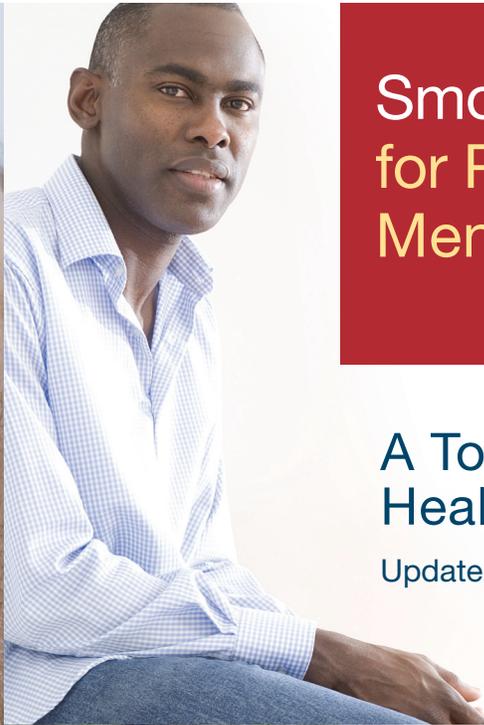
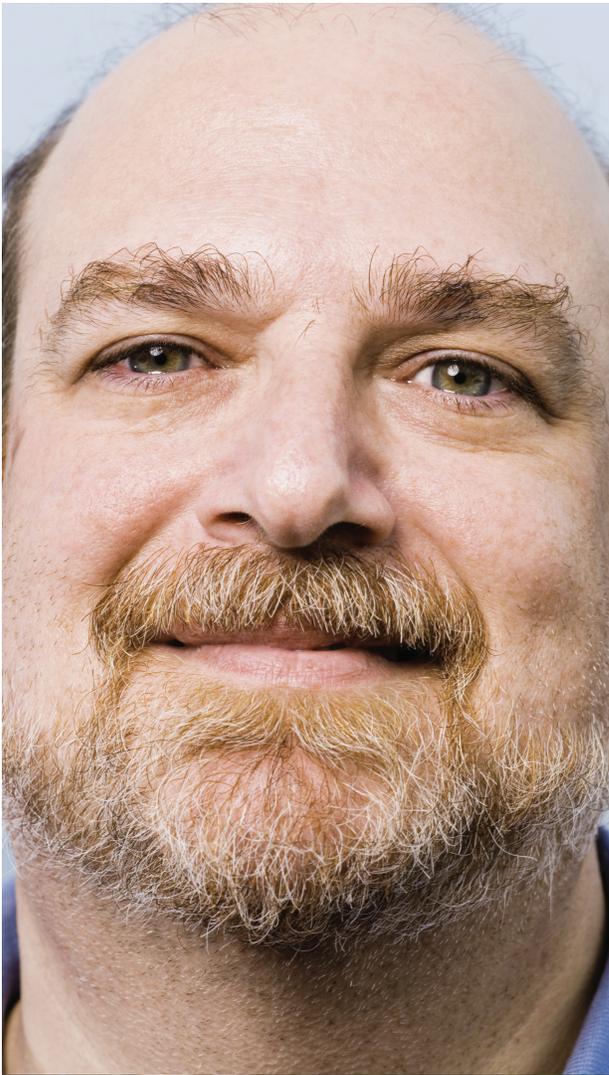


# Smoking Cessation for Persons with Mental Illnesses

## A Toolkit for Mental Health Providers

Updated January 2009



# Table of Contents

## Overview

- 1 Why Address This Issue? 1
- 2 Alarming Statistics 2
- 3 About this Toolkit: 2
  - Who is this toolkit for? How do I use this toolkit?
- 4 Provider Pull-Out: Quick Facts

## Tobacco Use and Mental Illness

- 1 Smoking and Mental Illness: 3
  - Biological Predispositions, Psychological Considerations, Social Considerations, Stigma
- 2 Specific Psychiatric and Co-occurring Mental Disorders: 4
  - Depression, Schizophrenia, Co-occurring Substance Abuse and Dependence, Other Psychiatric Disorders
- 3 Tobacco Industry Targeting 5

## Assessment and Intervention Planning

- 1 Readiness to Quit and Stages of Change: 6
  - Stages of Change, The 5 A's (Flowchart, Actions and Strategies), The 5 R's (Addressing Tobacco Cessation for Tobacco User Unwilling to Quit)
- 2 Cultural Considerations: 12
  - Recommendations for Mental Health Clinicians, Resources
- 3 Example of a Clinic Screening
- 4 Example of a Quitline Referral Form
- 5 Provider Pull-Out: The 5A's and 2A's & R Models

## Smoking Cessation Treatment for Persons with Mental Illness

- 1 Key Findings 14
- 2 Components of Successful Intensive Intervention Programs 15
- 3 Behavioral Interventions for Smoking Cessation: 16
  - Overview, SANE program, More Elements of Successful Counseling
- 4 Prescribing Cessation Medications 18
- 5 Intervening with Specific Mental Disorders: 19
  - Depression, Schizophrenia, Bipolar Disorder, Anxiety Disorder, Substance Use Disorders
- 6 Peer-to-Peer Services 21
- 7 Smoke-Free Policies 22
- 8 Provider Pull-Out: Pharmacotherapies for Tobacco Cessation
- 9 Provider Pull-Out: Tip Sheet for Patients
- 10 Provider Pull-Out: Myths Sheet for Patients

## Relapse Prevention

- 1 Components of Minimal Practice Relapse Prevention 23
- 2 Components of Prescriptive Relapse Prevention 23

## National Tobacco Cessation Resources 25

## Toolkit References 26

## Literature Review 33



Funding for this project was provided with proceeds from the Colorado tobacco tax through a grant with the Tobacco Disparities Initiatives of the State Tobacco Education and Prevention Partnership (STEPP), Colorado Department of Public Health and Environment. January 2009

Additional support was provided by the Smoking Cessation Leadership Center at the University of California San Francisco.

The Tobacco Cessation Toolkit for Mental Health Providers was developed by the University of Colorado Denver, Department of Psychiatry, Behavioral Health and Wellness Program

Chad Morris, Ph.D. Director  
Jeanette Waxmonsky, Ph.D.  
Mandy May, MPH  
Alexis Giese, M.D.  
Laura Martin, M.D.

For further information about this toolkit, please contact:

Chad Morris, Ph.D.  
University of Colorado Denver, Department of Psychiatry,  
Behavioral Health and Wellness Program  
1784 Racine Street, Campus Box F478  
Aurora, Colorado 80045  
Phone: 303.724.3709  
Fax: 303.724.3717  
Email: [chad.morris@ucdenver.edu](mailto:chad.morris@ucdenver.edu)

**Acknowledgements:**

The project team would like to thank the many national experts that reviewed this toolkit, as well as Deb Montgomery, National Jewish Health, the Colorado Clinical Guidelines Collaborative, and Signal Behavioral Health Network.

# Overview

- 1 Why Address This Issue?
- 2 Alarming Statistics
- 3 About This Toolkit:
  - Who is this toolkit for?
  - How do I use this toolkit?
- 4 Provider Pull-Out: Quick Facts

## Why is a smoking cessation toolkit for persons with mental illnesses needed?



### They need to quit.

To assist people to lead meaningful lives, mental health providers need to promote behaviors that lead to health. Individuals with mental illness must be alive to “recover” from their illnesses, and tobacco use is potentially the most modifiable risk factor for decreasing excess mortality and morbidity. Tobacco cessation is a key component of many individuals’ recovery, and is a priority issue for every health provider.

### They want to quit.

People with mental illnesses want to quit smoking and want information about cessation services and resources. (Morris et al, 2006)

### They can quit.

People with mental illnesses can successfully quit using tobacco. (Evins et al., 2005; George et al., 2002). Significant evidence shows that smoking cessation strategies work.

### Why Address This Issue?

Individuals with mental illnesses deserve accurate information regarding tobacco use and options for quitting. This is a patients’ rights issue. Persons with mental illnesses are disproportionately affected by tobacco use, and are not receiving adequate information and cessation services.

There are real and perceived barriers to providing smoking cessation options in mental health and substance abuse settings. Many clinicians do not view tobacco cessation as a part of their scope of practice, feel tobacco cessation could be detrimental to the treatment plan, that tobacco use is not a treatment priority, and that tobacco cessation strategies would be too time consuming. Cessation interventions do add to the competing demands providers face, but providers typically already have the skills necessary to utilize low-burden strategies that can significantly assist patients to reduce and quit using

“I’d love to quit – I just don’t know how.”

– John, age 45

tobacco. Stopping tobacco use does not need to negatively affect either mental health or substance abuse treatment, and timely interventions support individuals’ pursuit of overall wellness.

**Note:** Throughout this toolkit the terms “tobacco use” and “smoking” are used interchangeably. Although we do not specifically address spit-tobacco use, the toolkit is generally applicable to spit-tobacco users.

## Alarming Statistics

About 200,000 of the 435,000 annual deaths from smoking in the U.S. occur among patients with mental illnesses and/or substance use disorders.

About 20% of the U.S. population has mental disorders during a given year. Over 40% of these individuals use tobacco.

The prevalence of smoking among people with mental illnesses is startling.

### Prevalence by Diagnosis across Studies<sup>2</sup>:

Major depression	36-80 percent
Bipolar mood disorder	51-70 percent
Schizophrenia	62-90 percent
Anxiety disorders	32-60 percent
Post-traumatic stress disorder	45-60 percent
Attention deficit/hyperactivity disorder	38-42 percent
Alcohol abuse	34-93 percent
Other drug abuse	49-98 percent

- Americans with mental illnesses represent an estimated 44.3 percent of the U.S. tobacco market.<sup>3</sup>
- Americans with mental illnesses and substance abuse disorders are nicotine dependent at rates that are two to three times higher than the general population.<sup>4</sup>
- Because people with mental illnesses use tobacco at greater rates, they suffer greater smoking-related medical illnesses and mortality.<sup>5</sup>

## About this toolkit

### Who is this toolkit for?

This toolkit was developed for a broad continuum of mental health providers. Materials are intended for direct providers, as well as administrators and behavioral health organizations. Many of the materials are also appropriate for primary care and substance abuse providers.

### How do I use this toolkit?

The toolkit contains a variety of information and step-by-step instruction about:

- Low burden means of assessing readiness to quit
- Possible treatments
- Strategies for reducing relapse
- Referral to community resources



1] CDC, 2005  
 2] Beckham et al., 1995; Boyd et al., 1996; Budney et al., 1993; Burling et al., 1988; Clemmey et al., 1997; de Leon et al., 1995; Grant et al., 2004; Hughes, 1996; Istvan & Matarazzo, 1984; Lasser et al., 2000; Morris et al., 2006; Pomerleau et al., 1995; Snow et al., 1992; Stark & Campbell, 1993; Ziedonis et al., 1994  
 3] Grant et al., 2004, Lasser et al., 2000  
 4] Grant et al., 2004, Lasser et al., 2000  
 5] Grant et al., 2004

# Quick Facts

## Mental Illnesses and Tobacco Use

- Persons with mental illnesses and substance abuse disorders report over 44% of the U.S. tobacco market. (Grant et al., 2004)
- Persons with mental illnesses or substance abuse disorders are nicotine dependent at rates that are 2-3 times higher than the general population. (Lasser, 2000)
- About 200,000 of the 435,000 annual deaths from smoking occur among patients with mental illnesses and/or substance use disorders (CDC, 2005)
- Smoking cessation is a key component of consumer-driven, individualized treatment planning. (Morris et al., 2006)
- Persons with mental illnesses want to quit smoking and want information on cessation services and resources. (Morris et al., 2006)
- Persons with mental illnesses can successfully quit using tobacco. (Evins et al., 2005; George et al., 2002)
- Although smoking cessation rates for individuals with psychiatric illness are lower than those in the general population, these quit rates are still substantial. (el-Guebaly et al., 2002)
- Because persons with mental illnesses use tobacco at greater rates, they suffer greater smoking-related medical illnesses and mortality. (Grant et al., 2004)

---

## References:

Centers for Disease Control and Prevention (2005). Annual smoking-attributable mortality, years of potential life lost, and productivity losses—United States, 1997-2001. *MMWR*, 54:625-628.

El-Guebaly N, Cathcart J, Currie S et al (2002). Smoking cessation approaches for persons with mental illness or addictive disorders. *Psychiatric Services*, 53(9): 1166-1170.

Evins AE, Mays V, Rigotti NA, et al. (2001). A pilot trial of bupropion added to cognitive behavioral therapy for smoking cessation in schizophrenia. *Nicotine Tobacco Research*, 3(4): 397- 403.

George TP, Vessicchio JC, Termine A et al. (2002b). A placebo-controlled study of bupropion for smoking cessation in schizophrenia. *Biological Psychiatry*, 52(1):53-61.

Giese A, Morris C, Olincy A (2003). Needs assessment of persons with mental illnesses for tobacco prevention, exposure, reduction, and cessation. Report prepared for the State Tobacco Education and Prevention Partnership (STEPP), Colorado Department of Public Health and Environment.

Grant BF, Hasin DS, Chou PS, Stinson FS, Dawson DA (2004). Nicotine dependence and psychiatric disorders in the United States: results from the national epidemiologic survey on alcohol and related conditions. *Archives General Psychiatry*, 61(11): 1107-1115.

Lasser K, Boyd W, Woolhandler S, et al (2000). Smoking and mental illness: a population based prevalence study. *Journal of the American Medical Association*, 284: 2606–2610.

Morris CD, Giese JJ, Dickinson M, Johnson-Nagel N. (2006). Predictors of Tobacco Use Among Persons With Mental Illnesses in a Statewide Population. *Psychiatric Services*, 57: 1035-1038.

# Tobacco Use and Mental Illness

- 1 Smoking and Mental Illness:
  - Biological Predispositions
  - Psychological Considerations
  - Social Considerations
  - Stigma
- 2 Specific Psychiatric and Co-occurring Mental Disorders:
  - Depression
  - Schizophrenia
  - Co-occurring Substance Abuse and Dependence
  - Other Psychiatric Disorders
- 3 Tobacco Industry Targeting

# Tobacco use and mental illness



## Smoking and mental illnesses: nicotine effects and other considerations

People with mental illnesses:

- use tobacco at higher rates
- are less likely to succeed at cessation attempts
- access general medical services and other community resources relatively infrequently
- struggle with stigma on several levels
- generally experience a greater burden of morbidity and mortality than the overall population.

