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A Guide to Substance Abuse Services for Primary Care Clinicians
Treatment Improvement Protocol (TIP) Series 24

Eleanor Sullivan, Ph.D., R.N., F.A.A.N.
Michael Fleming, M.D., M.P.H.
Consensus Panel Co-Chairs

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Treatment
Rockwall II, 5600 Fishers Lane
Rockville, MD 20857

[Disclaimer]

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The opinions expressed herein are the views of the Consensus Panel members and do not reflect the official position of CSAT, SAMHSA, or the U.S. Department of Health and Human Services (DHHS). No official support or endorsement of CSAT, SAMHSA, or DHHS for these opinions or for particular instruments or software that may be described in this document is intended or should be inferred. The guidelines in this document should not be considered substitutes for individualized patient care and treatment decisions.

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What Is a TIP?

Treatment Improvement Protocols (TIPs) are best practice guidelines for the treatment of substance abuse, provided as a service of the Substance Abuse and Mental Health Service Administration's Center for Substance Abuse Treatment (CSAT). CSAT's Office of Evaluation, Scientific Analysis, and Synthesis draws on the experience and knowledge of clinical, research, and administrative experts to produce the TIPs, which are distributed to a growing number of facilities and individuals across the country. The audience for the TIPs is expanding beyond public and private substance abuse treatment facilities as alcohol and other drug disorders are increasingly recognized as a major problem.

The TIPs Editorial Advisory Board, a distinguished group of substance abuse experts and professionals in such related fields as primary care, mental health, and social services, works with the State Alcohol and Other Drug Abuse Directors to generate topics for the TIPs based on the field's current needs for information and guidance.

After selecting a topic, CSAT invites staff from pertinent Federal agencies and national organizations to a Resource Panel that recommends specific areas of focus as well as resources that should be considered in developing the content for the TIP. Then recommendations are communicated to a Consensus Panel, non-Federal experts on the topic who have been nominated by their peers. This Panel participates in discussions over 5 days; the information and recommendations on which they reach consensus form the foundation of the TIP. The members of each Consensus Panel represent substance abuse treatment programs, hospitals, community health centers, counseling programs, criminal justice and child welfare agencies, and private practitioners. A Panel Chair (or Co-Chairs) ensures that the guidelines mirror the results of the group's collaboration.

A large and diverse group of experts closely reviews the draft document. Once the changes recommended by these field reviewers have been incorporated, the TIP is prepared for publication, in print and online. The TIPs can be accessed via the Internet on the National Library of Medicine's home page at the URL: http://text.nlm.nih.gov". The move to electronic media also means that the TIPs can be updated more easily so they continue to provide the field with state-of-the-art information.

While each TIP strives to include an evidence base for the practices it recommends, CSAT recognizes that the field of substance abuse treatment is evolving, and research frequently lags behind the innovations pioneered in the field. A major goal of each TIP is to convey "front-line" information quickly but responsibly. For this reason, recommendations proffered in the TIP are attributed to either Panelists' clinical experience or the literature. If there is research to support a particular approach, citations are provided.

The objective of this TIP, *A Guide to Substance Abuse Services for Primary Care Clinicians,* is to help physicians, nurses, physician assistants, and advanced practice nurses (nurse practitioners and clinical nurse specialists) screen their patients for substance use disorders, conduct brief interventions for patients in the early stages of problem development, and appropriately refer more severely affected patients for in-depth assessment and treatment. The TIP also gives an overview of the types of treatment available and outlines a primary care clinician's role in aftercare.

This document gives primary care clinicians specific guidance on identifying indications of substance abuse, how to broach the subject with a patient, and what screening and assessment instruments to use. It explains how to perform an office-based brief intervention in which patient and clinician set mutually agreed upon goals and "contract" to stop or cut back the alcohol or other drug use. The elements of in-depth assessments, appropriate referrals, and specialized treatment are discussed. The appendixes to the document include discussions by experts on leading pharmacotherapies for alcohol and other drugs and legal issues of patient confidentiality.

This TIP equips primary care clinicians who may not have any knowledge of the substance abuse field to address this pervasive disease. The physicians, nurses, social workers, researchers, certified alcohol counselors, program directors, and pharmacologists on the Consensus Panel pooled years of research and practice to devise recommendations that can be readily implemented in a busy primary care setting. This TIP represents another step by CSAT toward its goal of bringing national leadership to bear in the effort to improve substance abuse treatment.

Other TIPs may be ordered by contacting The National Clearinghouse for Alcohol and Drug Information (NCADI), (800) 729-6686 or (301) 468-2600; TDD (for hearing impaired), (800) 487-4889.

Editorial Advisory Board

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Former State Director
Substance Abuse Services
Division of Mental Health, Mental Retardation and Substance Abuse
Georgia Department of Human Resources
Atlanta, Georgia

Gil Hill
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American Psychological Association
Washington, D.C.

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Rockville, Maryland

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National Institute on Alcohol Abuse and Alcoholism
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Chairman
Division of Substance Abuse Medicine
Medical College of Virginia
Richmond, Virginia

Consensus Panel

Co-Chairs

Eleanor Sullivan, Ph.D., R.N., F.A.A.N.
Professor and Former Dean
School of Nursing
University of Kansas
Kansas City, Kansas

Michael Fleming, M.D., M.P.H.
Associate Professor
Department of Family Medicine
University of Wisconsin
Madison, Wisconsin

Workgroup Leaders

Michael J. Bohn, M.D.
Assistant Professor
Department of Psychiatry
University of Wisconsin Medical School
Madison, Wisconsin

Myra Muramoto, M.D.
Assistant Professor
Department of Family and Community Medicine
University of Arizona
Tucson, Arizona

Madeline A. Naegle, R.N., Ph.D., F.A.A.N.
Associate Professor
Division of Nursing
New York University
New York, New York

Daniel Vinson, M.D., M.S.P.H.
Assistant Professor
Department of Family and Community Medicine
Columbia School of Medicine
University of Missouri
Columbia, Missouri

Allen Zweben, D.S.W.
Director and Associate Professor of Social Work
Center for Addiction and Behavioral Health Research
School of Social Welfare

University of Wisconsin at Milwaukee
Milwaukee, Wisconsin

Panelists

Steven Adelman, M.D.
Addiction Medicine Consultant
Harvard Community Health Plan
Harvard Pilgrim Health Care
West Roxbury, Massachusetts

Machelle H. Allen, M.D.
Assistant Professor
Department of Obstetrics and Gynecology
School of Medicine
New York University
New York, New York

Kathleen Austin, C.D.C. III, N.C.A.C. II
Alcohol Therapist II
Adult Medicine/Ambulatory Care
Harborview Medical Center
Seattle, Washington

Mark L. Carlson, M.D.
Medical Director
Cox Care Substance Abuse Treatment Center
Cox Health Systems, Inc.
Springfield, Missouri

Theodore M. Godlaski, M.Div., I.C.D.C.
Director of Community Treatment Project
Center for Alcohol and Drug Research
University of Kentucky
Lexington, Kentucky

Derrick Harris, L.C.S.W., C.A.C. II
Director of Outpatient Services
Clitheroe Center
Salvation Army
Anchorage, Alaska

Susan Hernandez
Assessment Supervisor
Southwest Migrant Farm Workers and Native American (TIGUA) Assistance Program
West Texas Council on Alcoholism and Drug Abuse
El Paso, Texas

Mark L. Kraus, M.D.
Medical Director
Addiction Medicine
Waterbury Hospital
Waterbury, Connecticut
E. Joyce Roland, Ph.D.
Research Psychologist
Center for Social Research and Policy Analysis
Research Triangle Institute
Research Triangle Park, North Carolina
Marilyn Sawyer Sommers, Ph.D., R.N.
Associate Professor
College of Nursing
University of Cincinnati
Cincinnati, Ohio
Robert Taylor, M.D., Ph.D.
Chairman
Department of Pharmacology
College of Medicine
Howard University
Washington, D.C.

Foreword

The Treatment Improvement Protocol (TIP) series fulfills SAMHSA/CSAT's mission to improve treatment of substance use disorders by providing best practices guidance to clinicians, program administrators, and payers. TIPs are the result of careful consideration of all relevant clinical and health services research findings, demonstration experience, and implementation requirements. A panel of non-Federal clinical researchers, clinicians, program administrators, and patient advocates debates and discusses their particular area of expertise until they reach a consensus on best practices. This panel's work is then reviewed and critiqued by field reviewers.

The talent, dedication, and hard work that TIPs panelists and reviewers bring to this highly participatory process have bridged the gap between the promise of research and the needs of practicing clinicians and administrators. We are grateful to all who have joined with us to contribute to advances in the substance abuse treatment field.

Nelba Chavez, Ph.D.
Administrator
Substance Abuse and Mental Health Services Administration
David J. Mactas
Director
Center for Substance Abuse Treatment
Substance Abuse and Mental Health Services Administration

Executive Summary and Recommendations

The goal of this TIP is to recommend guidelines for primary care clinicians to follow in caring for patients with alcohol and other drug use disorders. These guidelines were developed by a Consensus Panel of clinicians, researchers, and educators who work on the prevention and treatment of substance use disorders. Protocols are based partly on research evidence, partly on Panel members' clinical experience.

The algorithm follows a patient with substance use problems who presents in a primary care setting. The chart will serve as a guide or road map through screening, brief assessment, brief intervention, assessment, referral, specialized treatment, and followup care as they are detailed in the TIP.

Since substance use disorders are often chronic conditions that progress slowly over time, primary care clinicians, through their regular, long-term contact with patients, are in an ideal position to screen for alcohol and drug problems and monitor each patient's status. Furthermore, studies have found that primary care clinicians can actually help many patients decrease alcohol consumption and its harmful consequences through office-based interventions that take only 10 or 15 minutes (Kahan et al., 1995; Wallace et al., 1988). This potential, however, is largely untapped: Saitz and colleagues found that of a sample of patients seeking substance abuse treatment, 45 percent reported that their primary care physician was unaware of their substance abuse *(Saitz et al., in press).

Yet even though screening and limited treatment of substance use disorders do not require a large time investment, the Consensus Panel that developed this TIP recognized that many primary care clinicians are already overwhelmed by the demands imposed by expanded gatekeeper functions. The Panel realized that a practical approach to addressing patients' substance abuse problems was needed: one that recognized the time and resource limitations inherent in primary care practice and offered a series of graduated approaches that could be incorporated into a normal clinic or office routine.

Biological, medical, and genetic factors as well as psychological, social, familial, cultural, and other environmental features all bear on substance abuse. Addressing the condition effectively requires a team effort, especially when it has progressed beyond the early stage. For this reason, in addition to screening and intervention treatment options, these guidelines include information about viable referral for assessment and treatment, as well as followup.

Readers will notice that the TIP contains more information on alcohol use and abuse than on use of illicit drugs. This reflects both the scope of the problems and the research literature available about them. It is estimated that about 18 million people with alcohol use problems and 5 million users of illicit drugs need treatment.

Although the Panel recognizes that tobacco is an addictive substance with a major public health impact, it is not included in this TIP because the topic falls outside CSAT's purview. Readers are referred to *Smoking Cessation: A Guide for Primary Care Clinicians*, published by the Agency for Health Care Policy and Research (Agency for Health Care Policy and Research, 1996).

The Consensus Panel's recommendations are based on a combination of clinical experience and research-based evidence. In the list below, the summary guidelines supported by the research literature are followed by (1); clinically based recommendations are marked (2). Citations supporting the former are referenced in the body of the document. Screening and assessment instruments mentioned below are reproduced and discussed in Chapters 2 and 4 and Appendix C.

The guidelines are presented in more detail in Chapter 6.

General Recommendations

The Consensus Panel that developed this TIP recommends that *primary care clinicians* -- a term that includes physicians, physician assistants, and advanced practice nurses -- follow the guidelines below.

Screening

- Periodically and routinely screen all patients for substance use disorders. (2)
- Ask questions about substance abuse in the context of other lifestyle questions. (2)
- Use the Alcohol Use Disorders Identification Test (AUDIT) to screen for alcohol problems among English-speaking, literate patients, or use the first three quantity/frequency questions from the AUDIT, supplemented by the CAGE questionnaire. (1)
- Use the CAGE-AID (Cage Adapted to Include Drugs) to screen for drug use among patients. (1)
- Ask "Have you used street drugs more than five times in your life?" A positive answer suggests further screening and possibly assessment. (2)
- Ask high-risk patients about alcohol and other drug use in combination. (2)
- Use the TWEAK to screen pregnant women for alcohol use. (1)
- Ask pregnant women "Do you use street drugs?" If the answer is yes, advise abstinence. (2)
- Use the CAGE, the AUDIT, or the Michigan Alcoholism Screening Test -- Geriatric Version (MAST-G) to screen patients over 60. (1)
- Screen adolescents for substance abuse every time they seek medical services. (2)
- When recording screening results, indicate that a positive screen is not a diagnosis. (2)
- Present results of a positive screen (and conduct all discussions about substance use) in a nonjudgmental manner. (1)

Brief Intervention

- Perform a brief intervention with patients whose substance abuse problems are less severe. (1)
- Include in the brief intervention feedback about screening results and risks of use, information about safe consumption limits and advice about change, assessment of patient's readiness to change, negotiated goals and strategies for change, and arrangements for followup visits. (1)

Assessment and Treatment

- Refer high-risk patients to a specialist, if possible, for in-depth assessment. (2)
- Ensure that a specialized assessor has familiarity with psychiatric disorders. (2)
- Ascertain that assessment is sequential and multidimensional. (1)
- Check the gamma-glutamyl transferase (GGT) as part of the assessment process. (2)
- Use the criteria in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders,* Fourth Edition, in combination with the American Society of Addiction Medicine's *Patient Placement Criteria,* Second Edition, to make a diagnosis and devise an assessment-based treatment plan. (1)
- Become familiar with available assessment and treatment resources. (2)
- Keep encouraging reluctant patients with substance use disorders to accept treatment of some kind.

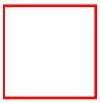
(2)

Confidentiality

- Establish recordkeeping systems and reminder programs to provide cues about the need to screen and reassess patients for alcohol and drug abuse. (2)
- Do not perform screening or laboratory tests (such as blood or urine tests) without the patient's consent. (2)
- Consult the patient before discussing his or her substance use with anyone else -- family, employers, treatment programs, or the legal system. (2)

The Primary Care Clinician's Opportunity

Visits to primary care clinicians provide unparalleled opportunities to intervene with substance abuse problems at a relatively early stage in disease progression. Office or clinic visits also give clinicians an opening to discuss substance abuse prevention with patients and in many cases, forestall problems from ever developing. As one primary care physician observed, "With respect to substance abuse, our charge is straightforward: first we must *ask* something, then we must *do* something." This TIP is intended to assist primary care clinicians with both tasks.



Chapter 1 -- Substance Abuse and Primary Care

Primary care is the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community.

(Institute of Medicine, 1996)

By any measure, effectively treating a primary care patient's substance abuse problem is addressing a significant "personal health care need." Alcohol-related disorders, for example, occur in up to 26 percent of general medical clinic patients, a prevalence rate similar to those for such other chronic diseases as hypertension and diabetes (Fleming and Barry, 1992). While not specific to the primary care setting, the most recent National Household Survey on Drug Abuse estimates that 12.8 million Americans, or 6.1 percent of the population age 12 and older, currently use illicit drugs, while about 32 million Americans (15.8 percent of the population) had engaged in binge or heavy drinking (five or more drinks on the same occasion at least once in the previous month) (Substance Abuse and Mental Health Services Administration, 1996b). Using estimates from the Institute of Medicine (Institute of Medicine, 1990), a Robert Wood Johnson Foundation report calculated that about 5 million users of illicit drugs and 18 million people with alcohol use problems need treatment, but only one fourth of them receive it (Institute for Health Policy, 1993).

Accurately gauging the costs of substance use problems, like estimating costs for heart disease or cancer, is difficult. This figure grows or shrinks by billions of dollars depending on the economic assumptions used. The costs to abusers, their families, and society at large, however, are indisputably enormous and

encompass health care costs, premature mortality, workers' compensation claims, reduced productivity, crime, suicide, domestic violence, and child abuse.

