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# Overview

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# 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 modifieable 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 guit.

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



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 spittobacco 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 smokingrelated 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 guit
- Possible treatments
- Strategies for reducing relapse
- Referral to community resources

<sup>1]</sup> CDC, 2005

<sup>2]</sup> 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; Pomerleaue et al., 1995; Snow et al., 1992; Stark & Campbell, 1993; Ziedonis et al., 1994

<sup>3]</sup> Grant et al., 2004, Lasser et al., 2000

<sup>4]</sup> Grant et al., 2004, Lasser et al., 2000

<sup>5]</sup> 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)

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# Tobacco Use and Mental Illness

- 1 Smoking and Mental Illness:
  - Biological Predispositions
  - Psychological Considerations
  - Social Considerations
  - Stigma
- 2 Specific Psychiatric and Co-occuring Mental Disorders:
  - Depression
  - Schizophrenia
  - Co-occuring Substance Abuse and Dependance
  - 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-occuring 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." RJ 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 cigarettes 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 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.

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

| ADVISE   |   |
|--|---|
| Action   | Strategies for Implementation   |
| In a clear, strong and personalized manner, advise every tobacco user to quit. | Clear: "As your clinician, I want to provide you with some education about tobacco use and encourage you to consider quitting today."  Strong: "As your clinician, I need you to know that quitting smoking is the most   |
| to quit.   | important thing you can do to protect your health now and in the future. <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. |
| Be mindful to advise in a non-judgmental manner.                               |   |

| REFER                               |   |
|-------------------------------------|---|
| Action                              | Strategies for Implementation   |
| For persons interested in quitting. | Provide information on local smoking cessation resources. such as your state's quitline.  |
|                                     | 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. |
|                                     | Document the referral.  |
|                                     | See a sample quitline fax referral form at end of this section.   |

| ASSESS   |  |  |
|--|--|--|
| Action   | Strategies for Implementation  |  |
| Assess willingness to make   | Assess readiness for change using motivational interviewing strategies.  |  |
| a quit attempt within the next 30 days.                                      | If the individual is ready to quit, proceed to Assist (below) and/or arrange for more intensive services to help with the quitting process.  |  |
| Determine with the patient the costs and benefits of smoking for him or her. | If the person will participate in an intensive treatment, deliver such a treatment or refer to an intensive intervention (Arrange).  |  |
| Determine where the patient is in terms of the readiness to change model.    | 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.  |  |
|  | 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.  |  |
| Assess past quit attempts  | For the individual who is willing to quit:   |  |
| and past/current psychiatric<br>symptoms for patients<br>wanting to quit.    | <ul> <li>Obtain a smoking history and assess experience with previous quit attempts:</li> <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> |  |
|  | Determine whether there are any psychiatric reasons for concern about whether this is the best time for cessation:  Is the patient about to undergo a new therapy?  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?   |  |
|  | <ul> <li>What is the likelihood that cessation would worsen the non-nicotine psychiatric<br/>disorder? And can that possibility be diminished with frequent monitoring, use of<br/>nicotine replacement therapy or other therapies?</li> </ul>   |  |
|  | <ul> <li>What is the individual's ability to mobilize coping skills to deal with cessation?</li> <li>If the coping skills are low, would the patient benefit from individual or group behavior therapy?</li> </ul>   |  |
|  | • 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?   |  |
|  | 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.   |  |
|  | <ul> <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.   | Set a quit date, ideally within two weeks.  Tell family, friends and coworkers about quitting and request understanding and support.  Anticipate 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.  Remove 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).  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. |
| Recommend use of approved nicotine replacement therapy (NRT) and/or other appropriate medications in combination with counseling. | 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) Encourage patients who are ready to quit that their decision is a positive step.   |

| ARRANGE                     |   |  |
|-----------------------------|---|--|
| Action                      | Strategies for Implementation   |  |
| Schedule follow-up contact. | <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.  |  |
|                             | Actions during follow-up contact:   |  |
|                             | Congratulate success!   |  |
|                             | <ul> <li>If the person has relapsed, review the circumstances and elicit recommitment to total abstinence.</li> <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>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.</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)

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.

