

A Primary Care Approach to Substance Misuse

BRAD SHAPIRO, MD; DIANA COFFA, MD; and ELINORE F. McCANCE-KATZ, MD, PhD

University of California, San Francisco, School of Medicine, San Francisco, California

Substance misuse is common among patients in primary care settings. Although it has a substantial health impact, physicians report low levels of preparedness to identify and assist patients with substance use disorders. An effective approach to office-based treatment includes a coherent framework for identifying and managing substance use disorders and specific strategies to promote behavior change. Brief validated screening tools allow rapid and efficient identification of problematic drug use, including prescription medication misuse. After a positive screening, a brief assessment should be performed to stratify patients into three categories: hazardous use, substance abuse, or substance dependence. Patients with hazardous use benefit from brief counseling by a physician. For patients with substance abuse, brief counseling is also indicated, with the addition of more intensive ongoing follow-up and reevaluation. In patients with substance dependence, best practices include a combination of counseling, referral to specialty treatment, and pharmacotherapy (e.g., drug tapering, naltrexone, buprenorphine, methadone). Comorbid mental illness and intimate partner violence are common in patients with substance use disorders. The use of a motivational rather than a confrontational communication style during screening, counseling, and treatment is important to improve patient outcomes. (*Am Fam Physician*. 2013;88(2):113-121. Copyright © 2013 American Academy of Family Physicians.)

CME This clinical content conforms to AAFP criteria for continuing medical education (CME). See CME Quiz on page 95.

Author disclosure: No relevant financial affiliations.

Illicit substance use is common in the general population and among persons presenting for primary care. Forty-seven percent of 12th graders report that they have used an illicit drug in the past year,¹ and 22.5 million persons older than 12 years meet criteria for substance abuse or dependence.² The consequences of illicit substance use include increased morbidity and mortality, loss of productivity, and increased health care costs.³

The most significant recent trend in illicit substance use has been a dramatic increase in the misuse of prescription medications, particularly opioids. Emergency department visits involving misuse or abuse of prescription medications increased 98.4% between 2004 and 2009,⁴ with corresponding dramatic increases in new users, entry into drug treatment, and overdose deaths related to prescription medications.^{2,5,6}

Physicians may feel inadequately prepared to meet the needs of these patients. In the largest study on how primary care physicians address substance use disorders, less than 20% described themselves as very prepared to identify alcoholism or illegal drug use, and

more than 50% of patients with substance use disorders said their primary care physician did nothing to address their substance abuse.⁷

There is increasing recognition of the similarities between substance use disorders and other common chronic illnesses such as hypertension and diabetes mellitus.⁸ Like those illnesses, substance use disorders can be identified early when there have been fewer sequelae and when less intensive treatments can be successful. The purpose of this article is to provide the primary care physician with a practical framework for the management of substance use disorders other than alcohol and nicotine dependence (*Figure 1*).

Screening

The U.S. Preventive Services Task Force recommends screening all patients for alcohol misuse,⁹ but has determined that there is currently insufficient evidence to recommend screening for other substance use disorders.¹⁰ Despite the lack of evidence that screening for substance use disorders improves outcomes, universal screening may be justified based on the high prevalence and morbidity of substance use and proven effectiveness of

Table 1. Screening Tools for Substance Use Disorders

Single-question screen^{11*}

“How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?”

If clarification of “nonmedical reasons” is needed: “For instance, because of the experience or feeling it caused.”

Drug Abuse Screening Test-10^{12,13†}

1. Have you used drugs other than those required for medical reasons?
2. Do you use more than one drug at a time?
3. Are you always able to stop using drugs when you want to?
4. Have you ever had blackouts or flashbacks as a result of drug use?
5. Do you ever feel bad or guilty about your drug use?
6. Does your spouse (or parents) ever complain about your involvement with drugs?
7. Have you neglected your family because of your use of drugs?
8. Have you engaged in illegal activities to obtain drugs?
9. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?
10. Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding)?

*—Sensitivity for substance use disorder = 90% to 100%; specificity = 74%.

†—Scoring: give one point for each “yes” answer, except question 3, which is one point for “no.” 0 points = low risk; 1 to 3 points = moderate risk, monitor and reassess patient; more than 3 points = substance abuse or dependence. Sensitivity for substance use disorder = 90% to 100%; specificity = 77%.

Information from references 11 through 13.

treatment. Two brief validated screening tools are presented in *Table 1*.¹¹⁻¹³ The Drug Abuse Screening Test-10 is a self-report instrument that accurately identifies substance abuse and dependence.¹²⁻¹⁴ Experienced physicians may prefer to use a less structured interview to assess the role and impact of substance use and to elicit diagnostic criteria (*Table 2*).¹⁵ Routine urine drug testing is not recommended, but can be used to support a suspected diagnosis, assess for polysubstance use, and monitor treatment response.