Some 100,000 people die each year in the United States as a result of alcohol; illicit drug abuse and related acquired immunodeficiency syndrome (AIDS) deaths account for at least another 12,000 deaths (Rice et al., 1990; Stinson et al., 1993; Rosenberg et al., 1996). Every man, woman, and child in America pays nearly $1,000 annually to cover the costs of unnecessary health care, extra law enforcement, motor vehicle crashes, crime, and lost productivity due to substance abuse (Institute for Health Policy, 1993). Furthermore, an "analysis of the epidemiological evidence reveals that 72 conditions requiring hospitalizations are wholly or partially attributable to substance abuse" (Center on Addiction and Substance Abuse, 1993, p. 21).

Nearly one quarter of Americans say that "drinking has been a cause of trouble in their family" (Institute for Health Policy, 1993, p. 40). A forthcoming study based on criteria from the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV) (American Psychiatric Association, 1994a) estimates that 52.9 percent of Americans age 18 and older have a family history of alcoholism among first- or second-degree relatives *(Dawson and Grant, in press). In short, substance use disorders are simply too pervasive and too costly to be ignored.

Fortunately, not only is effective specialty treatment available for problem drinkers, alcoholics, and illicit drug users, but brief interventions, which can be done in a primary care setting, can substantially reduce hazardous drinking, a behavior that has enormous negative effects on public health (Kahan et al., 1995).

In a report on the financially driven changes in health care, the Institute of Medicine highlighted the growing need for primary care clinicians to diagnose and treat a range of problems previously addressed by specialists (Institute of Medicine, 1996). While not focused specifically on substance abuse, the report credits the "trust and partnership" that exists between primary care clinicians and patients as a key argument for expanding the role of primary care clinicians in screening for early disease detection, managing chronic diseases, and coordinating care among all those involved in providing patient services. The American Medical Association's *Guidelines for Adolescent Preventive Services* (GAPS) recommends patient education, anticipatory guidance, and early intervention strategies to reduce adolescent patients' use of alcohol and other drugs (Elster and Kuznets, 1994). Likewise, the American Academy of Pediatrics advises pediatricians to include anticipatory guidance on substance abuse to all children and adolescents.

In support of these recommendations, universities are implementing medical and nursing school curriculum modules while specialty organizations, including the National Nurses' Society on Addictions, the American Society of Addiction Medicine, the Association for Medical Education and Research on Substance Abuse, the American Association of Obstetricians and Gynecologists, and the Drug and Alcohol Nurses Association, are promoting faculty development and the development of core competencies and practice standards for intervening with and treating substance abuse problems.

In this era of managed care, the primary care clinician's responsibility is expanding. As the gatekeeper charged with ensuring the provision of comprehensive care, the primary care clinician will almost certainly provide some type of alcohol- or other drug-related service. Basic skills in identifying and diagnosing patients who are chemically dependent will become essential. Clinicians in areas with limited substance abuse resources may be responsible for assessments, while those trained in addiction medicine may be providing a range of treatment services. Regardless of how extensively involved clinicians become, those who are familiar with the medical complications of substance abuse and are able to relate them to other comorbid illnesses will be better equipped to deliver adequate care.

Alcohol Use Among Primary Care Patients

Since more Americans abuse alcohol than illicit drugs, primary care clinicians will encounter substantially more patients with alcohol problems than with drug problems (although many patients who abuse alcohol also abuse illicit drugs or prescription drugs and vice versa). Though most people who consume alcoholic beverages do not experience problems related to their use, primary care clinicians can expect that 15 to 20 percent of their male patients and 5 to 10 percent of their female patients will be at risk for or already are experiencing related medical, legal, or psychosocial problems. These problems include unresponsive diabetes, arrests for "driving under the influence," problems with job or school, or family or marital difficulties. Figure 1-1 presents the current prevalence of alcohol use and problems in primary care settings for patients over the age of 18 (Manwell et al., in press).

Levels of Use

The nature and intensity of alcohol-related problems vary according to consumption: Above two to three drinks a day, there is a clear dose-response curve. The higher the levels of consumption, the greater the risk of negative health effects including cirrhosis, cancer, heart disease, stroke, traumatic injury, and depression. For this reason, the National Institute on Alcohol Abuse and Alcoholism recommends that patients who currently drink adhere to the following:

- Men -- No more than two drinks per day
- Women -- No more than one drink per day
- Men and women over age 65 -- No more than one drink per day (National Institute on Alcohol Abuse and Alcoholism, 1995b)

It is important for primary care clinicians to know patients' drinking levels in order to gauge their potential risk for developing problems. Levels also can be discussed with patients in the context of general health problems where they provide a nonstigmatizing opportunity to share valuable risk reduction information

For example, just as a clinician may point out to patients with blood pressure higher than 140/90 that they are at risk for cardiovascular problems secondary to hypertension, people who consume more than two drinks per day should be told that they are at risk for heart and liver disease. When presented this way, information about levels may help motivate nonproblem drinkers and abstainers to maintain healthy habits, while offering those at risk for problems an incentive to reduce the amount of alcohol they consume.

Frequency of Problems Related to Use

To determine a patient's risk level, however, the clinician must consider more than consumption levels. Definitions of *low-risk* and *at-risk* use are based on the relationship between a given quantity of alcohol used and a number of health effects. Recognizing at-risk drinkers in particular can be difficult. Researchers have investigated indicators other than consumption levels in an effort to determine other risk factors.

Low-risk drinkers consume less than an average of one to two drinks per day, do not drink more than three to four drinks per occasion, and do not drink in high-risk situations (e.g., while pregnant, driving a car, or taking medication that interacts with alcohol). *At-risk drinkers* occasionally exceed recommended guidelines for use. While they are at risk for such alcohol-related problems as burns, motor vehicle crashes, or falls because of their drinking habits, at-risk drinkers may never experience negative consequences as a result of their alcohol use and represent a prime target for preventive, educational efforts by primary care clinicians. A number of environmental, interpersonal, psychobehavioral, and biogenetic risk factors (e.g., social norms conducive to use, family and marital conflict, early onset of use,

and inherited susceptibility) have been identified and are summarized in Figure 1-2 (Hawkins et al., 1985; Kandel et al., 1986; Newcomb and Bentler, 1988; Heath et al., 1989; *Brook and Brook, 1990; Landry et al., 1991a; Landry, 1994).

The American Psychiatric Association's DSM-IV classifies mental disorders (including substance-related disorders) to help clinicians make useful diagnoses and to guide scientists' research. Although this approach works best when there are clear boundaries between types of disorders, categories within disorders cited in the DSM-IV are not necessarily discrete or static. Moreover, all individuals suffering from the same disorder are not necessarily alike (American Psychiatric Association, 1995). When the DSM-IV refers to such diagnostic levels as *substance abuse* and *dependence*, it views them as points on a continuum on which patients' use may vary. The DSM-IV's *dependence* is roughly equal to the term *alcoholic*, and *abuse* is synonymous with *problem drinkers*. The latter is seen more than the former in primary care (Kahan et al., 1995). These nondependent but problematic drinkers account for the "majority of alcohol-related morbidity and mortality in the general population" (U.S. Preventive Services Task Force, 1996, p. 567; Institute of Medicine, 1990).

As a group, problem drinkers experience a range of alcohol-related problems from a "driving under the influence" citation to loss of job or family disruption. It is important for clinicians to understand, however, that problem drinkers, unlike alcoholics, often respond to clinician counseling and brief intervention efforts (see Chapter 3) and do not always require a referral to specialized treatment.

Alcoholic or *dependent drinkers* meet at least three of the seven *DSM-IV* criteria for substance dependence: drinking more than intended; wanting to stop drinking; spending a great deal of time procuring alcohol; giving up social or occupational activities because of alcohol; drinking despite the physical or psychological problems it causes; and, in some cases, experiencing physical dependence as manifested by tolerance to alcohol's effects and withdrawal symptoms. Figure 1-3 illustrates the relationship between level and frequency of use and the development of alcohol problems (Skinner, 1992).

Other Drug Use Among Primary Care Patients

Since unauthorized drug use is illegal, patients who use illicit drugs are considered drug abusers. While primary care clinicians can discuss approaches for reducing the amount of alcohol consumed as an acceptable goal with patients who are problem drinkers, such approaches will collide with the law if the substance being abused is illegal. For illicit drug abusers, abstinence is the ultimate goal. However, the primary care clinician should recognize that quitting "cold turkey" may initially be untenable for some drug abusers and should encourage any steps the patient makes in that direction.

In 1995, 6.1 percent of Americans age 12 and older had used an illicit drug in the previous month (Substance Abuse and Mental Health Services Administration, 1996b). Figure 1-4 shows the percentages for specific drugs.

Since 1991, there has been a continuing rise in marijuana use among adolescents. Nearly 1 in 20 (4.9 percent) of high school seniors uses marijuana daily, while young people's disapproval of marijuana continues to decline (Johnston et al., 1996). Although the crack cocaine epidemic appears to be stabilizing, an estimated 1.4 million Americans are current cocaine users, with rates of use highest among 18- to 25-year-olds (Substance Abuse and Mental Health Services Administration, 1996b). Reports from medical examiners, hospital emergency departments, treatment programs, and others who participate in the National Institute of Drug Abuse Community Epidemiology Work Group indicate that a small but growing number of young people are using heroin. Crack users increasingly are combining crack with heroin, and older intravenous drug users are shifting to intranasal use (Community Epidemiology Work Group, 1996).

Over-the-counter and prescription drugs also are abused. An estimated 2 million adults age 65 and older, for example, are addicted to or are at risk of addiction to sleeping medications or tranquilizers (Hanley-Hazelden Center, 1991; Chastain, 1992). Health care professionals are especially at risk for prescription drug abuse (Sullivan et al., 1990).

Like alcohol-related problems, drug abuse problems also occur along a continuum from nondependent use to addiction. Knowing where patients are along this continuum is as important for effective intervention with drug abusers as it is for alcoholics.

Understanding Substance Use Disorders in a Primary Care Context

Substance use disorders share many characteristics with other chronic medical conditions like hypertension. Among the similarities between the two are late onset of symptoms, unpredictable course, complex etiologies, behaviorally oriented treatment, and favorable prognosis for recovery (Fleming and Barry, 1992).

Late Onset of Symptoms

Clinical problems related to substance abuse develop slowly and may remain undetected for a long time unless a traumatic injury, problem in the workplace, confrontation with the police, or other serious event calls attention to it before physical symptoms become apparent. As with hypertension, routine screening for substance abuse is necessary to identify problems in the early stages of development.

Unpredictable Course

At this time, it is difficult to predict with any certainty which subset of heavy drinkers and drug users will develop serious substance abuse problems. Further, it is not possible to predict whose problems are situational and transient and whose will remain chronic and progressive. Therefore, it is important to monitor each patient's status regularly, just as clinicians do for hypertension.

Complex Etiologies

The interplay between genetic familial predisposition and lifestyle influences the development of substance abuse disorders just as it influences hypertension (Gordis and Allen, 1994; McGue, 1994; Landry, 1994). Many now believe that individuals may inherit a genetic susceptibility to substance abuse that may be fueled or quelled by a combination of family and social norms (parental use of drugs, community or peer acceptance or rejection of drug use, or equation of heavy drinking with masculinity), traumatic events (death of a loved one, divorce, childhood physical or sexual abuse, or war), pharmacodynamic effects (affinity for developing tolerance or withdrawal or positive reinforcing qualities of the drug used), or environmental factors (poverty or easy availability of drugs) (Collins, 1986; Yokel, 1987; Koob and Bloom, 1988; Gardner, 1992; Johnson and Muffler, 1992). At the same time, people without inherited susceptibility may develop problems as a response to external stresses or internal discomfort if they continue using alcohol or other drugs over time. Individual patients, for example, may use alcohol and other drugs to ameliorate or "self-medicate" psychiatric symptoms or to titrate medications (Landry et al., 1991a; Meyer, 1986).

Behaviorally Oriented Treatment

Like treatment for hypertension, behaviorally oriented substance abuse treatment requires the patient to assume primary responsibility for making difficult behavioral changes. As with any chronic condition that depends on behavioral change to improve outcome, a patient will first have to accept that he or she has a problem. Compliance with treatment is ongoing and may be difficult.

Behaviorally oriented treatment includes a number of cognitive and behavioral approaches that help patients recognize and change maladaptive behaviors, develop new or enhanced social skills that will promote and sustain recovery, and learn techniques for responding to cravings without relapsing. Motivational enhancement therapy, cognitive behavioral therapy, contingency contracting (e.g., use of positive rewards and negative consequences such as the threat of job loss to promote recovery), and cue exposure treatment are designed to promote resistance to those triggers or cues that prompt use and are among the most common behavioral therapies (American Psychiatric Association, 1995).

Favorable Prognosis for Recovery

Despite these problems, however, many substance abuse patients -- like patients with diabetes, elevated cholesterol, and hypertension -- do respond to clinician recommendations and modify their behavior. The rate of 20 percent of problem drinkers (those meeting the DSM-IV criteria for alcohol abuse) who successfully reduce their drinking compares favorably with the prognosis rates of many chronic health conditions primary care providers routinely address (Kahan et al., 1995).

Data contradict the widespread belief that substance abuse treatment does not work. When treatment is available, there have been documented reductions in use, hospitalizations, medical costs and sick time, family problems, and criminal activity as well as increases in employment, job retention, income, and improvements in an array of other health indicators. For example, the National Treatment Improvement Evaluation Study (NTIES) completed in 1996 reports that clients served by federally funded substance abuse treatment programs were able to cut their drug use in half for up to 1 year after leaving treatment (Center for Substance Abuse Treatment, 1996). A study commissioned by the Oregon Office of Alcohol and Drug Abuse Programs concluded that for every dollar spent on substance abuse treatment, taxpayers saved $5.60 (Finigan, 1996).

As with other chronic conditions, the efficacy of substance abuse treatment is helped tremendously when family and friends support patients' efforts to change their behavior, patients themselves are ready to make significant lifestyle changes, and the effects of co-occurring disorders are minimized (Institute of Medicine, 1990; National Institute on Alcohol Abuse and Alcoholism, 1993).

Approach to Substance Abuse for Primary Care Clinicians

When the Center for Substance Abuse Treatment convened its Consensus Panel of experts on primary care, its goal was to devise a practical approach to addressing patient substance abuse problems, one that recognized the time and resource limitations inherent in primary care practice and offered approaches that could be implemented in a stepwise fashion without disrupting normal clinic or office routine. This Treatment Improvement Protocol *A Guide to Substance Abuse Services for Primary Care Clinicians* describes a series of graduated approaches for responding to the substance abuse problems typically encountered by primary care clinicians.

Chapter 2, Screening for Substance Use Disorders, provides specific dialogue and recommends particular

instruments for uncovering substance use disorders. The chapter also explains how to tailor screening to special populations, how to document screening, and how to discuss a positive screen with a patient. Chapter 3, Brief Intervention, details how to perform this office-based pretreatment or prevention technique and which patients are most likely to benefit. Chapter 4, Assessment, presents the elements of an in-depth assessment, ideally performed by an addiction specialist. Chapter 5, Specialized Substance Abuse Treatment Programs, summarizes the referral process and the various forms of specialized treatment available. Chapter 6 suggests methods for implementing change and summarizes the Consensus Panel's recommendations. Appendix A, Pharmacotherapy, written by a leading detoxification expert, explains how to administer pharmacotherapy to aid withdrawal and to prevent relapse. Appendix B, Legal and Ethical Issues, outlines those issues and the laws governing them concerning privacy and confidentiality for substance-abusing patients. Appendix C reproduces selected screening and assessment instruments, and Appendix D provides ordering information on pamphlets and brochures about substance abuse that clinicians can give to patients.

Chapter 2 -- Screening for Substance Use Disorders

Screening is the application of a simple test to determine if a patient has a certain condition. For screening to be meaningful in the primary care setting, the particular problem

- Must be prevalent within the general population
- Must diminish the duration or the quality of life
- Must have an effective treatment available that reduces morbidity and mortality when given during the asymptomatic stage of the disease
- Must be detectable via cost-effective screening earlier than without screening and must avoid large numbers of false positives or false negatives
- Must be detectable and treatable early enough to halt or delay disease progression and thereby improve outcome (U.S. Preventive Services Task Force, 1996; National Institute on Alcohol Abuse and Alcoholism, 1993)

Screening for substance abuse, which meets all the conditions above, need not take long and can be conducted effectively in a variety of settings (National Institute on Alcohol Abuse and Alcoholism, 1993). The Institute of Medicine has recommended that questions about alcohol use be included among routine behavioral and lifestyle questions asked of all persons who seek care in a medical setting (just like questions about diet, exercise, and smoking) (Institute of Medicine, 1990).

