

## Management of Adults Recovering From Alcohol or Other Drug Problems

### Relapse Prevention in Primary Care

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Patients recovering from substance use disorders are commonly seen in the primary care setting, and relapse is a serious long-term problem for these patients. Extrapolating from therapeutic strategies effective in specialty addiction treatment settings, this article outlines a practical approach to relapse prevention in the primary care setting. Working within a supportive patient-physician relationship, the primary care physician can help recovering patients decrease their susceptibility to relapse, recognize and manage high-risk situations, and use available self-help, pharmacological, and specialty resources. Drawing on the therapeutic relationship and skills they already possess, primary care physicians can have an important, productive, and satisfying role in the long-term management of patients in recovery from alcohol or other drug problems.

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RELAPSE, a return to the use of alcohol or other drugs, is a serious problem for patients recovering from substance use disorders. Despite the effectiveness of addiction treatment for initiating recovery, only 20% to 50% of patients remain abstinent during the first year.<sup>1,2</sup> Specialty aftercare may lessen relapse, but addiction treatment duration and access to aftercare have decreased in recent years, resulting in earlier return of recovering patients to the care of their primary care practitioners.<sup>3</sup> Primary care physicians are poorly prepared for the long-term management of patients with substance use problems.<sup>4,5</sup> To help these patients avoid relapse, generalist physicians need skills in the support and maintenance of recovery.

Consensus statements recommend that primary care physicians routinely screen all patients for substance use disorders.<sup>6-8</sup> Recent publications provide the primary care physician with brief, effective approaches to motivate patients to recognize and address their substance use problems.<sup>9-12</sup> Based on the theoretical model of the stages of behavioral change, these approaches are designed for the management of patients with current, active substance use problems who either do not recognize the problem (ie, the precontemplation stage) or are considering change (ie, the contemplation stage), but provide little

guidance about how to work with patients who have stopped using alcohol or other drugs (ie, the maintenance stage).<sup>13</sup>

This article focuses on the care of patients in recovery from substance use disorders. For primary care physicians aware of their recovering patients' struggles, we outline a practical approach to the support of a substance-free lifestyle. Our discussion centers on patients who are early in recovery and at highest risk for relapse, although many of these principles also apply to longer-term recovery.

#### RELAPSE PREVENTION IN PRIMARY CARE

The primary care physician, with a continuous, comprehensive, patient-centered, and longitudinal approach to medical and psychosocial issues, is ideally positioned to support recovery.<sup>14</sup> As with other chronic diseases, the primary care physician can monitor the patient's progress over many years, provide continuity care, and coordinate specialty referrals as appropriate. Other skills required for relapse prevention, such as building a therapeutic relationship, taking a thorough history, maintaining a nonjudgmental attitude, communicating with empathy, reinforcing positive behavioral change, and working with families, are also familiar to primary care practitioners.

Although the effectiveness of relapse prevention in primary care is unknown, studies have shown that physician management of patients' addiction problems produces considerable benefits.<sup>15-18</sup> Furthermore, physicians can adapt to the primary care setting a menu of relapse prevention strategies that are effective in specialty settings (Table 1).<sup>19-24</sup> It is not feasible for the busy clinician to use all of these strategies at every visit. Instead, the primary care physician can choose from these options to tailor an approach to the individual patient in the context of a long-term continuity relationship. Five to 10 minutes of physician counseling on multiple visits is more effective than no counseling, and may be as effective as more intensive approaches.<sup>9,18</sup> For patients with limited access to specialty aftercare, physician involvement (even if time-constrained) and 12-step meetings may be the only available options.

