with all other cessation interventions. There is limited evidence to suggest that combination NRT (patch plus another formulation) may be more effective than single formulations.[47]

Bupropion. A norepinephrine and dopamine reuptake inhibitor, bupropion doubles the odds of cessation compared to placebo.[53] Preliminary studies indicate that bupropion efficacy is undiminished by previous NRT use.[54] Combining bupropion with NRT has not been shown to produce a significant additive benefit.[53] Bupropion is available by prescription. Smokers who plan to quit should begin taking bupropion one week prior to the quit date.

Practice Recommendation: Providers should recommend bupropion to patients who wish to stop smoking, as it doubles the odds of quitting relative to alternative therapies.

EBM Source: Cochrane Database of Systemic Reviews. Hughes JR, et.al. "Antidepressants for smoking cessation." *Cochrane Database Syst Rev* 2007(1):CD000031. http://www.cochrane.org/reviews/en/ab000031.html

Strength of Recommendation: Meta-analysis of 40 randomized trials, each of duration 6 months or longer, that compared bupropion to placebo or an alternative pharmacotherapy.

Varenicline. Varenicline is a nicotine partial receptor agonist approved for smoking cessation in 2006 that can ease craving and withdrawal symptoms. Its main side effect is nausea, which can be lessened by taking the medication with food and a glass of water and by twice-daily dosing.[55] Smokers who plan to quit should begin taking varenicline one week prior to the quit date.

Practice Recommendation: Providers should recommend varenicline to patients who wish to stop smoking, as it triples the odds of quitting relative to non-pharmacotherapeutic options.

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EBM Source: Cochrane Database of Systemic Reviews. Cahill K, et.al. "Nicotine receptor partial agonists for smoking cessation." *Cochrane Database Syst Rev* 2007(1):CD006103. http://www.cochrane.org/reviews/en/ab006103.html

Strength of Evidence: Meta-analysis of 6 randomized trials (n=4924) that compared varenicline to placebo or an alternative pharmacotherapy.

Second-line Therapies. The following second-line therapies are not FDA-approved for smoking cessation, although each has been investigated to some extent as a cessation aid: clonidine,[56] mecamylamine,[57] opioid antagonists (e.g., naloxone, naltrexone),[58] anxiolytics (e.g., buspirone, doxepin, meprobamate, propanolol, oxprenolol, metoprolol),[59] and antidepressants (e.g., nortriptyline, fluoxetine, impiramine, moclobemide, paroxetine, sertraline, tryptophan, venlafaxine).[53] The Expert Panel does not recommend the use of any of these agents as cessation aids.

Smoking Cessation and Pregnancy

Meta-analyses have demonstrated that active counseling interventions for smoking cessation during pregnancy reduce the proportion of women who continue to smoke.[60] Furthermore, these interventions implemented during pregnancy reduce low birth weight and the incidence of pre-term birth. Because quitting bestows health benefits upon the mother and the fetus, the Expert Panel recommends behavioral intervention for all pregnant women who smoke.[61-63] However, given that nicotine impairs or disrupts essential physiological functions and is involved in tobacco-related carcinogenesis, the use of NRT for pregnant and breastfeeding women is controversial.[64, 65] In addition to its detrimental effects on the growing organism, nicotine has a potential fetotoxicity and neuroteratogenicity that can cause cognitive, affective, and behavioral disorders in children born to mothers exposed to nicotine during pregnancy. The implications of these observations have led some clinicians to advocate strict avoidance of nicotine in pregnancy, breastfeeding, childhood, and adolescence.[64]

Costs and Reimbursement for Smoking Cessation Strategies

Costs. Relative costs for pharmacotherapies are provided in Table 5; for reference, a one pack-per-day smoking habit costs approximately $4-$9/day to sustain. Fees for behavioral therapy vary considerably, from free services to those that cost several hundred dollars per course. Many cost-benefit analyses have been conducted to compare cost effectiveness of bupropion and NRT. One review of the literature suggests that, as compared with advice or counseling alone, the incremental cost-per-life-years saved is approximately $1440-$3460 for NRT, $920-$2150 for bupropion, and $1280-$2840 for NRT plus bupropion.[66] Discounted pharmacotherapy is available through participation in free industry-sponsored behavioral programs, which offer web-based resources, literature, and telephone support. These programs are sponsored by GlaxoSmithKline (www.way2quit.com), Pfizer (www.chantix.com), and Novartis (www.habitrol.com).