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 buproprion 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/

Sergeon General's Report, Tobacco Use

Among U.S. Racial/Ethnic Minority Groups: 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 |
| VITAL SIGNS   |   |
| Blood Pressure:   |   |
| Pulse:  | Weight:   |
| Temperature:  | Respiratory Rate:   |
| Tobacco Use (circle one): Current Former  | Never   |

- 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)   | Patient Information                  |                       |  |
|---|--------------------------------------|-----------------------|--|
| Name  | Name                                 |                       |  |
| Clinic/Facility   | Address                              |                       |  |
| Address   | City/State/Zip                       |                       |  |
| City/State/Zip  | Phone #                              | DOB                   |  |
| Phone #   | Best time and day to call            |                       |  |
| Fax #*  | Do you need TTY?                     | Yes No                |  |
| *REQUIRED TO RECEIVE CONFIRMATION OF REFERRAL                                     | May we leave a message?              | Yes No                |  |
| Participant Consent for<br>Authorization to Release Information (reflects the red |                                      | August 14, 2002)      |  |
| l,, give permis   | ssion to my health care provider to  | release my            |  |
| name, phone number, and date of birth to the Colorado                             | o QuitLine (800-QUIT-NOW) quit sr    | moking/tobacco        |  |
| program at National Jewish Medical and Research Cer                               | nter (contractor for the Colorado Qu | uitLine call center), |  |
| 1400 Jackson Street, Denver, Colorado, 80206.                                     |                                      |                       |  |
| The PURPOSE of this release is to request that Nationa                            | al Jewish Medical and Research Ce    | enter make an         |  |
| initial phone call to me to discuss participation in the Co                       | olorado QuitLine Program. I under    | stand 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 inform                           | mation may be re-disclosed, and m    | nay no longer be      |  |
| protected. I understand that signing this form is not a                           | condition of receiving services.     |                       |  |
| Sign Here   |                                      |                       |  |
| Participant Signature   | Da                                   | ate                   |  |
| This patient may use nicotine repla   | acement therapy.                     |                       |  |
| Sign Here Provider Signature  |                                      |                       |  |
|   | Da                                   |                       |  |

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



If you have limited time: ASK -> ADVISE -> REFER TO

# 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 guit 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).

# ASSESS (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.





# Smoking Cessation Treatment for Persons with Mental Illnesses

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- 2 Components of Successful Intensive Intervention Programs
- 3 Behavioral Interventions for Smoking Cessation:
  - Overview
  - SANE Program
  - More Elements of Successful Counseling
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- 5 Intervening with Specific Mental Disorders:
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  - Schizophrenia
  - Bipolar Disorde
  - 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<br>treatment component<br>(problems solving/skills<br>training  | Examples  |
|--|---|
| Recognize danger situations: Identify events, stressors, internal states or activities that increase the risk of smoking or relapse. | Negative mood Psychiatric symptoms Being around other smokers Drinking alcohol or using drugs Experiencing urges Being under time pressure  |
| Develop coping skills:<br>Identify and practice coping<br>or problem solving skills.   | Learning to anticipate and avoid temptation.  Learning cognitive strategies that will reduce negative moods.  Accomplishing lifestyle changes that reduce stress, improve quality of life or produce pleasure.  Learning cognitive and behavioral activities to cope with smoking urges (e.g. distracting attention). |
| Provide basic information about smoking and successful quitting.   | Any smoking (even a single puff) increases the likelihood of a full relapse.  Withdrawal typically peaks within 1-3 weeks after quitting.  Withdrawal symptoms include negative mood, urges to smoke and difficulty concentrating.  Information on the addictive nature of smoking.                                   |

# 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.                | Share that effective tobacco dependence treatments are now available.  Note that one-half of all people who have ever smoked have now quit.  Communicate belief in the patient's ability to quit.         |
| Communicate caring and concern.                           | Ask how the person feels about quitting.  Directly express concern and willingness to help.  Be open to the consumer's expression of fears of quitting, difficulties experienced and ambivalent feelings. |
| Encourage the patient to talk about the quitting process. | Ask about: Reasons the patient wants to quit. Concerns or worries about quitting. Success the individual has achieved. Difficulties encountered while quitting.   |

# 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).

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

# Intervening with Mental Disorders

## Depression

Consider buproprion 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; Geroge et al., 2002). Bupropion treatment also seems to reduce the negative symptoms of schizophrenia (Weinberber 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 a7 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 buspirone (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 no 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). 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