#### IDENTIFY PATIENTS IN RECOVERY

More than 20% of adults in primary care settings have a past or current substance use disorder, and many physicians are unaware of their patients' substance use histories.<sup>25,26</sup> Of patients with a history of alcohol abuse or other drug problems, patients in recovery are the majority seen in the primary care set-

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Table 1.—Relapse Prevention Strategies in the Primary Care Setting

Identify patients in recovery
Establish a supportive patient-physician relationship
Schedule regular follow-up
Mobilize family support
Facilitate involvement in 12-step recovery groups
Help recovering patients recognize and cope with relapse precipitants and craving
Advise recovering patients to develop a plan to manage early relapse
Facilitate positive lifestyle changes
Manage depression, anxiety, and other comorbid conditions
Consider adjunctive pharmacotherapy
Collaborate with addiction specialty professionals

ting.<sup>27,28</sup> These patients may have achieved abstinence through completion of an addiction treatment program, attendance at a self-help program, or on their own.<sup>29</sup> The clinical examination may provide some clues (eg, spider nevi, scars from needle tracks) to the history of substance use problems, but it is not a substitute for nonjudgmental, direct questioning. When asked if they use alcohol or other drugs, recovering patients may deny use whether they stopped use a week ago or a year ago. Thus, it is essential to routinely use screening questions (eg, the CAGE questionnaire) that identify lifetime problems, and ask all patients who do not drink alcohol why they do not partake.<sup>11</sup>

### ESTABLISH A SUPPORTIVE PATIENT-PHYSICIAN RELATIONSHIP

A supportive, nonjudgmental patient-physician relationship is especially important to the care of patients with substance use problems. Because many of these patients have had negative interactions with the health system, they are often guarded and quick to sense disrespect from health care professionals. In such cases, there may not be a second chance before the patient is lost to follow-up. Interview style may be more important than interview content. The physician should convey concern, empathy, and respect by using open-ended questions, listening, and repeating the patient's words and ideas so he or she knows the physician has listened (reflective listening).<sup>12</sup> Affirmation of the patient's positive statements and modest successes (eg, arriving at the appointment, duration of abstinence, challenges that have been overcome, improvements in health, positive lifestyle changes) will build both the therapeutic relationship and the patient's self-esteem more effectively than directive advice-giving.<sup>30</sup>

The physician also should assess and take seriously the patient's agenda.<sup>30</sup> Failure of the physician to take seriously the patient's complaints or dismissing complaints as substance-related can be major barriers to building trust between the patient and the physician. However, a patient-centered approach does not preclude the possibility of disagreement; on the contrary, this approach can make confrontation more effective. For example, if the physician believes a behavior or situation places the recovering patient at high risk for relapse, that concern should be stated directly. If the patient disagrees, management should be negotiated with the same concern used in addressing patients with coronary artery disease who resist changing a sedentary lifestyle. In both cases, judgmental approaches produce no clinical benefit and may alienate the patient. In a supportive, ongoing relationship, future interactions hold the possibility of helping the resistant patient recognize and address risky behaviors.

### SCHEDULE REGULAR FOLLOW-UP

The primary care physician should explain that addiction is a chronic disorder that requires regularly scheduled follow-up.

After establishing clearly that the patient-physician relationship does not depend on abstinence, the physician should ask the patient periodically about substance use and drug craving, even if only briefly, in the same way that a hypertensive patient is asked about salt intake.<sup>31</sup> Such nonjudgmental questioning should take the form of "seeing how things are going," acknowledging the patient's efforts, and supporting self-efficacy. Time permitting, further reflective listening might feed back to the patient improvements in the familial, social, legal, emotional, and health dimensions.<sup>12</sup> The physician also might consider monitoring serum  $\gamma$ -glutamyltransferase levels in patients with alcohol-related liver dysfunction to demonstrate improvement in health.<sup>15</sup> Because a missed follow-up visit may be a sign of relapse, the physician or a member of the primary care team should contact the patient after a missed appointment, express concern, and reschedule the appointment for as soon as possible.