Coding. While aspects of tobacco dependence treatment may be reimbursable through some insurance plans, there is no current universal standard for intervention reimbursement. Where counseling is covered, providers can code for it using the ICD-9 diagnostic code, 305.1 (Tobacco Dependence). This code can be used with a CPT code (99401-99404) to cover a 30-minute counseling session. Many smoking-related comorbidities and related medical procedures may also be coded for third-party reimbursement. For more detailed information on coding for smoking cessation and treatment, see the Professional Assisted Cessation Therapy's online guideline, *Reimbursement for Smoking Cessation Therapy* (http://www.endsmoking.org/resources/reimbursementguide/pdf/reimbursementguide-3rd-edition.pdf).

Reimbursement. Despite the publicized benefits of smoking cessation, considerable variation exists between health plans with regard to coverage for cessation interventions. States currently offer variable reimbursements for their employees who utilize smoking cessation interventions. A recent survey of 45 state administrators revealed that only seven states require smoking cessation treatment coverage for all state employees that complies fully with the US PHS guideline recommendations (e.g., some form of group or individual counseling and at least one FDA-approved medication for smoking cessation treatment).[67]

Medicare. Medicare currently covers tobacco cessation counseling for beneficiaries who have a smoking-related illness or take medications whose metabolism or dosing is affected by tobacco use. Medicare covers minimal counseling (<3 minutes) at each evaluation and management visit as well as two practitioner-initiated counseling cessation attempts per year. Each attempt can include up to four intermediate (3-10 minute) or intensive (> 10 minute) sessions for a total benefit of up to eight sessions in a 12-month period. Medicare's prescription drug benefit covers smoking and tobacco-use cessation agents prescribed by a physician, but not over-the-counter medications.

Claims for smoking and tobacco cessation should reflect the patient's condition that is adversely affected by

tobacco use and the therapeutic agent whose metabolism is affected by tobacco use. When billing for counseling at an evaluation and management visit, the appropriate code (e.g., 99201-99215) with the "25" modifier to show that the service is distinct from tobacco cessation counseling should be used. Current Procedural Terminology (CPT) codes for 3-10-minute counseling sessions (reimbursement rate: $12.89/session) and counseling greater than 10 minutes (reimbursement rate: $25.39/visit) are GO375 and GO376, respectively. Effective January 1, 2008, the following CPT codes can be used to document smoking cessation interventions: 99406 (fewer than 10 minutes) and 99407 (more than 10 minutes). For more information on Medicare coverage, coding, billing, and reimbursement, visit www.cms.hhs.gov/MLNGenInfo.

Medicaid. Thirty-six states and the District of Columbia now cover one or more treatments for tobacco dependence. Additional information can be found by contacting state Medicaid agents or following the "Medicaid and SCHIP" link at http://statehealthfact.org.

Smoking Cessation Resources

Numerous online and telephone-based resources for smoking cessation are available; a partial list is provided in Table 6. The sites listed below are not sponsored by the tobacco industry. However, the provider should be aware that these links may also be cited in smoking cessation materials that do have tobacco industry sponsorship (e.g., Philip Morris' QuitAssist™).

Conclusion

The health benefits of smoking cessation are well established, yet the process remains challenging for those who wish to quit. Primary care providers are uniquely positioned to educate, counsel, and support patients who smoke, whether or not those patients are prepared to quit at the time of visit. A proactive intervention strategy that includes counseling and/or pharmacotherapy, each of which improves cessation rates when used alone or in combination, should be tailored to the patient. While relapse is common among smokers who are trying to quit, the provider can support and guide patients through these episodes and help them ultimately to kick their habits, thereby improving their health outlook and quality of life.