Assessment

In patients with positive screening results, substance use should be stratified into hazardous use, substance abuse, or substance dependence. For most substances, even infrequent use is considered hazardous because of potential health consequences, the risk of dependence, and the risk of legal repercussions. However, not all substance use is equally hazardous. Evidence suggests that the use of heroin, methamphetamine, and crack cocaine is associated with an intrinsically high risk of harm to self and others.³ In contrast, the use of ecstasy and marijuana seems to have intrinsically lower (but not negligible) risk of harm, but can still represent a risky choice in the context of young age, genetic predisposition to dependence, unstable social circumstances, heavy use, or impaired coping mechanisms. Physician judgment is important in determining the appropriate intervention or advice regarding hazardous substance use.

Counseling

Brief counseling is indicated for patients with hazardous substance use or substance abuse. Patients with substance dependence require more intensive treatment.

HAZARDOUS USE

Patients with hazardous substance use may benefit from brief counseling by a physician. Counseling using a motivational interviewing approach in the clinical setting has been shown to decrease the quantity and frequency of drug and alcohol use.¹⁶⁻¹⁸ During counseling, the physician elicits the patient’s

Assessment and Treatment of Substance Misuse

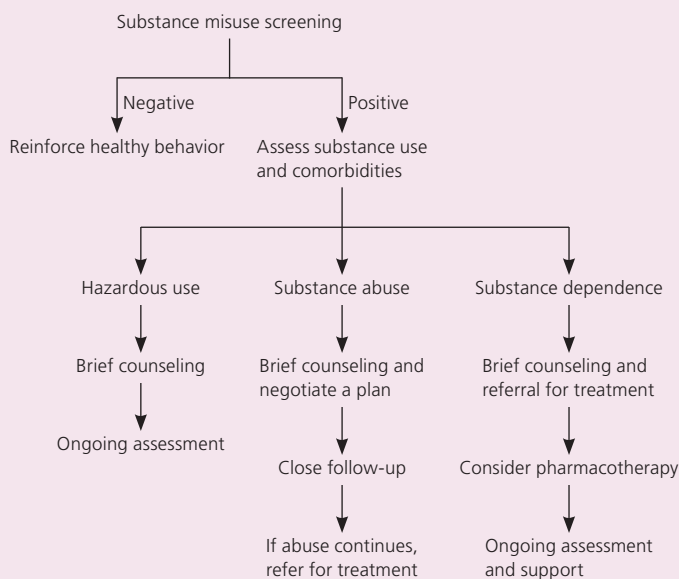


Figure 1. Algorithm for management of substance misuse in primary care.

Table 2. Diagnostic Criteria for Substance Abuse and Dependence

Criteria for substance abuse

- A. A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:
1. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household)
 2. Recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use)
 3. Recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct)
 4. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights)
- B. The symptoms have never met the criteria for substance dependence for this class of substance.

Criteria for substance dependence

- A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring any time in the same 12-month period:
1. Tolerance, as defined by either of the following:
 - a. A need for markedly increased amounts of the substance to achieve intoxication or the desired effect
 - b. Markedly diminished effect with continued use of the same amount of the substance
 2. Withdrawal, as manifested by either of the following:
 - a. The characteristic withdrawal syndrome for the substance (refer to criteria A and B of the criteria sets for withdrawal from the specific substances)
 - b. The same (or closely related) substance is taken to relieve or avoid withdrawal symptoms
 3. The substance is often taken in larger amounts or over a longer period than intended
 4. There is a persistent desire or unsuccessful efforts to cut down or control substance use
 5. A great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance (e.g., chain-smoking), or recover from its effects
 6. Important social, occupational, or recreational activities are given up or reduced because of substance use
 7. The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption)

Reprinted with permission from American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed., text revision. Washington, DC: American Psychiatric Association; 2000:197, 199.

own reasons for change, rather than telling the patient why he or she should change. Confronting or pushing the patient to change is usually not successful and can decrease motivation for change.¹⁹ Helpful communication strategies for discussing behavior change are illustrated in *Table 3*, including the “elicit-provide-elicite” technique, which is a useful approach for providing information or advice.¹⁹

SUBSTANCE ABUSE

Substance abuse is characterized by the development of consequences from substance use, and these consequences can serve as motivators for change. The primary care physician can be instrumental in increasing motivation, but should be prepared for patients’ feelings of defensiveness, ambivalence, guilt, shame, and lack of concern about their substance use. Principles and techniques derived from motivational interviewing can be used to manage resistance and increase readiness to change.