# 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 smokefree. 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

# Clinical Use of Pharmacotherapies for Tobacco Cessation

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

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

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

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

<sup>\*</sup>Consult full prescribing information.
\*\*Patients and caregivers should be advised to stop taking varenicline and contact a health care provier 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 guit and your "guit 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 guite 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

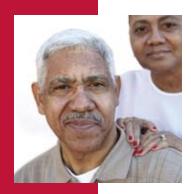
Fact: Persons with mental illnesses want to quit smoking and want information on cessation services and resources

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 openended 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/

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### Toolkit references



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### Literature Review

### Literature review

schizophrenia

### **Individual Studies**

| Individual Studies |   |   |  |  |  |  |
|--------------------|---|---|--|--|--|--|
| Yr of<br>Pub       | Author  | Article Name  | Volume # /<br>Issue #                      | Intervention   | Results  | Setting/<br>Contact<br>Type  |
| 2001               | Acton, G.,<br>Prochaska, J.,<br>et al.              | Depression and stages of change for smoking in psychiatric outpatients  | Addictive<br>Behaviors,<br>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<br>psychiatric<br>research<br>center;<br>Survey                       |
| 1998               | Addington, J., el-Guebaly, N., et al.               | Smoking cessation treatment for patients with schizophrenia   | American J<br>of Psychiatry,<br>155(7)     | 50 schizophrenic<br>outpatients were<br>divided into 5 groups<br>who met for 7 weekly<br>smoking cessation<br>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<br>psychiatric<br>research<br>center;<br>Face to face                 |
| 2006               | Baker, A.,<br>Richmond, R.,<br>Haile, M.,<br>et al. | A randomized<br>controlled trial of a<br>smoking cessation<br>intervention among<br>people with a psychotic<br>disorder | American J of<br>Psychiatry,<br>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<br>mental<br>health clinics<br>or research<br>center;<br>Face to face |
| 1996               | Borrelli, B.,<br>Niaura, R.,<br>et al.              | Development of MDD during smoking-cessation treatment   | J of Clinical<br>Psychiatry,<br>57(11)     | 144 non-depressed<br>Ss took the Beck<br>Depression Inventory<br>and the Hamilton Rating<br>Scale for Depression; tx<br>was fluoxetine   | 5 Ss met threshold criteria for MDD.   | Face to face   |
| 2001               | Brown, R,,<br>Kahler, C.,<br>Niaura, R.,<br>et al   | Cognitive-behavioral<br>treatment (CBT) for<br>depression in smoking<br>cessation                                       | J of Consulting<br>& Clinical<br>Psych, 69 | Smokers w/ MDD<br>randomized to standard<br>CBT smoking cessation<br>tx or smoking cessation<br>tx + CBT treatment for<br>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. &<br>Advokat, C.                          | Antipsychotic medication and smoking prevalence in acutely hospitalized patients with chronic schizophrenia             | Schizophrenia<br>Research,<br>46(2-3)      | Schizophrenic patients who smoked and were either receiving a typical antipsychotic (n=15), clozapine (n=6), or another atypical   | Clozapine was associated with a significantly lower incidence of smoking than either typical drugs or other atypical antipsychotics.   | Inpatient;<br>Face to face   |

or another atypical

antipsychotic (n=18)