### MOBILIZE FAMILY SUPPORT

Family support can influence recovery.<sup>21,32</sup> Spouses, partners, and families should be referred to AlAnon, Alateen, NarcAnon, or other groups for family members of addicted persons to obtain education about their supportive role in recovery and prevent destructive enabling relationships. The physician should be alert for family dynamics that may be detrimental to recovery.<sup>33</sup> In a private interview, women should be asked about partner violence, with inquiries about safety and appropriate referral.<sup>34,35</sup> The physician should inquire whether anyone else in the home or local family has problems with alcohol or other drugs. A family member with an active substance use problem puts the patient at risk for relapse, and the patient should be encouraged to keep a distance from that person, if possible. Conversely, the patient can turn to recovering family members as sources of support and education. The physician also should recognize that family members who have endured an addicted person's manipulations might feel resentful when the patient starts to develop a positive self-image. Such feelings can lead a family member to jeopardize the patient's recovery. If the physician detects detrimental family dynamics, a referral for family therapy is indicated and has been shown to be effective.<sup>21</sup>

### FACILITATE INVOLVEMENT IN 12-STEP RECOVERY GROUPS

Twelve-step fellowships such as Alcoholics Anonymous, Narcotics Anonymous, and Cocaine Anonymous are the most cost-effective and widely available form of long-term support for patients recovering from alcohol and drug problems.<sup>36</sup> Since one of the most difficult tasks of recovery is breaking loose from friends who use alcohol or other drugs, 12-step recovery groups, in addition to focusing the addicted person on the personal changes necessary for sustained recovery, help establish new substance-free social networks. By clearly stating the benefit of these groups and recommending regular attendance, the primary care physician can have an influential role in facilitating recovering patients' involvement. Recent data support the effectiveness of individualized 12-step facilitation as a maintenance strategy.<sup>20</sup>

The physician should underscore concepts important to recovery that the patient will hear in support-group meetings. For instance, in early recovery, 12-step recovery groups encourage the addicted person to "keep it simple": attend meetings daily, begin work on the initial steps, find a home group, and identify a sponsor. The physician should encourage the patient to attend 90 meetings in 90 days ("make the 90 in 90"),

to begin reading recommended materials, and to start “working the steps.”<sup>37-40</sup> The 12 steps are guidelines to the personal changes necessary for recovery. The steps move the recovering person from initial acceptance of the diagnosis through self-exploration and on to translating self-knowledge into action.<sup>41</sup> The interested physician is urged to ask patients in 12-step recovery groups about their experiences, to attend open meetings to talk with participants and observe the proceedings, and to read materials available at libraries or through the World Wide Web at <http://www.casti.com/aa/>.

The physician should encourage the patient to look for a home group in which he or she feels comfortable, and in which there are people with whom he or she could become friends. The patient should be told that every group is different and encouraged to try different groups until one feels right. If a patient resists going to meetings, the physician should explore motivation and attitudes toward recovery.<sup>9,12</sup> Nonetheless, some patients genuinely take issue with 12-step recovery groups, and typically complain that they do not like the religiosity of traditional 12-step recovery groups, that they cannot tolerate the cigarette smoke, or that their substance use problem is not severe enough to warrant joining a 12-step recovery group. The physician should have appropriate responses for reluctant patients. All patients should be urged to derive from the group the ideas and support that he or she thinks will aid recovery and to discard unhelpful aspects (“take what you need and leave the rest”). The physician should urge patients who object to the religiosity to seek out a 12-step group that has a less overtly spiritual tone, Rational Recovery, or another “secular” recovery group. Patients who object to smoking should be directed to find nonsmoking meetings. Patients also should be reminded to accept advice on faith that it will make sense eventually (“fake it till you make it”).

The physician should specifically support a recovering patient’s search for a sponsor.<sup>42</sup> The sponsor, a member of the 12-step recovery group who has successfully completed at least 1 full year of abstinence, is the patient’s role model, and serves as an informal guide to the program. The sponsor will support recovery and confront behavior indicative of imminent relapse. The sponsor should be of the same sex as the patient (or the opposite sex of a homosexual patient) and the same age or older. Until a permanent sponsor is found, the physician should urge the patient to identify a temporary sponsor who can be contacted in the event of a strong desire for substance use, at the earliest sign of relapse, or if negative feelings arise. If the patient has difficulty finding a sponsor, he or she should continue to attend meetings, wait to make an announcement, and simply state that he or she needs a sponsor. Shy individuals should be encouraged to arrive early, stay late, and let people know they are looking for a sponsor.