## Why do they smoke more?

Researchers believe that a combination of biological, psychological and social factors contribute to increased tobacco use among persons with mental illnesses.

## Biological predisposition

Persons with mental illnesses have unique neurobiological features that may increase their tendency to use nicotine, make it more difficult to quit and complicate withdrawal symptoms.

Nicotine affects the actions of neurotransmitters (e.g. dopamine). For example, people with schizophrenia who use tobacco may experience less negative symptoms (lack of motivation, drive and energy).

Nicotine enhances concentration, information processing and learning. (This is especially important for persons with psychotic disorders for whom cognitive dysfunction may be a part of their illness or a side effect of antipsychotic medications).

Other biological factors include nicotine's positive effects on mood, feelings of pleasure and enjoyment.

Some evidence also suggests that smoking is associated with a reduced risk of antipsychotic-induced Parkinsonism.

### Psychological considerations

- Tobacco use may temporarily relieve feelings of tension and anxiety and is often used to cope with stress.
- People develop a daily routine of smoking.

### Social considerations

- People may smoke to feel “part of a group.”
- Smoking is often associated with social activities.
- Persons with mental illnesses may not have a lot of activities to keep them busy. When they’re bored, they may smoke more.
- The site of a social activity may support tobacco use.

### Stigma

- Providers often think that people with mental illnesses are unable to quit smoking.
- Symptom management often takes precedence over preventive health measures.

Stress is a big trigger for me. I don’t know how to deal with stress.

– Cathi, age 32

### Specific psychiatric and co-occurring disorders

What are some considerations for smoking cessation in regard to specific mental disorders?

#### Depression

Among patients seeking smoking cessation treatment, 25-40 percent have a history of major depression and many have minor dysthymic symptoms.

What I did to keep from craving cigarettes for a while is just to keep busy, being with people, and talking and playing games and working and things like that. That’s what helped me.

– Robert, age 43

Depression has been shown to predict poorer smoking cessation rates. Consider starting or restarting psychotherapy or pharmacotherapy for depression in patients who state that depression intensified with cessation or that cessation caused depression.

Cognitive behavioral therapy for depression and antidepressants has been found to improve smoking cessation rates in those with a history of depression or symptoms of depression.

For a smoker with a history of depression currently taking antidepressant medication, it is important to note that some antidepressant levels will increase with smoking cessation.

#### Schizophrenia

Persons with schizophrenia who smoke may be less interested in tobacco cessation, making strategies to enhance motivation to quit especially important.

When patients with schizophrenia do try to stop, many are unsuccessful; thus, intensive treatments are appropriate even with early attempts.

The high prevalence of alcohol and illicit drug abuse in patients with schizophrenia can interfere with smoking cessation.

The blood levels of some antipsychotics can increase dramatically with cessation. Nicotine withdrawal can mimic the akathisia, depression, difficulty concentrating and insomnia seen in patients with schizophrenia.

#### Co-occurring substance abuse and dependence

Tobacco use is strongly correlated with development of other substance use disorders and with more severe substance use disorders (Degenhardt, Hall, and Lynskey, 2001; Krejci, Steinberg, and Ziedonis, 2003; Marks et al. 1997). Tobacco appears to affect the same neural pathway – the mesolimbic dopamine system – as alcohol, opioids, cocaine, and marijuana (Pierce and Kumaresan, 2006). Tobacco use impedes recovery of brain function among clients whose brains have been damaged by chronic alcohol use (Durazzo et al., 2006, 2007). At the same time, concurrent use of alcohol and/or other drugs is a negative predictor of smoking cessation outcomes during smoking cessation treatment (Hughes, 1996).

#### Other psychiatric disorders

There is insufficient information to make specific

recommendations about tailoring treatment of smoking cessation to the needs of smokers with other psychiatric disorders.

In general, when persons with mental illnesses make an attempt at smoking cessation, they should be followed closely to monitor for more severe nicotine withdrawal, exacerbation of their psychiatric disorder and possible side effects due to cessation-induced increases in medication levels.

#### Tobacco industry targeting

By 1977, smokers were becoming a “downscale market.” R.J. Reynolds noted that less educated, lower income, minority populations were more impressionable/susceptible to marketing and advertising. Tobacco companies began targeting these populations. **Free cigarettes were distributed to homeless shelters, mental hospitals and homeless service organizations.** Cigarettes were purchased for persons with mental illness and homeless so that these individuals would smoke “clean” cigarettes, not dirty cigarette butts.

The tobacco industry has also targeted psychiatric hospitals for sales promotions and giveaways. They have made financial contributions to homeless veteran organizations, using these relationships to advance their political agenda.

I've been schizophrenic since I was 14. I was told more or less when I went to the hospitals that cigarettes help control certain areas in my brain and the way we function out in society. I more or less became a smoker because I was told it would help me with my illness. I was taught more about it helping my illness than I was about cancer and stuff like that.

– Marc, age 24

# Assessment and Intervention Planning

- 1 Readiness to Quit and Stages of Change:
  - Stages of Change
  - The 5 A's (Flowchart, Actions and Strategies)
  - The 5 R's (Addressing Tobacco Cessation for Tobacco Users Unwilling to Quit)
- 2 Cultural Considerations:
  - Recommendations for Mental Health Clinicians
  - Resources
- 3 Example of a Clinic Screening
- 4 Example of a Quitline Referral Form
- 5 Provider Pull-Out: The 5 A's and 2A's & R Models

# Assessment and intervention planning



## Readiness to quit and stages of change

The Stages of Change Model (also known as the Transtheoretical Model) illustrated below is useful in recognizing that nicotine dependence is a chronic, relapsing disorder with most tobacco users in the general population requiring multiple attempts before they finally quit for good. (Fiore et al., 2008; Miller & Rollnick, 2002) Many patients do not realize that it usually takes several attempts to stop using tobacco and will need motivation to attempt to quit if they have been unsuccessful in the past. **It is useful to think of tobacco cessation as a process rather than an event.**

Once a person has been identified as a tobacco user, his or her readiness to quit can be determined. This is important because tobacco users who are not considering quitting appear to need different interventions than those who are ambivalent about quitting or those presently interested in quitting. Tobacco users in the Precontemplation stage (not considering quitting) can be moved to the Contemplation stage by asking them to consider the negative consequences of tobacco use as well as the advantages of tobacco cessation (this information has to be personalized). It is worthwhile to actively encourage quitting and offer support and treatment as well as conveying the message that persons with mental illnesses can successfully quit using tobacco.

Motivational interviewing is aligned with Self Determination Theory which suggests that providers must assist patients in becoming autonomously motivated and competent to make cessation attempts (Deci & Ryan, 1985). Providers can assist by eliciting and acknowledging patients' perspectives, supporting their initiative, offering choice regarding treatment, and providing relevant information, while minimizing pressure and control (Williams et al., 2006). This approach would stand in contrast to strategies focused on pressure through threats of negative health consequences, shame, or guilt (Markland et al., 2005).

## Stages of change

- Precontemplation: No change is intended in the foreseeable future. The individual is not considering quitting.
- Contemplation: The individual is not prepared to quit at present, but intends to do so in the next six months.
- Preparation: The individual is actively considering quitting in the immediate future or within the next month.
- Action: The individual is making overt attempts to quit. However, quitting has not been in effect for longer than six months.
- Maintenance: The individual has quit for longer than six months.

## The 5 A's:

### Ask, Advise, Assess, Assist and Arrange

The U.S. Public Health Service Clinical Practice Guideline: *Treating Tobacco Use and Dependence* provides healthcare clinicians an onsite strategy for smoking cessation treatment that is built around the “5 A's” (Ask, Advise, Assess, Assist and Arrange). Knowing that providers have many competing demands, the 5 A's were created to keep steps simple. **Regardless of the patient's stage of readiness for a cessation attempt, the 5 A's should be utilized at every patient visit.**

On the following pages you will find a summary of these easily implemented steps.

The Guideline recommends that all people entering a healthcare setting should be **asked** about their tobacco use status and that this status should be documented. Providers should **advise** all tobacco users to quit and then **assess** their willingness to make a quit attempt. Persons who are ready to make a quit attempt should be **assisted** in the effort. Follow up should then be **arranged** to determine the success of quit attempts.

The full 5 A's model is most appropriate for agencies and organizations that have tobacco cessation medications and/or behavioral services available for persons with mental illnesses. For agencies and organizations that do not have tobacco cessation services readily available, we recommend the use of the first two A's (**ask** and **advise**) and then the agency can **refer** to available community services (this is referred to as the 2 A's + R model).

Please also see the [Pull-Out Clinician Summary Resource](#) at the end of this section.



## Actions and Strategies for Mental Health Providers to Help Patients Quit Smoking

ASK	
Action	Strategies for Implementation
<p><b>Ask</b> every patient at every visit, including hospital admissions, if they smoke.</p>	<p>Within your practice, systematically identify all tobacco users at every visit.</p> <p>Establish an office system to consistently identify tobacco use status at every visit. <b>(See clinic example at end of this section.)</b></p> <p>Determine what form of tobacco is used.</p> <p>Determine frequency of use.</p> <p>Determine tobacco use status.</p> <p>Make note of patients exposed to secondhand smoke.</p>

ADVISE	
Action	Strategies for Implementation
<p>In a <b>clear, strong</b> and <b>personalized</b> manner, <b>advise</b> every tobacco user to quit.</p>	<p><b>Clear:</b> “As your clinician, I want to provide you with some education about tobacco use and encourage you to consider quitting today.”</p> <p><b>Strong:</b> “As your clinician, I need you to know that quitting smoking is the most important thing you can do to protect your health now and in the future.</p> <p><b>Personalized:</b> Tie tobacco use to current health/illness, its social and economic costs, motivation level/readiness to quit, and/or the impact of tobacco use on children and others in the household.</p>
<p>Be mindful to advise in a non-judgmental manner.</p>	

REFER	
Action	Strategies for Implementation
<p>For persons interested in quitting.</p>	<p>Provide information on local smoking cessation resources. such as your state’s quitline.</p> <p>Use proactive referral if available: Request written consumer permission to fax their contact information to a quitline or other program. Inform the patient the cessation program staff will contact them.</p> <p>Document the referral.</p> <p><b>See a sample quitline fax referral form at end of this section.</b></p>

ASSESS	
Action	Strategies for Implementation
<p><b>Assess</b> willingness to make a quit attempt within the next 30 days.</p> <p>Determine with the patient the costs and benefits of smoking for him or her.</p> <p>Determine where the patient is in terms of the readiness to change model.</p>	<p>Assess readiness for change using motivational interviewing strategies.</p> <p>If the individual is ready to quit, proceed to Assist (below) and/or arrange for more intensive services to help with the quitting process.</p> <p>If the person will participate in an intensive treatment, deliver such a treatment or refer to an intensive intervention (Arrange).</p> <p>If the person isn't ready to quit, don't give up. Providers can give effective motivational interventions that keep a patient thinking about quitting. Conduct a motivational intervention that helps patients identify quitting as personally relevant and repeat motivational interventions at every visit.</p> <p>For addressing tobacco cessation with tobacco users unwilling to quit, please use the 5 R's (relevance, risks, rewards, roadblocks, and repetition) outlined later in this section.</p>
<p><b>Assess</b> past quit attempts and past/current psychiatric symptoms for patients wanting to quit.</p>	<p>For the individual who is willing to quit:</p> <p>Obtain a smoking history and assess experience with previous quit attempts:</p> <ul style="list-style-type: none"> <li>• Reasons for quitting.</li> <li>• Any change in psychiatric functioning when he or she tried to stop?</li> <li>• Cause of relapse (was this due to withdrawal symptoms or increased psychiatric symptoms?)</li> <li>• How long did he or she remain abstinent?</li> <li>• Prior treatment in terms of type, adequacy (dose, duration), compliance and patient's perception of effectiveness.</li> <li>• Expectations about future attempts and treatments.</li> </ul> <p>Determine whether there are any psychiatric reasons for concern about whether this is the best time for cessation:</p> <ul style="list-style-type: none"> <li>• Is the patient about to undergo a new therapy?</li> <li>• Is the patient presently in crisis, or is there a problem that is so pressing that time is better spent on this problem than on cessation at this visit?</li> <li>• What is the likelihood that cessation would worsen the non-nicotine psychiatric disorder? And can that possibility be diminished with frequent monitoring, use of nicotine replacement therapy or other therapies?</li> <li>• What is the individual's ability to mobilize coping skills to deal with cessation? If the coping skills are low, would the patient benefit from individual or group behavior therapy?</li> <li>• Is the patient highly nicotine dependent or does the patient have a history of relapse due to withdrawal symptoms or increased psychiatric symptoms? If so, which medication might be of help?</li> </ul> <p>Increasing readiness/motivation: If a person with psychiatric illness is not ready to make a quit attempt, enhance motivation and deal with anticipated barriers to cessation.</p> <ul style="list-style-type: none"> <li>• List pros/cons of smoking and quitting.</li> <li>• Increase monitoring of tobacco use.</li> <li>• Help the person understand current motivation and barriers.</li> <li>• Address potential fears of withdrawal symptoms or of worsening psychiatric problems.</li> </ul>

## ASSIST

Action	Strategies for Implementation
Help the person with a quit plan.	<p><b>Set a quit date</b>, ideally within two weeks.</p> <p><b>Tell</b> family, friends and coworkers about quitting and request understanding and support.</p> <p><b>Anticipate</b> triggers or challenges to planned quit attempt, particularly during the critical first few weeks. These include nicotine withdrawal symptoms. Discuss how the individual will successfully overcome these triggers or challenges.</p> <p><b>Remove</b> tobacco products from the environment. Prior to quitting, the patient should avoid smoking in places where they spend a lot of time (e.g. work, home, car).</p> <p>For patients with cognitive difficulties (e.g. memory or attention deficits) due to mental illness, have them write down their quit plan, so they can refer to it later.</p>
Recommend use of approved nicotine replacement therapy (NRT) and/or other appropriate medications in combination with counseling.	<p>Recommend the use of NRT and/or other medications to increase cessation success. Discuss options for addressing behavioral changes (e.g. cessation classes, individual counseling, telephone coaching from your state's quitline)</p> <p>Encourage patients who are ready to quit that their decision is a positive step.</p>

## ARRANGE

Action	Strategies for Implementation
Schedule follow-up contact.	<p><b>Timing.</b> Follow up contact should occur soon after the quit date, preferably within the first week. A second follow-up contact is recommended within the first month. Schedule further follow-up contacts as needed.</p> <p>Actions during follow-up contact:</p> <p><b>Congratulate success!</b></p> <p>If the person has relapsed, review the circumstances and elicit recommitment to total abstinence.</p> <ul style="list-style-type: none"> <li>• Remind patient that a lapse can be used as a learning experience.</li> <li>• Identify problems already encountered and anticipate challenges in the immediate future.</li> <li>• Assess NRT/medication and problems.</li> <li>• Consider use or referral to more intensive treatment.</li> <li>• <b>Give positive feedback about the patient's attempts to quit. Individuals often cut down substantially on their tobacco use before quitting, and this harm reduction needs to be recognized and congratulated.</b></li> </ul>

## The 5 R's: Addressing Tobacco Cessation for the Tobacco User Unwilling to Quit

*(From Treating Tobacco Use and Dependence. Quick Reference Guide for Clinicians, October 2000. U.S. Public Health Service. [www.surgeongeneral.gov/tobacco/tobaqrg.htm](http://www.surgeongeneral.gov/tobacco/tobaqrg.htm))*

The “5 R’s” Relevance, Risks, Rewards, Roadblocks and Repetition, are designed to motivate smokers who are unwilling to quit at this time.