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Table 6 Tobacco Cessation Resources

Sponsoring Organization	Overview
National Cancer Institute/US Dept. of Health and Human Services (www.smokefree.gov; 1-800-QUITNOW; 1-800-332-8615 for deaf /hard-of-hearing)	Comprehensive patient support resources (*quitline*, self-help materials, online guides).*
QuitNet (Boston University School of Public Health) (www.quitnet.com)	Online community resource with counseling and personalized quit plans.*
WhyQuit (www.whyquit.com)	Motivational, emotionally-charged support site focused on strategies to quit "cold turkey."
American Legacy Foundation Great Start (http://www.americanlegacy.org/greatstart/html/home.html; 1-866-66-START)	*Quitline* and supporting resources for pregnant smokers.
Centers for Disease Control and Prevention (www.cdc.gov/tobacco; 1-800-232-1311)	Patient and provider resources, including secondhand smoke information.*
Office of the U.S. Surgeon General (www.surgeongeneral.gov/tobacco)	Numerous consumer and provider resources.*
Addressing Tobacco in Managed Care (www.atmc.wisc.edu; 1-608-265-4601)	Training tools for providers and researchers.
University of Alabama Center for the Study of Tobacco and Society (email inquiries to Alan Blum at ablum@cchs.ua.edu)	History of tobacco industry, cigarette advertising, the anti-smoking movement, and smoking cessation.

*Indicates availability of Spanish-language materials.