At every visit the physician should inquire in a nonjudgmental manner about the number of meetings per week the patient is attending, whether the patient is actively participating in the meetings, and whether the patient is maintaining contact with his or her sponsor. A sudden drop-off in meeting attendance, lack of participation, or loss of contact with the sponsor are possible signs of relapse. Concern for such signs should be expressed in a direct, empathic manner.

Although they are helpful for many recovering people, 12-step recovery groups are not for everyone. For example, recent research suggests that patients with alcohol problems but not dependence might benefit more from cognitive-behavioral

aftercare.<sup>43</sup> The physician should reassure all patients that support group involvement, although recommended, is neither a prerequisite to continuing the patient-physician relationship nor the only path to recovery.

#### **HELP RECOVERING PATIENTS RECOGNIZE AND COPE WITH RELAPSE PRECIPITANTS AND CRAVING**

Relapse is a process in which the return to substance use results from a series of maladaptive responses to stressors or stimuli.<sup>44</sup> The initial return to use results when the addicted person inadequately copes with emotions, situations, or cues that create craving, which is an inner need or desire for the substance. Research suggests that the predominant precipitants are negative affective states such as frustration, anger, fatigue, boredom, or stress; family conflict such as marital fights; social pressure such as at parties and in bars; and social isolation.<sup>45,46</sup> Twelve-step recovery groups use the acronym “HALT: don’t get hungry, angry, lonely, or tired” to warn members about affective triggers, and the expression “people, places, and things” to warn about situational triggers.<sup>42</sup> For example, handling cash can trigger craving in many cocaine-dependent people.<sup>47</sup> Sometimes just being in a particular environment or neighborhood, because of its past associations, can cause these feelings. Unconscious decision chains can lead toward relapse, and the patient should recognize and overcome them before entering a familiar tavern or crack house.<sup>44</sup> Other relapse precipitants include negative physical states such as pain, positive emotional states such as elation from a new intimate relationship, excitement or feelings of accomplishment, and testing of personal control to prove the ability to, for example, have just one drink.

Primary care physicians should use their listening, assessment, and counseling skills to help recovering patients understand and anticipate their personal affective and situational triggers.<sup>33</sup> For patients with a previous alcohol or drug relapse, discussion of its circumstances will illuminate personal triggers. A patient log of craving, similar to the diabetic patient’s finger-stick glucose log, is another useful tool to help patients recognize their triggers. The log should include times and places where such urges or desires occur, their intensity (on a scale of 1-10), and the coping response.<sup>48</sup>

Early in recovery, avoidance of situations associated with prior substance use is a sensible strategy. Tests of personal control should be specifically discouraged. Because exposure to adversity is universal, the recovering patient’s ability to cope with risky states and situations will determine the success of recovery.<sup>46</sup> Effective didactic methods are available to addiction specialists to help recovering patients develop coping strategies.<sup>49,50</sup> Thus, the physician should strongly advocate completion of both specialty treatment and aftercare.

For patients without access to aftercare, the primary care physician might use counseling, role playing, and appropriate referrals to mental health professionals to help the patient find constructive ways to express anger and frustration, alleviate boredom, see beyond dysphoria, counteract social pressures, and deal with craving. The recovering patient should understand that craving episodes are an uncomfortable but normal part of recovery, may last only minutes or hours, and are nothing which to be ashamed of. After understanding craving for what it is, the patient should talk through it with a sponsor, a supportive family member or friend, the physician or other member of the primary care team, a treatment counselor, or a recovery group hot line. Alternatively, the patient could at-

Table 2.—Adjunctive Pharmacological Agents\*

Substance	Agent	Dose, mg	FDA Approval	Comments
Alcohol	Naltrexone	50-100, by mouth, every day	Yes	Decreases craving. Avoid in patients with liver disease, opioid-tolerant patients, pregnant patients.
	Disulfiram	100-200, by mouth, every day	Yes	Creates a toxic response to alcohol. Many contraindications. <sup>60</sup>
	Acamprosate	1332-1998, by mouth, every day	No	...
Opioids	Naltrexone	50, by mouth, every day	Yes	Antagonist. Can precipitate withdrawal in opioid-tolerant individuals. Use only for highly motivated, closely monitored patients.
	Buprenorphine	8-16, sublingually, every day or every other day	No	Partial agonist/antagonist. Use only in research.
	Methadone	60-120, by mouth, every day	Yes	Use only in licensed maintenance programs.
	Levomethadyl acetate	20-140, by mouth, 3 times per week	Yes	Use only in licensed maintenance programs.