Smokers may be unwilling to quit due to misinformation, concern about the effects of quitting or demoralization because of previous unsuccessful quit attempts. Therefore, after asking about tobacco use, advising the smoker to quit and assessing the willingness of the smoker to quit, it is important to provide the “5 R’s” motivational intervention.

### Relevance

Encourage the individual to indicate why quitting is personally relevant, as specifically as possible. Motivational information has the greatest impact if it is relevant to a patient’s medical status or risk, family or social situation (e.g., having children in the home), health concerns, age, gender and other important patient characteristics (e.g., prior quitting experience, personal barriers to cessation).

### Risks

Ask the individual to identify potential negative consequences of tobacco use. Suggest and highlight those that seem most relevant to them. Emphasize that smoking low-tar/ low-nicotine cigarettes or use of other forms of tobacco (e.g., smokeless tobacco, cigars and pipes) will not eliminate these risks.

Examples of risks are:

- Acute risks: Shortness of breath, exacerbation of asthma, harm to pregnancy, impotence, infertility and increased serum carbon monoxide.
- Long term risks: Heart attacks and strokes, lung and other cancers (larynx, oral cavity, pharynx, esophagus, pancreas, bladder, cervix), chronic obstructive pulmonary diseases (chronic bronchitis and emphysema), long term disability and need for extended care.
- Environmental risks: Increased risk of lung cancer and heart disease in spouses; higher rates of smoking in children of tobacco users; increased risk for low birth weight, Sudden Infant Death Syndrome, asthma, middle ear disease and respiratory infections in children of smokers.

Every time I need a pack of cigarettes, that’s taking money out of my pocket. You can see everybody around here, people that aren’t smoking, look how much money they have. People that are smoking are pretty much broke. If I could quit smoking, I’d have more money to spend.

– James, age 37

Well, the first thing is you have to decide is that you're really committed to doing it and then you try over and over and over until you finally get there, and eventually you get there. But it takes a lot of time and it's not easy.

– Sandy, age 37

### Rewards

Ask the patient to identify potential benefits of stopping tobacco use. Suggest and highlight those that seem most relevant to the person.

Examples of rewards follow:

- Improved health
- Food tastes better
- Improved sense of smell
- Money saved
- Better self image
- Home, car, clothing, breath smell better
- No more worrying about quitting
- Set a good example for children
- Have healthier babies and children
- No more worrying about exposing others to smoke
- Feel better physically
- Perform better in physical activities
- Reduce wrinkling/aging of skin

### Roadblocks

Ask the patient to identify impediments to quitting and note elements of treatment (problem solving, medications) that could address barriers.

Typical barriers might include:

- Withdrawal symptoms
- Fear of failure
- Weight gain
- Lack of support
- Depression
- Enjoyment of tobacco

### Repetition

Repeat motivational interventions every time an unmotivated patient visits the clinic setting. Tobacco users who have failed in previous quit attempts should be told that most people make repeated quit attempts before they are successful.

### Cultural Considerations

Cultural issues should also be considered for those individuals of diverse racial and ethnic backgrounds as tobacco cessation assessment and services are offered.

### Recommendations

Key findings from the Surgeon General's report: (1998 Surgeon General's Report, Tobacco Use Among U.S. Racial/Ethnic Minority Groups)

In the four racial/ethnic groups studied (African American, American Indian/Alaska Native, Asian American/Pacific Islander and Hispanic), African American men bear one of the greatest health burdens, with death rates from lung cancer that are 50 percent higher than those of Caucasian men.

Rates of tobacco related cancers (other than lung cancer) vary widely among members of racial/ethnic groups. They are particularly high among African American men.

Tobacco use among adolescents from racial and ethnic minority groups has begun to increase rapidly, threatening to reverse the progress made against lung cancer among adults in these minority groups. Cigarette smoking among African American teens has increased 80 percent over the last six years – three times as fast as among white teens.

The high level of tobacco product advertising in racial/ethnic publications is problematic because the editors and publishers of these publications may limit the level of tobacco use prevention and health promotion information included in their publications.

### **Recommendations for Mental Health Clinicians**

When working with persons with mental illnesses who are also of diverse racial/ethnic backgrounds, the mental health clinician should:

- Ask, Advise, Assist and/or Refer all patients with regard to tobacco cessation. There is a critical need to deliver effective tobacco dependence education and interventions to ethnic and racial minorities with mental illnesses.
- Use cessation interventions that have been effective for persons with mental illnesses (e.g. NRT or bupropion in combination with individual or group counseling that employs motivational interviewing or cognitive-behavioral strategies). A variety of smoking cessation interventions (including screening, clinician advice, self-help materials and the nicotine patch) have been proven effective for tobacco cessation in minority populations.
- Be culturally appropriate, reflecting the targeted racial/ethnic groups' cultural values. This may increase the smoker's acceptance of treatment.
- Convey cessation counseling or self-help materials in a language understood by the smoker.

### **Resources**

For more information about tobacco use and intervention for racial/ethnic populations, please see the following online resources:

Colorado Tobacco Disparities Strategic Planning Working Group: <http://ctdsp.amc.org/>

Colorado Minority Health Forum for Information on Reducing Health Disparities in Colorado:

<http://www.coloradominorityhealthforum.org/>

Surgeon General's Report, Tobacco Use

Among U.S. Racial/Ethnic Minority Groups: [http://www.cdc.gov/tobacco/data\\_statistics/sgr/sgr\\_1998/index.htm](http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_1998/index.htm)

# Example of Clinic Screening for Tobacco Use

From the U.S. Department of Health & Human Services  
<http://www.surgeongeneral.gov/tobacco/tobaqrg.pdf>

ACTION	STRATEGIES for IMPLEMENTATION
Implement an office-wide system that ensures that, for every patient at every clinic visit, tobacco-use status is queried and documented.	Expand vital signs to include tobacco use or use an alternative universal identification system
<p><b>VITAL SIGNS</b></p> <p>Blood Pressure: _____</p> <p>Pulse: _____ Weight: _____</p> <p>Temperature: _____ Respiratory Rate: _____</p> <p>Tobacco Use (circle one):    Current    Former    Never</p>	

- Repeated assessment is not necessary in the case of the adult who has never used tobacco or has not used tobacco for many years, and for whom this information is clearly documented in the medical record.
- Alternatives to expanding the vital signs are to place tobacco-use status stickers on all patient charts or to indicate tobacco-use status using electronic medical records or computer reminder systems.



# Colorado QuitLine Referral Form

## 1.800.QUIT.NOW (1-800-784-8669)

FAX: 800-261-6259

### Referring Provider (stamp/label/write in)

Name \_\_\_\_\_

Clinic/Facility \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Phone # \_\_\_\_\_

Fax #\* \_\_\_\_\_

\*REQUIRED TO RECEIVE CONFIRMATION OF REFERRAL

### Patient Information

Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Phone # \_\_\_\_\_ DOB \_\_\_\_\_

Best time and day to call \_\_\_\_\_

Do you need TTY? Yes No

May we leave a message? Yes No

### Participant Consent for Release of Information

Authorization to Release Information (reflects the requirements of 45 C.F.R. §164.508 August 14, 2002)

I, \_\_\_\_\_ (Participant name), give permission to my health care provider to release my name, phone number, and date of birth to the Colorado QuitLine (800-QUIT-NOW) quit smoking/tobacco program at National Jewish Medical and Research Center (contractor for the Colorado QuitLine call center), 1400 Jackson Street, Denver, Colorado, 80206.

The PURPOSE of this release is to request that National Jewish Medical and Research Center make an initial phone call to me to discuss participation in the Colorado QuitLine Program. I understand the information to be released, the purpose of this release, and that there are laws protecting confidentiality of information. I understand that once released, my information may be re-disclosed, and may no longer be protected. I understand that signing this form is not a condition of receiving services.

**Sign Here** \_\_\_\_\_  
Participant Signature Date

**This patient may use nicotine replacement therapy.**

**Sign Here** \_\_\_\_\_  
Provider Signature Date

For more NRT program information please go to <http://www.steppcolorado.com> or call 1.800.QUIT.NOW.

### PLEASE FAX OR MAIL THIS SIGNED FORM TO:

Colorado QuitLine Specialist

**Fax** 1.800.261.6259

**Mail** Colorado QuitLine

National Jewish Medical and Research Center  
1400 Jackson St., M305

Denver, CO 80206



# Smoking Cessation Intervention for Persons with Mental Illnesses

## 5 The 5 A's



If you have limited time:

**ASK** → **ADVISE** → **REFER TO**  
resources such as  
1-800 QUIT NOW

### **Ask** (1 minutes)

- Ask every patient at every visit, including hospital admissions, if they smoke.
- Determine what form of tobacco is used & frequency of use.
- Document tobacco use status.
- Be sure to make note of patients exposed to second-hand smoke.

### **Advise** (1 minute)

- Deliver a CLEAR, STRONG, and PERSONAL MESSAGE urging tobacco users to quit.
- Mention the impact of smoking on the patients's health and the health of others.

### **Refer** (2 minutes)

- If you have limited time or are unable to provide cessation on-site, refer to available community resources such as a quitline (1-800 QUIT NOW).

### **Assess** (2 minutes +)

- Determine willingness to make a quit attempt within the next 30 days.
- If the patient is ready to quit, proceed to ASSIST and/or arrange for more intensive services to assist with the quitting process.
- If the patient isn't ready to quit, don't give up on them. Conduct a motivational intervention that helps consumers identify quitting as personally relevant and repeat motivational interventions at every visit.
- Obtain a smoking history and assess experience with previous quit attempts.
- Determine whether there are any psychiatric reasons for concern about whether this is the best time for cessation.
- What is the likelihood that cessation would worsen the non-nicotine psychiatric disorder? And can that possibility be diminished with frequent monitoring, use of nicotine replacement therapy, or other therapies?
- What is the patient's ability to mobilize coping skills to deal with cessation? If the coping skills are low, would the consumer benefit from individual or group behavior therapy?
- Is the patient highly nicotine dependent or does the consumer have a history of relapse due to withdrawal symptoms or increased psychiatric symptoms? If so, which medication might be of help?

### **Assist** (3 minutes +)

- Aid patient in quitting.
- Provide practical counseling to encourage patients who are ready to quit that their decision is a positive step.
- Help set a quit date, ideally within 2 weeks.
- Remind the patient about the need for total abstinence and encourage them to remove cigarettes from the home, car, and workplace and to avoid smoking in those places.
- Help the patient anticipate challenges to quitting and identify actions to avoid relapse.
- Recommend the use of pharmacotherapies to increase cessation success and discuss options for addressing behavioral changes (e.g. cessation classes, individual counseling, telephone counseling from the quitline).

### **Arrange** (1 minute +)

- Schedule Follow-up contact.
- Timing – Follow up contact should occur soon after the quit date, preferably within the first week. A second follow up contact is recommended within the first month. Schedule further follow up contacts as indicated.
- Actions during follow up contact:
  - Congratulate success!
  - If tobacco use has occurred, review circumstances and elicit recommitment to total abstinence.
    - Remind patient that a lapse can be used as a learning experience.
    - Identify problems already encountered and anticipate challenges in the immediate future.
    - Assess pharmacotherapy use and problems.
    - Consider use or referral to more intensive treatment.

University of Colorado  
SCHOOL OF MEDICINE  
Advancing Science  
Improving Care.



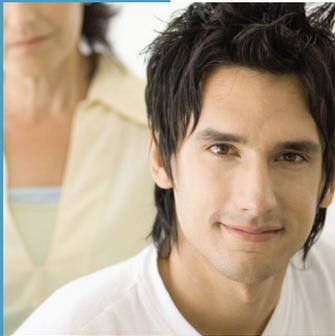
Colorado Department  
of Public Health  
and Environment

**STAPP**  
STATE TOBACCO EDUCATION  
& PREVENTION PARTNERSHIP

# Smoking Cessation Treatment for Persons with Mental Illnesses

- 1 Key Findings
- 2 Components of Successful Intensive Intervention Programs
- 3 Behavioral Interventions for Smoking Cessation:
  - Overview
  - SANE Program
  - More Elements of Successful Counseling
- 4 Prescribing Cessation Medications
- 5 Intervening with Specific Mental Disorders:
  - Depression
  - Schizophrenia
  - Bipolar Disorder
  - Anxiety Disorder
  - Substance Use Disorders
- 6 Peer-to-Peer Services
- 7 Smoke-Free Policies
- 8 Provider Pull-Out: Pharmacotherapies for Tobacco Cessation
- 9 Provider Pull-Out: Tip Sheet for Patients
- 10 Provider Pull-Out: Myths Sheet for Patients

# Smoking cessation treatment for persons with mental illnesses



## Key findings

Smoking cessation models for persons with mental illnesses generally combine nicotine replacement therapy (NRT) or other medications with Cognitive Behavioral Therapy (CBT), a type of psychotherapy that focuses on changing dysfunctional thoughts, emotions and behavior.