References

1. **Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. *The Health Consequences of Smoking: A Report of the Surgeon General.* Washington D.C.: U.S. Government Publishing Office; 2004.**
   - Comprehensive, evidence-based overview of health consequences of smoking.
2. Orth SR, Ritz E. The renal risks of smoking: an update. *Curr Opin Nephrol Hypertens.* 2002;11:483-488.
3. U.S. Department of Health and Human Services. *Health Benefits of Smoking Cessation. A Report of the US Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services; 1990.
4. Doll R, Peto R, Boreham J, Sutherland I. Mortality in relation to smoking: 50 years' observations on male British doctors. *BMJ.* 2004;328:1519.
5. Centers for Disease Control and Prevention. Targeting tobacco use: the nation's leading cause of preventable death, At a Glance 2007; 2007.
6. **U.S. Department of Health and Human Services. *The health consequences of involuntary exposure to tobacco smoke: a report of the Surgeon General.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2006.**
   - Thorough, evidence-based assessment of the effects of secondhand smoke on adult and pediatric populations.
7. Critchley J, Capewell S. Smoking cessation for the secondary prevention of coronary heart disease. *Cochrane Database Syst Rev.* 2004(1):CD003041.
8. Critchley JA, Capewell S. Mortality risk reduction associated with smoking cessation in patients with coronary heart disease: a systematic review. *JAMA.* 2003;290:86-97.
9. Wilson K, Gibson N, Willan A, Cook D. Effect of smoking cessation on mortality after myocardial infarction. *Arch Intern Med.* 2000;160:939-944.
10. Wannamethee SG, Shaper AG, Whincup PH, Walker M. Smoking cessation and the risk of stroke in middle-aged men. *JAMA.* 1995;274:155-160.
11. Scanlon PD, Connett JE, Waller LA, et al. Smoking cessation and lung function in mild-to-moderate chronic obstructive pulmonary disease. *Am J Resp Crit Care Med.* 2000;161:381-390.
12. Ebbert JO, Yang P, Vachon CM, et al. Lung cancer risk reduction after smoking cessation: observations from a prospective cohort of women. *J Clin Oncol.* 2003;21:921-926.
13. Tong L, Spitz MR, Fueger JJ, Amos CA. Lung carcinoma in former smokers. *Cancer.* 1996;78:1004-1010.
14. Centers for Disease Control and Prevention. Annual smoking-attributable mortality, years of potential life lost, and economic costs—United States, 1995-1999. *MMWR.* 2002;51:300-303.
15. Giovino GA, Henningfield JE, Tomar SL, Escobedo LG, Slade J. Epidemiology of tobacco use and dependence. *Epidemiol Rev.* 1995;17:48-65.
16. US Public Health Service. A clinical practice guideline for treating tobacco use and dependence: a US Public Health Service report. The Tobacco Use and Dependence Clinical Practice Guideline Panel, Staff, and Consortium Representatives. *JAMA.* 2000;283:3244-3254.
17. Hughes JR. Motivating and helping smokers to stop smoking. *J Gen Intern Med.* 2003;18:1053-1057.
18. **Cofta-Woerpel L, Wright KL, Wetter DW. Smoking cessation 3: multicomponent interventions. *Behav Med.* 2007;32:135-149.**
    - Comparative assessment of multicomponent interventions.
19. Heishman SJ. Behavioral and cognitive effects of smoking: relationship to nicotine addiction. *Nicotine Tob Res.* 1999;1:S143-S147.
20. Hyland A, Li Q, Bauer JE, Giovino GA, Steger C, Cummings KM. Predictors of cessation in a cohort of current and former smokers followed over 13 years. *Nicotine Tob Res.* 2004;6:S363-S369.
21. Hyland A, Borland R, Li Q, et al. Individual-level predictors of cessation behaviours among participants in the International Tobacco Control (ITC) Four Country Survey. *Tob Control.* 2006;15:iii83-iii94.
22. Hughes JR. New treatments for smoking cessation. *CA Cancer J Clin.* 2000;50:143-151.
23. **Rakel RE, Blum A. Nicotine addiction. In: Rakel R, ed. *Textbook of Family Practice*. 6th ed. Philadelphia: WB Saunders; 2002:1523-1538.**
    - Practical overview of strategies for the provider when designing and implementing interventions.
24. Kenford SL, Fiore MC. Promoting tobacco cessation and relapse prevention. *Med Clin North Am.* 2004;88:1553-1574, xi-xii.
25. Park EW, Tudiver F, Schultz JK, Campbell T. Does enhancing partner support and interaction improve smoking cessation? A meta-analysis. *Ann Fam Med.* 2004;2:170-174.
26. el-Guebaly N, Cathcart J, Currie S, Brown D, Gloster S. Smoking cessation approaches for persons with mental illness or addictive disorders. *Psychiatr Serv.* 2002;53:1166-1170.
27. Anda RF, Williamson DF, Escobedo LG, Mast EE, Giovino GA, Remington PL. Depression and the dynamics of smoking. A national perspective. *JAMA.* 1990;264:1541-1545.
28. **Ranney L, Melvin C, Lux L, McClain E, Lohr KN. Systematic review: smoking cessation intervention strategies for adults and adults in special populations. *Ann Intern Med.* 2006;145:845-856.**
    - Thorough review of literature with attention to intervention data in special populations.
29. Brown RA, Kahler CW, Niaura R, et al. Cognitive-behavioral treatment for depression in smoking cessation. *J Consult Clin Psychol.* 2001;69:471-480.
30. Hitsman B, Pingitore R, Spring B, et al. Antidepressant pharmacotherapy helps some cigarette smokers more than others. *J Consult Clin Psychol.* 1999;67:547-554.
31. **Fiore MC, Bailey WC, Cohen SJ, et al. *Treating Tobacco Use and Dependence. Clinical Practice Guideline*. Rockville: U.S. Department of Health and Human Services, Public Health Service; 2000.**
    - Comprehensive treatment guidelines, including behavioral strategies, NRT, and bupropion.
32. Lancaster T, Stead LF. Self-help interventions for smoking cessation. *Cochrane Database Syst Rev.* 2005(3):CD001118.