\*Adapted from Saitz and O'Malley<sup>60</sup> and Warner et al.<sup>61</sup>

tend a recovery group meeting or social gathering, or engage in prayer, meditation, exercise, reading, a hobby, or behavioral methods learned in a treatment program.<sup>49</sup>

### ADVISE RECOVERING PATIENTS TO DEVELOP A PLAN TO MANAGE EARLY RELAPSE

Despite their best efforts, many recovering patients will use alcohol or other drugs again. After an initial episode of substance use, the individual who has broken abstinence may experience guilt, shame, or anxiety. These negative feelings can lead to an attitude that there is nothing more to lose, resulting in a return to heavy substance use to assuage the negative feelings.<sup>44</sup> The patient should be urged to see beyond the negative feelings brought on by the initial return to substance use, and understand their potential for harm. The physician should remind the recovering person that recovery is a learning process, and that relapse can provide valuable lessons.

The patient and physician should negotiate an individualized contract of premeditated responses to the initial return to substance use, including limiting use and seeking help immediately. Any return to substance use poses a significant danger to the patient, analogous to suicide risk.<sup>51</sup> Ideally, the primary care physician, the physician on call, or a member of the primary care team should be accessible if a crisis should arise and the patient's sponsor is unavailable. Such patients need prompt evaluation and consideration of referral for specialty addiction treatment.

### FACILITATE POSITIVE LIFESTYLE CHANGES

Although they are not guarantees of abstinence, productive roles and leisure activities reduce the recovering patient's susceptibility to relapse.<sup>23,46</sup> The physician should encourage productive life steps such as finding a job or going to school, and positive personal habits or activities such as exercise, meditation, hobbies, volunteer work, and spending time with family. Aerobic exercise may decrease drug craving.<sup>52</sup> However, the recovering patient should be cautioned that overextending oneself could distract from recovery, cause stress, and paradoxically increase relapse risk.

### MANAGE DEPRESSION, ANXIETY, AND OTHER COMORBID CONDITIONS

Psychiatric disorders and symptoms masked by substance use often become evident in early recovery. Furthermore, depression, anxiety, and other negative emotional states are common precipitants of relapse.<sup>53,54</sup> Physicians should screen for and manage these symptoms in their recovering patients.<sup>46,47,55,56</sup> Because diagnosis and pharmacotherapy of anxiety disorders can be challenging in recovery, psychiatric or addiction medicine consultation is recommended for most recovering patients

who have anxiety symptoms.<sup>56</sup> Depression is also difficult to diagnose definitively in early recovery, but treatment of depressive symptoms with antidepressant medication and counseling improves relapse rates.<sup>57,58</sup> Coordinated, interdisciplinary referral is often critical, especially for recovering patients with chronic pain or serious psychiatric comorbidity.

### CONSIDER ADJUNCTIVE PHARMACOTHERAPY

Craving also can have a neurochemical cause.<sup>59</sup> An increasing number of agents have been identified as pharmacological adjuncts to counseling and supportive therapy (Table 2).<sup>60-62</sup>

Adjunctive medications are an important treatment modality uniquely available to physicians, and their safety profile and low addictive potential make it likely that these agents will find wider use in the future. For example, the opioid antagonist naltrexone has been approved by the Food and Drug Administration (FDA) as an adjunct to the management of alcohol-dependent patients. Two randomized, placebo-controlled trials found that 50 mg of naltrexone administered over a period of 12 weeks decreased craving and increased abstinence rates from approximately 30% to 50%.<sup>60</sup> Preliminary data suggest that use of naltrexone for alcohol dependence with supportive counseling is safe, effective, and feasible in the primary care setting.<sup>63</sup> Pending definitive results, however, naltrexone should be prescribed in conjunction with specialty treatment.