The Goal of Substance Abuse Screening

The goal of substance abuse screening is to identify individuals who have or are at risk for developing alcohol- or drug-related problems, and within that group, identify patients who need further assessment to diagnose their substance use disorders and develop plans to treat them (see Chapter 4).

The Consensus Panel that developed this TIP recommends that primary care clinicians periodically and routinely screen all patients for substance use disorders. Deciding to screen some patients and not others

opens the door for cultural, racial, gender, and age biases that result in missed opportunities to intervene with or prevent the development of alcohol- or drug-related problems. Visual examination alone cannot detect intoxication, much less more subtle signs of alcohol- and drug-affected behavior.

A major advantage of conducting substance abuse screening as part of the ongoing process of primary care is that positive screens can be followed up at subsequent visits. In many practices, clinicians' long-standing relationships with patients give them the opportunity to conduct preliminary assessments also known as *brief assessments.* Depending on the clinician's experience and training and the resources available within a community, he may either develop a treatment plan or refer the patient for assessment by a skilled substance abuse specialist. In larger practices or clinics where provider-patient relationships are not as close, clear documentation of screening results will help ensure appropriate followup.

Negative screens for substance abuse also warrant discussion. They allow clinicians to play a health promotion and prevention role by reinforcing the wisdom of abstinence from illicit drugs and maintenance of safe levels of alcohol use. If a clinician does not have the time (or the expertise) for a face-to-face discussion of the problem, she can give the patient lists of resources for additional help and a handout or brochure on the effects of alcohol or the other relevant drug. See Appendix D for selected resources.

Factors To Consider in Selecting a Screening Instrument

In the primary care setting, substance abuse screening is done using brief written, oral, or computerized questionnaires, referred to throughout this TIP as *screening instruments.* A number of factors must be considered in determining the suitability of a screening instrument for this setting. These include sensitivity and specificity, cost, ease of administration, and patient acceptance.

Sensitivity and Specificity

Sensitivity is a screening instrument's capacity to identify true cases of the target condition in a given population. The closer to 100 percent of those with alcohol and other drug problems that a screen identifies as positive for that condition, the more sensitive the test.

Specificity refers to an instrument's ability to identify people who do *not* have the disorder. *False positives* (identifying people who do not have the disorder as having it) tend to increase as sensitivity increases, and *false negatives* (missed cases) tend to increase as specificity increases. Because screening instruments are imperfect, balancing sensitivity against specificity is a situation-specific issue. Generally, for screening in primary care, sensitivity should be emphasized over specificity -- that is, it is more important not to *miss true cases* than it is to assess further some patients who ultimately turn out not to have a substance use disorder. A positive screen can usually be confirmed or refuted with further history taken on the spot or, if necessary, evaluation by a substance abuse specialist. The screening instruments recommended by the Consensus Panel achieve a reasonable balance between sensitivity and specificity (see Appendix C).

Most screening instruments have been designed for substance abuse treatment populations, not primary care populations. The four-question CAGE questionnaire (Ewing, 1984) and the Alcohol Use Disorders Identification Test (AUDIT) (Babor et al., 1992), however, have been extensively tested in primary care settings, and a number of other studies of outpatient, substance abuse treatment populations support the practice of applying substance abuse screening instruments to primary care populations (Buchsbaum et al., 1991, 1995; Bohn et al., 1995; Barry and Fleming, 1993; Saunders et al., 1993). The CAGE questionnaire is reproduced below, and the AUDIT appears in Appendix C.

Cost

Costs of administering a screen depend on who does the screening (e.g., physician, nurse, nurse practitioner, or physician assistant), how long it takes, and what special training (if any) is required; whether the instrument can be self-administered by the patient via pencil and paper or computer; and how long it takes to score the instrument.

Ease of Administration

The written questionnaire format is self-explanatory; the interview format consists of a clinician's asking the patient a set of predetermined questions. Computerized versions of validated paper questionnaires such as the CAGE are growing in popularity, and preliminary studies on the effectiveness of this approach are promising (Barry and Fleming, 1990). A study of adolescents found that when 15-year-olds were asked about past-week alcohol use, 10 percent responded positively to a computerized questionnaire, but only 5 percent to a paper questionnaire (Paperny et al., 1990). Across populations, however, studies have shown that similar results were obtained regardless of the form of the test (National Institute on Alcohol Abuse and Alcoholism, 1993).

Computers also can reduce the time needed for manual scoring and keep track of who has been screened and when. In addition, some computerized screens like the Diagnostic Interview Schedule format (Blouin et al., 1988) will automatically ask selected assessment questions if the score on screening is positive.

Patient Acceptance

Simply raising the subject of substance abuse with patients can be useful. Evidence indicates that asking questions about alcohol or other drugs "primes" patients to disclose information and results in a two- to threefold increase in their stated intention to discuss substance abuse problems with their health care provider in the future (Skinner et al., 1985).

While opinions vary about whether to integrate substance abuse screening into a standard history, asking potentially sensitive questions about substance abuse in the context of other behavioral and lifestyle questions appears to be less threatening to patients. Studies have found that screening for alcohol-related disorders is more acceptable to patients if it is part of a comprehensive health-risk evaluation that covers topics like exercise, diet, weight control, and medication use (Allen et al., 1995). Placing the questions within the larger context of preventive health care can help both patient and clinician feel more comfortable, reduce any perceived stigma or bias about the questions, and decrease anxiety in the patient.

Members of the Consensus Panel have learned that this finding holds true when screening for use of illicit drugs as well (Fleming and Barry, 1991). Primary care clinicians with experience in substance use screening also report that discussing problematic use can help foster the ongoing relationship between patient and clinician.

Screening Instruments

To expedite screening and increase the likelihood of honest answers, clinicians should ask questions sequentially, beginning with the legal drug alcohol (Institute of Medicine, 1990). Typically people with substance use disorders drink, so asking, "Please tell me about your drinking" serves as an effective filter. If the patient replies that he does not drink, the clinician should ask, "What made you decide not to drink?" If the answer is that the patient is a life-long abstainer or has been in recovery for 5 years or more, the clinician can conclude the screening process (Steinweg and Worth, 1993).

There are a few exceptions. Even if they don't admit to drinking, adolescents should be asked about drug use, particularly marijuana. Pregnant women and women older than 60, as well as women who have experienced a major life transition (e.g., death of a spouse or retirement), should be queried about their psychoactive prescription drug use and use of over-the-counter sleep aids. See TIPs 3 *(Screening and Assessment of Alcohol- and Other Drug-Abusing Adolescents)* and 4 *(Guidelines for the Treatment of Alcohol- and Other Drug-Abusing Adolescents)* for a full discussion of assessing and treating adolescents (CSAT, 1993b, *1993c) and TIP 2 *(Pregnant, Substance-Using Women)* for information about that population (CSAT, 1993a). Substance abuse among people over 60 is covered in a forthcoming TIP, *Substance Abuse Among Older Adults* (see The National Clearinghouse for Alcohol and Drug Information for TIPs ordering information).

Alcohol Screening Instruments

Alcohol screening instruments question patients about how much and how often they drink and/or the consequences of their drinking. Answers to quantity/frequency questions indicate whether a patient was, is, or may be at risk for becoming a problem drinker, a binge drinker, and/or an alcoholic, distinctions important in determining the clinician's response. A hallmark of alcoholism (and drug addiction) is continued use of a substance despite adverse consequences. Questionnaires focusing on consequences generally are quite successful in detecting dependent users; without quantity/frequency questions, however, these instruments tend to miss early stage problem drinkers and at-risk drinkers.

Since no single screening instrument can be used with all primary care patients, clinicians will want to select those options that best meet the needs of their patient population. For patients with low literacy skills, face-to-face interviews where the clinician asks the questions and documents answers will best elicit information. Regardless of the information-gathering technique, however, clinicians are relying on self-reports with no assurance that answers are truthful. At this time, there is no viable alternative to self-reports in the primary care setting (Institute of Medicine, 1990), although urine tests (discussed further below) can often detect recent use of some common illicit drugs, and liver function tests may show liver damage, suggesting excessive alcohol consumption. Since denial is a major symptom of dependence, the validity of self-reports is frequently an issue for those patients with alcohol or drug problems. In this situation, when the clinician suspects that a patient is not responding honestly, she may, with the patient's permission, seek information from such collateral sources as the patient's spouse, parents, and siblings. To assist primary care clinicians with screening instrument decisions, the Consensus Panel recommends the following widely used instruments for the primary care setting.

To screen for alcohol problems using a self-administered written questionnaire, a brief instrument like the AUDIT is appropriate, particularly where the expected reading level and comprehension of written English are not likely to be problematic. The AUDIT takes about 2 minutes to answer (Hays et al., 1993) and about 15 seconds to score. If the screen will be administered by a clinician, the CAGE, supplemented by the first three quantity/frequency questions from the AUDIT, is recommended. This combination will increase sensitivity for detection of both problem drinking and alcohol dependence because it includes questions about both alcohol consumption and its consequences. Self-administering the CAGE alone takes about 30 seconds (Hays et al., 1993).

Drug Screening Instruments

Although screening for drug use in the primary care setting can make patients and clinicians uncomfortable, asking about illicit drug use is as important as asking about other personal practices (such as sexual practices that put patients at higher risk for sexually transmitted diseases) that can affect a patient's health.

Of the drug abuse screening instruments, CAGE-AID (CAGE Adapted to Include Drugs) is the only tool that has been tested with primary care patients (Brown and Rounds, 1995). Like the CAGE, CAGE-AID, reproduced below, focuses on lifetime use. While those patients who are drug dependent may screen positive, adolescents and those who have not yet experienced negative consequences as a result of their drug use may not. For this reason, the Consensus Panel recommends asking patients, "Have you used street drugs more than five times in your life?" In Panelists' experience, a positive answer indicates that drugs may be a problem and suggests the need for in-depth screening and possibly assessment.

Because the questions were originally developed for alcohol, the CAGE-AID will not apply to every illicit drug or drug user. It is, however, a useful starting point. As with the CAGE, the Panel recommends that one positive answer prompt further evaluation.

The Panel recommends that clinicians treating patient populations at high risk for drug abuse ask their screening questions regarding alcohol and drug use in combination. (This high-risk group includes those with psychiatric, behavioral, demographic, familial, social, or genetic risk factors that increase the likelihood of drug abuse. Red flags include work-related, marital and family, or legal problems. See Chapter 1, Figure 1-2.) Patients may view questions about drug use paired with questions about alcohol as less onerous than questions about drug use alone.

Supplementary Laboratory Tests

Although several laboratory tests can detect alcohol and other drugs in urine and blood, these tests measure recent substance use rather than chronic use or dependence. At this time, there is no test like the blood sugar test for diabetes or the blood pressure test for hypertension to identify substance use disorders. For this reason, the Consensus Panel does not recommend the routine use of laboratory tests as screening tools in the primary care setting (Babor et al., 1989; Beresford et al., 1990; Bernadt et al., 1982). Laboratory tests, however, may be useful during the assessment process to confirm a diagnosis, to establish a baseline, and later, to monitor progress (Schuckit and Irwin, 1988). Positive test results can be a powerful incentive for changing behavior or motivating patients to accept referrals for treatment.

For some adolescents, a drug test may be a useful supplement to the screening instrument, especially if changes have occurred in school performance, sleep patterns, weight, mood, or social group. Again, depending on the clinician's expertise and available resources, urine tests can be done in the primary care setting or can be referred out to a drug treatment specialist.

Matching Screens With Patients

Certain screening instruments may work better for different age, gender, racial, and ethnic groups. There is some concern that cultural, gender, and age issues are not addressed adequately by the instruments currently available and that the instruments cannot detect the particular problems that may occur within different populations. No instrument has been shown to be consistently culturally sensitive with all ethnic populations (Cherpitel and Clark, 1995), although some instruments work better with some subpopulations of patients and are less culturally biased than others.

The CAGE has been found to have a higher sensitivity for identifying alcohol dependence in African Americans compared to Whites, while the AUDIT identifies alcohol dependence at roughly the same rate of sensitivity in both races (Cherpitel and Clark, 1995). AUDIT has been validated in six countries with disparate cultures, although not across the various cultures in the United States (Babor et al., 1992).

To assess the effectiveness of a given screening instrument with a given population, a clinician must

evaluate, among other factors, patients' understanding of the questions, their emotional responses to them, and the instrument's psychometric properties in the given patient population. Further studies in multiple populations are necessary to build on the current research and validate experiential knowledge. There is insufficient evidence at this time to support a recommendation for specific alternative screening instruments for different cultural groups. Nor do existing data suggest that special tools are necessary to screen different populations.

Nevertheless, some points can be made about some specific populations.

Pregnant Women

It is generally accepted that quantity/frequency criteria should be lower for females than males and that pregnant women should abstain from all alcohol and other drug use. Fetal alcohol syndrome is the most common preventable cause of mental retardation (Abel and Sokol, 1991; Centers for Disease Control and Prevention, 1993). Opiates and cocaine have been implicated in intrauterine growth retardation, premature births, neurobehavioral and neurophysical dysfunction, birth defects, cardiovascular problems in mother and fetus, spontaneous abortion and fetal compromise, vascular disruptions, and increased risk for infectious diseases including human immunodeficiency virus (HIV) (Bandstra and Burkett, 1991).

Because of the potential risk to the fetus, primary care clinicians should ask all pregnant patients about their drug use. The Panel recommends asking directly, "Do you use street drugs?" If the patient answers yes, advise her about possible negative effects on the fetus and recommend abstinence.

Of the alcohol screening instruments that have been modified for pregnant women, the TWEAK (Russell, 1994) (a phonetic acronym for its five questions: "tolerance," "worried," "eye-openers," "amnesia," "cut down") has been found to be the most effective for this population, for whom any use is relevant (Chan et al., 1993). Based on best clinical judgment, the Panel recommends the use of the TWEAK (reproduced below) for pregnant patients in the primary care setting.

Older Adults

A recent study found that for patients age 65 and older, the prevalence of hospitalizations for alcohol-related medical conditions and for myocardial infarctions are similar (Adams et al., 1993). As high as the numbers are now, projections of the future prevalence of alcohol-related problems indicate that the problems among older adults will increase appreciably, especially when the Baby Boom generation turns age 60. To ensure that older adults receive needed intervention services, stepped-up identification efforts by primary care clinicians are essential (DeHart and Hoffmann, 1995). Since warning signs of substance abuse (e.g., sleep problems, falls, and confusion) can be easily confused with or masked by other concurrent illnesses and chronic conditions associated with aging, the Consensus Panel recommends that all adults age 60 and older be screened for alcohol and prescription drug abuse as part of their regular physical examination. At the very least, those older adults undergoing key life transitions (e.g., death of a spouse, retirement, moving, or cessation of caretaker responsibilities) should be screened.

The CAGE and the Michigan Alcoholism Screening Test -- Geriatric Version (MAST-G) (Blow et al., 1992) are alcohol screening instruments that have been validated for use with older adults. The Consensus Panel recommends the use of the CAGE, again with a cutoff score of 1. The lower threshold is particularly important for this population because "age-related physical changes . . . can cause older people to develop more severe intoxication and subsequent problems at lower levels of consumption" (American Psychiatric Association, 1994a, pp. 201-202). There is also "some evidence of increased neural sensitivity to single doses of alcohol with age" (American Medical Association, 1995, p. 5).

Since the MAST-G was developed specifically for older adults, it provides a sound screening option for clinicians willing to spend the time required to administer this 24-item test, reproduced in Appendix C. Although the AUDIT has not been evaluated for use with older adults, it has been validated cross-culturally. Since there are few culturally sensitive screening instruments, the AUDIT may prove useful for identifying alcohol problems among older members of ethnic minority groups.