| Yr of<br>Pub | Author                               | Article Name   | Volume # /<br>Issue #                              | Intervention   | Results  | Setting/<br>Contact<br>Type  |
|--------------|--------------------------------------|--|--|--|--|--|
| 1990         | Covey, L,<br>Glassman, A,<br>et al.  | Depression and depressive symptoms in smoking cessation  | Comprehensive<br>Psychiatry,<br>31(4)              | Investigation into<br>results of a behaviorally<br>oriented smoking<br>cessation program<br>showed smokers w/<br>MDD history had lower<br>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 withdrawl period for MDD smokers.  | Face to face   |
| 2002         | Covey, L,<br>Glassman, A,<br>et al.  | A randomized trial<br>of sertraline as a<br>cessation aid for<br>smokers with a history<br>of major depression                                       | American J<br>of Psychiatry,<br>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 withdrawl symptom score and less irritability, anxiety, craving, and restlessness than placebo; however no significant difference between the groups.   | Face to face   |
| 1999         | Dalack, G.,<br>Becks, L.,<br>et al.  | Nicotine withdrawl and psychiatric symptoms in cigarette smokers with schizophrenia  | Neuropsycho-<br>pharmacology,<br>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<br>psychiatric<br>research<br>center;<br>Face to face                 |
| 2005         | Evins, A.,<br>Cather, C.,<br>et al.  | A double-blind<br>placebo-controlled<br>trial of bupropion<br>sustained-release for<br>smoking cessation in<br>schizophrenia                         | J of Clinical<br>Psycho-<br>pharmacology,<br>25(3) | bupropion-SR vs<br>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<br>from<br>commu-<br>nity mental<br>health<br>centers;<br>Face to face |
| 2004         | Evins, A.,<br>Rigotti, C.,<br>et al. | Two-year follow-up of<br>a smoking cessation<br>trial in patients with<br>schizophrenia:<br>Increased rates of<br>smoking cessation and<br>reduction | Clinical<br>Psychiatry,<br>65(3)                   | 2 yr follow-up to<br>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<br>Pub | Author                                   | Article Name  | Volume # /<br>Issue #                                | Intervention   | Results   | Setting/<br>Contact<br>Type |
|--------------|--|---|--|--|---|-----------------------------|
| 1995         | George, T.,<br>Sernyak, M.,<br>et al.    | Effects of clozapine<br>on smoking in<br>chronic schizophrenic<br>outpatients   | J of Clinical<br>Psychiatry,<br>56(8)                | 29 schizophrenic<br>outpatients; clozapine<br>tx vs TYP neuroleptics   | There was a sig decrease in reported daily cig use after clozapine tx.  | Face to face                |
| 2002         | George, T.,<br>Vessicchio, J.,<br>et al. | A placebo controlled<br>trial of bupropion for<br>smoking cessation in<br>schizophrenia   | Biological<br>Psychiatry,<br>52(1)                   | bupropion-SR vs<br>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.,<br>Ziedonis, D.,<br>et al.   | Nicotine transdermal<br>patch (NTP) and<br>atypical antipsychotic<br>medications for<br>smoking cessation in<br>schizophrenia   | American J<br>of Psychiatry,<br>157(11)              | Ss w/ schizo or<br>schizoaff treated w/<br>NTP & w/ either ATYP<br>or TYP antipsychotics;<br>GT of the Amer<br>Lung Assn or GT for<br>smokers w/ schizo that<br>emphasized motivation<br>enhancement, relapse<br>prevention, social<br>skills training, and<br>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.,<br>Klesges, R.,<br>et al.  | The relationship<br>between a history<br>of depression and<br>adherence to a<br>multi-component<br>smoking-cessation<br>program | Addictive<br>Behaviors,<br>22(6)                     | 13 wk CBG & random<br>assignment to<br>nicotine gum, appetite<br>suppressant gum, or<br>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.,<br>Covey, L.,<br>et al.    | Smoking cessation,<br>clonidine, and<br>vulnerability to nicotine<br>among dependent<br>smokers                                 | Clinical<br>Pharmacology<br>& Therapeutics,<br>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. &<br>McClellan, T.           | Negative effects of a<br>smoke-free rule on an<br>inpatient psychiatry<br>service   | Hospital &<br>Community,<br>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;<br>Face to face  |
| 2004         | Haas, A.,<br>Munoz, R.,<br>et al.        | Influences of mood,<br>depression history, and<br>treatment modality on<br>outcomes in smoking<br>cessation                     | J Consult Clin<br>Psychol, 72(4)                     | 549 Ss (28% w/ history<br>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<br>Pub | Author  | Article Name   | Volume # /<br>Issue #  | Intervention  | Results  | Setting/<br>Contact<br>Type   |
|--------------|---|--|--|---|--|---|
| 1994         | Hall, S.M.,<br>Reus, V.I.,<br>Munoz R.F.,<br>et al    | Cognitive-behavioral intervention increases abstinence rates for depressive-history smokers                              | J Consult Clin<br>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<br>be abstinent when treated w/<br>MM, and less anger at baseline<br>was predictive of abstinence.   | Face to face  |
| 1998         | Hall, S.M.,<br>Reus, V.I.,<br>Munoz R.F.,<br>et al    | Nortriptyline and CBT in the treatment of cigarette smoking  | Archives Gen<br>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.,<br>Reus, V.I.,<br>Munoz R.F.,<br>et al    | Mood management<br>and nicotine gum in<br>smoking treatment:<br>A therapeutic contact<br>and placebo-controlled<br>study | J of Consulting<br>& Clinical<br>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 theraputic contact.   | Face to face  |
| 2005         | Haug, N.A,<br>Hall, S.M.<br>Prochaska, J.J.<br>et al. | Acceptance of nicotine dependence treatment among currently depressed smokers  | Nicotine &<br>Tobacco<br>Research, 7<br>(2), (April 2005)<br>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<br>Pub | Author  | Article Name   | Volume # /<br>Issue #                             | Intervention  | Results   | Setting/<br>Contact<br>Type |
|--------------|---|--|---|---|---|-----------------------------|
| 1999         | Hayford, K.,<br>Patten, C.,<br>et al.                     | Efficacy of bupropion<br>for smoking cessation<br>in smokers with a<br>former history of<br>major depression or<br>alcoholism                    | British J of<br>Psychiatry, 174                   | 615 smokers received<br>placebo or bupropion-<br>SR at 100, 150, or 300<br>mg/day for 6 wks after<br>target quit date   | Dose response effect of tx for smoking cessation was found.   | Face to face                |
| 2000         | Keuthen, N.,<br>Niaura, R.,<br>et al.                     | Comorbidity, smoking<br>behavior and treatment<br>outcome  | Psychotherapy<br>& Psycho-<br>somatics,<br>69 (5) | 120 smokers; 10 wk<br>smoking cessation<br>trial w/fluoxetine &<br>behavioral tx; 62.3%<br>of Ss were diagnosed<br>with a lifetime mood,<br>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.,<br>Dixon, L.,<br>et al.                     | A focus group pilot<br>study of tobacco<br>smoking among<br>psychosocial<br>rehabilitation clients   | Psychiatric<br>Services,<br>51(12)                | 5 focus groups (6-10<br>Ss each) 40 clients<br>in psychosocial<br>rehabilitation programs.<br>Discussed pros and<br>cons of smoking and<br>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.,<br>Calfas, K.J.,<br>Patten CA,<br>et al.    | Prospective evaluation<br>of three smoking<br>interventions in 205<br>recovering alcoholics:<br>One-year results<br>of Project SCRAP-<br>Tobacco | J of Consulting<br>& Clinical<br>Psych, 65(1)     | Randomized: standard<br>treatment (ALA quit<br>program + nicotice<br>anonymous meetings)<br>(ST), behavioral<br>counseling + exercise<br>(BEX), or behavioral<br>counseling plus<br>nicotine gum (BNIC) | BEX= significantly higher quit rates at post-treatment, not at 6 or 12 months.  | Face to face                |
| 2002         | Niaura, R.,<br>Spring, B.,<br>Borelli, B.,<br>et al.      | Multicenter trial of<br>fluoxetine as an adjunct<br>to behavioral smoking<br>cessation treatment   | J of Consulting<br>& Clinical<br>Psych, 70(4)     | Randomized to 3 dose<br>conditions: 10 weeks<br>of placebo, 30 mg, or<br>60 mg fluoxetine plus 9<br>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.,<br>Martin, J.E.,<br>Meyers, M.G.,<br>et al. | Effectiveness of<br>cognitive-behavioral<br>therapy for smokers<br>with histories of alcohol<br>dependence and<br>depression                     | J of Studies on<br>Alcohol, 50(3)                 | Randomized:<br>behavioral counseling<br>(BC) or BC+ CBT   | Significantly more smokers in CBT quit at post-treatment and 12 month followup.   | Face to face                |