### COLLABORATE WITH ADDICTION SPECIALTY PROFESSIONALS

For patients with substance use disorders, the generalist physician should consult addiction specialists about complicated diagnostic or management issues, or for therapeutic interventions not available in the primary care setting. For example, referral for methadone maintenance, which dampens the reinforcing effect of opioids, should be considered for most heroin-injecting patients.<sup>61,62</sup> Also, effective coping skills training is available in specialty aftercare programs.<sup>49,50</sup> Patients should be reminded to sign authorization for confidential release of information so all members of the treatment team can communicate with each other. The primary care physician should take proactive steps to coordinate and collaborate with addiction treatment professionals to reduce relapse and improve quality of care.

### CONCLUSIONS

The primary care physician can have a central, productive, and satisfying role in the long-term management of patients in recovery from substance use problems. Generalist physicians already possess many of the skills necessary for relapse prevention. Specific recommendations and counseling strategies, extrapolated from therapeutic modalities effective in other

settings, are feasible in the primary care physician's office. Future research should examine the effectiveness and cost of relapse prevention in the primary care setting. Given current knowledge about relapse prevention and the effectiveness of physician involvement with their patients' substance use problems, primary care physicians should begin the important work of supporting, monitoring, and maintaining patients in recovery from alcohol or other drug problems.