Individuals with chronic health problems also may be using a large number of prescription drugs, which can cause complications when combined with alcohol and other drugs. To screen for prescription drug use, a clinician can ask questions such as

- "Do you see more than one health care provider regularly? Why? Have you switched doctors recently? Why?"
- "What prescription drugs are you taking? Are you having any problems with them?"
- "Where do you get your prescriptions filled? Do you go to more than one pharmacy?"
- "Do you use any other nonprescription medications? If so, what, why, how much, how often, and how long have you been taking them?"

If the clinician suspects that prescription drug abuse may be occurring and the older patient is confused about her prescriptions, seeing more than one doctor, using more than one pharmacy, or seems reluctant to discuss her use, assessment is warranted.

Health Care Professionals

Health care professionals are not exempt from substance abuse problems and should be screened according to the same protocols applied to the larger primary care population. Limited histories should be obtained from all, and a thorough screening done if the provider is being prescribed a mood-altering drug -- especially when anxiety, depression, and generalized physical complaints are presented. Interventions with this population may be challenging because health care professionals may be convinced that they know about substance use, which they think somehow makes them immune to this problem (Sullivan et al., 1988). While the incentive to complete treatment is compelling -- a license and professional reputation are in jeopardy -- the high stakes may also make it unlikely that they will admit to alcohol or drug abuse on a simple screening. Providers also should watch for physical or psychological signs of substance abuse or behaviors like excessive prescribing or personal use among their colleagues.

Adolescents and Young Adults

Because epidemiological evidence indicates high risk among adolescents and young adults and since early intervention among this group can greatly reduce future health and other social costs, primary care clinicians should routinely screen these patients. According to the American Medical Association's *Guidelines for Adolescent Preventive Services* (GAPS), all adolescents should be asked annually about their use of alcohol, tobacco, and illicit drugs and about their use of over-the-counter and prescription drugs for nonmedical purposes, including anabolic steroids (Elster and Kuznets, 1994). However, since many teens do not receive annual physical examinations, the Panel recommends that screening occur every time they seek medical services, including visits necessitated by acute illness and accidents or other injuries.

Although the routine use of urine toxicology as part of the screening process of adolescents is not recommended, there are important exceptions. When there is a clinical reason to suspect a substance abuse problem (e.g., recent onset of an emotional or behavioral disorder, a change in school performance, or unexplained need for large sums of money), urine tests can be a prudent adjunct to the screening questions. Adolescents should not be tested without their knowledge and consent, except in a medical emergency.

The knowledge that a test will be conducted sometimes prompts more honest replies, although this is not always the case.

If any of the following risk factors or "red flags" are revealed during questioning and examination, the adolescent should be referred to a substance abuse treatment specialist with expertise in adolescent issues for a comprehensive assessment.

Risk Factors

- Physical or sexual abuse
- Parental substance abuse
- Parental incarceration
- Dysfunctional family relationships
- Peer involvement with drugs or alcohol or with serious crime
- Smoking tobacco

Red Flags

- Marked change in physical health
- Deteriorating performance in school or job
- Dramatic change in personality, dress, or friends
- Involvement in serious delinquency or crimes
- HIV high-risk activities (e.g., injection drug use or sex with injection drug user)
- Serious psychological problems (e.g., suicidal ideation or severe depression)

Detailed information about screening, assessing, and treating alcohol- and other drug-abusing adolescents is provided in TIPs 3 *(Screening and Assessment of Alcohol- and Other Drug-Abusing Adolescents)* and 4 *(Guidelines for the Treatment of Alcohol- and Other Drug-Abusing Adolescents)* (CSAT, 1993b, 1993c). The Consensus Panel that developed those documents recommends using the Problem Oriented Screening Instrument (POSIT) (Rahdert, 1991) because it covers 10 potentially problematic areas, takes only 20 minutes to self-administer, requires no training, is easy to score and interpret, is available in Spanish, and can be obtained free of charge from the National Clearinghouse for Alcohol and Drug Information. The POSIT does, however, require literacy. (See Appendix C for a copy of the POSIT and ordering information.)

Screening Techniques

Asking the Questions

The Consensus Panel believes that both physicians and nonphysicians can reliably screen for alcohol problems. Expanding the pool of people who screen to include nurse practitioners and physician assistants increases the likelihood that patients who should be screened are. Regardless of their professional positions, the clinicians should have proven screening skills: Early screening by unqualified people can lead to false reporting, which becomes part of the patient's record. Those screening should be familiar with the questionnaire and its interpretation, demonstrate considerable interviewing skills, be able to establish rapport with the primary care patient population, and be sensitive to the potentially stigmatizing nature of screening for alcohol and drug problems.

How the questions are asked tends to be more important than who is asking. One study demonstrated, for

example, that the sensitivity of the CAGE questionnaire is dramatically enhanced by an open-ended introduction: "Please tell me about your drinking" (Steinweg and Worth, 1993). Some problem drinkers and illegal drug users may feel embarrassed and guilty about their use; others may respond with hostility to questions raising the possibility of an alcohol or drug problem. To overcome discomfort with alcohol and drug screening questions and increase the likelihood of honest answers, clinicians should pose screening questions and accept patient responses matter-of-factly without judgment. Some clinicians report that assumptive questioning yields more accurate responses: "When was the last time you were high?" for example, is a better question than "Do you drink?" Other helpful questions are, "At what age did you first use?", "At what age did you use most frequently?", and "How many times did you use last month?" Ensuring privacy during the screening also reassures patients that the information they provide will be kept confidential and enhances the rapport between patients and clinicians.

Since screening also can reveal that a member of the patient's family has problems with alcohol or other drug use, clinicians should be sensitive to this possibility. The ongoing, long-standing contact with patients and their families that many primary care clinicians enjoy presents a unique opportunity to support non-using family members who are upset by a spouse's, child's, parent's, or sibling's substance abuse problem, confused about how to proceed, and exhausted from covering up or attending to the problem on their own. These relationships also smooth the way for clinicians to discuss possible substance abuse among other family members and devise a plan for intervening with all those who may be involved. In discussions like these, it is important to assure the patient that confidentiality will be maintained (see Appendix B).

Effective implementation of a screening system will require ongoing training, monitoring, training supervision, and attention to issues of reliability, empathy, appropriate responsiveness, and consistency over time. Use of a well-validated screening questionnaire reduces the risk of personal bias in interpretation.

Documenting Screening

It is important to remember that a positive screen does not constitute a diagnosis, even if the screen suggests a high probability of risky alcohol- or drug-related behavior. If and when the positive screen is confirmed by further assessment *and* discussed with the patient, clinicians should then explain the implications of including positive screening results in the medical record. While medical records are confidential, patients routinely waive confidentiality in order to provide information to insurers. Patients should be apprised of their right to deny insurers access to their medical records but warned that such a refusal could make it more difficult to obtain insurance coverage later. See Appendix B for more on confidentiality and patients' right to deny access.

The Consensus Panel recommends that clinicians flag charts with positive results, but because of confidentiality concerns, chart reminders should remain neutral and not identify the problem being flagged. Appendix B details three recordkeeping systems that protect patients' privacy.

Responding to Screens

Negative Screens

Even if the screen is negative, the Consensus Panel recommends periodic rescreening for substance abuse because problematic use of alcohol, illicit drug use, and their consequences can vary over an individual's lifetime. Since there is no clear scientific evidence to define appropriate intervals for screening in asymptomatic patients, the Panel recommends that clinical considerations govern the frequency of

rescreening. Indications might include presentation of medical conditions that are often alcohol- or drug-related such as hypertension or insomnia; diabetes or ulcers that do not respond to treatment; persistent requests for prescription drugs; unexplained weight loss; staph infection on face, arms, or legs; frequent falls; repeated fractures, lacerations, or burns; repeated trauma that suggests domestic violence; depression; and sexually transmitted diseases.

Positive Screens

Clinicians should present results of positive screens in a nonthreatening manner. For example, a clinician might say, "After reviewing your answers on the screening questionnaire, there are some things I'd like to follow up with you," or, "Your answers to this questionnaire are similar to the answers of people who may be having a problem with alcohol."

Clinicians must make some quick decisions at the time of screening to determine the appropriate clinical response. Three possible approaches are suggested based on severity of the problem and possible risk (none of the three is appropriate for an intoxicated patient, who may require an immediate response):

1. The clinician can follow up immediately with a brief assessment during the initial visit.
2. The clinician can schedule a subsequent visit for assessment if the screening results are inconclusive.
3. The clinician can decide to refer to another source for assessment.

In areas where specialized substance abuse resources are available, the Consensus Panel recommends that high-risk patients be referred for assessment. The following chapters of this TIP provide information on the next steps: conducting brief assessments and brief interventions and referring and following up on patients who need specialized assessments and treatment.

Chapter 3 -- Brief Intervention

The type and sequence of activities undertaken in response to screening results will depend on several factors: the severity of any positive findings, the specialized assessment and treatment resources available, and the primary care clinician's expertise in the substance abuse field.

All patients who undergo screening for alcohol and drug use should be told the results. Those who screen negative because they are abstinent should be commended for their health-conscious lifestyle with reinforcing comments about the benefits of drug- and alcohol-free living. The clinician may wish to ascertain, however, whether current abstinence reflects a lifelong commitment, a recent decision, or recovery from some previous episode of substance abuse or dependence that may indicate a potential for relapse. This can be resolved by saying, "Not drinking is a healthy decision. What made you decide not to drink?"

Patients with positive findings from the screening will need some type of followup. The next step may not be immediately apparent from the initial screening and depends on how much time and effort the clinician is willing to commit and how much training and experience she has in addiction medicine. The Consensus Panel recommends that clinicians at this point conduct a brief assessment to obtain more information. The questions should cover the severity of the suspected alcohol or drug involvement, the types and frequency of problems connected with the patient's use, and other special medical and psychiatric considerations. If the patient's responses suggest a diagnosis of a substance abuse or dependence disorder according to

criteria in the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV) (American Psychiatric Association, 1994a), the clinician should initiate a referral for an in-depth assessment.

However, if only mild to moderate substance abuse problems are apparent, if the patient appears to be at risk for experiencing negative consequences as a result of current consumption patterns, if coexisting illnesses or conditions may be exacerbated by continued drinking or other medications, or if the patient refuses referral for further assessment or treatment, the clinician can initiate a brief, office-based, therapeutic intervention.

Guidelines for Clinician Involvement in the Care Of Substance-Abusing Patients

In 1979, the American Medical Association issued guidelines recommending that all physicians with clinical responsibility become involved in the prevention and treatment of alcohol- and drug-related problems among their patients at one of the following three levels:

1. Minimally, by learning to recognize dysfunction caused by substance abuse as early as possible by taking a history of alcohol and drug use in any health examination (screening), identifying medical complications or symptoms that suggest alcoholism or drug abuse, attempting to match patient needs for ongoing assessment and treatment with available resources, and making a referral for appropriate medical care
2. To a limited extent, by assisting patients to become alcohol- or drug-free through management of withdrawal syndromes in preparation for more extensive assessment and/or treatment; teaching selected patients about the disease and formulating a plan for recovery; involving significant others, as appropriate, in the recovery plan; and continuing posttreatment medical management
3. Comprehensively, after acquiring specialized knowledge, training, and experience, by being available to patients for an indefinite period of recovery; establishing a nonjudgmental and supportive relationship; helping to develop, evaluate, and update an appropriate recovery plan; providing medical care and any necessary pharmacotherapy; involving the patient in appropriate health, social, vocational, and spiritual support systems, including an abstinent peer group; and continually monitoring, treating, or referring any complicating illness or relapse (American Medical Association, 1979a; Landry et al., 1991b; CSAT, 1995b)

Although these AMA guidelines were promulgated before the development and widespread use of brief interventions in office-based practices, this type of early care seems to fit naturally between the minimal responsibility for early identification of alcohol or drug problems and the more involved, but still limited, responsibilities of primary care clinicians for managing withdrawal and making treatment referrals.

Brief Intervention

Brief intervention is a pretreatment tool or secondary prevention technique that primary care clinicians can easily incorporate into their medical practice settings. Within one or several office visits, a clinician explains screening results, provides information about safe consumption limits and advice about changing, assesses the patient's readiness to change, negotiates goals and strategies for change, and arranges for compliance monitoring. These five steps are discussed in detail below.

Brief intervention is quite inexpensive for the yield, involving clinician-patient contacts of 10 to 15 minutes -- the typical duration of an office visit -- and a limited number of sessions. At least one followup visit is usually recommended, but the number and frequency of sessions depends on the severity of the

problem and the individual patient's response.

The broad goal of brief intervention is to get patients to reduce or eliminate alcohol or other drug consumption and thereby avoid or minimize associated problems, whether through the technique itself or through subsequent referral. The specific goal varies depending on the patient's current status and previous treatment attempts. For a patient who does not realize there is a problem, the goal may be to get the individual to start thinking about the issue and come back for another visit. A brief intervention could also be an appropriate primary prevention tool for the alcohol or drug user who is at risk for problem development because of a hazardous consumption pattern but has not yet experienced harmful consequences (e.g., the college student who is drinking heavily in a fraternity setting). For patients who recognize that some of their health or other problems are alcohol- or drug-related, and who are ready for and capable of change, the goal will be to reduce or eliminate substance use through specified steps. If the problem is more serious, and if initial attempts to change do not succeed, the goal of brief intervention is to convince a patient to accept a referral for more specialized assessment and treatment services.

Brief intervention is an appropriate response to the types of patients mentioned above for several reasons. A specialized alcohol and drug treatment network has been developed for persons with relatively severe and chronic substance abuse disorders, but the majority of patients seen in most general practice medical settings are likely to have only mild to moderate substance use problems and may not require treatment in this formal system. Since rapid progression to a full-scale substance abuse or dependence disorder is not inevitable, specialized treatment is not always advisable. Spontaneous remission occurs in substance disorders as in many other medical conditions, so brief intervention may be all that is needed (Sobell et al., 1993; Vaillant et al., 1983).

Furthermore, brief intervention in a primary care setting does not wield the stigma associated with longer-term specialized treatment. In fact, specialized substance abuse treatment could actually cause harm if, for example, a patient is coerced into participating in a treatment program that is antithetical to her values or if her coexisting psychiatric illness is ignored during formal substance abuse treatment. Nor are light to moderate consumers of alcohol and other drugs likely to seek help directly from the specialized substance abuse treatment system, particularly if problems related to substance use are transient or only mildly inconvenient. Many persons do not recognize -- or they deny -- that their difficulties are directly caused by or complicated by alcohol or drugs. The physical condition or health concern that brings the patient to a primary care clinician's office offers a "teachable moment" -- through a traumatic crisis or a welcomed event such as pregnancy -- in which the risk factors associated with alcohol and other drug consumption can be pointed out and behavior potentially changed.

Since all treatment must be considered in the context of risk/benefit analysis, a conservative and palliative approach within a primary care setting may be preferable to specialized treatment absent a well-substantiated diagnosis of a substance use disorder (Institute of Medicine, 1990). Brief interventions as secondary prevention tools have the potential to help an estimated 15 to 20 million heavy drinkers in the U.S. alone by minimizing serious adverse consequences such as costly emergency room visits, domestic violence, or road accidents (National Institute on Alcohol Abuse and Alcoholism, 1993). The occasional alcohol- or other drug-related problems of a very substantial number of moderate users account for a large share of the public health burden (Samet et al., 1996).

Effectiveness in General Medical Practice Settings

Clinical trials and research studies in this country and abroad over the past 15 years have demonstrated the feasibility and effectiveness of brief intervention (Kristenson et al., 1983; Persson and Magnusson, 1989; Romelsjo et al., 1989). The technique is commended as practical and cost-effective by the Institute of Medicine, and several variations have been evaluated as successful on a number of dimensions (Institute

of Medicine, 1990). Convincing evidence compiled over the past 20 years demonstrates that this approach, when used with carefully selected patients, can reduce or eliminate alcohol consumption and ameliorate or markedly limit associated problems (Orford et al., 1976; Edwards et al., 1977; Bien et al., 1993). Though few studies have included illicit drug users, the Panel believes that brief intervention has the potential to stop or curb some patients' drug use also.