| Yr of<br>Pub | Author   | Article Name   | Volume # /<br>Issue #            | Intervention  | Results   | Setting/<br>Contact<br>Type                                      |
|--------------|--|--|----------------------------------|---|---|--|
| 2000         | Patten, C.A.,<br>Martin, J.E.,<br>Calfas, K.J.,<br>et al.      | Brief report effect<br>of three smoking<br>cessation treatments<br>on nicotine withdrawal<br>in 141 abstinent<br>alcoholic smokers             | Addictive<br>Behaviors 25(2)     | Randomized to 12<br>week program of<br>Standard Treatment,<br>behavioral counseling<br>plus exercise, or<br>behavioral counseling<br>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.,<br>Haaga, D.                                       | Cognitive coping,<br>history of depression,<br>and cigarette smoking   | Addictive<br>Behaviors,<br>22(6) | Tested premise that<br>formerly depressed<br>smokers are lacking in<br>cognitive coping skills<br>taught in CBT.<br>4 groups (depressed/<br>not, smoker/not)<br>completed WOR to test<br>cognitive coping | Hx of depression associated with signficantly 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.,<br>Friedman-<br>Wheeler, D.G.,<br>Haaga, D.A. | Effect of cognitive<br>behavior therapy<br>on smokers'<br>compensatory coping<br>skills  | Addict Behav,<br>Jan 18          | Randomized to CBT or<br>comparison condition<br>of education and<br>scheduled smoking<br>reduction. (unique to<br>CBT condition was<br>cognitive restructuring<br>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.,<br>Ball, M.P.,<br>Summerfelt, A.,<br>et al         | Effects of sustained-<br>release bupropion<br>and supportive<br>group therapy on<br>cigarette consumption<br>in patients with<br>schizophrenia | Am J of<br>Psychiatry, 158       | 9 sessions of weekly<br>group therapy in<br>conjuction with open<br>label bupropion<br>treatment (150mg/<br>twice a day) for 14<br>weeks  | None of the subjects quit<br>smoking. However, measured<br>change in expired breath carbon<br>monoxide levels indicated<br>reduction in smoking.  | Outpatient<br>psychiatric<br>research<br>center;<br>Face to face |
| 1997         | Ziedonis, D.M.,<br>George, T.P.                                | Schizophrenia and nicotine use: Report of a pilot smoking cessation program and review of neurobiological and clinical issues                  | Schizophrenia<br>Bulletin, 23(2) | 24 schizophrenic patients: Nicotine replacement, motivational enhancement therapy, and relapse prevention behavioral therapy  | 50% completed the program,<br>40% decreased use by 50%,<br>and 13% remained abstinent for<br>6 months.  | Face to face   |