33. Lancaster T, Stead LF. Physician advice for smoking cessation. *Cochrane Database Syst Rev.* 2004(4):CD000165.
34. U.S. Department of Health and Human Services. *Reducing Tobacco Use. A Report of the Surgeon General*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2000.
35. Gorin SS, Heck JE. Meta-analysis of the efficacy of tobacco counseling by health care providers. *Cancer Epidemiol Biomarkers Prev.* 2004;13:2012-2022.
36. Lancaster T, Stead LF. Individual behavioural counselling for smoking cessation. *Cochrane Database Syst Rev.* 2002(3):CD001292.
37. Stead LF, Perera R, Lancaster T. Telephone counselling for smoking cessation. *Cochrane Database Syst Rev.* 2006(3):CD002850.
38. Carpenter MJ, Hughes JR, Solomon LJ, Callas PW. Both smoking reduction with nicotine replacement therapy and motivational advice increase future cessation among smokers unmotivated to quit. *J Consult Clin Psychol.* 2004;72:371-381.
39. Katz DA, Muehlenbruch DR, Brown RL, Fiore MC, Baker TB, AHRQ Smoking Cessation Guideline Study Group. Effectiveness of implementing the Agency for Healthcare Research and Quality Smoking Cessation Clinical Practice Guideline: a randomized, controlled trial. *J Natl Cancer Inst.* 2004;96:594-603.
40. Schroeder SA. What to do with a patient who smokes. *JAMA.* 2005;294:482-487.
41. Taylor AH, Ussher MH, Faulkner G. The acute effects of exercise on cigarette cravings, withdrawal symptoms, affect and smoking behaviour: a systematic review. *Addiction.* 2007;102:534-543.
42. Ussher M. Exercise interventions for smoking cessation. *Cochrane Database Syst Rev.* 2005(1):CD002295.
43. Kawachi I, Troisi RJ, Rotnitzky AG, Coakley EH, Colditz GA. Can physical activity minimize weight gain in women after smoking cessation? *Am J Public Health.* 1996;86:999-1004.
44. Abbot NC, Stead LF, White AR, Barnes J. Hypnotherapy for smoking cessation. *Cochrane Database Syst Rev.* 1998(2):CD001008.
45. Villano LM, White AR. Alternative therapies for tobacco dependence. *Med Clin North Am.* 2004;88:1607-1621.
46. White AR, Rampes H, Ernst E. Acupuncture for smoking cessation. *Cochrane Database Syst Rev.* 2002(2):CD000009.
47. Silagy C, Lancaster T, Stead L, Mant D, Fowler G. Nicotine replacement therapy for smoking cessation. *Cochrane Database Syst Rev.* 2004;3:CD000146.
48. Shiffman S, Dresler M, Hajek P, Gilburt SJA, Targett DA, Strahs KR. Efficacy of a nicotine lozenge for smoking cessation. *Arch Intern Med.* 2002;162:1267-1276.
49. Gonzales D, Rennard SI, Nides M, et al. Varenicline, an alpha4beta2 nicotinic acetylcholine receptor partial agonist, vs sustained-release bupropion and placebo for smoking cessation: a randomized controlled trial. *JAMA.* 2006;296:47-55.
50. Nides M, Oncken C, Gonzales D, et al. Smoking cessation with varenicline, a selective alpha4beta2 nicotinic receptor partial agonist: results from a 7-week, randomized, placebo- and bupropion-controlled trial with 1-year follow-up. *Arch Intern Med.* 2006;166:1561-1568.
51. Jorenby DE, Hays JT, Rigotti NA, et al. Efficacy of varenicline, an alpha4beta2 nicotinic acetylcholine receptor partial agonist, vs placebo or sustained-release bupropion for smoking cessation: a randomized controlled trial. *JAMA.* 2006;296:56-63.
52. Hughes JR, Gust SW, Skoog K, Keenan RM, Fenwick JW. Symptoms of tobacco withdrawal. A replication and extension. *Arch Gen Psychiatry.* 1991;48:52-59.
53. Hughes JR, Stead LF, Lancaster T. Antidepressants for smoking cessation. *Cochrane Database Syst Rev.* 2007(1):CD000031.
54. Durcan MJ, White J, Jorenby DE, et al. Impact of prior nicotine replacement therapy on smoking cessation efficacy. *Am J Health Behav.* 2002;26:213-220.
55. Cahill K, Stead LF, Lancaster T. Nicotine receptor partial agonists for smoking cessation. *Cochrane Database Syst Rev.* 2007;1:CD006103.
56. Gourlay SG, Stead LF, Benowitz NL. Clonidine for smoking cessation. *Cochrane Database Syst Rev.* 2004(3):CD000058.
57. Lancaster T, Stead LF. Mecamylamine (a nicotine antagonist) for smoking cessation. *Cochrane Database Syst Rev.* 1998(2):CD001009.
58. David S, Lancaster T, Stead LF. Opioid antagonists for smoking cessation. *Cochrane Database Syst Rev.* 2001(3):CD003086.
59. Hughes JR, Stead LF, Lancaster T. Anxiolytics for smoking cessation. *Cochrane Database Syst Rev.* 2000(4):CD002849.
60. Lumley J, Oliver SS, Chamberlain C, Oakley L. Interventions for promoting smoking cessation during pregnancy. *Cochrane Database Syst Rev.* 2004(4):CD001055.
61. Windsor R, Oncken C, Henningfield J, Hartmann K, Edwards N. Behavioral and pharmacological treatment methods for pregnant smokers: issues for clinical practice. *J Am Med Womens Assoc.* 2000;55:304-310.
62. Benowitz N, Dempsey D. Pharmacotherapy for smoking cessation during pregnancy. *Nicotine Tob Res.* 2004;6 Suppl 2:S189-S202.
63. Ershoff D, Ashford TH, Goldenberg R. Helping pregnant women quit smoking: an overview. *Nicotine Tob Res.* 2004;6 Suppl 2:S101-S105.
64. **Ginzel KH, Maritz GS, Marks DF, et al. Critical review: nicotine for the fetus, the infant and the adolescent? *J Health Psychol.* 2007;12:215-224.**
    - Highlights controversy and presents compelling evidence against NRT use in pregnant women.
65. Ginzel KH. Nicotine replacement: not in pregnancy, lactation *Ob Gyn News.* 2007;42:8.
66. Song F, Raftery J, Aveyard P, Hyde C, Barton P, Woolacott N. Cost-effectiveness of pharmacological interventions for smoking cessation: a literature review and a decision analytic analysis. *Med Decis Making.* 2002;22:S26-S37.
67. Burns ME, Bosworth TW, Fiore MC. Insurance coverage of smoking cessation treatment for state employees. *Am J Public Health.* 2004;94:1338-1340.