For patients with substance abuse, experts generally recommend advising abstinence. For patients who are not

committed to abstinence, it is useful to provide a variety of options for change, and harm reduction is an appropriate goal. Harm reduction strategies reduce the negative health consequences of substance use. Common examples include providing clean needles to persons who continue to inject drugs, and not driving while intoxicated. Developing a plan for change is an opportunity for physician-patient collaboration and trust building. If a patient with substance abuse agrees to cut back or quit but is unable to do so, this may indicate a substance dependence disorder.

SUBSTANCE DEPENDENCE

Substance dependence is a chronic relapsing and remitting illness, and patients require a longitudinal, chronic care approach that can include pharmacotherapy, referral to specialty treatment, mutual help meetings, and ongoing counseling and care coordination.

Brief counseling can help an ambivalent patient with substance dependence to enter a treatment program, engage with mutual help meetings, or agree to a trial of pharmacotherapy. Because of the severity of substance

Substance Misuse

dependence disorders and the importance of family support in the recovery process,²⁰ physicians should engage family members in the treatment plan when appropriate and with the patient's consent. Treatment programs that involve families have improved rates of retention and abstinence.²¹⁻²³

Pharmacotherapy

Pharmacologic treatments are available for managing acute withdrawal, reducing or eliminating use, and preventing relapse for a variety of substances, including tobacco, alcohol, benzodiazepines, and opioids. Physicians should not restrict the use of pharmacotherapy only to patients whose goal is abstinence. Reductions in the amount or frequency of drug and alcohol use have important health correlates. For example, even small reductions in alcohol consumption translate into substantial decreases in the risks of cancer, hypertension, and other conditions.²⁴

Three drugs are approved by the U.S. Food and Drug Administration (FDA) for the treatment of opioid dependence. Buprenorphine and naltrexone (Revia) can be prescribed from office-based practices and clinics. Treatment with methadone is restricted to federally regulated narcotic treatment programs.

OPIOID AGONISTS: BUPRENORPHINE AND METHADONE

Buprenorphine is a partial agonist of mu opioid receptors. Formulations approved by the FDA for the treatment of opioid dependence include sublingual buprenorphine and sublingual buprenorphine/naloxone tablets or strips (Suboxone). The naloxone component is poorly absorbed via the sublingual route and is present only to prevent misuse of the medication by crushing and injecting the combined product. Because of this safety feature, buprenorphine/naloxone is the preferred formulation.

Brief treatment periods with rapid medication tapers (medical withdrawal) are associated with high rates of relapse²⁵; therefore, longer-term or maintenance treatment is generally indicated for patients with opioid dependence. Treatment with buprenorphine

Table 3. Motivational Interviewing Principles for Physicians

<i>Principle/technique</i>	<i>Rationale</i>
Resist the righting reflex	Physicians want patients to change or correct unhealthy behaviors. Telling them to do so is a natural reflex, but it can generate resistance in patients. Instead, help them generate their own argument for healthy changes.
Understand the patient's motivations	Patients are more likely to change for reasons that they value highly. By eliciting these reasons, physicians can be more effective.
Listen to the patient	Physicians need to listen to patients to elicit the best path to behavior change.
Empower the patient	Physicians can help patients take an active role in their health care and support self-efficacy.
Elicit-provide-elicited	A nonconfrontational approach to advice or information giving that allows the patient to express his or her feelings about change and assists the physician in assessing readiness for change.
Decision analysis ("pros and cons")	Physicians can help patients make changes by articulating the advantages and disadvantages of the changes.
Reflections	Physicians can identify statements that the patient makes in support of change and reflect them back to the patient, highlighting the patient's reasons for change.
Affirmations	Most patients with substance abuse and dependence feel guilt and shame about their drug use, and may lack confidence that they can make changes. Physicians can promote self-efficacy with honest and meaningful affirmations.

NA = Narcotics Anonymous.

Information from reference 19.

Less effective approach

Physician: "You need to stop using cocaine. It's damaging your heart."
 Patient: "I don't think it's the cocaine. My friends use cocaine too, and they don't have heart problems."

Physician: "Now that you are pregnant, you need to stop abusing pain pills for your developing baby."
 Patient: "I'll do the best I can."

Physician: "I'm going to refer you to a special program for people with addiction to pain pills."
 Patient: "I told you already, drug treatment isn't for me."

Patient: "I almost didn't come in to see you. I just can't stop using cocaine."
 Physician: "Did you go to the NA meetings and see a therapist like we discussed?"

Physician: "Using cocaine can cause heart attacks. You are putting yourself at risk each time you use, and you need to stop."

Physician: "Don't you see that your cocaine use is hurting your whole family?"
 Patient: "What do you know about my family?"

Patient: "I don't want to be using cocaine when I'm 80. That would be crazy."
 Physician: "So why don't you stop?"
 Patient: "I'm just not ready yet, OK?"

Patient: "I can't believe I relapsed again. It's so frustrating."
 Physician: "You've just got to get up and try again."