Most research on brief intervention has focused on patients who are moderate to heavy drinkers rather than alcohol dependent, with encouraging results. Brief interventions of even a single session can decrease alcohol consumption and its harmful consequences by 20 to 50 percent (Kahan et al., 1995). Even modest effects for 10 to 20 percent of participants are potentially important because of the prevalence of alcohol-related problems and the large public health implications (Bien et al., 1993). Researchers in one large-scale English study estimated that 15 percent of patients with alcohol-related problems in general practice settings would reduce consumption to moderate levels following a 10-minute brief intervention (Wallace et al., 1988).

In a large-scale preventive health effort in Malmo, Sweden (Kristenson et al., 1983), heavy drinkers identified by elevated liver enzyme levels of gamma-glutamyl transferase (GGT) were encouraged to lower their alcohol consumption and received monthly checkups with a nurse and quarterly followups by a physician. Compared to a control group receiving no treatment, these heavy drinkers more successfully reduced their absenteeism and hospitalization rates as well as mortality over a 6-year period. Another important study found no difference between the effectiveness of advice and counseling about drinking practices delivered by alcohol treatment specialists in a traditional outpatient setting and that provided by general practitioners with the support of specialist staff in a medical setting (Drummond et al., 1990). At 6-month followup, both groups exhibited similar improvements on a variety of drinking-specific and other related outcomes.

The research literature on brief interventions demonstrates that this approach works for women as well as men (Sanchez-Craig et al., 1989). Recent studies (WHO Brief Intervention Study Group, 1996) supported by the World Health Organization in 10 countries confirm that brief interventions can work in a variety of cultural settings and with diverse populations and health care systems. However, no studies pertain to the specific applicability of this technique for older adults or adolescents.

Although research studies have established the important short-term effects of brief interventions, the relative effectiveness of different components is not yet clear. Specifically, the optimal number and duration of brief advice visits is not known. While studies of smoking cessation programs indicate that four or five interventions work better than one (Kahan et al., 1995), and some researchers have found correlates between additional followup contacts and alcohol consumption reduction (Wallace et al., 1988; Persson and Magnusson, 1989), other studies have found no advantage beyond single sessions (Chick et al., 1988; Babor and Grant, 1992) and no difference in outcomes between 5-minute sessions and 30- to 60-minute visits (Chick et al., 1988).

Other research focusing on the educational component of brief interventions have found that having patients read self-help booklets and manuals can be an effective intervention with heavy but nondependent drinkers (Heather et al., 1986, **1990). (See Appendix D.)

Selecting Appropriate Patients for Brief Intervention

In response to screening questionnaires or other suggestive symptoms or laboratory findings from an office visit, patients can be categorized into one of three groups:

1. Patients who do not appear to have any alcohol- or drug-related problems; either abstain from alcohol and illicit drug consumption altogether or drink at acceptable, nonrisky social levels; and do

not have other complicating medical conditions or medication needs that require temporary or permanent abstinence. These patients require no further intervention at this time.

2. Patients with positive but low scores on any screening tests (e.g., one positive response to the CAGE [Ewing, 1984] or CAGE-AID [Brown and Rounds, 1995] or a score of less than 8 on the AUDIT [Babor et al., 1992], see Chapter 2) and light to moderate alcohol use (e.g., above established cutoff limits), occasional use of marijuana (e.g., five or more episodes in a lifetime), or questionable use of mood-altering prescription medications. These patients may be appropriate candidates for a brief intervention.
3. Patients with several positive responses to screening questionnaires and suspiciously heavy drinking or drug use histories, symptoms of substance dependence, chronic or escalating use of addictive prescription medications, current use of illicit drugs, or complicating medical illnesses and psychiatric disorders. These patients need further in-depth assessment to confirm a substance use disorder.

This separation into groups requires some clinical judgment but can usually be accomplished quickly and easily with a brief assessment that follows up on positive responses to the screening instruments and clarifies the information provided. For example, further questions about why a patient acknowledges "feeling guilty" about drinking (on the CAGE questionnaire) may reveal alcohol-related difficulties with the family or at work (Brown, 1992). Additional questions to elucidate a patient's current (within the last 12 months) drinking or drug-using pattern are also appropriate, especially if tolerance and a likelihood of withdrawal effects are suspected. A review of the patient's chart may be indicated if medications are prescribed that will be affected by alcohol or other drug use, if the patient may be pregnant or planning to conceive, or if other medical or psychiatric conditions are present that could be exacerbated by otherwise acceptable alcohol use patterns. A patient's earlier substance abuse and psychiatric treatment history can also help the clinician decide whether to perform a brief intervention or refer for specialized assessment.

Samet and colleagues (Samet et al., 1996) recommend that clinicians

1. Ask explicitly about any adverse consequences of substance use -- on family, work, social relationships, and health.
2. Inquire about loss of control when using the primary substance.
3. Determine whether the patient perceives the alcohol or drug use as problematic ("How much of a problem do you think you have with drinking?").
4. Assess the patient's readiness to change.

In general, patients with recurrent and significant alcohol- or other drug-related problems within the past 12 months that interfere with role performance; cause legal, social, or interpersonal problems; or pose dangers to the individual and others are less likely to respond to a brief intervention. Not all patients, however, who experience a serious alcohol- or other drug-related incident need referral for specialized substance abuse treatment: The college student injured in an auto accident may have been driving while intoxicated but not be a regular consumer of alcohol or other drugs. Patients with several additional diagnostic criteria for substance dependence (e.g., physical tolerance, withdrawal symptoms, uncontrollable use, unsuccessful attempts to reduce consumption, or an intensive and excessive focus on obtaining the substance with accompanying impact on other occupational, personal, or social activities) are even more likely to require specialized and intensive treatment beyond the capabilities and time limits of the primary care clinician who is not an addiction specialist. Patients with a previous history of substance abuse treatment are not likely to achieve abstinence from an office-based intervention alone (Sanchez-Craig, 1990; Bien et al., 1993 ; Kahan et al., 1995).

Nonetheless, patients who are suspected to have diagnosable substance use disorders may initially resist referral for further assessment, even though they express a willingness to participate in a brief intervention.

Even though they are unlikely to be very successful in cutting down their use or maintaining recovery for any length of time through informal self-help mechanisms, a brief intervention may help motivate them to accept the needed referral or come to terms with the diagnosis (Chafetz, 1961, 1968; Chafetz et al., 1962, 1964; Brown, 1992).

Brief intervention is not necessarily a one-time activity conducted only in response to an initial positive screen. Some patients may successfully reduce their consumption or abstain for some period of time, only to relapse or resume heavy and risky use at a later point in response to stress. Ongoing monitoring by the clinician, even if quite informal, is a logical part of the health care provider's responsibility for continuity of care and patient supervision (Institute of Medicine, 1990).

Critical Components of Brief Interventions

The Consensus Panel recommends that brief interventions include five components, although the individual needs of the patient should ultimately shape the clinician's response beyond this basic framework, and each case will follow its own course. For example, a patient who makes an office visit specifically to discuss a substance use problem (a rare occurrence) would be approached differently than a patient with a suspected substance use problem that is uncovered during a visit. The sequence and specific emphasis placed on these five key elements can be quite different for individual patients, and other brief intervention models exist. However, the following are the most common components.

1. Give feedback about screening results, impairment, and risks while clarifying the findings.
2. Inform the patient about safe consumption limits and offer advice about change.
3. Assess the patient's readiness to change.
4. Negotiate goals and strategies for change.
5. Arrange for followup treatment.

Each of these steps is discussed in more detail in the following paragraphs, along with what could be considered a sixth step -- referral for more in-depth assessment or to specialized treatment.

1. Give feedback about screening results, impairment, and risks while clarifying the findings

The clinician should report and interpret the findings (e.g., questionnaire answers, laboratory results, or observations from the examination) that have led to concern about the patient's substance use. Prompt feedback is one of the key elements commonly found in successful clinical trials of brief interventions (Bien et al., 1993). All results should be presented in a straightforward, nonjudgmental manner and framed in medical terms the patient can readily understand. Concerns about potential or actual health effects should be stressed (Fleming, 1995). Following are some sample scripts.

- "I notice from your answers to the CAGE questionnaire that your drinking has caused you some concern. You also state that you are consuming a six-pack every afternoon. Can you tell me more specifically what your concerns are?"
- "I'm concerned about your GGT levels. These indicate you may be drinking heavily and this could be causing some liver damage. Just how much and how often are you drinking?"
- "Your urine screen shows the presence of cocaine (or heroin or cannabis). Could you tell me about your drug use?"
- "Your responses to our screening questionnaire and my physical examination indicate that you have some symptoms of alcohol dependence. I noticed that you have a slight tremor in your hand and you're reporting insomnia and occasional morning drinking as well as substantial drinking overall. Has this been a concern of yours too?"

- "I'm concerned about how your alcohol use is affecting your pregnancy. Your baby could suffer severe abnormalities as a direct result of your drinking."
- "I'm concerned that your alcohol use is related to many of the problems that we've been talking about."
- "At this level of consumption, you are at increased risk for some health problems as well as accidents."
- "You've said that you've been smoking pot for the past several years. You know about the trouble you could get into legally, but I'm concerned about your health."

In presenting positive screening results to a patient, the primary care clinician must avoid being adversarial and should pay careful attention to semantics. For example, the phrase "people for whom substance use is creating problems" is less off-putting than the pejorative labels of "alcoholic" or "addict." Neutral, nonstigmatizing language allows both clinician and patient to discuss substance use as potentially problematic with negative effects that can be confronted and addressed in much the same way that diabetes is.

Clinicians also must recognize that positive findings from the screening or initial assessment may trigger resistance or provoke feelings of guilt, shame, or anger. These negative reactions can usually be counteracted if clinicians continue to focus on the relationship between the health complaint that originally prompted the patient's visit and substance use or on the negative consequences of the patient's alcohol- or drug-using behavior as revealed in the screening. To ease this discussion and gain as much information as possible, clinicians should

- Try to avoid arguments or discussions about how much others can drink without adverse consequences.
- Maintain the role of medical expert with important knowledge about potential negative health effects that must be conveyed to the patient.
- Be reassuring that alcohol and drug problems are not anyone's "fault" and can certainly be addressed.
- Remain tolerant of the range of patient reactions, including astonishment, embarrassment, hostility, and denial.

2. Inform the patient about safe consumption limits and offer advice about change

Once screening results and health risks or concerns are conveyed, the primary care clinician needs to explain to the patient what acceptable and safe use levels are for the relevant substance. Most high-risk or heavy drinkers do not realize that their alcohol consumption patterns are not "normal" (Fleming, 1995). Acceptable levels for alcohol use can be stated as quantity/frequency indicators considered nonhazardous for most adults or given as population norms. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) defines *low-risk* drinking as "no more than two drinks per day" for men and "no more than one drink per day" for women, with never more than four drinks per occasion for men, three for women (National Institute on Alcohol Abuse and Alcoholism, 1995b, p. 1). It is crucial to note, however, that safe consumption limits are only relevant for low-risk or at-risk drinkers -- and not always for them. There are no safe levels for patients meeting the DSM-IV criteria for substance abuse or dependence or for others with specified medical conditions such as pregnancy, breast cancer, or peptic ulcer. Drinking or drug use is never acceptable for adolescents. Hence, abstinence may be the goal for many patients.

The concept of low-risk use does not apply to illegal drugs. While reducing consumption (e.g., smoking a decreasing number of marijuana cigarettes per week) may be a realistic intermediate step, abstinence from illegal drugs is always the ultimate goal.

Even with alcohol, the personal characteristics and behaviors of the patient must be taken into consideration in defining low-risk use. Body weight, age, and gender influence reactions to alcohol as do interactions with other prescription drugs and health conditions. Patients also should understand concepts of tolerance and metabolism rates. Even one or two drinks can be dangerous if consumed rapidly and on an empty stomach, especially by persons who do not drink regularly. Although States have established blood alcohol concentration levels beyond which driving is illegal, these are usually much higher than levels at which reaction times are slowed. Hence, low-risk use varies across substances and individuals.

Persuasive advice from the clinician has been described as the essence of the brief intervention (Edwards et al., 1977) and is the component found most often across 32 research studies of brief intervention (Samet et al., 1996; Bien et al., 1993). The health care provider should clearly state her own recommendations about consumption goals at this point, keeping these in the context of lifestyle issues and living habits (Kristenson et al., 1983; Chick et al., 1984). The more the advice can be integrated with health concerns and consequences of continued use, the better the chance of success. Clinician authority in offering advice can be strongly motivating, even though the patient's responsibility and capability for complying needs to be encouraged too. Some sample comments follow.

- "Your blood pressure is high and your abdominal pain may be caused by gastritis or an ulcer. Until we can investigate further, I'd like you to stop drinking for at least 6 weeks to let your stomach heal. Do you think you can do this?"
- "Since I'm going to prescribe some pain medication for your shoulder that interacts with alcohol, I don't want you to drink for the next several weeks. I'm also concerned that your regular consumption habits seem to be above safe levels for women. When you are finished with the medication, I suggest that you cut down to no more than one drink a day, especially since you're also complaining about occasional insomnia. Let's talk more about this when you come back in 2 weeks."
- "Thank you for being honest with me about your marijuana use. One concern of mine is your asthma, because marijuana smoke does affect your lungs. Why don't we work on a plan to help you quit."
- "In reviewing your responses to our screening questionnaire, I notice that you are drinking a lot of beer on weekends. You don't seem to be having any direct problems as a result, but I'm concerned that driving while intoxicated is not safe and you have a young family to consider. I'd like you to read this pamphlet and talk more about this when you come back next month to get your allergy shot. I hope you will think seriously about cutting back on the beers before you do have some problems."
- "You say you've been taking 'speed' to stay awake during your second job, and I'm worried that you're developing a dependence on amphetamines. Let's talk about other, healthier ways to get you through your night job."

Primary care clinicians will not have time and are not expected to educate each patient about all possible hazards of alcohol and other drugs. Substance-specific pamphlets are useful at this stage of the brief intervention to reinforce and expand on what the clinician has said. (See Appendix D.) Some clinicians may train other office staff (e.g., nurses or health educators) to assist with providing relevant information or helping patients to develop specific strategies for change and to recognize risky situations and "triggers" that frequently lead to substance abuse.

3. Assess the patient's readiness to change

The clinician must keep in mind the incremental nature of behavioral change and understand that many patients find such change difficult. A useful analogy is heart disease risk. A clinician may advise a patient to stop smoking, begin a regular exercise program, modify his diet, and lose 40 pounds to reduce the risk

of heart disease, knowing, however, that incremental progress toward these goals is all that can be realistically expected. In making recommendations, the patient's readiness and willingness to change should also be taken into account. People with substance use disorders generally fall into one of five stages along a continuum that provides a useful framework for monitoring progress (Prochaska et al., 1992). The stages are

1. Precontemplation -- Not seeing the behavior as a problem or not wanting to change the behavior. This stage is sometimes characterized as "denial."
2. Contemplation -- Beginning to understand that the behavior is causing difficulties in living or taking a toll on their health and happiness.
3. Preparation/Determination -- Considering various options for change.
4. Action -- Taking concrete steps to change the behavior in a specific way.
5. Maintenance -- Avoiding relapse into the problem behavior.
6. Relapse -- Slipping back into problematic use or abuse.

Most patients in primary care settings are in one of the first three stages and can be expected to express ambivalence or resistance to change, at least initially. A few patients may be taking concrete actions already or even experiencing a relapse (Marlatt et al., 1988; Miller and Rollnick, 1991; Prochaska, 1994).

There is not necessarily a correlation between severity of substance use and a patient's readiness to change. Life events such as marriage, divorce, death in the family, job change, or moving may put individuals at a greater risk for substance-associated problems and may also affect their readiness to change. For example, a study of trauma patients found that some associated their injury with their alcohol use (Longabaugh et al., 1995). Such an acknowledged association can be seen as an indication of readiness to change, and the clinician can help the patient move further along that continuum.

Patients' reactions to initial feedback about screening results or a recommended referral for further assessment or specialized treatment also offer strong clues regarding their readiness to change. Since only a few can be expected to offer immediate agreement, the primary care provider must be prepared for resistance and setbacks. If clinicians encounter resistance to the brief intervention from their patients, they should avoid the temptation to regard this as a challenge to their authority or to react in an authoritarian way. Studies show that the more confrontational or directive the clinician, the more resistant the patient is likely to be (Miller and Sovereign, 1989). Conversely, an empathic and supportive attitude creates a safe environment that the patient will feel comfortable coming back to, even if goals are not successfully achieved. A clinician should not think of resistance as failure, because one of the goals of treatment is to move patients along the readiness-to-change continuum. Each discussion of the substance abuse problem will help the clinician understand a patient's readiness to change and may move a patient from contemplation toward action.