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Learning Objectives

- Outline effective behavioral modification strategies for patients with nicotine addiction/dependence on smoking.
- Describe the pharmacologic interventions useful for smoking cessation.
- Identify programs that support successful smoking cessation for patients.
- Discuss the issues in reimbursement for smoking cessation care.

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Please rate how these program objectives have been met:

• Outline effective behavioral modification strategies for patients with nicotine addiction/dependence on smoking.	5	4	3	2	1
• Describe the pharmacologic interventions useful for smoking cessation.	5	4	3	2	1
• Identify programs that support successful smoking cessation for patients.	5	4	3	2	1
• Discuss the issues in reimbursement for smoking cessation care.	5	4	3	2	1

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In the space provided, indicate whether each item is True (T) or False (F).

_____1. The majority of smokers who try to quit succeed on their first or second attempts.

_____2. Even if the adult smoker expresses no desire to quit, the healthcare provider should remind him or her of the health risks of smoking and the benefits of quitting.

_____3. Nicotine addiction can be assessed by asking the patient about the number of cigarettes smoked per day, the elapsed time between waking and the first cigarette, and the amount of time before the smoker craves another cigarette.

_____4. Counseling, like other non-pharmacologic strategies such as hypnotherapy and acupuncture, has not been shown to be effective in evidence-based studies of smoking cessation.

_____5. Depression is commonly observed in smokers.

_____6. Nicotine-replacement therapy is recommended for pregnant women who are trying to quit smoking.

_____7. FDA-approved first-line smoking cessation therapies for non-pregnant adults include nicotine-replacement therapy, bupropion, varenicline, and nortriptyline.

_____8. Medicare currently covers some tobacco cessation counseling for beneficiaries who have a smoking-related illness or take medications whose metabolism or dosing is affected by tobacco use.

_____9. Multi-component interventions (e.g., counseling plus medication) increase cessation rates relative to those seen with single-component interventions.

_____10. Smoking harms nearly every organ of the body; an estimated 50% of current smokers will die from smoking if they do not quit.

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