More effective approach

Physician: "How does it feel when you hear that cocaine may be causing your chest pain?"
 Patient: "I don't know what to think about it, but it's got me thinking."

Physician: "Is there anything about your use of pain pills that you are concerned about?"
 Patient: "Yes, my husband told me he would leave me if I started taking pain pills again."

Physician: "We talked a little about some possible treatment options, but I'm interested in hearing what you think would work for you."
 Patient: "I won't go to drug treatment, but if there is a medicine I could take that would help me stop, I would do that. Also I used to go to NA, and that seemed to help."

Patient: "I almost didn't come in to see you. I just can't stop using cocaine."
 Physician: "Quitting cocaine is difficult for most people, and I've been impressed by how hard you have worked to cut back."

Elicit knowledge and opinions:

Physician: "What do you know about how cocaine affects your health?"
 Patient: "Well, some people get holes in their noses, but I don't use that much, so I don't think it's affecting me."

Provide tailored information and advice:

Physician: "I'm glad you haven't used enough to have that problem. You might be surprised to know that even small amounts of cocaine increase your risk of heart attack, stroke, and high blood pressure. Sometimes people have heart attacks from using cocaine just one time."

Elicit response and feelings:

Physician: "How does that new information strike you?"
 Patient: "I don't know. I guess it might be more dangerous than I thought."

Physician: "What do you like about using cocaine?"
 Patient: "It lets me forget all the things that are bothering me, and it gives me energy to get things done."
 Physician: "And what do you not like about cocaine use? What makes you think about stopping?"
 Patient: "I don't want my kids to see me high, and it's definitely starting to get in the way of work. I'll have to stop someday or it will be hard to keep this job."

Patient: "I don't want to be using cocaine when I'm 80. That would be crazy."
 Physician: "You want to stop using cocaine someday."
 Patient: "Yes, I do. I guess the question is when."

Patient: "I can't believe I relapsed again. It's so frustrating."
 Physician: "You're frustrated, but the fact that you came back to talk about it tells me that you're determined. You've quit before, and I'm confident you can do it again."

Substance Misuse

is safe and effective,^{26,27} and many patients can manage the induction period on their own at home.²⁸

Physicians who wish to prescribe buprenorphine for treatment of opioid dependence are required to complete eight hours of training and to obtain a waiver from the Center for Substance Abuse Treatment and Drug Enforcement Administration. Complete information is available at <http://buprenorphine.samhsa.gov>, and support is available from the Physicians' Clinical Support System—Buprenorphine at <http://www.pcspb.org>. Buprenorphine treatment of opioid dependence has been described previously in *American Family Physician* (<http://www.aafp.org/afp/2006/0501/p1573.html>).²⁹

Some patients are not candidates for office-based treatment of opioid dependence, and should be referred to a narcotic treatment program where they can receive methadone pharmacotherapy and counseling services. Methadone maintenance therapy reduces opioid abuse and associated harms.³⁰⁻³² Common indications for referral include comorbid chronic pain that requires opioid therapy, co-occurring alcohol or benzodiazepine abuse, an uncontrolled or unstable psychiatric disorder, or if treatment in the office setting has been ineffective.³³

OPIOID ANTAGONIST: NALTREXONE

Naltrexone is an antagonist of mu opioid receptors and can block the effects of opioid agonists.³⁴ This can prevent the impulsive use of opioids in patients receiving naltrexone, and can provide time for the patient to consider the consequences of relapse and to seek support.

Forty-seven percent of 12th graders report that they have used an illicit drug in the past year.

Naltrexone is available as a 50-mg tablet taken daily or, alternatively, 100 mg on Mondays and Wednesdays, and 150 mg on Fridays. A 380-mg monthly injection (Vivitrol) is in widespread use for treatment of alcohol dependence, and was recently approved by the FDA for treatment of opioid dependence.

Naltrexone has been shown to be helpful in maintaining abstinence from opioids in motivated populations, such as health care professionals who cannot or do not wish to take continuous opioid agonist therapy.³⁵ However, it has had limited success in other groups.³⁶ Naltrexone has been associated with hepatic injury at supratherapeutic doses; therefore, liver function tests at baseline and every three to six months are recommended.³⁷ Naltrexone cannot be used in patients in whom opioids are required for pain control, because it will block pain relief from opioid agonists and cause

precipitated withdrawal in patients who are currently taking opioids. Patients who discontinue treatment are at increased risk of opioid overdose and death resulting from decreased opioid tolerance.³⁸

BENZODIAZEPINE DEPENDENCE

Physicians may attempt a slow taper (usually over months) of benzodiazepines in selected patients with dependence and in whom a reliable history can be obtained about the amount being taken. Patients should be motivated and adherent, and should not have a history of withdrawal seizures or other medical comorbidities.³⁹ Other patients should generally be referred to a specialist, if possible. Risks of tapering benzodiazepines include increased anxiety and depression symptoms, seizures, and altered mental status.⁴⁰