Group CBT programs that produce the most successful quit rates for the mental health population generally have groups of approximately 8-10 individuals that meet once a week for 7-10 weeks.

Patients with schizophrenia seem to have the highest success when CBT is combined with NRT or other medications and strategies to enhance motivation. A randomized control study by Baker et al. (2006) found that at all follow-up periods, a significantly higher proportion of smokers with a psychotic disorder who completed all treatment sessions were currently abstinent, relative to a comparison group of persons receiving care as usual, (point prevalence rates: 3 months, 30.0% vs. 6.0 %; 6 months, 18.6% vs. 4.0%; 12 months 18.6% vs 6.6%). Smokers who completed all eight treatment sessions were also more likely to have achieved continuous abstinence at three months (21.4% vs. 4.0%).

There is a strong dose-response relation between the session length of person-to-person contact and successful treatment outcomes. Intensive interventions are more effective than less intensive interventions and should be used whenever possible.

Haug et al. (2005) found that for people with depression, smoking cessation was best predicted by stage of change, with those in preparation entering treatment more quickly than contemplators or precontemplators. The variables most associated with accepting treatment were not severity of symptoms, but rather current use of psychiatric medications and perceived ability to succeed in quitting.

## Components of Successful Intensive Intervention Programs:

Intensive cessation interventions should include the following (Fiore et al., 2008; U.S. Department of Health and Human Services, 2000):

### Assessment

Assessments should ensure that tobacco users are willing to make a quit attempt using an intensive treatment program. Other assessments can provide information useful in counseling (e.g. stress level, presence of psychiatric symptoms, stressors, other comorbidity). Persons with mental illnesses who are attempting to quit smoking should be carefully assessed and monitored for depression and other psychiatric symptoms at every office visit.

### Program clinicians

Multiple types of clinicians are most effective and should be used. (Fiore et al., 2008) One counseling strategy would be to have a medical/healthcare clinician deliver messages about health risks and benefits and deliver pharmacotherapy, and other behavioral health clinicians deliver additional psychosocial or behavioral interventions like cognitive behavioral therapy (CBT).

### Program intensity

Because of evidence of a strong dose-response relationship, the intensity of the program should be (Fiore et al., 2008):

- Session length – longer than 10 minutes.
- Number of sessions – 4 or more.
- Total contact time – longer than 30 minutes.

### Program format

Either individual or group counseling may be used. Proactive telephone counseling also is effective. Use of self-help material is optional. Follow-up assessment intervention procedures should be used.

### Type of counseling and behavioral therapies

Counseling and behavioral therapies should involve practical counseling (problem solving/skills training), and also stress development of social supports.

### Pharmacotherapy

Every smoker should be encouraged to use pharmacotherapies, except in the presence of special circumstances. Special consideration should be given before using pharmacotherapy with selected populations (e.g. pregnancy, adolescents). The clinician should explain how these medications increase smoking cessation success and reduce withdrawal symptoms. The first-line pharmacotherapy agents include: bupropion SR, nicotine gum, nicotine inhaler, nicotine nasal spray and the nicotine patch.

Persons with mental illnesses are often more nicotine dependent than the general population and may need higher dosages, longer duration of treatment, and combined medication treatment to optimize treatment (Fiore et al., 2008). The pharmacotherapy strategies used will need to be individualized to each patient's current mental health status, quit history, and level of nicotine dependence.

**Please also see the Provider Pull-Out: Pharmacotherapies for Tobacco Cessation at the end of this section.**

## Behavioral Interventions for Smoking Cessation

Use of brief psychosocial interventions, self-help and supportive therapy have been shown to be effective with the general population but may not be sufficient for patients with psychiatric problems (APA, 1996; Fiore et al., 2008). Additionally, people with mental illnesses often have fewer social supports and coping skills. Therefore, intensive behavioral therapy should be considered for these people even in the early quit attempts. When possible, the mental health provider should elicit patient preferences about group or individual therapy. If a patient has a specific issue that might undermine tobacco cessation (e.g. problems with assertiveness), the mental health provider might work on this issue in individual therapy while the patient also attends group therapy for tobacco cessation.

Cessation programs for people with mental illnesses include about 7-10 sessions. Typically, there is

- an introduction to tobacco history and prevalence of use
- education about the properties of nicotine, health effects of tobacco and addictive nature of smoking
- a review of the reasons why people smoke
- education about ways one can quit smoking, use of medication and development of a quit plan.

As noted above, additional sessions are useful for addressing issues that are pertinent to persons with mental illnesses (i.e., developing coping skills for stress and anxiety). Also, using a carbon monoxide (CO) monitor when possible may also help motivate patients. For many smokers, actually seeing this marker of how tobacco use is affecting the lungs can be a powerful intervention.

The SANE program in Australia (Strasser, 2001) is one effective group counseling program for persons with schizophrenia. It involves teaching problem solving skills and cognitive-behavioral techniques to aid smoking reduction and cessation maintenance. The group consists of 10 sessions, run by two trained facilitators. The content consists of the following:

- Introduction to the Program
- Reasons to Quit
- Benefits of Quitting
- Understanding Why We Smoke and Ways of Quitting
- Withdrawal Symptoms
- Social Support
- Dealing with Stress and Anxiety
- Coping with Depression
- Assertiveness Training
- Anger Management
- Smoke-Free Lifestyle
- Dealing with High Risk Situations

### More Elements of Successful Counseling

Further elements of successful counseling and supportive interventions are outlined in the following tables (Fiore et al., 2008; U.S. Department of Health and Human Services, 2000).

**Also see the pull-out resources sheets for patients at the end of this section regarding helpful tobacco cessation tips and common myths.**

## Common elements of practical counseling

Practical counseling treatment component (problems solving/skills training)	Examples
Recognize danger situations: Identify events, stressors, internal states or activities that increase the risk of smoking or relapse.	<ul style="list-style-type: none"> <li>Negative mood</li> <li>Psychiatric symptoms</li> <li>Being around other smokers</li> <li>Drinking alcohol or using drugs</li> <li>Experiencing urges</li> <li>Being under time pressure</li> </ul>
Develop coping skills: Identify and practice coping or problem solving skills.	<ul style="list-style-type: none"> <li>Learning to anticipate and avoid temptation.</li> <li>Learning cognitive strategies that will reduce negative moods.</li> <li>Accomplishing lifestyle changes that reduce stress, improve quality of life or produce pleasure.</li> <li>Learning cognitive and behavioral activities to cope with smoking urges (e.g. distracting attention).</li> </ul>
Provide basic information about smoking and successful quitting.	<ul style="list-style-type: none"> <li>Any smoking (even a single puff) increases the likelihood of a full relapse.</li> <li>Withdrawal typically peaks within 1-3 weeks after quitting.</li> <li>Withdrawal symptoms include negative mood, urges to smoke and difficulty concentrating.</li> <li>Information on the addictive nature of smoking.</li> </ul>

Additionally, staff and peer support are key factors in cessation counseling. Some common elements of each:

Supportive treatment component	Examples
Encourage the patient in the quit attempt.	<ul style="list-style-type: none"> <li>Share that effective tobacco dependence treatments are now available.</li> <li>Note that one-half of all people who have ever smoked have now quit.</li> <li>Communicate belief in the patient's ability to quit.</li> </ul>
Communicate caring and concern.	<ul style="list-style-type: none"> <li>Ask how the person feels about quitting.</li> <li>Directly express concern and willingness to help.</li> <li>Be open to the consumer's expression of fears of quitting, difficulties experienced and ambivalent feelings.</li> </ul>
Encourage the patient to talk about the quitting process.	<ul style="list-style-type: none"> <li>Ask about:               <ul style="list-style-type: none"> <li>Reasons the patient wants to quit.</li> <li>Concerns or worries about quitting.</li> <li>Success the individual has achieved.</li> <li>Difficulties encountered while quitting.</li> </ul> </li> </ul>

## Common elements of eliciting peer support and other resources

Supportive treatment component	Examples
Train patients in soliciting support	Show videotapes that model skills. Practice requesting social support from family, friends and coworkers. Aid the person in establishing a smoke-free home.
Prompt support seeking.	Help the patient identify supportive others. Call the patient to remind him or her to seek support. Inform patients of community resources such as quitlines.
Arrange outside support.	Mail letters to supportive others. Call supportive others. Invite others to cessation sessions. Assign patients to be “buddies” for one another.

### Prescribing Cessation Medications

Utilize the frequency of mental health treatment visits as an opportunity for monitoring progress in smoking cessation. Additionally, smoking cessation strategies should be integrated and coordinated with treatments for mental illnesses.

Since people with mental illnesses appear to have more withdrawal symptoms when they stop smoking than the general population, the use of nicotine replacement therapy (NRT) or other cessation medications even in early cessation attempts is recommended.

The optimal duration of NRT is not known. Some individuals appear to require long-term use of NRT

(e.g., ≥ 6 months), but almost all individuals eventually stop using NRT and the development of dependence on NRT is rare. Thus, patient preference should be the major determinate for the duration of NRT (*American Psychiatric Association Practice Guidelines 2006: Treatment of Patients with Substance Use Disorders*, 2nd Edition, p 54).

Clinicians should closely monitor actions or side effects of psychiatric medications in smokers making quit attempts. Smoking does have direct effects on some, but not all, medication blood levels. Tobacco smoking increases the metabolism of these medications resulting in a need to almost double the regular dose of these medications in smokers (APA, 2006).

	<b>Medications Known or Suspected To Have Their Levels Affected by Smoking and Smoking Cessation- i.e.- rapid, significant increases in blood levels</b>	
ANTIPSYCHOTICS	Chlorpromazine (Thorazine) Clozapine (Clozaril) Fluphenazine (Permitil) Haloperidol (Haldol) Mesoridazine (Serentil)	Olanzapine (Zyprexa) Thiothixene (Navane) Trifluoperazine (Stelazine) Ziprasidone (Geodon)
ANTIDEPRESSANTS	Amitriptyline (Elavil) Clomipramine (Anafranil) Desipramine (Norpramin) Doxepin (Sinequan) Duloxetine (Cymbalta)	Fluvoxamine (Luvox) Imipramine (Tofranil) Mirtazapine (Remeron) Nortriptyline (Pamelor) Trazodone (Desyrel)
MOOD STABILIZERS	Carbamazepine (Tegretol)	
ANXIOLYTICS	Alprazolam (Xanax) Diazepam (Valium)	Lorazepam (Ativan) Oxazepam (Serax)
OTHERS	Acetaminophen Caffeine Heparin Insulin Rasagiline (Azilect)	Riluzole (Rilutek) Ropinirole (Requip) Tacrine Warfarin

## Intervening with Mental Disorders

### Depression

Consider bupropion and nortriptyline for patients with diagnoses of depression. Bupropion-SR has been demonstrated to be the most effective in depressed patients. Patients who use bupropion-SR during a smoking cessation program are more likely to be abstinent at the quit date. However, relapse is high following the discontinuation of treatment (Evins, et al., 2005; George, et al., 2002). Additionally, bupropion-SR has had adverse affects on patients with bipolar disorder and/or a history of eating disorders. It should not be used in these populations (McNeill, 2004). Additional research on smokers with a history of depression suggests the usefulness of the nicotine transdermal patch (Thorsteinsson et al., 2001) and nicotine gum (Kinnunen et al., 1996) for short-term smoking cessation.

Strongly consider behavioral therapies such as Cognitive Behavioral Therapy (CBT), as smokers with depression are likely to fail with more minimal interventions (Brown et al, 2001). Improved cessation outcomes with the addition of CBT have been reported for nortriptyline and nicotine gum (Hall et al., 1998, 1994).

### Schizophrenia

Smoking cessation programs that use the nicotine transdermal patch (NTP) demonstrate the highest quit rates for patients with schizophrenia (Williams & Hughes, 2003) as it aids in withdrawal symptoms. When treatment includes the use of NRT in patients with schizophrenia, Dalack et al. (1999) found that dyskinesias decreased during abstinence in the placebo patch condition, but increased during

abstinence in the active patch condition. NRT is associated with smoking cessation rates of 27 percent to 42 percent in smokers with schizophrenia (Addington et al., 1998; Chou et al., 2004; George et al., 2000). Also, use of nicotine nasal spray, which produces higher plasma levels of nicotine, is associated with the reduction of withdrawal and craving (Williams et al., 2004).

In controlled trials, pharmacological treatment with sustained-release (SR) bupropion has been efficacious in promoting abstinence in persons with schizophrenia. Treatment-seeking smokers have shown success (with short-term abstinence rates of 11 percent to 50 percent) with a combination of bupropion SR and cognitive-behavioral therapy (CBT) at both the 150 mg/day (Evins et al., 2001) and the 300 mg/day doses (Evins et al., 2005; George et al., 2002). Bupropion treatment also seems to reduce the negative symptoms of schizophrenia (Weinberger et al., 2006). Additionally, the combination of bupropion and nicotine replacement therapy is more effective than nicotine replacement therapy alone (George et al., 2008; Evins et al., 2007).

Patients treated with atypical antipsychotic agents, such as clozapine (Clozaril), smoke less (George et al., 1995; McEvoy et al., 1999, 1995) and have an easier time quitting (George et al., 2002, 2000) than those treated with typical antipsychotic medications. However, smoking cessation can cause a change in plasma concentrations of psychotropic agents due to a decrease in the induction of cytochrome P450 1A2 (Weinberger et al. 2006). Antipsychotic medications whose metabolism is affected by smoking include: clozapine (Clozaril), fluphenazine (Modecate), haloperidol (Haldol), and olanzapine (Zyprexa). Therefore, monitoring medication side effects may be needed during the first month after quitting

(Kalman et al., in press; Ziedonis and George, 1997). The metabolism of risperidone (Risperdal) and quetiapine (Seroquel) does not appear to be affected by smoking (Strasser, 2001).