#### **Review Articles**

| Yr of<br>Pub | Author                                    | Article Name   | Volume # /<br>Issue #  | Conclusions/Discussion   |
|--------------|---|--|--|--|
| 1992         |   | A clinical approach<br>to help psychiatric<br>patients with smoking<br>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.,<br>Healy, D.J.,<br>et al.   | Nicotine dependence in<br>schizophrenia: Clinical<br>phenomena and<br>laboratory findings  | American J of Psychiatry,<br>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. &<br>Kutcher, S.             | Smoking, nicotine<br>and psychiatric<br>disorders: evidence<br>for therapeutic role,<br>controversies and<br>implications for future<br>research | Medical Hypotheses, 52(2)  | Investigated three components of the social-scientificethical dilemma that researchers looking into the possible therapeutic effects and the mechanisms of action of nicotine in neuropsychiatric disorders.   |
| 2002         | el-Guebaly, N.<br>& Cathcart, J.          | Smoking cessation<br>approaches for persons<br>with mental illness or<br>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.<br>& Frances, R.J.           | How to help psychiatric patients stop smoking  | Psychiatric` Services, 46(5)   |  |
| 2003         | Martinez-Raga,<br>J. &<br>Keaney, F.      | Treatment of nicotine dependence with bupropion SR: Review of its efficacy, safety and pharacological 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 addition: Principles<br>and management, pp.<br>327o-336 (eds: Orleans,<br>C.T. & Slade, J.D.)       | Explore the unique circumstances of psychiatric patients, the relationship between psychiatric disorder and nicotine addition, 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.,<br>Krejci, J.,<br>et al.    | Integrated treatment of<br>alcohol, tobacco, and<br>other drug addictions  | Integrated treatment of<br>psychiatric disorders (ed:<br>Kay, J.) Review of psychiatry,<br>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.,<br>Wyatt, S.A.,<br>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.   |