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## References

- Hunt WA, Barnett W, Branch LG. Relapse rates in addiction programs. *J Clin Psychol*. 1971;27:455-456.
- O'Brien CP, McLellan AT. Myths about the treatment of addiction. *Lancet*. 1996;347:237-240.
- Larson MJ, Samet JH, McCarty D. Managed care of substance abuse disorders. *Med Clin North Am*. 1997;81:1053-1069.
- Hasin DS, Grant BF, Dufour MG, Endicott J. Alcohol problems increase while physicians' attention declines. *Arch Intern Med*. 1990;150:397-400.
- Saitz R, Mulvey KP, Plough A, Samet JH. Physician unawareness of serious substance abuse. *Am J Drug Alcohol Abuse*. 1997;23:343-354.
- American Society of Addiction Medicine. Public policy statement on screening for addiction in primary care settings. *ASAM News*. 1997;17:17-18.
- Institute of Medicine. *Dispelling the Myths About Addiction*. Washington, DC: National Academy Press; 1997.
- US Preventive Services Task Force. *Guide to Clinical Preventive Services*. 2nd ed. Alexandria, Va: International Medical Publishing; 1996.
- Barnes HN, Samet JH. Brief interventions with substance-abusing patients. *Med Clin North Am*. 1997;81:867-879.
- Samet JH, Rollnick S, Barnes HN. Beyond CAGE: a brief clinical approach after detection of substance abuse. *Arch Intern Med*. 1996;156:2287-2293.
- National Institute on Alcohol Abuse and Alcoholism. *The Physician's Guide to Helping Patients With Alcohol Problems*. Washington, DC: National Institutes of Health; 1995. NIH publication No. 95-3769.
- Miller WR, Rollnick S. *Motivational Interviewing: Preparing People to Change Addictive Behavior*. New York, NY: Guilford Press; 1991.
- Prochaska JO, DiClemente CC, Norcross JC. In search of how people change: applications to addictive behaviors. *Am Psychol*. 1992;47:1102-1114.
- Kimball HR, Young PR. Statement on the generalist physician from the American Boards of Family Practice and Internal Medicine. *JAMA*. 1994;271:315-316.
- Kristenson H, Ohlin H, Hulten-Nosslin MB, Trell E, Hood B. Identification and intervention of heavy drinking in middle-aged men. *Alcohol Clin Exp Res*. 1983;7:203-209.
- Fleming MF, Barry KL, Manwell LB, Johnson K, London R. Brief physician advice for problem alcohol drinkers. *JAMA*. 1997;277:1039-1045.
- World Health Organization Study Group. A cross-national trial of brief interventions with heavy drinkers. *Am J Public Health*. 1996;86:948-955.
- Wilk AI, Jensen NM, Havighurst TC. Meta-analysis of randomized control trials addressing brief interventions in heavy alcohol drinkers. *J Gen Intern Med*. 1997;12:274-283.
- Colletti G, Supnick JA. Continued therapist contact as a maintenance strategy for smoking reduction. *J Consult Clin Psychol*. 1980;48:665-667.
- Project MATCH Research Group. Matching alcoholism treatments to client heterogeneity. *J Stud Alcohol*. 1997;58:7-29.
- O'Farrell TJ, ed. *Treating Alcohol Problems: Marital and Family Interventions*. New York, NY: Guilford Press; 1993.
- McAuliffe WE. A randomized controlled trial of recovery training and self-help for opioid addicts in New England and Hong Kong. *J Psychoactive Drugs*. 1990;22:197-209.
- Hawkins DJ, Catalano RF. Aftercare in drug abuse treatment. *Int J Addict*. 1985;20:917-945.
- Carroll KM. Relapse prevention as a psychosocial treatment approach: a review of controlled clinical trials. *Exp Clin Psychopharmacol*. 1996;4:46-54.
- Robins LN, Helzer JE, Weissman MM, et al. Lifetime prevalence of specific psychiatric disorders in three sites. *Arch Gen Psychiatry*. 1984;41:949-958.
- Buchsbaum DG, Welsh J, Buchanan RG, Elswick RK. Screening for drinking problems by patients' self-report. *Arch Intern Med*. 1995;155:104-108.
- O'Connor PG, Samet JH. Prevalence and assessment of readiness for behavioral change of illicit drug use among primary care patients [abstract]. *J Gen Intern Med*. 1996;11(suppl):53.
- Samet JH, Vega M, Nuciforo S, Williams C. Assessment of readiness for behavioral change of substance abusers in primary care [abstract]. *J Gen Intern Med*. 1995;10(suppl):48.
- Sobell LC, Cunningham JA, Sobell MB. Recovery from alcohol problems with and without treatment. *Am J Public Health*. 1996;86:966-972.
- Barnes HN. Addiction, psychotherapy, and primary care. *Subst Abuse*. 1995;16:31-38.
- Bigby J. Negotiating treatment and monitoring recovery. In: Barnes HN, Aronson MD, Delbanco TL, eds. *Alcoholism: A Guide for the Primary Care Physician*. New York, NY: Springer-Verlag; 1987:66-72.
- McCarty D, Epstein EE. Theoretical bases of family approaches to substance abuse treatment. In: Rotgers F, Keller D, Morgenstern J, eds. *Treating Substance Abusers: Theory and Technique*. New York, NY: Guilford Press; 1996:117-142.