### Bipolar Disorder

Glassman and colleagues (1993) found that persons with bipolar disorder may also be at risk for recurrence of depressive symptoms during smoking cessation. Interestingly, persons with bipolar disorder show a genetic linkage to the  $\alpha 7$  nAChR nicotinic receptor locus on chromosome 15 similar to that found for persons with schizophrenia (Leonard et al., 2001). To date, there have been no empirically based treatments published for smokers with bipolar disorder (Weinberger, et al, 2006). Use of the patch is suggested for this population. **It is important to note that use of bupropion should be avoided for this population as it may lead to a worsening or recurrence of manic symptoms.**

### Anxiety Disorders

Although patients report that smoking reduces depression and anxiety, chronic nicotine use in animal studies is positively correlated with increased anxiety (Irvine et al. 2001). It is unclear to what extent smokers experience withdrawal symptoms and misinterpret a reduction in nicotine withdrawal as anxiety relief (Ziedonis and Williams, 2003). Cinciripini and colleagues (1995) found that smokers with high levels of trait anxiety receiving bupropion (BuSpar) versus placebo were more likely to have remained abstinent at the end of the trial but not at follow-up. A placebo-controlled study by Hertzberg and associates (2001) of bupropion SR for smokers with post-traumatic stress disorder (PTSD) found that bupropion was well tolerated and resulted in higher rates of smoking cessation (60 percent) as compared to the placebo (20 percent).

Also, in a study of veterans with PTSD who were smokers, McFall and colleagues (2005) found that smokers who received tobacco treatment integrated with their psychiatric care were five times more likely than smokers who received separate treatment to report abstinence from smoking nine months after the study. The smokers receiving the integrated treatment were more likely to use NRT and to receive more smoking cessation sessions. Additionally, cognitive behavioral therapy techniques that incorporate cognitive restructuring and exposure therapy to help persons learn to tolerate and become more comfortable with physical sensations may be helpful to persons with anxiety disorders (Morissette et al., 2007).

### **Substance Use Disorders**

Between 70-80 percent of clients receiving treatment for alcohol and other drug problems want to stop using tobacco (Richter, 2006). Moreover, recent studies indicate that treating tobacco use actually helps clients to address their alcohol and other drug problems. Stopping tobacco use does not appear to negatively affect treatment of alcohol and other drugs (Lemon et al., 2003; McCarthy, Collins, and Hser, 2002), and may even help clients with their alcohol and other drug use (Prochaska, Delucchi and Hall, 2004).

Long-term quit rates of smokers in early recover from substance use disorders (SUDs) are low, at approximately 12 percent (Kalman, 1998; Sussman, 2002). However, persons with a past history of alcoholism do not differ significantly from control subjects in tobacco treatment outcomes (Hayford et al., 1999). There are few studies of pharmacotherapeutic interventions for smoking in substance abusers, but some evidence exists suggesting that nicotine replacement and behavioral approaches are effective (Burling et al., 1996; Shoptaw et al., 1996). A review of tobacco cessation studies by el-Guebaly et al. (2002) found

that quit rates ranged from seven percent to 60 percent after treatment and from 13 percent to 27 percent at 12 months. To date, there are no published controlled studies using bupropion SR in smokers with co-occurring SUDs, although these studies are in progress (Weinberger et al. 2006).

Integrating tobacco cessation into the treatment of alcohol and other drug problems may improve treatment outcomes. Clients who receive treatment for tobacco use are more likely to reduce their use of alcohol and other drugs (McCarthy et al, 2003; Shoptaw et al., 2002). While one study found that drinking outcomes were worse with concurrent tobacco treatment (Joseph et al, 2004), a meta-analysis of 18 studies found that treating the tobacco use among clients improved their alcohol and other drug outcomes by an average of 25 percent (Prochaska et al., 2004).

### **Peer-to-Peer Services**

Peer-to-peer interventions have become a central part of the mental health recovery movement, and can be used to augment provider-driven cessation strategies. The “recovery movement” suggests that adjuncts and alternatives to formal treatment, involvement in self-help groups, and social opportunities in community and institutional settings foster empowerment and self-efficacy (Davidson et al., 2006; Knight, 2006). Peer run services can provide a sense of empowerment, and mutual benefit for the peer provider, as well as the recipient. Many public mental health systems already employ peer specialists for wellness initiatives and tobacco cessation and prevention may be wrapped into these services.

A primary example of peer-to-peer services is the Consumers Helping Others Improve their Condition by Ending Smoking program (CHOICES) in New Jersey (see [www.njchoices.org](http://www.njchoices.org)). CHOICES employs

mental health peer counselors to address tobacco use among their peers. Peer counselors receive intensive training and ongoing supervision. They provide tobacco cessation education, brief motivational interventions, and much needed advocacy for tobacco dependence treatment (Williams, 2007). The program outreaches consumers through mental health centers, self-help centers, health fairs, transitional housing, and conferences.

Peer counselors can be employees of mental health agencies and/or external organizations. The Smoking Cessation Leadership Center at the University of California San Francisco (<http://smokingcessationleadership.ucsf.edu/>) in partnership with CHOICES and the University of Colorado Denver, Behavioral Health and Wellness Program is currently piloting peer-to-peer services in California and Colorado. For more information please contact Dr. Chad Morris at [chad.morris@ucdenver.edu](mailto:chad.morris@ucdenver.edu)

### Smoke-Free Policies

Successful cessation interventions are dependent on environmental support. Psychiatric facilities have historically accepted use of tobacco as a means of controlling the treatment setting. We have known for decades that tobacco use causes disease and death, but it is also becoming increasingly evident that tobacco use harms mental health treatment and the treatment milieu. Tobacco privileges are a means of coercion among patients and staff often leading to undesirable behaviors and violence (NASMHPD, 2006b). Managing smoking privileges requires a great amount of time and energy that could be devoted to more meaningful activities. Banning smoking in psychiatric hospitals actually reduces seclusion and restraint, decreases coercion and threats among patients and staff, while increasing the availability of medication treatments for tobacco (NASMHPD, 2006b).

As a key component of a tobacco control strategy, psychiatric hospitals, community mental health centers, and other service settings (e.g., supported housing) are increasingly going smoke-free. As mental health facilities consider going smoke free, careful planning is necessary. There are several resources to assist facilities to create timelines and checklists, draft and enforce policies, consider clinical implications, address the high prevalence of tobacco use among staff, and create community buy-in. The National Association State Mental Health Program Directors (NASMHPD) has the following useful technical reports available at <http://nasmhpd.org>

- **Morbidity and Mortality in People with Serious Mental Illness**
- **Technical Report on Smoking Policy and Treatment in State Operated Psychiatric Facilities**
- **Tobacco Free Living in Psychiatric Settings**

Also, the University of Colorado Denver, Behavioral Health and Wellness Program has created “tobacco free forums” for mental health centers and psychiatric facilities to share information regarding tobacco issues and policies. Forums provide an opportunity for directors, managers, administrators, and clinicians to collaborate and learn from one another. For more information on creating “tobacco free forums” please contact Dr. Chad Morris at [chad.morris@ucdenver.edu](mailto:chad.morris@ucdenver.edu)

# Clinical Use of Pharmacotherapies for Tobacco Cessation

## First-line Pharmacotherapies (approved for use for smoking cessation by the FDA)

Pharmacotherapy	Precautions/Contraindication	Common Side Effects*	Dosage	Duration	Availability	Approximate
Bupropion-SR	History of seizure; History of eating disorder; Diagnosis of Bipolar Disorder; MAOI within 2 weeks	Insomnia Dry mouth	150 mg every morning for 3 days, then 150 mg bid (Begin treatment 1-2 weeks pre-quit)	7-12 weeks; maintenance up to 6 months	Zyban or generic (prescription only)	\$200 per month Generic: \$97 per month
Nicotine Gum		Mouth soreness Dyspepsia Hiccups	1-24 cigs/day -2 mg gum (up to 24 pcs/day) 25+ cigs/day 4 mg gum (up to 24 pcs/day)	Up to 12 weeks	Nicorette, Nicorette Mint, Cinnamon Surge (OTC only)	Brand name: \$0.42 ea 2-mg pc \$0.45 ea 4-mg pc Generic: \$0.33 ea 2-mg pc
Nicotine Inhaler		Local irritation of mouth and throat	6-16 cartridges/day; puff cartridge for up to 20 minutes. Each cartridge 4 mg	Up to 6 months	Nicotrol Inhaler (prescription only)	\$196 per kit (inhaler with 168 cartridges)
Nicotine Lozenge		Mouth and throat soreness Dyspepsia	Wks 1-6:1 lozenge every 1-2 hrs Wks 7-9:1 lozenge every 2-4 hrs Wks 10-12:1 lozenge every 4-8 hrs  Use the 4-mg dose if smoke 1st cig within 30 mins of waking.  Use the 2-mg dose if smoke 1st cig after 30 mins of waking.	12 weeks	Commit Lozenge (OTC only)	\$39.99 for 72 lozenges
Nicotine Nasal Spray	Asthma	Nasal irritation Change in sense of smell/ taste	8-40 doses/day; one dose=1 spray/nostril; 1-2 doses/hr, not to exceed 5 doses/hr or 40 doses/day; each spray 0.5 mg	3-6 months	Nicotrol NS (prescription only)	\$49 for 10 ml bottle
Nicotine Patch		Local skin reaction Insomnia Vivid Dreams	21 mg/24 hrs 14 mg/24 hrs 7 mg/24 hrs 15 mg/16 hrs	4 weeks then 2 weeks then 2 weeks 8 weeks	Nicoderm CQ, (OTC only), Generic patches (prescription and OTC) Nicotrol (OTC)	Brand name patches \$3.28 ea Generic: \$2.14 ea
Varenicline	Psychiatric Illness** Significant kidney disease Individuals who drive or operate heavy machinery	Nausea Trouble sleeping Abnormal dreams Constipation	Start varenicline 1 week before quit date; 0.5 mg a day for 3 days, then increase to 0.5 mg twice a day for 4 days, then increase to 1mg twice a day	3 months; maintenance up to 6 months	Chantix (prescription only)	\$131 for a 30 day supply

## Second-line Pharmacotherapies (not approved for use for smoking cessation by the FDA)

Pharmacotherapy	Precautions/Contraindication	Common Side Effects*	Dosage	Duration	Availability	Approximate
Clonidine	Rebound hypertension	Dry mouth Drowsiness Dizziness Sedation Hypotension	0.15 - 0.75 mg/day 1 patch per week	3-10 weeks	Oral Clonidine - generic, Catapres (prescription only) Transdermal Catapres (prescription only)	Clonidine - \$0.18 per 0.2 mg tab Catapres transdermal \$1.33 per patch
Nortriptyline	Risk of arrhythmias; Diagnosis of Bipolar Disorder Risk of overdose	Sedation Dry mouth Constipation Dizziness	75-100 mg/day	12 weeks	Nortriptyline HCl generic (prescription only)	\$0.43 per 75 mg capsule

\*Consult full prescribing information.

\*\*Patients and caregivers should be advised to stop taking varenicline and contact a health care provider immediately if agitation, depressed mood, changes in behavior that are not typical for the patient, suicidal ideation or suicidal behavior develop

# Tips for Preparing to Quit Smoking

You have decided to quit smoking.

**Congratulations** on making that first step! As you and your provider develop a plan to stop smoking, there are four keys to success to keep in mind.

## 1 Get ready.

- Identify why you want to quit and work with your doctor to decide what method of quitting you will be using.
- Set a “quit day”.
- The day before your quit date, throw away all cigarettes and ashtrays, clean your clothes, car, and house to get rid of the smoke smell.
- On your quit date, stay busy. Keep yourself distracted and change your routine as much as possible to avoid the daily triggers that remind you of smoking.

## 2 Get support.

- Identify friends, family, stop smoking buddies, and treatment team members who you can count on to support you through this process.
- Tell them about your plan to quit and your “quit day”.

## 3 Learn new skills and behaviors.

- Develop new habits and hobbies to replace smoking triggers.
- Grab gum, mints, carrots or celery, cinnamon sticks, or toothpicks when you have the urge to smoke.

## 4 Prepare for relapse.

- Think and plan ahead for times when you will be tempted to smoke. Talk with your doctor about things you can do to distract yourself and resist temptation when you have the urge to smoke.

**Don't get discouraged.**  
**You can quit smoking!**

# Myths and Facts about Smoking

**Myth:** “Light” or “low tar” cigarettes are safer than regular cigarettes

**Fact:** [There is no such thing as a safe cigarette](#)

The same cancer causing agents are found in “light” and “low tar” cigarettes as regular cigarettes. Studies have also shown that people smoking light cigarettes smoke more often and inhale more deeply to get the same amount of nicotine.

**Myth:** “Natural Tobacco” such as American Spirit and clove cigarettes are a healthy alternative to regular cigarettes

**Fact:** [Smoking “natural tobacco” and clove cigarettes will increase your risk of cancer, heart disease, and emphysema](#)

There is no healthy smoking alternative. Natural or organic tobacco and cloves cigarettes are just as unhealthy as regular cigarettes. The best thing you can do to decrease your risk for disease is quit.

**Myth:** Smokeless, or spit, tobacco is better for you than smoking cigarettes

**Fact:** [Spit tobacco increases risk of oral cancer](#)

People who use spit tobacco have a higher risk of cancer of the throat, mouth, gum, lips, tongue, and have more dental problems such as tooth loss and gum disease.

**Myth:** To quit smoking, all you need is will power

**Fact:** [Most smokers have difficulty quitting without help](#)

Only about 3% of “cold turkey” quit attempts are successful. In order to quit, most smokers need help through nicotine replacement therapy and/ or counseling.

**Myth:** Persons with mental illnesses are more addicted to nicotine and are unable to quite smoking

**Fact:** [Persons with mental illnesses can successfully quit using tobacco](#)

There is a significant evidence base that smoking cessation strategies work

**Myth:** Persons with mental illnesses enjoy smoking and don't want to quit

**Fact:** [Persons with mental illnesses want to quit smoking and want information on cessation services and resources](#)

**Ask your provider today about ways to quit!**

# Relapse Prevention

- 1 Components of Minimal Practice  
Relapse Prevention
- 2 Components of Prescriptive  
Relapse Prevention

# Relapse prevention



Most relapses occur soon after a person quits smoking, yet some people relapse months or even years after the quit date. Relapse prevention programs can take the form of either minimal (brief) or prescriptive (more intensive) programs.

## Components of Minimal Practice Relapse Prevention

These interventions should be part of every encounter with a patient who has quit recently. Congratulate every ex-tobacco user undergoing relapse prevention on any success. Strongly encourage them to remain abstinent. When encountering a recent quitter, use open-ended questions designed to initiate patient problem solving such as “How has stopping tobacco use helped you?” Encourage the person’s active discussion of the topics below:

- The benefits, including potential health benefits that the patient may derive from cessation.
- Any success the patient has had in quitting (duration of abstinence, reduction in withdrawal, etc.).
- The problems encountered or threats anticipated to maintaining abstinence (e.g., depression, weight gain, alcohol and other tobacco users in the household).