Developing a realistic sensitivity to the patient's location on this continuum can be key to a successful intervention. Samet and colleagues have developed a useful set of interview guidelines, summarized in Figure 3-1 below, to help the primary care clinician respond appropriately to patients in each of the six readiness-to-change stages (Samet et al., 1996).

4. Negotiate goals and strategies for change

If the patient indicates a readiness and willingness to change, it is time for the clinician and patient to explore the possibilities and work together to develop a realistic plan with goals the patient considers achievable. With alcohol, the clinician can first suggest that the patient reduce consumption to below unsafe or potentially hazardous levels. If the patient feels this is impossible, the clinician should ask, "What do you think you can do?" If a patient who is using illegal drugs or abusing prescription drugs does

not feel ready yet to discontinue use, the clinician can suggest a tapering schedule. Ultimately, the patient must choose the goal: The clinician can only remind the patient that reducing or stopping alcohol use or abstaining from other drug use will help eliminate the health or social problems substance use is causing.

Following are some sample scripts:

- "Based on what we've been discussing, would you be willing to change your drinking habits (or drug use)?"
- "Can we set a specific date to reduce your alcohol use? Could you cut back, beginning this week?"
- "Since you agree to cut back on your drinking, you may find that this booklet offers some helpful advice about how to go about it."
- "Would you be willing to see a counselor to discuss your drug use further? Think of this referral as comparable to sending you to a cardiologist for a heart problem."

Patients will be more motivated to change if they are helping to set goals and develop strategies for change. Some studies have found self-help manuals to be a helpful adjunct for planning change (Chick et al., 1984; Heather et al., 1990). One study of brief interventions for problem drinkers concluded that women may prefer to use self-help instruction manuals because of their fear of social stigma (Sanchez-Craig et al., 1989). The clinician also can suggest readings or specific strategies (e.g., what to do instead of drinking or what reminders might be useful when consumption seems appealing). A patient can gather information and put his own problem in a context by attending an open 12-Step meeting.

The clinician can also suggest that the patient keep track of consumption in a daily diary. Many substance users are unaware of the quantity they consume or deny actual patterns to themselves and others. Daily diaries to record actual consumption have been found to be more accurate than general recollections (Antti-Poika et al., 1988). Even patients who are not ready to change their behavior may be willing to keep a diary. A written contract is often a good idea too; sometimes patients forget what they agreed to do. Clinicians can fold the written contract into an information book for the patient and keep a copy for themselves.

Figure 3-1: Interview Approaches that Account for the Patient's Readiness for Behavioral Change

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Permission could not be obtained for electronic reproduction. Please consult the source or a hard copy of this TIP (24) to obtain a copy of Figure 3-1.

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The goals of the intervention must reflect a patient's current situation and responsibilities in life. For example, abstinence should be a goal for a pregnant woman or one who is trying to conceive since alcohol or drug use in the first trimester -- especially in the weeks immediately following conception -- is especially dangerous to the fetus. On-the-job abstinence should be the goal for airline pilots, physicians and nurses, or school bus drivers; and nobody, of course, should drink and drive. Patients taking a variety of medications that interact harmfully with alcohol or other illicit drugs, including many over-the-counter preparations, should at least temporarily suspend drinking or other drug use. The effects of alcohol are particularly enhanced by sedatives, sleeping pills, anticonvulsants, antianxiety drugs, antidepressants, and some painkillers. Finally, patients with mental disorders such as schizophrenia or bipolar disorder should not consume alcohol or other drugs since use can prompt reemergence of symptoms and associated problems of medication compliance or reactions (see Appendix A for more on drug-drug and drug-alcohol

interactions).

It is difficult to negotiate ways to address patients' substance use without understanding the larger context of their lives. Women are more likely than men to abuse prescribed sedative-hypnotics, and prescription drug abuse is a problem among elderly patients (Seale and Muramoto, 1993). The course of the brief intervention is also influenced by the patients' language and culture. Direct confrontation is anathema in some Native American and Asian cultures, and the clinician must adjust his or her approach accordingly. Health care providers have found an emphasis on health status the most persuasive tack with Appalachian substance users. Problem users in that culture can best explain -- to themselves and their peers -- their need to abstain on that basis. In short, each patient must be treated individually, and the clinician's relationship with the patient is the best source of information about the patient.

5. Arrange for followup treatment

Once the patient and clinician have negotiated a plan of action to address the patient's substance abuse, they need to monitor progress. Any medical problem other than substance use (e.g., high blood pressure) should also be monitored, as should abnormal physical markers (e.g., elevated GGT levels). Patients need help in making progress, and whatever tools work should be used. It is encouraging for patients to see measurable changes, for example, in mean corpuscular volume and GGT levels.

Monitoring compliance is a trust issue. The clinician should express trust in the patient; then, if the patient is not honest about reporting substance use, the clinician must confront the patient and renegotiate the parameters of the relationship. Making honesty one of the ground rules works surprisingly well. The wish to preserve the trust of the clinician can be a part of what motivates patients to continue returning for followup monitoring. If a patient tries to deceive the clinician, the clinician should persist: "Your continued use of [alcohol or other relevant drug] is a problem. What do you think will help you stop using?"

Use of a collateral informant is another way to monitor compliance, but that can be problematic. Enlisting a patient's significant other to help monitor the patient's progress should be framed as a supportive rather than a policing effort. Before suggesting or agreeing to monitoring by a significant other, the clinician needs to be aware of marital and family dynamics, especially the potential for violence.

A clinician using urine samples, Breathalyzers', and other toxicology tests may seem intrusive and suspicious to some patients, while others welcome the discipline imposed. The use of any form of objective monitoring beyond self-reports of substance abuse consumption must be negotiated between the clinician and the patient. Biological monitoring, if implemented, should be viewed as an informative measure, not cause for punitive action. Repeated positive urine tests or elevated GGT levels simply mean that the informal strategy for reducing or eliminating substance use is not working and that alternative approaches should be considered. Clinicians must also remember that biological markers, by themselves, do not necessarily provide an accurate reflection of substance use. GGT levels may reflect liver damage caused by factors other than alcohol; positive urine screens may be triggered by other legal substances or reflect use before a patient agreed to stop using a particular drug. Laboratory tests work best in conjunction with open communication between the clinician and the patient.

The number of followup visits that should be scheduled will depend on the severity of the problem, the patient's response, and the clinician's available time. At least one researcher (Wallace et al., 1988) found that reduction of alcohol consumption correlated directly with the number of practitioner intervention sessions that were delivered, although the improvement in outcomes may have been due to self-selection bias, with more motivated patients changing their drinking habits and returning for more followup visits.

Finally, patients should be told exactly who will see their medical charts and what information about the screening and intervention will be recorded, particularly if the clinician is part of a health maintenance

organization or sends bills to a third party insurance carrier. The complex issues involved in protecting the confidentiality of patients with substance abuse problems are discussed in more detail in Appendix B.

Deciding to refer for further assessment or treatment

One of the most important concepts of substance use treatment is that one treatment failure is no reason to give up. Clinicians should be prepared for the brief intervention to fail: The patient may not be able to achieve or maintain the mutually established goal of reducing or stopping use after one, or even several, tries.

Also, even though abstinence may be the ultimate goal of an intervention, clinicians must be willing to accept limited, incremental goals. The concept of relative recovery can be useful. An individual may not regain perfect health but may improve. A brief intervention targeted at substance use is not the same as a single dose of medication that will resolve an infection. Rather, substance use disorders are chronic conditions that often need repeated interventions or treatments before progress is stabilized. Incremental steps toward improvement are necessary not only in patient behavior but also in the patient's attitude and readiness to change. Clinicians should not expect that patients with problems related to alcohol and other drug use will have any less difficulty than other patients in making significant lifestyle changes. Lack of success in following the advice given and the strategies undertaken in a brief intervention can be a learning and motivating experience, evidence to a patient that substance use may be a bigger problem than previously thought. The clinician can steer a patient toward such a revelation by saying something like, "You weren't able to cut down your alcohol use as you contracted to do. Does this make you think this is a bigger problem for you than you thought?" Failure to achieve the goals of an initial brief intervention may move the patient along the continuum of change.A clinician cannot force a patient to undergo further assessment or accept a referral for specialized treatment even if the substance use disorder is severe. If the patient is only willing to accept a brief intervention, the clinician initially should try to work within this limitation, although some instruction should also be provided about the possibility of experiencing withdrawal symptoms. Arrangements for more intensive and frequent followup will also be needed.

As stated above, brief intervention has several goals. If problem use persists after a brief intervention, those discussions between clinician and patient should serve as a springboard to a more in-depth assessment or specialized treatment.

Chapter 4 -- Assessment

Unlike brief intervention, in-depth substance abuse assessment requires specialized skills and consumes a substantial amount of time -- anywhere from 90 minutes to 2 hours. As a result, many primary care clinicians will refer patients suspected of having a substance abuse problem to specialists for both assessment and treatment, although clinicians in underserved areas or with expertise in substance abuse may assume partial or total responsibility for this function. However, even clinicians who will not perform substance abuse assessments should have a basic understanding of their elements and objectives so that they can

- Initiate appropriate referrals
- Participate effectively as a member of the treatment team, if required
- Better fulfill the gatekeepers' monitoring responsibility with respect to patient progress
- Carry out needed case management functions as appropriate

Throughout this chapter, *assessment* will refer to in-depth assessment as distinct from the postscreening brief assessment discussed in Chapter 3.

Assessment Parameters

Substance abuse assessment is the further investigation of patients (1) whose positive screening results indicate that substance abuse is likely and (2) whose responses to the questions in a brief assessment (see Chapter 3) suggest that compulsion to use, impaired control, presence of other psychosocial problems, or absence of social support will render brief intervention ineffective (College of Family Physicians of Canada, 1994). Information gained through an assessment will clarify the type and extent of the problem and will help determine the appropriate treatment response. Assessment

- Examines problems related to use (e.g., medical, behavioral, social, and financial)
- Provides data for a formal diagnosis of a possible problem
- Establishes the severity of an identified problem (i.e., mild, moderate, intermediate, or severe stage)
- Helps to determine appropriate level of care
- Guides treatment planning (e.g., whether specialized care is needed, components of an appropriate referral, and eligibility for services)
- Defines a baseline of the patient's status to which future conditions can be compared (National Institute on Alcohol Abuse and Alcoholism, 1995a)

If one thinks of screening as triage, then assessment is acquiring the information needed to direct a patient to appropriate treatment. At a minimum, patients must be assessed for

1. Acute intoxication and/or withdrawal potential
2. Biomedical conditions and complications
3. Emotional/behavioral conditions (e.g., psychiatric conditions, psychological or emotional/behavioral complications of known or unknown origin, poor impulse control, changes in mental status, or transient neuropsychiatric complications)
4. Treatment acceptance or resistance
5. Relapse potential or continued use potential
6. Recovery/living environment (American Society of Addiction Medicine, 1996, p. 6)

Assessing along these dimensions helps the assessor confirm that a substance abuse problem exists and recommend an appropriate level of care (see Chapter 5 for a discussion of substance abuse treatment systems and processes). Through a combination of clinical interview, personal history-taking, and self-reports, supplemented by laboratory testing and collateral reports as appropriate, the assessment process identifies patients' health problems, interest in and readiness for treatment, and feasible treatment options. It also provides information on a patient's familial, educational, social, and vocational supports and deficits. Like screening, assessment may be a recurring event if clinical evidence indicates the need.

Who Should Assess?

Professional position is less important than specific training for performing accurate assessments. Where possible, the Consensus Panel recommends referring patients to an experienced substance abuse specialist for intensive assessment. If referral is not possible, the Panel believes that physicians, physician assistants, and advanced practice nurses (nurse practitioners and clinical nurse specialists) with experience in empathic motivational interviewing may perform intensive assessments after receiving training in

- The signs and symptoms of substance abuse
- The biopsychosocial effects of alcohol and other drugs and likely progression of the disease
- Common comorbid conditions and medical consequences of abuse
- The terms used in the classification system of the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV) (American Psychiatric Association, 1994a), their interpretation, and their relationship to the findings that emerged during the assessment history
- The appropriate use, scoring, and interpretation of standardized assessment instruments

Understanding the Impact Of Culture and Gender

Clinicians performing in-depth assessments should also understand how patients' gender and cultural background bear on the characteristics and severity of the disease (Spector, 1996). For example, more males than females abuse alcohol and drugs, and older women are more likely than older men to abuse prescription drugs. Culture and gender also may influence patients' recognition of their problems (e.g., local cultural norms may condone or accept male drunkenness) and their reaction to the assessment process and recommended treatment interventions (e.g., substantial stigma may be associated with substance abuse treatment, especially for women and older patients of either sex). Assessors also should be aware of the influence of their own gender and cultural background on their response to patients with suspected substance abuse problems and on their interpretation of the information provided through the assessment process. While an understanding of "typical" patterns is useful in anticipating problem areas, experienced assessors resist the temptation to stereotype patients and subsume them within broad categories based on language, ethnicity, age, education, and appearance. An oft-repeated anecdote illustrating the dangers of stereotyping concerns a well-dressed, middle-aged woman and her disheveled teenage son seen in an emergency room following a car accident. The young man was screened for substance abuse; the mother was not. Several hours after admission, the woman went into alcohol withdrawal.

When referring patients for assessment, primary care clinicians should consider whether a particular patient will relate more readily to a male or female assessor of similar cultural background or if a patient who speaks English as a second language will respond more easily to questions posed in his native tongue (Spector, 1996).

Knowledge of Comorbid Mental Disorders

The relationship between mental disorders and substance use disorders is variable and complicated. The Substance Abuse and Mental Health Services Administration (SAMHSA) reports that, in the general population, 4.7 to 13.7 percent of individuals between the ages of 15 and 54 may have both a mental disorder and a substance abuse or dependence problem (Substance Abuse and Mental Health Services Administration, 1995). Intoxication with a drug can produce psychiatric symptoms that subside with abstinence, but for those with a mental illness, substance use may mask, exacerbate, or be used to ameliorate psychiatric symptoms; precipitate psychological decompensation; or increase the frequency with which individuals require hospitalization. Because substance abuse disorders often manifest symptoms similar to those of mental health disorders, misdiagnosis may occur.

Inadvertent bias may affect the assessment process when performed by addiction specialists who do not recognize or accept the role of mental disorders in prompting or sustaining substance use or who have no experience with dually diagnosed patients. Conversely, some mental health practitioners dismiss substance abuse as merely symptomatic of underlying mental health disorders and do not acknowledge it as a problem requiring specific attention. While screening results, per se, do little to illuminate comorbid mental health disorders, information gleaned through a patient's history or inability to respond to brief

intervention may suggest a mental health problem. If possible, primary care clinicians should refer patients to assessors who understand and are trained in mental health as well as substance abuse assessment and who are willing and able to expand the assessment process as needed to identify the multiple dimensions that may be contributing to a patient's problems (Institute of Medicine, 1990).

Whether referring for or conducting intensive assessments themselves, primary care clinicians also should be alert to the possibility of conflict of interest when assessors are linked to a program or practice providing substance abuse services. There may be financial incentives (e.g., fee-for-service arrangements) or ideological pressure to interpret assessment results in such a way as to steer patients to a particular program or treatment provider (Institute of Medicine, 1990). Aside from insisting on an independent assessment source, which may be impractical, clinicians have few options for ensuring objective assessments (Institute of Medicine, 1990). However, primary care providers who understand the purposes of assessment and are familiar with its components will be in a better position to identify and subsequently avoid biased assessors.

The Assessment Setting

Like screening, assessments must be conducted in private, and patients must be assured that the information they provide is confidential. Patients often will not reveal information about drug or alcohol use because they fear that information will be shared with their family members or employers or be used against them by law enforcement agencies or health insurance organizations. Prior to conducting an assessment, assessors should review current legal protections with the patient and discuss the limitations that apply to sharing information. (See Appendix B for a detailed discussion of confidentiality as it pertains to substance abuse.)