STIMULANT DEPENDENCE

Despite continued research efforts and several potential candidate medications, no pharmacologic treatment for stimulant (e.g., cocaine, methamphetamine) dependence can be recommended for use in the primary care setting.⁴¹ Behavioral therapies have demonstrated effectiveness in the treatment of stimulant dependence.⁴²

Referral

Referral for specialty addiction treatment is recommended for patients with substance dependence disorders. However, primary care physicians with appropriate experience, training, and support can provide some or all of these services. Access to substance abuse treatment is variable, and decisions about where to refer patients must take into account local resources and patient characteristics. *Table 4* provides a list of resources for the most commonly available treatment options.³⁹ Physicians can develop consultation relationships with treatment centers and specialists in their communities to help them determine the appropriate level of care for patients and to facilitate referrals. Patients in specialty addiction treatment benefit from close primary care coordination, particularly regarding prescriptions for controlled substances or other psychoactive medications. Referral for psychiatric or pain management consultation may also be appropriate based on the presentation and response to treatment.

Comorbidities

MENTAL HEALTH

Anxiety disorders, depression, bipolar disorder, post-traumatic stress disorder, and dependent and antisocial personality disorders are more common in patients with substance use disorders (particularly substance depen-

Table 4. Referral Resources for Patients with Substance Use Disorders

<i>Treatment modality</i>	<i>Examples and resources</i>	<i>Appropriate patients</i>	<i>Characteristics</i>
Mutual help meetings	Alcoholics Anonymous (http://www.aa.org) Narcotics Anonymous (http://www.na.org) Rational Recovery (http://www.rational.org) SMART Recovery (http://www.smartrecovery.org)	Patients at any stage of readiness, including ongoing substance use	Usually based on a 12-step model of recovery; peer-led groups that support all stages of recovery; free and available in most communities
Medically supervised withdrawal ("detoxification")	Outpatient or inpatient treatment American Society of Addiction Medicine Physician Finder (http://community.asam.org/search/default.asp?m=basic) Buprenorphine Physician and Treatment Program Locator (http://buprenorphine.samhsa.gov/bwns_locator) SAMHSA Treatment Locator (http://www.findtreatment.samhsa.gov)	Patients with physical dependence on alcohol, opioids, benzodiazepines, barbiturates, and other substances, and who have an associated withdrawal syndrome	A precursor to drug treatment that addresses the acute effects of stopping drug use; inpatient treatment is appropriate for patients at risk of severe withdrawal or with significant comorbid medical and psychiatric conditions; length of treatment is generally days to weeks; patients transition to mutual help meetings or outpatient or residential treatment
Outpatient treatment	Outpatient drug-free treatment, opioid agonist therapy (office-based or drug treatment program), naltrexone therapy American Society of Addiction Medicine Physician Finder (http://community.asam.org/search/default.asp?m=basic) Buprenorphine Physician and Treatment Program Locator (http://buprenorphine.samhsa.gov/bwns_locator) SAMHSA Treatment Locator (http://www.findtreatment.samhsa.gov)	Patients with relatively stable and safe living environments	Services can include group and individual counseling in a variety of modalities, as well as pharmacotherapy; variable intensity and duration of services; some providers have dual diagnosis services; patients can continue to work and participate in family and social life
Residential treatment	Therapeutic community model, short-term residential treatment, 12-step residential treatment, intensive inpatient treatment SAMHSA Treatment Locator (http://www.findtreatment.samhsa.gov)	Patients who need a stable and safe living environment; patients generally have more severe addiction and more comorbidities than those in an outpatient setting, and may be at high risk of relapse, mental health crisis, or behavioral problems	24-hour-per-day care and a stable living environment; longer treatment periods of weeks to months; treatment is more highly structured than outpatient treatment; intensive inpatient treatment provides medically managed care in a general medical or psychiatric hospital

SAMHSA = Substance Abuse and Mental Health Services Administration.
Information from reference 39.

dence disorders).⁴³⁻⁴⁶ The presence of a substance use disorder suggests the need for mental health screening.

Mental health disorders can be primary or secondary (substance induced). Primary disorders generally predate the onset of substance misuse, and symptoms are present during periods of abstinence.⁴¹ Primary comorbid mental health disorders can be treated with standard psychological and pharmacologic therapies.⁴⁷⁻⁴⁹

INTIMATE PARTNER VIOLENCE

Men and women who misuse illicit drugs are at increased risk of being victims and perpetrators of intimate partner violence.^{50,51} Because rates of intimate partner violence

exceed 50% in patients with drug use disorders in some settings,⁵⁰ it is recommended that physicians screen all patients who present with substance use disorders for intimate partner violence.