## Components of Prescriptive Relapse Prevention

During prescriptive relapse prevention, a patient might identify a problem that threatens his or her abstinence. Specific problems likely to be reported by consumers and potential responses follow:

### Lack of support for cessation

- Schedule follow-up visits or telephone calls with the patient.
- Help the patient identify sources of support within his or her environment.
- Refer the patient to an appropriate organization that offers cessation counseling or support.

**Negative mood or depression**

If significant, provide counseling, prescribe appropriate medications, or refer the patient to a specialist.

**Strong or prolonged withdrawal symptoms**

If the patient reports prolonged craving or other withdrawal symptoms, consider extending the use of an approved pharmacotherapy or adding/combining medications to reduce strong withdrawal symptoms.

**Weight gain**

- Recommend starting or increasing physical activity; discourage strict dieting.
- Reassure the patient that some weight gain after quitting is common and appears to be self-limiting.
- Emphasize the importance of a healthy diet.
- Maintain the patient on pharmacotherapy known to delay weight gain (e.g., bupropion SR, nicotine-replacement pharmacotherapies, particularly nicotine gum).
- Refer the patient to a specialist or program.

**Flagging motivation / feeling deprived**

- Reassure the patient that these feelings are common.
- Recommend rewarding activities.
- Probe to ensure that the patient is not engaged in periodic tobacco use

**Emphasize that beginning to smoke (even a puff) will increase urges and make quitting more difficult.**

# National Tobacco Cessation Resources

## National tobacco cessation resources



American Cancer Society

<http://www.cancer.org>

American Public Health Association

<http://www.apha.org/>

Association for the Treatment of Tobacco Use  
and Dependence

<http://www.attud.org/>

Centers for Disease Control and Prevention

<http://www.cdc.gov/tobacco>

Consumers Helping Others Improve their Condition  
by Ending Smoking (CHOICES)

<http://www.njchoices.org>

National Association of State Mental Health  
Program Directors

<http://www.nasmhpd.org/>

National Institute on Drug Abuse (NIDA)

<http://www.nida.nih.gov/DrugPages/Nicotine.html>

Nicotine Anonymous

<http://www.nicotine-anonymous.org/>

Quitline 1-800-QUIT-NOW

<http://1800quitnow.cancer.gov/>

Smoking Cessation Leadership Center

<http://smokingcessationleadership.ucsf.edu/>

Society for Research on Nicotine and Tobacco

<http://www.srnt.org>

STEPP

<http://www.steppcolorado.com>

Surgeon General

<http://www.surgeongeneral.gov/>

Tobacco Cessation Leadership Network

<http://www.tcln.org/>

## Toolkit References

## Toolkit references



Addington J, el-Guebaly N, Campbell W, et al (1998). Smoking cessation treatment for patients with schizophrenia. *American Journal of Psychiatry*, 155(7): 974–976.

American Psychiatric Association (1996). Practice guidelines for the treatment of patients with nicotine dependence. *American Journal of Psychiatry*, October Supplement, 1-31.

American Psychiatric Association Practice Guidelines 2006: Treatment of Patients with Substance Use Disorders, 2nd Edition. Accessed online at: [http://www.psych.org/psych\\_pract/treatg/pg/SUD2ePG\\_04-28-06.pdf](http://www.psych.org/psych_pract/treatg/pg/SUD2ePG_04-28-06.pdf)

Baker A, Richmond R, Haile M, et al. (2006). A randomized controlled trial of a smoking cessation intervention among people with a psychotic disorder. *American Journal of Psychiatry*, 163:1934-1942.

Beckham JC, Roodman AA, Shipley RH et al (1995). Smoking in Vietnam combat veterans with post-traumatic stress disorder. *Journal of Traumatic Stress*, 8(3): 461-472.

Bobo JK, Davis CM (1993). Recovering staff and smoking in chemical dependency programs in rural Nebraska. *Journal of Substance Abuse Treatment*, 10(2): 221-7.

Bobo JK, Gilchrist LD (1983). Urging the alcoholic client to quit smoking cigarettes. *Addictive Behaviors*, 8(3): 297-305.

Boyd CJ, Pohl J (1996). Nicotine and alcohol abuse in African American women who smoke crack cocaine. *Journal of Substance Abuse*, 8(4): 463-9.

Brown RA, Kahler CW, Niaura R et al (2001). Cognitive-behavioral treatment for depression in smoking cessation. *Journal of Consulting and Clinical Psychology*, 69(3): 471- 480.

- Budney AJ, Higgins ST, Hughes JR, Bickel WK (1993). Nicotine and caffeine use in cocaine-dependent individuals. *Journal of Substance Abuse*, 5(2): 117-30.
- Burling TA, Burling AS, Latini D (2001). A controlled smoking cessation trial for substance-dependent inpatients. *Journal of Consulting and Clinical Psychology*, 69(2): 295- 304.
- Burling TA, Salvio MA, Seidner AL, Ramsey TG (1996). Cigarette smoking in alcohol and cocaine abusers. *Journal of Substance Abuse*, 8(4): 445- 452.
- Burling TA, Ziff, DC (1988). Tobacco smoking: a comparison between alcohol and drug abuse inpatients. *Addictive Behaviors*, 13(2): 185-90.
- Centers for Disease Control and Prevention (2005). Annual smoking-attributable mortality, years of potential life lost, and productivity losses—United States, 1997-2001. *MMWR*, 54:625-628.
- Chou KR, Chen R, Lee JF et al (2004). The effectiveness of nicotine-patch therapy for smoking cessation in patients with schizophrenia. *International Journal of Nursing Studies*, 41(3) 321.
- Cinciripini PM, Lapitsky L, Seay S, et al (1995). A placebo-controlled evaluation of the effects of buspirone on smoking cessation: differences between high- and low-anxiety smokers. *Journal of Clinical of Psychopharmacology*, 15(3): 182-91.
- Clemmey P, Brooner R, Chutuape MA, Kidorf M, Stitzer M (1997). Smoking habits and attitudes in a methadone maintenance treatment population. *Drug and Alcohol Dependence*, 44(2-3): 123-32.
- Dalack GW, Meador-Woodruff JH (1999). Acute feasibility and safety of a smoking reduction strategy for smokers with schizophrenia. *Nicotine and Tobacco Research*, 1(1): 53-57.
- Davidson L, Chinman M, Sells D, Rowe M (2006). Peer support among adults with serious mental illness: A report from the field. *Schizophr Bull*, 32(3), 443-450.
- Deci EL, Ryan RM (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum Press.
- Degenhardt L, Hall W, Lynskey M (2001). Alcohol, cannabis and tobacco use among Australians: A comparison of their associations with other drug use and use disorders, affective and anxiety disorders, and psychosis. *Addiction*, 96 (11), 1603-1614.
- de Leon J, Dadvand M, Canuso C et al. (1995). Schizophrenia and smoking: An epidemiological survey in a state hospital. *Am J Psychiatry*, 152(3): 453-455.
- Durazzo T, Cardenas V, Studholme C, Weiner M, Meyerhoff D (2007). Non-treatment-seeking heavy drinkers: Effects of chronic cigarette smoking on brain structure. *Drug and Alcohol Dependence*, 87 (1), 76-82.
- Durazzo T, Rothlind S, Gazdzinski P, Banyas D, Meyerhoff D (2006). A comparison of neurocognitive function in nonsmoking and chronically smoking short-term abstinent alcoholics. *Alcohol*, 39 (1), 1 – 11.
- Dursun S, Kutcher S (1999). Smoking, nicotine, and psychiatric disorders: evidence for therapeutic role, controversies, and implications for future research. *Medical Hypotheses*, 52:101–109.
- El-Guebaly N, Cathcart J, Currie S et al (2002). Smoking cessation approaches for persons with mental illness or addictive disorders. *Psychiatric Services*, 53(9): 1166-1170.

- El-Guebaly N, Hodgins D (1992). Schizophrenia and substance abuse: prevalence issues. *Canadian Journal Psychiatry*, 37:704–710.
- Evins AE, Cather C, Deckersbach T et al. (2005). A double-blind placebo-controlled trial of bupropion sustained-release for smoking cessation in schizophrenia. *Journal of Clinical Psychopharmacology*, 25(3):218-225.
- Evins AE, Mays V, Rigotti NA, et al. (2001). A pilot trial of bupropion added to cognitive behavioral therapy for smoking cessation in schizophrenia. *Nicotine and Tobacco Research*, 3(4): 397- 403.
- Fiore MC, Jaén CR, Baker TR, et al. (2008). *Treating Tobacco Use and Dependence: 2008 Update Clinical Practice Guideline*. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service.
- George TP, Sernyak MJ, Ziedonis DM, Woods SW (1995). Effects of clozapine on smoking in chronic schizophrenic outpatients. *Journal of Clinical Psychiatry*, 56(8) 344-346.
- George TP, Vessicchio JC, Sacco KA, et al. (2008). A placebo-controlled trial of bupropion combined with nicotine patch for smoking cessation in schizophrenia. *Biological Psychiatry*, 63(11): 1092-6.
- George TP, Vessicchio JC, Termine A et al. (2002). A placebo-controlled study of bupropion for smoking cessation in schizophrenia. *Biological Psychiatry*, 52(1):53-61.
- George TP, Ziedonis DM, Feingold A et al. (2000). Nicotine transdermal patch and atypical antipsychotic medications for smoking cessation in schizophrenia. *American Journal of Psychiatry*, 157(11): 1835- 1842.
- Giese A, Morris C, Olincy A (2000). Needs assessment of persons with mental illnesses for tobacco prevention, exposure, reduction, and cessation. Report prepared for the State Tobacco Education and Prevention Partnership (STEPP), Colorado Department of Public Health and Environment.
- Glassman AH, Covey LS, Dalack GW et al. (1993). Smoking cessation, clonidine, and vulnerability to nicotine among dependent smokers. *Clinical Pharmacology & Therapeutics*, 54(6): 670-679.
- Grant BF, Hasin DS, Chou PS, Stinson FS, Dawson DA (2004). Nicotine dependence and psychiatric disorders in the United States: results from the national epidemiologic survey on alcohol and related conditions. *Archives of General Psychiatry*, 61(11): 1107-1115.
- Hall SM, Munoz RF, Reus VI (1994). Cognitive-behavioral intervention increases abstinence rates for depressive-history smokers. *Journal of Consulting and Clinical Psychology*, 62(1): 141-146.
- Hall SM, Reus VI, Munoz RF et al (1998). Nortriptyline and cognitive-behavioral therapy in the treatment of cigarette smoking. *Archives of General Psychiatry*, 55(8): 683-690.
- Haug NA, Hall SM, Prochaska JJ, et al (2005). Acceptance of nicotine dependence treatment among currently depressed smokers. *Nicotine & Tobacco Research*, 7(2): 217- 224.
- Hayford KE, Patten CA, Rummans TA et al (1999). Efficacy of bupropion for smoking cessation in smokers with a former history of major depression or alcoholism. *British Journal of Psychiatry*, 174: 173-178.
- Hertzberg MA, Moore SD, Feldman ME, Beckham JC (2001). A preliminary study of bupropion sustained-release for smoking cessation in patients with chronic post-traumatic stress disorder. *Journal of Clinical Psychopharmacology*, 21(1): 94- 98.

- Hser YI, McCarthy WJ, Anglin MD (1994). Tobacco use as a distal predictor of mortality among long-term narcotics addicts. *Preventive Medicine*, 23(1): 61-9.
- Hughes JR (1996). The future of smoking cessation therapy in the United States. *Addiction*, 91(12): 1797-1802.
- Hurt RD, Eberman KM, Croghan IT, et al. (1994). Nicotine dependence treatment during inpatient treatment for other addictions: a prospective intervention trial. *Alcoholism: Clinical and Experimental Research*, 18(4): 867-72.
- Irvine EE, Bagnalasta M, Marcon C, et al (2001) Nicotine self-administration and withdrawal: modulation of anxiety in the social interaction test in rats. *Psychopharmacology*, 153:315-320.
- Istvan J, Matarazzo JD (1984). Tobacco, alcohol, and caffeine use: a review of their interrelationships. *Psychological Bulletin*, 95(2): 301-26.
- Joseph A, Willenbring M, Nugent S, Nelson D (2004). A randomized trial of concurrent versus delayed smoking intervention for patients in alcohol dependence treatment. *Journal of Studies on Alcohol*, 65(6): 681- 691.
- Kahn RS, Wise PH, Finkelstein JA, et al. (1999). The scope of unmet maternal health needs in pediatric settings. *Pediatrics*, 103(3): 576-81.
- Kalman D (1998). Smoking cessation treatment for substance misusers in early recovery: a review of the literature and recommendations for practice. *Substance Use & Misuse*, 33(10) 2021- 2047.
- Kalman D, Hayes K, Colby SM, et al (2001). Concurrent versus delayed smoking cessation treatment for persons in early alcohol recovery. A pilot study. *Journal of Substance Abuse Treatment*, 20(3): 233-238.
- Kalman D, Lee A, Chan E, et al (2004). Alcohol dependence, other psychiatric disorders, and health-related quality of life: a replication study in a large random sample of enrollees in the Veterans Health Administration. *American Journal of Drug & Alcohol Abuse*, 30(2): 473-487.
- Kalman D, Morrisette SB, George TP (2006). Co-morbidity of smoking with psychiatric and substance use disorders. *Psychiatric Times*, 15 (1). Accessed online at: <http://www.psychiatrictimes.com/showArticle.jhtml?articleId=177101047>
- Ker M, Leischow S, Markowitz I, et al (1996). Involuntary smoking cessation: a treatment option in chemical dependency programs for women and children. *Journal of Psychoactive Drugs*, 28:47-60.
- Kinnunen T, Doherty K, Militello FS, Garvey AJ (1996). Depression and smoking cessation: characteristics of depressed smokers and effects of nicotine replacement. *Journal of Consulting and Clinical Psychology*, 64(4): 791- 798.
- Knight EL (2006). Self-help and serious mental illness. *Medscape General Medicine*, 8(1), 68.
- Krejci J, Steinberg ML, Ziedonis D (2003). Smoking status and substance abuse severity in a residential treatment sample. *Drug and Alcohol Dependence*, 72 (3), 249-254.
- Lasser K, Boyd W, Woolhandler S, et al (2000). Smoking and mental illness: a population based prevalence study. *Journal of the American Medical Association (JAMA)*, 284: 2606-2610.
- Lemon SC, Friedmann PD, Stein MD (2003). The impact of smoking cessation on drug abuse treatment outcome. *Addictive Behaviors*, 28 (7):1323-1331.