Assessment Components

Assessment comprises a medical and psychological history along with family, social, sexual, and drug use histories and a physical examination. (The physical examination and the interviews to obtain histories may be split, with a primary care clinician performing the physical and a nonmedical substance abuse specialist conducting the interviews. When this occurs, close collaboration between the two providers is essential.) In its 1990 report, *Broadening the Base of Treatment for Alcohol Problems*, the Institute of Medicine recommended conducting "sequential" and "multidimensional" assessments for alcohol problems (Institute of Medicine, 1990). The Consensus Panel recommends the same approach when assessing for other drug-related problems. Essentially, sequential assessment entails separating "the process of assessment into a series of stages, each of which may or may not lead into the next stage" (Institute of Medicine, 1990, p. 249; Skinner, 1981) depending on the information obtained previously. In this model, a broad-based assessment is conducted first. If the information compiled suggests that other problems may be present, such as a psychiatric disorder, then a series of progressively more intense procedures would be initiated to confirm and characterize that finding. This approach not only provides information needed for treatment planning, it saves both patient and assessor time. Moreover, by ensuring that "further information is necessary [it also] justifies its increased cost" (adapted from Skinner, 1981, in Institute of Medicine, 1990, p. 250).

A *multidimensional* approach to assessment ensures that the variety of factors that impinge on an individual's substance abuse (level, pattern, and history of use; signs and symptoms of use; and consequences of use) are considered when evaluating individual patient problems and recommending treatment (Institute of Medicine, 1990). Detailed characterization not only helps assessors match patients to appropriate available services, it also provides information useful in anticipating relapse triggers and planning for relapse management (see Chapter 5).

A number of assessment instruments elicit similar information (see Appendix C), and specialized substance abuse treatment assessors may use one or more with patients. Administering an instrument can take from 90 minutes to 2 hours, depending on the instrument(s). Training is frequently required, and costs for purchase and required staff time can be substantial. While primary care clinicians trained or experienced in addiction medicine may use the instruments described in the appendix, many clinicians will not because they lack the time, training, and resources to do so. Based on members' clinical experience, the Consensus Panel recommends that an assessment include at least the components presented in Figure 4-1.

The figure also includes additional questions on certain sensitive topics for situations in which primary care clinicians cannot refer for specialized assessment and require additional information in order to make a reasonable decision about the need for formal substance abuse treatment. In addition to the elements listed under the Mental Health History component in Figure 4-1, primary care clinicians contemplating a possible referral for treatment should evaluate level of cognition because it is such an important measure of a patient's ability to participate in treatment. Results of a mental status examination can support diagnoses of intoxication, withdrawal, depression, and suicidal tendencies and signal the possibility of psychosis and organic states such as dementia.

Assessment Instruments

Assessment instruments assist in gathering consistent information, clarifying and elaborating on information obtained through the patient history and physical examination, and establishing a baseline against which patient progress can be monitored. Instruments are not a substitute for clinical judgment, but the uniformity they introduce to the assessment process helps to ensure that key areas are not overlooked (Institute of Medicine, 1990). Standardized tools have already been tested for reliability and validity and offer assessors ready-made and carefully sequenced questions that are easy to use in patient interviews and relatively simple to score (National Institute on Drug Abuse, 1994). Some instruments can be self-administered, are available in multiple languages, are computerized, and are in the public domain. However, many require that those administering them be trained in their use.

Although the Consensus Panel does not recommend the use of assessment instruments in the primary care setting because of the time, training, and resources required to administer them properly, clinician members of the Panel with training in addiction medicine have had experience with a number of standardized assessment tools and found them effective. Appendix C describes selected assessment instruments and provides information on ordering them. Clinicians interested in reviewing instruments for possible use with their patients should consider

- The literacy levels required to take them
- Whether instruments can be easily administered to patients with language or comprehension problems
- If the questions are both appropriate for and sensitive to the kinds of problems encountered in primary care
- Whether the time and costs involved are reasonable (National Institute on Drug Abuse, 1994)

Supplementing Assessment Results

Collateral reports and laboratory tests are tools used to supplement and, in some cases, augment the information obtained during the intensive assessment.

Collateral Reporting

Collateral reporting (information supplied by family and friends) can help a clinician validate substance use because patients do not always reply honestly to assessment questions, especially those concerning illicit drug use. In addition, some patients cannot recall information accurately because of cognitive impairments. Collateral reports can be useful in determining or confirming

- Which substances a patient used
- Age at first use
- Frequency of use

Quantities used per occasion

- Duration of periods of abstinence
- Concurrent or sequential choice of substances
- Dysfunctional or inappropriate use of alcohol or prescription drugs (e.g., using anxiolytics or alcohol to induce sleep or sedatives to reduce anxiety)

However, before a clinician can obtain information from family members and significant others, the patient must give consent. In some cases, permission may be denied or family members will refuse to cooperate or cannot be contacted. While less than ideal, assessors in this situation may ask the patient, "Has anybody told you that you're doing this too often?" or "Has anybody complained about your behavior when you use?" Because people with substance use disorders are often "in denial," responses that provide a perspective that differs from the patient's account of his use and its consequences frequently suggest a problem. Sometimes, patients' explanations for why their interpretation conflicts with those of family and friends also can be useful in gauging a patient's understanding of his situation and readiness to change: "My wife is so rigid, drinking just loosens me up. When I'm uninhibited, she gets nervous." Or, "I just smoke pot to relax. What my Mom really doesn't like are my friends."

Supporting Laboratory Tests

Common laboratory tests for direct measures of recent alcohol use include blood alcohol content (BAC) levels, urine, Breathalyzers , and recheck Breathalyzers . These tests measure current use and are used for the most part by law enforcement and hospital emergency room personnel (National Institute on Alcohol Abuse and Alcoholism, 1993). Drug tests include analysis of urine, hair, and saliva, though the latter two are not commonly used.

Midanik reports that 71 percent of patients' self-reports matched the findings on their Breathalyzer tests when the patients knew the test would be given (Midanik, 1989). While studies of illicit drug use show varying reliability in patient self-reports, clinical experience with patients involved in alcohol-related motor vehicle crashes has found surprisingly high accuracy, considering the legal ramifications, in self-reports of alcohol consumption (Cherpitel, 1989; Gibb et al., 1984). Patients, however, may be more likely to provide accurate reports if they believe that disclosure may be important to their care for an illness or injury. Because of the limitations of self-reporting and of under-reporting due to the stigma associated with problem drinking, many assessors use laboratory testing to

- Confirm recent use (prior to recommending methadone, for example)
- Validate suspicions about recent use
- Support findings from the assessment pointing to chronic use
- Provide information about alcohol- and other drug-related physical problems (e.g., liver damage)

Alcohol: Blood alcohol concentration (BAC) determinations

Testing for blood alcohol concentrations (BACs) provides a short-term indicator useful in assessing current impairment caused by alcohol. Tests are typically conducted following involvement in traffic or other serious accidents or injuries where excessive drinking may be a factor. Blood alcohol concentrations are measured in milligrams (mg) of alcohol per deciliter (dl) of blood. This figure is converted to a percentage. One hundred mg/dl equals 100 mg percent or 0.1 percent. Thus, a BAC of 0.1 mg percent is equivalent to a concentration in blood of 100 mg of alcohol per deciliter of blood.

A woman weighing 150 pounds would achieve a level of 100 mg/dl if she drank approximately four drinks in an hour (six drinks in an hour for a 200-pound man), with a standard drink defined as 12 ounces of beer, 1_ ounces of liquor or distilled spirits, or 5 ounces of wine. However, individuals' alcohol metabolism varies not only according to gender and body weight, but also by food ingested, speed of alcohol consumption, age, and physical condition, among other factors.

In men, impairment from alcohol consumption has been shown to occur at the level of 50 mg/dl, though fine motor skills can be impaired at lower levels. In women and elderly persons, impairment may occur at even lower levels. The probability that an auto crash will occur begins to rise when the driver's BAC exceeds 40 mg/dl (American Medical Association, 1986), and climbs steeply as BAC moves up to 100 mg/dl. Most people demonstrate impaired driving at levels of 50 to 70 mg/dl.

Most persons metabolize alcohol at a rate of 15 to 25 mg per hour. Thus, the longer the time between imbibing and testing, the lower the BAC. Vomiting also may eliminate alcohol from the stomach before it reaches the blood.

A single elevated blood alcohol level does not provide information about the regularity and severity of alcohol abuse unless the counts are extremely high. For example, a level of 200 or higher without noticeable intoxication indicates a high degree of tolerance to alcohol, which suggests alcohol dependence.

In emergency situations or hospital-based settings, especially when responding to trauma victims, BACs contribute information important to clinicians in devising effective treatment plans. However, the Consensus Panel does not recommend their routine use in the office-based primary care setting.

Alcohol: Gamma-glutamyl transferase (GGT)

Alcohol, almost all types of liver disease, and a variety of other diseases including hepatitis, pancreatic cancer, and diabetes mellitus, can increase the activity of the enzyme gamma-glutamyl transferase (GGT) in the blood. GGT tests measure damage to liver cells; a rise in GGT levels has been correlated with an increase in alcohol intake (Persson et al., 1990). Because other conditions, as well as age, lifestyle, and gender, also affect its activity levels, GGT is an imperfect indicator of heavy alcohol use. Nevertheless, among problem drinkers and alcoholics, it can be useful in encouraging patients to provide honest answers to assessment questions, in evaluating the health impact of chronic, heavy alcohol use, and in monitoring progress in treatment (National Institute on Alcohol Abuse and Alcoholism, 1993). Based on their clinical experience, members of the Consensus Panel recommend checking the GGT as part of the assessment process. If it is elevated, lowering it can serve as a measurable goal of treatment.

Two relatively new tests, carbohydrate-deficient transferrin (CDT) and aspartate aminotransferase (AST) appear to have some value in identifying heavy alcohol consumption, and researchers are investigating a number of other measures in an effort to develop improved diagnostic tools. Until large-scale studies begin to confirm their effectiveness for screening and assessment, these tests will be used primarily by researchers (National Institute on Alcohol Abuse and Alcoholism, 1993).

Illicit drugs: Urine tests

Typically, urine tests for illicit drugs provide information on a patient's recent use of sedative-hypnotics, cocaine, opiates, and cannabis, although screening for other drugs (e.g., phencyclidine or LSD) can be specially requested. Patients who have used drugs within 72 hours prior to the test -- regardless of whether they are dependent on the drug or are using it for the first time -- will screen positive. A drug user who knows that testing is likely or who, for a variety of other reasons, has abstained from drugs (other than marijuana) within that time period will test negative. Since marijuana is fat-soluble, its metabolites can be detected in urine for 2 weeks or longer, depending on the sensitivity of the test and the patient's pattern of use.

Testing methods differ in sensitivity. Enzyme immunoassay (EIA) and radioimmunoassay (RIA) are commonly used for routine drug screening (Sullivan, 1995). Gas chromatography-mass spectrometry (GC-MS) is a separate technology that is considerably more sensitive and is used to confirm positives from EIA and RIA tests. Some laboratories automatically confirm all positive tests with GC-MS. If a laboratory does not follow this procedure and an assessor is using the results for any purpose other than clinical confirmation (e.g., when an employment- or court-mandated screen is positive and job security or legal status is threatened as a result), the positive test should always be verified by GC-MS.

Much like supplemental laboratory tests for alcohol, urine tests may be used during assessment to encourage honest responses to questions, to confirm suspicions about use when it is denied, and to verify use of heroin prior to referral or admission to a methadone program. During treatment, urine tests help to monitor progress and, in methadone programs, help ensure that patients are ingesting their methadone.

Since primary care patients frequently provide urine specimens for analysis, collecting urine for drug testing theoretically could be conducted with minimal disruption in the primary care setting if staff were willing to implement appropriate chain of custody and confidentiality procedures. However, urines cannot be collected deceptively. Prior to screening a specimen for drugs, the patient's permission must always be obtained (see Appendix B for more on confidentiality).

Some drug users tamper with specimens to avoid detection, even if they have granted permission for testing. Some may substitute another person's sample, dilute the specimen, or add epsom salts and sodium bicarbonate to it to neutralize pH. For this reason, urine samples should be checked for temperature, color, and consistency (sediment). Some specimen containers are equipped with temperature strips, and some laboratories routinely assess samples for color and other anomalies.

Although not required, a positive urine screen, together with findings from a patient's history, mental assessment, and physical examination, provides strong support for a diagnosis of substance use disorder.

Making the Diagnosis

The categorical classification of "Substance-Related Disorders" in the DSM-IV provides the standard against which a formal diagnosis is made. Within this large category, 11 different classes of substances, including alcohol, are considered. Disorders are divided into two broad groups: "Substance Use Disorders," which includes "Substance Dependence" and "Substance Abuse," and "Substance-Induced Disorders," which includes a host of disorders ranging from "Substance Intoxication" and "Substance Withdrawal" to "Substance-Induced Anxiety Disorder." Using the DSM-IV criteria, an assessor makes a drug-specific diagnosis by disorder. DSM-IV diagnoses include alcohol abuse, alcohol dependence, cocaine intoxication, and hallucinogen abuse (American Psychiatric Association, 1994a).

Assessors use the information compiled during the personal history, interview, physical examination, and other patient-specific assessments such as the mental status examination to determine the DSM-IV diagnosis (many assessors rely on *The Quick Reference to the Diagnostic Criteria from DSM-IV* to facilitate diagnosis during the assessment process [American Psychiatric Association, 1994b]). In addition

to helping assessors characterize a patient's problem, another advantage of a DSM-IV diagnosis is that its standard nomenclature and classification system are generally understood by those other clinicians who may be collaborating in a patient's treatment, and such diagnoses are accepted by health insurance companies. The DSM-IV diagnostic criteria for substance dependence and substance abuse appear in Figures 4-2 and 4-3.

Once an assessor has made a diagnosis, the next critical step is to work with the patient in determining the level and type of services that the patient needs. Over the past several years, the substance abuse treatment field, led by the American Society of Addiction Medicine (ASAM), has been grappling with the concept and implementation of patient placement criteria that identify both major problem areas that should be considered in designing an individual treatment plan and the array of services most likely to address those problems. ASAM's *Patient Placement Criteria for the Treatment of Substance-Related Disorders,* Second Edition (ASAM PPC-2) offers guidelines that are consistent with the DSM-IV to help assessors and other clinicians evaluate the "severity and intensity of service required" (American Society of Addiction Medicine, 1996, p. 14). See TIP 13, *The Role and Current Status of Patient Placement Criteria in the Treatment of Substance Use Disorders,* for more on patient placement criteria (CSAT, 1995a).

Central to this evolving model of patient placement is that level of care and service mix may change as patient needs dictate. When selecting the level of care, the goal should be the least restrictive treatment that is effective. ASAM's criteria help focus attention on an individual's needs (American Society of Addiction Medicine, 1996). Rather than forcing a fit between a patient and a single program, those criteria provide information that frees assessors and patients to critically evaluate assessment results, investigate various options in the community, and construct a plan that incorporates needed services from a variety of resources. The realities of service availability and insurance coverage, however, ultimately affect both the level and type of service a patient receives.

Chapter 5 -- Specialized Substance Abuse Treatment Programs

Primary care clinicians need to be familiar with available treatment resources for their patients who have diagnosed substance abuse or dependence disorders. The clinician's responsibility to the patient does not end with the patient's entry into formal treatment; rather, the physician may become a collaborative part of the treatment team, or, minimally, continue to treat the patient's medical conditions during the specialized treatment, encourage continuing participation in the program, and schedule followup visits after treatment termination to monitor progress and help prevent relapse.

Understanding the specialized substance abuse treatment system, however, can be a challenging task. No single definition of treatment exists, and no standard terminology describes different dimensions and elements of treatment. Describing a facility as providing inpatient care or ambulatory services characterizes only one aspect (albeit an important one): the setting. Moreover, the specialized substance abuse treatment system differs around the country, with each State or city having its own peculiarities and specialties. Minnesota, for example, is well known for its array of public and private alcoholism facilities, mostly modeled on the fixed-length inpatient rehabilitation programs initially established by the Hazelden Foundation and the Johnson Institute, which subscribe to a strong Alcoholics Anonymous (AA) orientation and have varying intensities of aftercare services. California also offers a number of community-based social model public sector programs that emphasize a 12-Step, self-help approach as a

foundation for life-long recovery. In this chapter, the term *treatment* will be limited to describing the formal programs that serve patients with more serious alcohol and other drug problems who do not respond to brief interventions or other office-based management strategies. It is also assumed that an in-depth assessment has been conducted to establish a diagnosis and to determine the most suitable resource for the individual's particular needs (see Chapter 4).

