

# SMOKING CESSATION TREATMENT AT SUBSTANCE ABUSE REHABILITATION PROGRAMS

**Malcolm S. Reid, PhD, New York University School of Medicine, Department of Psychiatry; Jeff Selzer, MD, North Shore Long Island Jewish Healthcare System; John Rotrosen, MD, New York University School of Medicine, Department of Psychiatry**

Cigarette smoking is common among persons with drug and alcohol use disorders, with prevalence rates of 80-90% among patients in substance use disorder treatment programs. Such concurrent smoking may produce adverse behavioral and medical problems, and is associated with greater levels of substance use disorder.

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Behavioral studies indicate that the act of cigarette smoking serves as a cue for drug and alcohol craving, and the active ingredient of cigarettes, nicotine, serves as a primer for drug and alcohol abuse (Sees and Clarke, 1993; Reid et al., 1998). More critically, longitudinal studies have found tobacco use to be the number one cause of preventable death in the United States, and also the single highest contributor to mortality in patients treated for alcoholism (Hurt et al., 1996).

Nicotine is a highly addictive substance that meets all of the criteria for drug dependence, and cigarette smoking is an especially effective method for the delivery of nicotine, producing peak brain levels within 15-20 seconds. This rapid drug delivery is one of a number of common properties that cigarette smoking shares with hazardous drug and alcohol use, such as the ability to activate the dopamine system in the reward circuitry of the brain. Besides its addictive properties, cigarette smoking is legal and socially acceptable in many settings, giving it greater availability than other drugs of abuse. With these factors in mind, it is not surprising that cigarette smoking is one of the most difficult addictions to beat, with quit and relapse rates no better than for alcohol or heroin (USDHHS, 1988).

## **A comprehensive approach**

Treating nicotine addiction requires a comprehensive approach, similar to treating most other forms of drug dependence. Combined therapy, with both medication and counseling, is considered to be the optimal approach and numerous forms of medication and counseling are now available. Nicotine replacement, with either transdermal nicotine patches, nicotine gum, nicotine lozenges or nicotine inhalers, is perhaps the most common form of medication. Other medications include the antidepressant bupropion (Zyban®), and the recently approved nicotine receptor stabilizer varenicline (Chantix®). Counseling includes individual and group programs focused on mood management, relapse prevention, and cognitive behavioral management of craving and relapse, and can be obtained via primary care providers, specialized treatment programs, telephone quit lines, or even self-help internet sites and books. In the general population, smoking cessation quit rates range from 25-40% at the end of treatment.

Despite the evidence that cigarette smoking has an adverse impact on the health and use patterns of drug and alcohol use dependent individuals, and the extensive array of treatment options available for smoking cessation, cigarette smoking and other forms of tobacco use have traditionally been ignored in substance use disorder treatment settings in the United States. Resistance to nicotine dependence treatment in these settings is multifaceted, based on fear of detrimental effects on substance use disorder treatment outcomes, the belief that clients are not interested in quitting, a concern that program

referral rates will decrease while dropout rates increase, and traditional advice that one should quit using drugs or alcohol now and quit smoking later. In fact, many treatment programs do not routinely screen for the use of cigarettes, and most do not think about nicotine as a drug in the same way as they think about alcohol and other drugs of abuse. However, recent research suggests that attempting to quit smoking is feasible and does not adversely impact on recovery from other forms of substance use disorders.

Client surveys at substance use disorder treatment programs across the nation have indicated a strong interest, readiness and willingness to participate in concurrent cigarette smoking cessation treatment (Clarke et al., 2001; Joseph et al., 2004; Reid et al., 2004). Moreover, the effectiveness of cigarette smoking cessation treatment at substance use disorder programs has been examined and documented in several studies over the last decade including a recently completed multi-site study supported by the NIDA-funded National Drug Abuse Treatment Clinical Trials Network. These studies have reported smoking cessation quit rates of 10-15% at the end of treatment (see Prochaska et al., 2004) that, while somewhat lower than in the general public, demonstrate a clinically significant endpoint well worth pursuing. Concomitant with this, evidence for greatly reduced smoking in the non-abstainers has been found. The addition of cognitive behavioral, relapse prevention, and mood management counseling with the smoking cessation medication regimen (nearly all studies employed nicotine patches) has been shown to enhance the smoking quit rates in drug and alcohol dependent patients (Burling et al., 2001; Shoptaw et al., 2002; Garati et al., 2002).