Although management of intimate partner violence is beyond the scope of this article, perpetration and victimization appear to be decreased by treatment of alcohol use disorders,⁵⁰ suggesting that substance abuse treatment may be an effective intervention.

Follow-up

Although there are no established guidelines, it is reasonable to follow up with patients within four to six

SORT: KEY RECOMMENDATIONS FOR PRACTICE

<i>Clinical recommendation</i>	<i>Evidence rating</i>	<i>References</i>	<i>Comments</i>
Rapid screening for substance misuse or substance use disorders can be performed in the primary care setting with a validated single-question screening tool.	C	11	The U.S. Preventive Services Task Force concludes that there is insufficient evidence to recommend screening for the use of substances other than alcohol and tobacco
Patients with hazardous substance use or substance use disorders may benefit from brief counseling by their primary care physician.	B	16-18	Systematic review for alcohol; randomized controlled trial and before-after study for other substance use
Office-based pharmacotherapy for opioid dependence using buprenorphine is safe and effective.	A	26, 27	Cochrane review and multiple randomized controlled trials
Patients with substance use disorders may benefit from identification and treatment of comorbid psychiatric disorders.	A	44-47	Systematic reviews and randomized controlled trials
Patients with substance use disorders should be routinely screened for intimate partner violence.	C	50, 51	Expert consensus, but no randomized controlled trials

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, go to <http://www.aafp.org/afpsort>.

weeks after identifying risky drug use or a substance use disorder. Because the severity and intensity of drug use may evolve, regular reassessment is indicated. In early recovery, patients are at an increased risk of relapse, and physicians can offer support and reinforce healthy behaviors. Relapse can be a source of shame and guilt for patients. Physicians can help by ensuring that their office is a safe and blame-free place for patients with drug problems, and by adopting a nonjudgmental and welcoming attitude toward patients in the event of relapse.

Data Sources: A PubMed search was completed in Clinical Queries using the key terms SBIRT, substance abuse, screening, buprenorphine, brief intervention, motivational interviewing, treatment, dual diagnosis, intimate partner violence, methadone, hazardous use, risky use, drug abuse, screening tool, and naltrexone. The search included meta-analyses, randomized controlled trials, clinical trials, and reviews. Also searched were the Cochrane database, Essential Evidence Plus, the National Guideline Clearinghouse database, the Drug Abuse Warning Network database, and the Substance Abuse and Mental Health Services Administration's National Survey on Drug Use and Health. Search dates: January 16, 2011; March 23, 2011; and June 20, 2011.

The Authors

BRAD SHAPIRO, MD, is an associate professor of family and community medicine and psychiatry at the University of California, San Francisco, School of Medicine. He is the medical director of the Opiate Treatment Outpatient Program at San Francisco General Hospital.

DIANA COFFA, MD, is an assistant professor of family and community medicine at the University of California, San Francisco, School of Medicine. She is the acting assistant medical director of the Family Health Center at San Francisco General Hospital.

ELINORE F. McCANCE-KATZ, MD, PhD, is a professor of psychiatry at the University of California, San Francisco, School of Medicine. She is the director of addiction medicine research at San Francisco General Hospital and medical director of the California Department of Alcohol and Drug Programs.

Address correspondence to Brad Shapiro, MD, University of California, San Francisco, School of Medicine, 995 Potrero Ave., San Francisco, CA

94110 (e-mail: brad.shapiro@ucsf.edu). Reprints are not available from the authors.

REFERENCES

- Johnston LD, O'Malley PM, Bachman JG, Schulenberg JE. Monitoring the future: national results on adolescent drug use. Overview of key findings, 2008. <http://monitoringthefuture.org/pubs/monographs/overview2008.pdf>. Accessed April 5, 2012.
- U.S. Dept. of Health and Human Services, Substance Abuse and Mental Health Services Administration. Results from the 2009 National Survey on Drug Use and Health: volume I. Summary of national findings. <http://oas.samhsa.gov/nsduh/2k9nsduh/2k9results.pdf>. Accessed April 5, 2012.
- Nutt DJ, King LA, Phillips LD; Independent Scientific Committee on Drugs. Drug harms in the UK: a multicriteria decision analysis. *Lancet*. 2010;376(9752):1558-1565.
- The DAWN report: highlights of the 2009 Drug Abuse Warning Network (DAWN) findings on drug-related emergency department visits. <http://www.samhsa.gov/data/2k10/DAWNSR034EDHighlights/EDHighlightsHTML.pdf>. Accessed April 5, 2012.
- Substance Abuse and Mental Health Services Administration. Treatment episode data set (TEDS): 1998-2008. National admissions to substance abuse treatment services. DASIS Series: S-50. Rockville, Md.: U.S. Dept. of Health and Human Services; 2010. HHS publication no. (SMA) 09-4471.
- Centers for Disease Control and Prevention. Unintentional drug poisoning in the United States. <http://www.cdc.gov/HomeandRecreationalSafety/pdf/poison-issue-brief.pdf>. Accessed April 5, 2012.
- The National Center on Addiction and Substance Abuse at Columbia University. Missed opportunity: national survey of primary care physicians and patients on substance abuse. http://www.casacolumbia.org/templates/publications_reports.aspx. Accessed April 5, 2012.
- McLellan AT, Lewis DC, O'Brien CP, Kleber HD. Drug dependence, a chronic medical illness: implications for treatment, insurance, and outcomes evaluation. *JAMA*. 2000;284(13):1689-1695.
- U.S. Preventive Services Task Force. Screening and behavioral counseling interventions in primary care to reduce alcohol misuse. <http://www.uspreventiveservicestaskforce.org/uspstf/uspstfdrin.htm>. Accessed April 5, 2012.
- U.S. Preventive Services Task Force. Screening for illicit drug use: recommendation statement. <http://www.uspreventiveservicestaskforce.org/uspstf08/druguse/drugs.htm>. Accessed April 5, 2012.
- Smith PC, Schmidt SM, Allensworth-Davies D, Saitz R. A single-question screening test for drug use in primary care. *Arch Intern Med*. 2010; 170(13):1155-1160.