- Leonard S, Adler LE, Benhammou K, et al (2001) Smoking and mental illness [Review]. *Pharmacology, Biochemistry, & Behavior*, 70:561-570.
- Lyon E (1999). A review of the effects of nicotine on schizophrenia and antipsychotic medications. *Psychiatric Services*, 50:1346–1350.
- Marks JL, Hill EM, Pomerleau CS, Mudd SA, Blow FC (1997). Nicotine dependence and withdrawal in alcoholic and nonalcoholic ever-smokers. *Journal of Substance Abuse Treatment*, 14 (6), 521-527.
- Markland D, Ryan RA, Tobin VJ, Rollnick S (2005). Motivational interviewing and self-determination theory. *Journal of Social and Clinical Psychology*, 24: 811-831.
- Martin J, Calfas K, Patten C et al (1997). Prospective evaluation of three smoking interventions in 205 recovering alcoholics: one-year results of project SCRAP-Tobacco. *Journal of Consulting and Clinical Psychology*, 65:190–194.
- McCarthy WJ, Collins C, Hser YI (2002). Does cigarette smoking affect drug abuse treatment? *Journal of Drug Issues*, 32 (1), 61-80.
- McEvoy J, Freudenreich O, McGee, M et al (1995). Clozapine decreases smoking in patients with chronic schizophrenia. *Biological Psychiatry*, 37(8): 550-552.
- McEvoy J, Freudenreich O, Wilson, WH (1999). Smoking and therapeutic response to clozapine in patients with schizophrenia. *Biological Psychiatry*, 46(1): 125-129.
- McFall M, Saxon AJ, Thompson CE et al (2005). Improving the rates of quitting smoking for veterans with post-traumatic stress disorder. *American Journal of Psychiatry*, 162(7): 1311-1319.
- McNeill, A (2004). *Smoking and patients with mental health problems*. London, England: Health Development Agency.
- Miller WR, Rollnick S (2002). *Motivational interviewing: Preparing people for change*, 2nd ed. New York, NY: Guilford Press.
- Morissette, SB, Tull, MT, Gulliver, SB, et al. (2007). Anxiety, Anxiety Disorder, Tobacco Use, and Nicotine: A Critical Review of Interrelationships. *Psychological Bulletin*, 133(2) 245-272.
- Morris CD, Giese, JJ, Dickinson, M, Johnson-Nagel N (2006). Predictors of Tobacco Use Among Persons With Mental Illnesses in a Statewide Population. *Psychiatric Services*, 57: 1035-1038.
- National Association of State Mental Health Program Directors (October 2006a). *Morbidity and Mortality in People with Serious Mental Illness*. Accessed online at: <http://www.nasmhpd.org/publicationsmeddir.cfm>
- National Association of State Mental Health Program Directors (October 2006b). *Technical Report on Smoking Policy and Treatment in State Operated Psychiatric Facilities*. Accessed online at: <http://www.nasmhpd.org/publicationsmeddir.cfm>
- National Association of State Mental Health Program Directors (September 2007). *Tobacco Free Living in Psychiatric Settings*. Accessed online at: [http://www.nasmhpd.org/general\\_files/publications/NASMHDP\\_toolkitfinalupdated90707.pdf](http://www.nasmhpd.org/general_files/publications/NASMHDP_toolkitfinalupdated90707.pdf)

New York State Office of Medicaid Management: DOH Medicaid Update January 2002 Vol.17, No.1; Accessed online at: [http://www.health.state.ny.us/health\\_care/medicaid/program/update/2002/jan2002.htm#tobac](http://www.health.state.ny.us/health_care/medicaid/program/update/2002/jan2002.htm#tobac)

Patten C, Martin J, Owen N (1996). Can psychiatric and clinical dependency treatment units be smoke-free? *Journal of Substance Abuse Treatment*, 13:107–118.

Pierce RC & Kumaresan V (2005). *The mesolimbic dopamine system: The final common pathway for the reinforcing effect of drugs of abuse*. Boston: Boston University School of Medicine.

Pomerleau OF, Downey KK, Stelson FW, Pomerleau CS (1995). Cigarette smoking in adult patients diagnosed with attention deficit hyperactivity disorder. *J Subst Abuse*, 7(3): 373-378.

Prochaska JJ, Delucchi K, Hall SM (2004). A meta-analysis of smoking cessation interventions with individuals in substance abuse treatment or recovery. *Journal of Consulting and Clinical Psychology*, 72(6): 1144-56.

Promedica Research Center (2005). *Smoking and psychiatric illness: Instructor's Guide*. Tucker George.

Richter KP, Gibson CA, Ahluwalia JS, Schmelzle KH (2001). Tobacco use and quit attempts among methadone maintenance clients. *American Journal of Public Health*, 91 (2), 296-299.

Rigotti, NA (2002). Treatment of Tobacco Use and Dependence. *New England Journal of Medicine*, 346(7) 506-512.

Rush, C R, Higgins, S T, & Vansickel, A R Methylphenidate increases cigarette smoking. *Psychopharmacology*, 181, 781-789.

Shoptaw S, Jarvik ME, Ling W, Rawson RA (1996). Contingency management for tobacco smoking in methadone-maintained opiate addicts. *Addictive Behaviors*, 21(3): 409- 412.

Stark MJ, Campbell BK (1993). Drug use and cigarette smoking in applicants for drug abuse treatment. *Journal of Substance Abuse*, 5(2): 175-81.

Snow MG, Prochaska JO, Rossi JS (1992). Stages of change for smoking cessation among former problem drinkers: a cross-sectional analysis. *Journal of Substance Abuse*, 4(2): 107-16.

Strasser, KM (2001) Smoking reduction and cessation for people with schizophrenia. Accessed at: <http://www.health.vic.gov.au/mentalhealth/publications/smoke/smoke.pdf>

Sussman S (2002). Smoking cessation among persons in recovery. *Substance Use & Misuse*, 37(8-10): 1275-1298.

Taylor RC, Harris NA, Singleton EG, Moolchan ET, Heishman SJ (2000). Tobacco craving: intensity-related effects of imagery scripts in drug abusers. *Experimental and Clinical Psychopharmacology*, 8(1): 75-87.

Thorsteinsson HS, Gillin JC, Patten CA, et al. The effects of transdermal nicotine therapy for smoking cessation on depressive symptoms in patients with major depression. *Neuropsychopharmacology*, 24(4): 350-358.

US Department of Health and Human Services (1998). *Tobacco Use Among U.S. Racial/Ethnic Minority Groups*, Report of the Surgeon General. Washington (DC): US Department of Health and Human Services, Centers for Disease Control and Prevention.

US Department of Health and Human Services (2000). Reducing Tobacco Use, Report of the Surgeon General. Washington (DC): US Department of Health and Human Services, Centers for Disease Control and Prevention.

Weinberger, AH, Sacco, KA, George, TP (2006). Comorbid Tobacco Dependence and Psychiatric Disorders. *Psychiatric Times*, 15(1): Accessed at: <http://www.psychiatrictimes.com/article/showArticle.jhtml?articleId=177101047>

Williams GC, McGregor HA, Sharp D, et al (2006). Testing a self-determination theory intervention for motivating tobacco cessation: Supporting autonomy and competence in a clinical trial. *Health Psychology*, 25 (1): 91-101.

Williams JM, Hughes JR (2003). Pharmacotherapy treatments for tobacco dependence among smokers with mental illness or addiction. *Psychiatric Annals*, 33: 457- 466.

Williams JM, Ziedonis D (2004). Addressing tobacco among individuals with a mental illness or an addiction. *Addictive Behaviors*, 29(6): 1067.

Ziedonis DM, George TP (1997). Schizophrenia and nicotine use; report of a pilot smoking cessation program and review of neurobiological and clinical issues. *Schizophrenia Bulletin*, 23(2): 247- 254.

Ziedonis DM, Kosten T, Glazer W, et al (1994). Nicotine dependence and schizophrenia. *Hospital and Community Psychiatry*, 45:204–206.

Ziedonis, DM, Williams JM (2003). Management of Smoking in People With Psychiatric Disorders. *Current Opinions in Psychiatry*, 16(3): 305-315.

# Literature Review

# Literature review

## Individual Studies

Yr of Pub	Author	Article Name	Volume # / Issue #	Intervention	Results	Setting/ Contact Type
2001	Acton, G., Prochaska, J., et al.	Depression and stages of change for smoking in psychiatric outpatients	Addictive Behaviors, 26(5)	Correlational study: 205 psychiatric outpatients completed measures of depression (PRIME-MD and BDI-II)	Patients who had never smoked showed lower rates of Major Depressive Disorder (MDD) than those who had smoked; patients in early stages of change did not show more MDD or depressive symptoms, but showed more negative thoughts about abstinence; suggest building smoking cessation interventions based on the transtheoretical model of change for use w/ psychiatric pops.	Outpatient psychiatric research center; Survey
1998	Addington, J., el-Guebal, N., et al.	Smoking cessation treatment for patients with schizophrenia	American J of Psychiatry, 155(7)	50 schizophrenic outpatients were divided into 5 groups who met for 7 weekly smoking cessation program sessions	42% of patients had stopped smoking at the end of the group sessions, 16% remained abstinent at 3 mo, and 12% at 6 mo.; no changes in either pos or neg symptoms of schizophrenia.	Outpatient psychiatric research center; Face to face
2006	Baker, A., Richmond, R., Haile, M., et al.	A randomized controlled trial of a smoking cessation intervention among people with a psychotic disorder	American J of Psychiatry, 163(111)	298 regular smokers with a psychotic disorder were randomly assigned to a treatment condition consisting of 8 individual one hour sessions of motivational interviewing and cognitive behavioral therapy or control (treatment as usual)	A significantly higher proportion of smokers who completed all treatment sessions stopped smoking at each of the follow-up times than controls (point prevalence rates at 3 months: 30% vs 6%; 6 months: 18.6% vs 4%; 12 months 18.6% vs 4%).	Outpatient mental health clinics or research center; Face to face
1996	Borrelli, B., Niaura, R., et al.	Development of MDD during smoking-cessation treatment	J of Clinical Psychiatry, 57(11)	144 non-depressed Ss took the Beck Depression Inventory and the Hamilton Rating Scale for Depression; tx was fluoxetine	5 Ss met threshold criteria for MDD.	Face to face
2001	Brown, R., Kahler, C., Niaura, R., et al	Cognitive-behavioral treatment (CBT) for depression in smoking cessation	J of Consulting & Clinical Psych, 69	Smokers w/ MDD randomized to standard CBT smoking cessation tx or smoking cessation tx + CBT treatment for depression	Smoker with recurrent MDD and heavy smokers who received CBT-D were significantly more likely to be abstinent than in standard treatment.	Face to face
2000	Combs, D. & Advokat, C.	Antipsychotic medication and smoking prevalence in acutely hospitalized patients with chronic schizophrenia	Schizophrenia Research, 46(2-3)	Schizophrenic patients who smoked and were either receiving a typical antipsychotic (n=15), clozapine (n=6), or another atypical antipsychotic (n=18)	Clozapine was associated with a significantly lower incidence of smoking than either typical drugs or other atypical antipsychotics.	Inpatient; Face to face

Yr of Pub	Author	Article Name	Volume # / Issue #	Intervention	Results	Setting/ Contact Type
1990	Covey, L, Glassman, A, et al.	Depression and depressive symptoms in smoking cessation	Comprehensive Psychiatry, 31(4)	Investigation into results of a behaviorally oriented smoking cessation program showed smokers w/ MDD history had lower success rates	First week – frequency and intensity of psychological symptoms, particularly depressive mood, were higher among smokers with past depression; interventions should attempt to prevent dysphoric symptoms during acute withdrawal period for MDD smokers.	Face to face
2002	Covey, L, Glassman, A, et al.	A randomized trial of sertraline as a cessation aid for smokers with a history of major depression	American J of Psychiatry, 159(10)	134 smokers with history of MDD received Sertraline (n=68) or matching placebo (n=66) 1 wk placebo washout, 9 wk double-blind, placebo-controlled treatment phase followed by a 9 day taper period, and a 6 mo. drug free follow-up; all received intensive individual cessation counseling during 9 clinic visits	Sertraline tx produced a lower total withdrawal symptom score and less irritability, anxiety, craving, and restlessness than placebo; however no significant difference between the groups.	Face to face
1999	Dalack, G., Becks, L., et al.	Nicotine withdrawal and psychiatric symptoms in cigarette smokers with schizophrenia	Neuropsychopharmacology, 21(2)	19 outpatients w/ schizophrenia or schizoaffective disorder; 1 day of ad libitum smoking followed by 3 days of acute smoking abstinence while wearing 22 mg/day active or placebo transdermal nicotine patches, with a return to 3 days of smoking between patch conditions	Dyskinesias were found to have decreased during abstinence and placebo patch treatment, but increased during abstinence and the active patch conditions.	Outpatient psychiatric research center; Face to face
2005	Evins, A., Cather, C., et al.	A double-blind placebo-controlled trial of bupropion sustained-release for smoking cessation in schizophrenia	J of Clinical Psycho-pharmacology, 25(3)	bupropion-SR vs placebo; and CBT	Ss in bupropion grp were more likely to be abstinent for the week after the quit date and at the end of the intervention; Ss in the bupropion grp had a higher rate of 4-wk continuous abstinence (wks 8-12) and a longer duration of abstinence; relapse is high following the discontinuation.	Recruited from community mental health centers; Face to face
2004	Evins, A., Rigotti, C., et al.	Two-year follow-up of a smoking cessation trial in patients with schizophrenia: Increased rates of smoking cessation and reduction	Clinical Psychiatry, 65(3)	2 yr follow-up to bupropion tx w/ CBT	More Ss were abstinent at follow up than were abstinent at the end of the trial; decreased smoking during the trial was predictive of later smoking reduction.	Face to face