- Daley DC. Five perspectives on relapse in chemical dependency. In: Daley DC, ed. *Relapse: Conceptual, Research and Clinical Perspectives*. Binghamton, NY: Haworth Press; 1989:3-26.
- Liebschutz JM, Mulvey KP, Samet JH. Victimization among substance-abusing women: worse health outcomes. *Arch Intern Med*. 1997;157:1093-1097.
- Flitcraft AH, Hadley SM, Hendricks-Matthews MK, McLeer SV, Warshaw C. *American Medical Association Diagnostic and Treatment Guidelines on Domestic Violence*. Chicago, Ill: American Medical Association; 1994.
- Hoffmann NG, DeHart SS. *Committee on Benefits Project: Working Toward Clinically Effective and Cost Efficient Treatment*. Providence, RI: National Council on Alcoholism and Drug Dependence and the Brown University Center for Alcohol and Addiction Studies; 1996.
- Alcoholics Anonymous. *Alcoholics Anonymous*. 3rd ed. New York, NY: Alcoholics Anonymous World Services; 1975.
- Alcoholics Anonymous. *Living Sober*. New York, NY: Alcoholics Anonymous World Services; 1975.
- Alcoholics Anonymous. *Twelve Steps and Twelve Traditions*. New York, NY: Alcoholics Anonymous World Services; 1952.
- Narcotics Anonymous. *Narcotics Anonymous: Basic Text*. Van Nuys, Calif: Narcotics Anonymous World Services; 1983.
- Kurtz E. Why AA works: the intellectual significance of Alcoholics Anonymous. *J Stud Alcohol*. 1992;43:38-80.
- Nowinski J, Baker S, Carroll K. *Twelve Step Facilitation Therapy Manual: A Clinical Research Guide for Therapists Treating Individuals With Alcohol Abuse or Dependence*. Washington, DC: Superintendent of Documents, US Government Printing Office; 1995. National Institute on Alcohol Abuse and Alcoholism Project MATCH monograph series, vol 1, DHHS publication No. (ADM)94-3722.
- Project MATCH Research Group. Project MATCH secondary a priori hypotheses. *Addiction*. 1997;92:1671-1698.
- Marlatt GA, Gordon JR, eds. *Relapse Prevention: Maintenance Strategies in the Treatment of Addictive Behaviors*. New York, NY: Guilford Press; 1985.
- Miller WR. What is a relapse? *Addiction*. 1996;91(suppl):S15-S27.
- Connors GJ, Longabaugh R, Miller WR. Looking forward and back to relapse: implications for research and practice. *Addiction*. 1996;91(suppl):S191-S196.
- Wallace BC. Psychological and environmental determinants of relapse in crack cocaine smokers. *J Subst Abuse Treat*. 1989;6:95-106.
- Gorski TT, Miller M. *Staying Sober Workbook*. Independence, Mo: Independence Press; 1988.
- DeJong W, Finn P, Grand J, Markoff LS. *Relapse Prevention: Clinical Report Series*. Washington, DC: Superintendent of Documents, US Government Printing Office, National Institute on Drug Abuse; 1994. DHHS publication No. (ADM)93-3845.
- Gorski TT. The CENAPS model of relapse prevention planning. In: Daley DC, ed. *Relapse: Conceptual, Research and Clinical Perspectives*. Binghamton, NY: Haworth Press; 1989:153-169.
- Hirshfeld RMA, Russell JH. Current concepts: assessment and treatment of suicidal patients. *N Engl J Med*. 1997;337:910-915.
- Gorski TT. Relapse: issues and answers. *Addict Recovery*. 1991;3:17-18.
- McLellan AT, Luborsky L, Woody GE, O'Brien CP, Druley KA. Predicting response to alcohol and drug abuse treatments: role of psychiatric severity. *Arch Gen Psychiatry*. 1983;40:620-625.
- Rounsaville BJ, Dolinsky Z, Babor T, Meyer R. Psychopathology as a predictor of treatment outcome in alcoholics. *Arch Gen Psychiatry*. 1987;44:505-513.
- Connors GJ, Maisto SA, Zywiak WH. Understanding relapse in the broader context of post-treatment functioning. *Addiction*. 1996;91(suppl):S173-S190.
- Ziedonis D, Brady K. Dual diagnosis in primary care. *Med Clin North Am*. 1997;81:1017-1036.
- Mason BJ, Kocis JH, Ritvo EC, Cutler RB. A double-blind, placebo-controlled trial of desipramine for primary alcohol dependence stratified on the presence or absence of major depression. *JAMA*. 1996;275:761-767.
- Ziedonis DM, Kosten TR. Depression as a prognostic factor for pharmacological treatment of cocaine dependence. *Psychopharmacol Bull*. 1991;27:337-343.
- Connors GJ, Maisto SA, Donovan DM. Conceptualizations of relapse. *Addiction*. 1996;91(suppl):S5-S13.
- Saitz R, O'Malley SS. Pharmacotherapies for alcohol abuse. *Med Clin North Am*. 1997;81:881-907.
- Warner EA, Kosten TR, O'Connor PG. Pharmacotherapy for opioid and cocaine abuse. *Med Clin North Am*. 1997;81:909-925.
- O'Brien CP. A range of research-based pharmacotherapies for addiction. *Science*. 1997;278:66-70.
- O'Connor PG, Farren CK, Rounsaville BJ, O'Malley SS. A preliminary investigation of the management of alcohol dependence with naltrexone by primary care providers. *Am J Med*. 1997;103:477-482.