12. Yudko E, Lozhkina O, Fouts A. A comprehensive review of the psychometric properties of the Drug Abuse Screening Test. *J Subst Abuse Treat.* 2007;32(2):189-198.
13. Skinner HA. The drug abuse screening test. *Addict Behav.* 1982;7(4):363-371.
14. Gavin DR, Ross HE, Skinner HA. Diagnostic validity of the drug abuse screening test in the assessment of DSM-III drug disorders. *Br J Addict.* 1989;84(3):301-307.
15. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders.* 4th ed., text revision. Washington, DC: American Psychiatric Association; 2000.
16. Whitlock EP, Polen MR, Green CA, Orleans T, Klein J; U.S. Preventive Services Task Force. Behavioral counseling interventions in primary care to reduce risky/harmful alcohol use by adults: a summary of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med.* 2004;140(7):557-568.
17. Bernstein J, Bernstein E, Tassiopoulos K, Heeren T, Levenson S, Hingson R. Brief motivational intervention at a clinic visit reduces cocaine and heroin use. *Drug Alcohol Depend.* 2005;77(1):49-59.
18. Madras BK, Compton WM, Avula D, Stegbauer T, Stein JB, Clark HW. Screening, brief interventions, referral to treatment (SBIRT) for illicit drug and alcohol use at multiple healthcare sites: comparison at intake and 6 months later. *Drug Alcohol Depend.* 2009;99(1-3):280-295.
19. Rollnick S, Miller WR, Butler C. *Motivational Interviewing in Health Care: Helping Patients Change Behavior.* New York, NY: Guilford Press; 2008:6-7.
20. U.S. Dept. of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment. Substance abuse treatment and family therapy: a treatment improvement protocol TIP 39. http://www.naabt.org/documents/TIP_39.pdf. Accessed April 5, 2012.
21. Stanton MD, Shadish WR. Outcome, attrition, and family-couples treatment for drug abuse: a meta-analysis and review of the controlled, comparative studies. *Psychol Bull.* 1997;122(2):170-191.
22. Diamond GS, Serrano AC, Dickey M, Sonis WA. Current status of family-based outcome and process research. *J Am Acad Child Adolesc Psychiatry.* 1996;35(1):6-16.
23. Henderson CE, Dakof GA, Greenbaum PE, Liddle HA. Effectiveness of multidimensional family therapy with higher severity substance-abusing adolescents: report from two randomized controlled trials. *J Consult Clin Psychol.* 2010;78(6):885-897.
24. Corrao G, Bagnardi V, Zambon A, La Vecchia C. A meta-analysis of alcohol consumption and the risk of 15 diseases. *Prev Med.* 2004;38(5):613-619.
25. Horspool MJ, Seivewright N, Armitage CJ, Mathers N. Post-treatment outcomes of buprenorphine detoxification in community settings: a systematic review. *Eur Addict Res.* 2008;14(4):179-185.
26. Ling W, Wesson DR. Clinical efficacy of buprenorphine: comparisons to methadone and placebo. *Drug Alcohol Depend.* 2003;70(2 suppl):S49-S57.
27. Mattick RP, Kimber J, Breen C, Davoli M. Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. *Cochrane Database Syst Rev.* 2008;(2):CD002207.
28. Lee JD, Grossman E, DiRocco D, Gourevitch MN. Home buprenorphine/naloxone induction in primary care. *J Gen Intern Med.* 2009;24(2):226-232.
29. Donaher PA, Welsh C. Managing opioid addiction with buprenorphine. *Am Fam Physician.* 2006;73(9):1573-1578.
30. Sees KL, Delucchi KL, Masson C, et al. Methadone maintenance vs 180-day psychosocially enriched detoxification for treatment of opioid dependence: a randomized controlled trial. *JAMA.* 2000;283(10):1303-1310.
31. Zanis DA, Woody GE. One-year mortality rates following methadone treatment discharge. *Drug Alcohol Depend.* 1998;52(3):257-260.