Yr of Pub	Author	Article Name	Volume # / Issue #	Intervention	Results	Setting/ Contact Type
1995	George, T., Sernyak, M., et al.	Effects of clozapine on smoking in chronic schizophrenic outpatients	J of Clinical Psychiatry, 56(8)	29 schizophrenic outpatients; clozapine tx vs TYP neuroleptics	There was a sig decrease in reported daily cig use after clozapine tx.	Face to face
2002	George, T., Vessicchio, J., et al.	A placebo controlled trial of bupropion for smoking cessation in schizophrenia	Biological Psychiatry, 52(1)	bupropion-SR vs placebo	Bupropion-SR increased smoking abstinence rates; pos symp – not affected, neg symp reduced; ATYP use enhance smoking cessation responses to BUP.	Face to face
2000	George, T., Ziedonis, D., et al.	Nicotine transdermal patch (NTP) and atypical antipsychotic medications for smoking cessation in schizophrenia	American J of Psychiatry, 157(11)	Ss w/ schizo or schizoaff treated w/ NTP & w/ either ATYP or TYP antipsychotics; GT of the Amer Lung Assn or GT for smokers w/ schizo that emphasized motivation enhancement, relapse prevention, social skills training, and psychoeducation	Effects of NTP are modest in schizophrenic patients; no difference in GT programs; ATYP may be superior to TYP in combination w/NTP for smoking cessation in schizophrenic patients.	Face to face
1997	Ginsburg, J., Klesges, R., et al.	The relationship between a history of depression and adherence to a multi-component smoking-cessation program	Addictive Behaviors, 22(6)	13 wk CBG & random assignment to nicotine gum, appetite suppressant gum, or placebo gum	Group CBT is an effective smoking-cessation program for women with a history of depression who are not currently depressed.	Face to face
1993	Glassman, A., Covey, L., et al.	Smoking cessation, clonidine, and vulnerability to nicotine among dependent smokers	Clinical Pharmacology & Therapeutics, 54(6)	Clonidine	MDD predict tx failure; an increased risk for psychiatric complications after smoking cessation was apparent among smoker with MDD, particularly bipolar.	Face to face
1991	Greeman, M. & McClellan, T.	Negative effects of a smoke-free rule on an inpatient psychiatry service	Hospital & Community, 42(4)	Smoking ban on inpatient units at a Veterans Affairs medical center	20-25% of patients who smoked had difficulty adjusting to the rule, and some patients experienced major disruption in their tx.	Inpatient; Face to face
2004	Haas, A., Munoz, R., et al.	Influences of mood, depression history, and treatment modality on outcomes in smoking cessation	J Consult Clin Psychol, 72(4)	549 Ss (28% w/ history of MDD); CBT vs. HE	MDD-R Ss had higher rates of abstinence in CBT compared w/ HE, even when the contribution of mood and the interaction between mood and an MDD x tx variable were included in the model.	Face to face

Yr of Pub	Author	Article Name	Volume # / Issue #	Intervention	Results	Setting/ Contact Type
1994	Hall, S.M., Reus, V.I., Munoz R.F., et al	Cognitive-behavioral intervention increases abstinence rates for depressive-history smokers	J Consult Clin Psychol, 62(1)	149 smokers (31% had a history of MDD); all received 2 mg/day of nicotine gum; MM provided in 10 group sessions over 8 wks; standard tx provided in 5 gp sessions over 8 wks	Ss w/ MDD were more likely to be abstinent when treated w/ MM, and less anger at baseline was predictive of abstinence.	Face to face
1998	Hall, S.M., Reus, V.I., Munoz R.F., et al	Nortriptyline and CBT in the treatment of cigarette smoking	Archives Gen Psych, 55	Hx of MDD vs. No hx of MDD randomized to Nortriptyline vs. placebo and CBT vs. control	Nortriptyline- higher abstinence rates than placebo, independent of depression hx. CBT- More effective for + hx MDD. Smokers with hx of depression are aided by more intensive psychosocial treatments.	Face to face
1996	Hall, S.M., Reus, V.I., Munoz R.F., et al	Mood management and nicotine gum in smoking treatment: A therapeutic contact and placebo-controlled study	J of Consulting & Clinical Psych, 64(5)	Mood management (MM) vs. contact-equivalent health education (HE); and 2 mg to 0 mg of nicotine gum for smokers w/ history of MDD	MM and HE produced similar abstinence rates: 2 mg gum was no more effective than placebo; MDD patients had a greater increase in mood disturbance after the quit attempt; MDD patients may be best treated by interventions providing additional support and contact, independent of therapeutic contact.	Face to face
2005	Haug, N.A., Hall, S.M., Prochaska, J.J. et al.	Acceptance of nicotine dependence treatment among currently depressed smokers	Nicotine & Tobacco Research, 7 (2), (April 2005) 217-224	This study reports on baseline characteristics associated with acceptance and refusal of available smoking treatment among currently depressed smokers in a psychiatric outpatient clinic. The sample (N=5154) was 68% female and 72% White, with a mean age of 41.4 years and average smoking rate of 17 cigarettes/day. All participants were assigned to a repeated contact experimental condition; received a stage-based expert system program to facilitate treatment acceptance; and were then offered smoking treatment, consisting of behavioral counseling, nicotine patch, and bupropion	The number of days to treatment acceptance was significantly predicted by stage of change, with those in preparation entering treatment more quickly than contemplators or precontemplators. In a logistic regression, the variables most strongly associated with accepting treatment were current use of psychiatric medication and perceived success for quitting. Severity of depressive symptoms, duration of depression history, and history of recurrent depression were not related to treatment acceptance. Findings have implications for the psychiatric assessment and treatment of smokers in clinical settings. Psychiatric medication may play a significant role in smoking cessation treatment acceptance by currently depressed smokers.	Outpatient psychiatric research center; Self-report and structured interview measures

Yr of Pub	Author	Article Name	Volume # / Issue #	Intervention	Results	Setting/ Contact Type
1999	Hayford, K., Patten, C., et al.	Efficacy of bupropion for smoking cessation in smokers with a former history of major depression or alcoholism	British J of Psychiatry, 174	615 smokers received placebo or bupropion-SR at 100, 150, or 300 mg/day for 6 wks after target quit date	Dose response effect of tx for smoking cessation was found.	Face to face
2000	Keuthen, N., Niaura, R., et al.	Comorbidity, smoking behavior and treatment outcome	Psychotherapy & Psychosomatics, 69 (5)	120 smokers; 10 wk smoking cessation trial w/fluoxetine & behavioral tx; 62.3% of Ss were diagnosed with a lifetime mood, anxiety or SUD	Lifetime comorbidity was related to higher smoking rates and nicotine dependence, depressed mood and greater self report of anxiety and stress. Baseline scores on the BDI were related to tx outcome for Ss w/o positive history of any psychiatric disorder, with lower BDI scores more freq in those who were abstinent.	Face to face
2000	Lucksted, A., Dixon, L., et al.	A focus group pilot study of tobacco smoking among psychosocial rehabilitation clients	Psychiatric Services, 51(12)	5 focus groups (6-10 Ss each) 40 clients in psychosocial rehabilitation programs. Discussed pros and cons of smoking and not smoking.	Results indicate that issues and needs that are specific to smokers who use mental health services must be addressed in the development of smoking prevention and cessation interventions in psychosocial rehabilitation and other mental health programs.	Face to face
1997	Martin, J.E., Calfas, K.J., Patten CA, et al.	Prospective evaluation of three smoking interventions in 205 recovering alcoholics: One-year results of Project SCRAP-Tobacco	J of Consulting & Clinical Psych, 65(1)	Randomized: standard treatment (ALA quit program + nicotine anonymous meetings) (ST), behavioral counseling + exercise (BEX), or behavioral counseling plus nicotine gum (BNIC)	BEX= significantly higher quit rates at post-treatment, not at 6 or 12 months.	Face to face
2002	Niaura, R., Spring, B., Borelli, B., et al.	Multicenter trial of fluoxetine as an adjunct to behavioral smoking cessation treatment	J of Consulting & Clinical Psych, 70(4)	Randomized to 3 dose conditions: 10 weeks of placebo, 30 mg, or 60 mg fluoxetine plus 9 weeks CBT	Analyses assuming missing data = smoking observed no treatment difference in outcomes. Pattern-mixture analysis that estimates treatment effects in the presence of missing data = enhanced quit rates associated with both the 60-mg and 30-mg doses.	Face to face
1998	Patten, C.A., Martin, J.E., Meyers, M.G., et al.	Effectiveness of cognitive-behavioral therapy for smokers with histories of alcohol dependence and depression	J of Studies on Alcohol, 50(3)	Randomized: behavioral counseling (BC) or BC+ CBT	Significantly more smokers in CBT quit at post-treatment and 12 month followup.	Face to face

Yr of Pub	Author	Article Name	Volume # / Issue #	Intervention	Results	Setting/ Contact Type
2000	Patten, C.A., Martin, J.E., Calfas, K.J., et al.	Brief report effect of three smoking cessation treatments on nicotine withdrawal in 141 abstinent alcoholic smokers	Addictive Behaviors 25(2)	Randomized to 12 week program of Standard Treatment, behavioral counseling plus exercise, or behavioral counseling plus nicotine gum	No significant effect of treatment on percentage reduction in smoking rate. All 3 groups showed similar overall reductions in smoking rate.	Face to face
1997	Rabois, D., Haaga, D.	Cognitive coping, history of depression, and cigarette smoking	Addictive Behaviors, 22(6)	Tested premise that formerly depressed smokers are lacking in cognitive coping skills taught in CBT. 4 groups (depressed/ not, smoker/not) completed WOR to test cognitive coping	Hx of depression associated with significantly more negative responses on WOR. "This study suggests that people with a history of depression tend to lack such skills and might therefore especially benefit from incorporation of cognitive behavior therapy principles in smoking-cessation programs."	Interview
2006	Thorndike, F.P., Friedman-Wheeler, D.G., Haaga, D.A.	Effect of cognitive behavior therapy on smokers' compensatory coping skills	Addict Behav, Jan 18	Randomized to CBT or comparison condition of education and scheduled smoking reduction. (unique to CBT condition was cognitive restructuring for mood management)	CBT group did not show more improvement in compensatory coping skills (measured by Ways of Responding). A nonsignificant trend favoring CBT was found in post-treatment abstinence.	Face to face
2001	Weiner, E., Ball, M.P., Summerfelt, A., et al	Effects of sustained-release bupropion and supportive group therapy on cigarette consumption in patients with schizophrenia	Am J of Psychiatry, 158	9 sessions of weekly group therapy in conjunction with open label bupropion treatment (150mg/ twice a day) for 14 weeks	None of the subjects quit smoking. However, measured change in expired breath carbon monoxide levels indicated reduction in smoking.	Outpatient psychiatric research center; Face to face
1997	Ziedonis, D.M., George, T.P.	Schizophrenia and nicotine use: Report of a pilot smoking cessation program and review of neurobiological and clinical issues	Schizophrenia Bulletin, 23(2)	24 schizophrenic patients: Nicotine replacement, motivational enhancement therapy, and relapse prevention behavioral therapy	50% completed the program, 40% decreased use by 50%, and 13% remained abstinent for 6 months.	Face to face

## Review Articles

Yr of Pub	Author	Article Name	Volume # / Issue #	Conclusions/Discussion
1992	Dalack, G.W. & Glassman, A.H.	A clinical approach to help psychiatric patients with smoking cessation	Psychiatric Quarterly, 63(1)	A discussion of the interface of psychiatric illness and smoking, particularly among those chronically hospitalized in psychiatric institutions. It suggests a rational approach to help psych patients stop smoking.
1998	Dalack, G.W., Healy, D.J., et al.	Nicotine dependence in schizophrenia: Clinical phenomena and laboratory findings	American J of Psychiatry, 155(11)	Clinical data suggest that smoking in schizophrenia is an attempt to self-medicate (negative) symptoms. Knowledge on the effects of nicotine on schizo patients may lead to new treatment for both dx and tx.
1999	Dursun, S.M. & Kutcher, S.	Smoking, nicotine and psychiatric disorders: evidence for therapeutic role, controversies and implications for future research	Medical Hypotheses, 52(2)	Investigated three components of the social-scientific-ethical dilemma that researchers looking into the possible therapeutic effects and the mechanisms of action of nicotine in neuropsychiatric disorders.
2002	el-Guebaly, N. & Cathcart, J.	Smoking cessation approaches for persons with mental illness or addictive disorders	Psychiatric Services, 53(9)	Review of 24 empirical studies of outcomes of smoking cessation approaches used with samples of persons with mental disorders. Found that the majority of interventions combined medication and psychoeducation.
1995	Hughes, J.R. & Frances, R.J.	How to help psychiatric patients stop smoking	Psychiatric Services, 46(5)	
2003	Martinez-Raga, J. & Keaney, F.	Treatment of nicotine dependence with bupropion SR: Review of its efficacy, safety and pharmacological profile	Addict Biol, 8(1)	This article found that bupropion SR appears to be a safe, well-tolerated and effective medication in combination with smoking cessation counselling for a wide range of smokers.
1993	Resnick, M.P.	Treating nicotine addiction in patients with psychiatric co-morbidity	Nicotine addiction: Principles and management, pp. 327-336 (eds: Orleans, C.T. & Slade, J.D.)	Explore the unique circumstances of psychiatric patients, the relationship between psychiatric disorder and nicotine addiction, and special problems in psychiatric institutions/ recent research on the interaction between smoking cessation, relapse, and mood disorder is reviewed/ discusses interaction between psychotropic medications and smoking.
2001	Ziedonis, D., Krejci, J., et al.	Integrated treatment of alcohol, tobacco, and other drug addictions	Integrated treatment of psychiatric disorders (ed: Kay, J.) Review of psychiatry, 20(2)	Empirical literature on the effectiveness of combined treatment of specific substance use disorders. Review of 3 of the leading psychotherapies currently in use in the treatment of patients with substance abuse disorders: 12-step, motivational enhancement therapy, and relapse prevention.
1998	Ziedonis, D.M., Wyatt, S.A., et al.	Current issues in nicotine dependence and treatment	New treatments for chemical addictions (eds: McCance-Katz, E.F. & Kosten, T.R.) Review of psychiatry series.	Pharmacotherapies can be integrated with behavioral management techniques that are individualized to the needs of the patient.