### **Compliance and retention challenges**

Substance use disorder treatment client compliance and retention in smoking cessation treatment is often a significant challenge, indicating the need to specially tailor smoking treatment for clients enrolled in substance use disorder treatment programs. Previous smoking cessation studies were primarily done in residential and inpatient treatment settings or at methadone maintenance programs. Recent efforts to investigate smoking cessation treatment in community-based outpatient treatment programs are ongoing, and preliminary evidence suggests that older patients, and those in methadone programs, are more interested and motivated to participate in smoking cessation treatment (Clarke et al., 2001; Reid et al., 2004).

The effect of smoking cessation treatment does not appear to be detrimental to substance use disorder treatment outcomes. There is no evidence that drug use disorder severity increases for clients involved in concurrent smoking cessation treatment. In fact, participants that are smoke-free during treatment and at follow-up are nearly twice as likely to have drug-free urine samples than those that are smoking (Shoptaw et al., 2002; Lemon et al., 2003). On the other hand, results with smoking cessation treatment in alcoholic patients have been mixed. A pair of earlier studies found higher abstinence, and lower relapse rates with alcoholic patients given smoking cessation treatment in an inpatient setting (Kalman et al., 2001, Burling et al., 2001). However, a recent multi-site study including numerous outpatient programs found relapse rates were higher in alcoholic patients assigned to concurrent smoking cessation treatment when compared with patients whose smoking cessation treatment was delayed (Joseph et al., 2004). These findings highlight the need to closely monitor the effects of smoking cessation treatment upon alcoholics enrolled in substance use disorder treatment programs.

In terms of substance use disorder treatment compliance, there is no evidence for reduced substance abuse rehabilitation treatment attendance, or greater dropout rates, for patients enrolled in smoking cessation treatment. In fact, some residential treatment programs have reported greater retention among clients that were assigned to receive smoking cessation treatment.

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## Success requires leadership commitment

Successful implementation of a smoking cessation treatment program begins with a commitment from program leadership that the implementation is worth the effort. Providing leadership with the information regarding the enormous health burden imposed by tobacco use, the large numbers of nicotine dependent people in substance use disorder treatment, and encouraging data on the effectiveness of interventions in this population should assist in gaining their support to implement smoking cessation programs. More challenging is securing a commitment from clinical staff. A good starting point in this process is to focus on what the clinical staff perceive as barriers to implementation of a tobacco cessation program. Leadership should anticipate common objections, as described above, from line clinical staff and be prepared to answer them. A discussion of these objections, bolstered by research that counters these objections, is an excellent and appropriate starting point for staff education. This is also a good time for program leadership to facilitate treatment for staff members who are nicotine dependent. Staff members should be encouraged to stop their own tobacco use to improve their own health and because research has shown that smoking status of staff may adversely influence treatment outcomes for nicotine dependent patients.

An implementation team including interested management and clinical staff should be formed. Tasks for this team include developing policies for a smoke-free treatment environment, developing protocols to screen and diagnose patients, and developing treatment protocols. Excellent evidence-based resources for smoking cessation are available from the departments of health in New Jersey, New York and Pennsylvania. Implementation of treatment protocols will be aided by keeping the protocols simple and compatible with other clinical practices. The implementation team also should decide on a limited number of the best staff training and patient education materials to disseminate.

Research has shown that important elements in successful implementation of any new intervention are performance feedback for those trying to adopt the new intervention and ongoing technical assistance to improve performance. A good way to approach this is to incorporate smoking cessation treatment into the program's set of performance improvement measures. Examples of potential indicators include: identification and tracking of patients who smoke; evidence-based treatment planning for identified patients; and outcomes for treated patients. The implementation team will then have the opportunity to refine processes, revise protocols, and provide more education when performance problems are identified.

**“ Implementation of an effective smoking cessation program will not be a quick or easy process. However, the process can be illuminating and enjoyable, and the effort expended is well spent for our patients.”**



# RESOURCES & FURTHER READING:

*Tobacco Use and Dependence - Clinical Practice Guideline.* US Department of Health and Human Services (USDHHS) 2000, Washington, DC.

*Drug-Free is Nicotine-Free: A Manual for Chemical Dependency Treatment Programs.* Addressing Tobacco Project, UMDNJ-School of Public Health., New Brunswick, NJ ATPProject@aol.com.

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