32. Metzger DS, Woody GE, McLellan AT, et al. Human immunodeficiency virus seroconversion among intravenous drug users in- and out-of-treatment: an 18-month prospective follow-up. *J Acquir Immune Defic Syndr.* 1993;6(9):1049-1056.
33. U.S. Dept. of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment. Clinical guidelines for the use of buprenorphine in the treatment of opioid addiction: a treatment improvement protocol TIP 40. http://buprenorphine.samhsa.gov/Bup_Guidelines.pdf. Accessed April 5, 2012.
34. McCance-Katz EF, Kosten TR. Psychopharmacological treatments. In: Frances RJ, Miller SI, Mack AH, eds. *Clinical Textbook of Addictive Disorders.* 3rd ed. New York, NY: Guilford Press; 2005:588-614.
35. Ling W, Wesson DR. Naltrexone treatment for addicted health-care professionals: a collaborative private practice experience. *J Clin Psychiatry.* 1984;45(9 pt 2):46-48.
36. Coviello DM, Cornish JW, Lynch KG, Alterman AI, O'Brien CP. A randomized trial of oral naltrexone for treating opioid-dependent offenders. *Am J Addict.* 2010;19(5):422-432.
37. U.S. Dept. of Veterans Affairs. Clinical practice guideline: management of substance use disorder (SUD), 2009. http://www.healthquality.va.gov/Substance_Use_Disorder_SUD.asp. Accessed April 5, 2012.
38. Miotto K, McCann MJ, Rawson RA, Froesch D, Ling W. Overdose, suicide attempts and death among a cohort of naltrexone-treated opioid addicts. *Drug Alcohol Depend.* 1997;45(1-2):131-134.
39. Ries RK, Miller SC, Fiellin DA, Saitz R. *Principles of Addiction Medicine.* 4th ed. Philadelphia, Pa.: Lippincott Williams & Wilkins; 2009.
40. Lader M, Tylee A, Donoghue J. Withdrawing benzodiazepines in primary care. *CNS Drugs.* 2009;23(1):19-34.
41. Ciccarone D. Stimulant abuse: pharmacology, cocaine, methamphetamine, treatment, attempts at pharmacotherapy. *Prim Care.* 2011;38(1):41-58, v-vi.
42. Huber A, Ling W, Shoptaw S, Gulati V, Brethen P, Rawson R. Integrating treatments for methamphetamine abuse: a psychosocial perspective. *J Addict Dis.* 1997;16(4):41-50.
43. Mertens JR, Lu YW, Parthasarathy S, Moore C, Weisner CM. Medical and psychiatric conditions of alcohol and drug treatment patients in an HMO: comparison with matched controls. *Arch Intern Med.* 2003;163(20):2511-2517.
44. Compton WM III, Cottler LB, Ben Abdallah A, Phelps DL, Spitznagel EL, Horton JC. Substance dependence and other psychiatric disorders among drug dependent subjects: race and gender correlates. *Am J Addict.* 2000;9(2):113-125.
45. Compton WM, Thomas YF, Stinson FS, Grant BF. Prevalence, correlates, disability, and comorbidity of DSM-IV drug abuse and dependence in the United States: results from the national epidemiologic survey on alcohol and related conditions. *Arch Gen Psychiatry.* 2007;64(5):566-576.
46. Reynolds M, Mezery M, Wheeler M, Drummond C, Baldacchino A. Co-morbid post-traumatic stress disorder in a substance misusing clinical population. *Drug Alcohol Depend.* 2005;77(3):251-258.
47. Tiet QQ, Mausbach B. Treatments for patients with dual diagnosis: a review. *Alcohol Clin Exp Res.* 2007;31(4):513-536.
48. Davis L, Uezato A, Newell JM, Frazier E. Major depression and comorbid substance use disorders. *Curr Opin Psychiatry.* 2008;21(1):14-18.
49. Nunes EV, Levin FR. Treatment of depression in patients with alcohol or other drug dependence: a meta-analysis. *JAMA.* 2004;291(15):1887-1896.
50. Stuart GL, O'Farrell TJ, Temple JR. Review of the association between treatment for substance misuse and reductions in intimate partner violence. *Subst Use Misuse.* 2009;44(9-10):1298-1317.
51. George S, Boulay S, Galvani S. Domestic abuse among women who misuse psychoactive substances: an overview for the clinician. *Addict Disord Their Treat.* 2011;10(2):43-49.