Directories of Local Substance Abuse Treatment Systems

The first step in understanding local resources is to collect information about the specialized drug and alcohol treatment currently available in the community. In most communities, a public or private agency regularly compiles a directory of substance abuse treatment facilities that provides useful information about program services (e.g., type, location, hours, and accessibility to public transportation), eligibility criteria, cost, and staff complement and qualifications, including language proficiency. This directory may be produced by the local health department, a council on alcoholism and drug abuse, a social services organization, or volunteers in recovery. Additionally, every State has a single State-level alcohol and other drug authority that usually has the licensing and program review authority for all treatment programs in the State and often publishes a statewide directory of all alcohol and drug treatment programs licensed in the State. Another resource is the National Council on Alcohol and Drug Dependence, which provides both assessment or referral for a sliding scale fee and distributes free information on treatment facilities nationally. Also, the Substance Abuse and Mental Health Services Administration distributes a *National Directory of Drug Abuse and Alcoholism Treatment and Prevention Programs* (1-800-729-6686).

Knowing the resources and a contact person within each will facilitate access to the system. One useful referral tool is a list of agencies organized across different characteristics, such as services tailored to meet the needs of special populations (e.g., women, adolescents, people who are HIV-positive, and minorities). Resources also should include self-help groups in the area.

Goals and Effectiveness of Treatment

While each individual in treatment will have specific long- and short-term goals, all specialized substance abuse treatment programs have three similar generalized goals (Schuckit, 1994; American Psychiatric Association, 1995):

- Reducing substance abuse or achieving a substance-free life
- Maximizing multiple aspects of life functioning
- Preventing or reducing the frequency and severity of relapse

For most patients, the primary goal of treatment is attainment and maintenance of abstinence (with the exception of methadone-maintained patients), but this may take numerous attempts and failures at "controlled" use before sufficient motivation is mobilized. Until the patient accepts that abstinence is necessary, the treatment program usually tries to minimize the effects of continuing use and abuse through education, counseling, and self-help groups that stress reducing risky behavior, building new relationships with drug-free friends, changing recreational activities and lifestyle patterns, substituting substances used with less risky ones, and reducing the amount and frequency of consumption, with a goal of convincing the patient of her individual responsibility for becoming abstinent (American Psychiatric Association, 1995). Total abstinence is strongly associated with a positive long-term prognosis.

Becoming alcohol- or drug-free, however, is only a beginning. Most patients in substance abuse treatment have multiple and complex problems in many aspects of living, including medical and mental illnesses,

disrupted relationships, underdeveloped or deteriorated social and vocational skills, impaired performance at work or in school, and legal or financial troubles. These conditions may have contributed to the initial development of a substance use problem or resulted from the disorder. Substantial efforts must be made by treatment programs to assist patients in ameliorating these problems so that they can assume appropriate and responsible roles in society. This entails maximizing physical health, treating independent psychiatric disorders, improving psychological functioning, addressing marital or other family and relationship issues, resolving financial and legal problems, and improving or developing necessary educational and vocational skills. Many programs also help participants explore spiritual issues and find appropriate recreational activities.

Increasingly, treatment programs are also preparing patients for the possibility of relapse and helping them understand and avoid dangerous "triggers" of resumed drinking or drug use. Patients are taught how to recognize cues, how to handle craving, how to develop contingency plans for handling stressful situations, and what to do if there is a "slip." Relapse prevention is particularly important as a treatment goal in an era of shortened formal, intensive intervention and more emphasis on aftercare following discharge.

While the effectiveness of treatment for specific individuals is not always predictable, and different programs and approaches have variable rates of success, evaluations of substance abuse treatment efforts are encouraging. All the long-term studies find that "treatment works" -- the majority of substance-dependent patients eventually stop compulsive use and have less frequent and severe relapse episodes (American Psychiatric Association, 1995; Landry, 1996). The most positive effects generally happen while the patient is actively participating in treatment, but prolonged abstinence following treatment is a good predictor of continuing success. Almost 90 percent of those who remain abstinent for 2 years are also drug- and alcohol-free at 10 years (American Psychiatric Association, 1995). Patients who remain in treatment for longer periods of time are also likely to achieve maximum benefits -- duration of the treatment episode for 3 months or longer is often a predictor of a successful outcome (Gerstein and Harwood, 1990). Furthermore, individuals who have lower levels of premorbid psychopathology and other serious social, vocational, and legal problems are most likely to benefit from treatment. Continuing participation in aftercare or self-help groups following treatment also appears to be associated with success (American Psychiatric Association, 1995).

An increasing number of randomized clinical trials and other outcome studies have been undertaken in recent years to examine the effectiveness of alcohol and various forms of drug abuse treatment. It is beyond the scope of this chapter to report the conclusions in any depth. However, a few summary statements from an Institute of Medicine report on alcohol studies are relevant:

- No single treatment approach is effective for all persons with alcohol problems, and there is no overall advantage for residential or inpatient treatment over outpatient care.
- Treatment of other life problems associated with drinking improves outcomes.
- Therapist and patient (and problem) characteristics, treatment process, posttreatment adjustment factors, and the interactions among these variables also determine outcomes.
- Patients who significantly reduce alcohol consumption or become totally abstinent usually improve their functioning in other areas (Institute of Medicine, 1990).

A recent comparison of treatment compliance and relapse rates for patients in treatment for opiate, cocaine, and nicotine dependence with outcomes for three common and chronic medical conditions (i.e., hypertension, asthma, and diabetes) found similar response rates across the addictive and chronic medical disorders (National Institute on Drug Abuse, 1996). All of these conditions require behavioral change and medication compliance for successful treatment. The conclusion is that treatment of drug addiction has a similar success rate as treatment of other chronic medical conditions (National Institute on Drug Abuse, 1996).

Treatment Dimensions

The terminology describing the different elements of treatment care for people with substance use disorders has evolved as specialized systems have developed and as treatment has adapted to changes in the health care system and financing arrangements. Important differences in language persist between public and private sector programs and, to a lesser extent, in treatment efforts originally developed and targeted to persons with alcohol- as opposed to illicit drug-related problems. Programs are increasingly trying to meet individual needs and to tailor the program to the patients rather than having a single standard format with a fixed length of stay or sequence of specified services.

A recent publication of the Substance Abuse and Mental Health Services Administration, *Overview of Addiction Treatment Effectiveness* (Landry, 1996), divides substance abuse treatment along three dimensions: (1) *treatment approach* -- the underlying philosophical principles that guide the type of care offered and that influence admission and discharge policies as well as expected outcomes, attitudes toward patient behavior, and the types of personnel who deliver services; (2) *treatment setting* -- the physical environment in which care is delivered; and (3) *treatment components* -- the specific clinical interventions and services offered to meet individual needs. These services can be offered for varying lengths of time and delivered at differing intensities. Another important dimension is treatment stage, because different resources may be targeted at different phases along a continuum of recovery. Programs also have been developed to serve special populations -- by age, gender, racial and ethnic orientation, drug of choice, and functional level or medical condition. Some of these offer the most appropriate environment and services for special populations.

Treatment Models and Approaches

Historically, treatment programs were developed to reflect the philosophical orientations of founders and their beliefs regarding the etiology of alcoholism and drug dependence. Although most programs now integrate the following three approaches, a brief review of earlier distinctions will help primary care clinicians understand what precursors may survive or dominate among programs. The three historical orientations that still underlie different treatment models are

1. *A medical model*, emphasizing biological and genetic or physiological causes of addiction that require treatment by a physician and utilize pharmacotherapy to relieve symptoms or change behavior (e.g., disulfiram, methadone, and medical management of withdrawal).
2. *A psychological model*, focusing on an individual's maladaptive motivational learning or emotional dysfunction as the primary cause of substance abuse. This approach includes psychotherapy or behavioral therapy directed by a mental health professional.
3. *A sociocultural model*, stressing deficiencies in the social and cultural milieu or socialization process that can be ameliorated by changing the physical and social environment, particularly through involvement in self-help fellowships or spiritual activities and supportive social networks. Treatment authority is often vested in persons who are in recovery themselves and whose experiential knowledge is valued.

These three models have been woven into a biopsychosocial approach in most contemporary programs. The four major treatment approaches now prevalent in public and private programs are

1. *The Minnesota model of residential chemical dependency treatment* incorporates a biopsychosocial disease model of addiction that focuses on abstinence as the primary treatment goal and uses the AA 12-Step program as a major tool for recovery and relapse prevention. Although this approach, which has evolved from earlier precursors (i.e., Willmar State Hospital, Hazelden Foundation, and Johnson Institute efforts), initially required 28 to 30 days of inpatient treatment followed by extensive

community-based aftercare, more recent models have shortened inpatient stays considerably and substituted intensive outpatient treatment followed by less intensive continuing care. The new hybrid, used extensively by public and private sector programs, blends 12-Step concepts with professional medical practices. Skilled chemical dependency counselors, often people in recovery as well as mental health and social work professionals, use a variety of behavioral and reality-oriented approaches. Psychosocial evaluations and psychological testing are conducted; medical and psychiatric support is provided for identified conditions; and the inpatient program utilizes therapeutic community concepts. Although a disease model of etiology is stressed, the individual patient has ultimate responsibility for making behavioral changes. Pharmacological interventions may be used, particularly for detoxification; extensive education about chemical dependency is provided through lectures, reading, and writing; and individual and group therapy are stressed, as is the involvement of the family in treatment planning and aftercare (Institute of Medicine, 1990; Gerstein and Harwood, 1990; Landry, 1996).

2. *Drug-free outpatient treatment* uses a variety of counseling and therapeutic techniques, skills training, and educational supports and little or no pharmacotherapy to address the specific needs of individuals moving from active substance abuse to abstinence. This is the least standardized treatment approach and varies considerably in both intensity, duration of care, and staffing patterns. Most of these programs see patients only once or twice weekly and use some combination of counseling strategies, social work, and 12-Step or self-help meetings. Some programs now offer prescribed medications to ameliorate prolonged withdrawal symptoms; others stress case management and referral of patients to available community resources for medical, mental health, or family treatment; educational, vocational, or financial counseling; and legal or social services. Optimally, a comprehensive continuum of direct and supportive services is offered through a combination of onsite and referral services. High rates of attrition are often a problem for drug-free outpatient programs; legal, family, or employer pressure may be used to encourage patients to remain in treatment (Landry, 1996; American Psychiatric Association, 1995; Gerstein and Harwood, 1990).

3. *Methadone maintenance -- or opioid substitution -- treatment* specifically targets chronic heroin or opioid addicts who have not benefited from other treatment approaches. Such treatment includes replacement of licit or illicit morphine derivatives with longer-acting, medically safe, stabilizing substitutes of known potency and purity that are ingested orally on a regular basis. The methadone or other long-acting opioid, when administered in adequate doses, reduces drug craving, blocks euphoric effects from continued use of heroin or other illegal opioids, and eliminates the rapid mood swings associated with short-acting and usually injected heroin. The approach, which allows patients to function normally, does not focus on abstinence as a goal, but rather on rehabilitation and the development of a productive lifestyle. A major emphasis in recent years has been on reducing HIV infection transmission rates among patients who remain in treatment and stop injection drug use. Individual and group counseling in addition to pharmacotherapy and urine testing are the mainstay of most programs, but more comprehensive and successful programs also offer psychological and medical services, social work assistance, family therapy, and vocational training. Methadone maintenance treatment, which is more controversial and extensively evaluated than any other treatment approach, has consistently been found to be effective in reducing the use of illicit opioids and criminal activity as well as in improving health, social functioning, and employment (Gerstein and Harwood, 1990; Landry, 1996; National Institute on Drug Abuse, 1996).

4. *Therapeutic community residential treatment* is best suited to patients with a substance dependence diagnosis who also have serious psychosocial adjustment problems and require resocialization in a highly structured setting. Treatment generally focuses on negative patterns of thinking and behavior that can be changed through reality-oriented individual and group therapy, intensive encounter sessions with peers, and participation in a therapeutic milieu with hierarchical roles, privileges, and

responsibilities. Strict and explicit behavioral norms are emphasized and reinforced with specified rewards and punishments directed toward developing self-control and social responsibility. Tutorials, remedial and formal education, and daily work assignments in the communal setting or conventional jobs (for residents in the final stages before graduation) are usually required. Enrollment is relatively long-term and intensive, entailing a minimum of 3 to 9 months of residential living and gradual reentry into the community setting. While patients who stay in therapeutic communities for at least a third to half the planned course of treatment usually have markedly improved functioning in terms of reduced criminal activity and drug consumption and improved rates of employment or schooling (and graduates do even better), the biggest drawback to therapeutic communities is the large percentage of enrollees (75 percent or more) who never complete treatment (Gerstein and Harwood, 1990; Landry, 1996).

Treatment Settings

Substance abuse treatment is delivered in two basic settings or environments: inpatient and outpatient. Although the two types of settings vary widely by cost, recent evaluation studies have not found that treatment setting correlates strongly with a successful outcome. In fact, research has not found a clear relationship between treatment setting and the amounts or types of services offered, although there is a correlation between the services provided and posttreatment outcomes. Essentially, most patients can benefit from treatment delivered in either in- or outpatient settings, although specific subgroups seem to respond optimally to particular environments (Landry, 1996).

Initially, however, it is important to match the patient's needs to a treatment setting. The goal is to place patients in the least restrictive environment that is still safe and effective and then move them along a continuum of care as they demonstrate the capacity and motivation to cooperate with treatment and no longer need a more structured setting or the types of services offered only in that environment (i.e., medical or nursing supervision and room and board). Movement, however, is not always in the direction of less intensive care as relapse or failure to respond to one setting may require moving a patient to a more restrictive environment (American Psychiatric Association, 1995; Landry, 1996).

The continuum of treatment settings, from most intensive to least, includes inpatient hospitalization, residential treatment, intensive outpatient treatment, and outpatient treatment.

Inpatient hospitalization includes around-the-clock treatment and supervision by a multidisciplinary staff that emphasizes medical management of detoxification or other medical and psychiatric crises, usually for a short period of time. Currently, hospital care is usually restricted to patients with (1) severe overdoses and serious respiratory depression or coma; (2) severe withdrawal syndromes complicated by multiple drugs or a history of delirium tremens; (3) acute or chronic general medical conditions that could complicate withdrawal; (4) marked psychiatric comorbidity who are a danger to themselves or others; and (5) acute substance dependence and a history of nonresponse to other less intensive forms of treatment (American Psychiatric Association, 1995).

Residential treatment in a live-in facility with 24-hour supervision is best for patients with overwhelming substance use problems who lack sufficient motivation or social supports to stay abstinent on their own but do not meet clinical criteria for hospitalization. Many residential facilities offer medical monitoring of detoxification and are appropriate for individuals who need that level of care but do not need management of other medical or psychiatric problems. These facilities range in intensity and duration of care from long-term and self-contained therapeutic communities to less supervised halfway and quarterway houses from which the residents are transitioning back into the community. Specialized residential programs are specifically tailored to the needs of adolescents, pregnant or postpartum women and their dependent children, those under supervision by the criminal justice system, or public inebriates for whom extensive treatment has not worked (American Psychiatric Association, 1995; Landry, 1996).

Intensive outpatient treatment requires a minimum of 9 hours of weekly attendance, usually in increments of 3 to 8 hours a day for 5 to 7 days a week. This setting is also known as partial hospitalization in some States and is often recommended for patients in the early stages of treatment or those transitioning from residential or hospital settings. This environment is suitable for patients who do not need full-time supervision and have some available supports but need more structure than is usually available in less intensive outpatient settings. This treatment encompasses day care programs and evening or weekend programs that may offer a full range of services. The frequency and length of sessions is usually tapered as patients demonstrate progress, less risk of relapse, and a stronger reliance on drug-free community supports (American Psychiatric Association, 1995).

Least intensive is *outpatient treatment* with scheduled attendance of less than 9 hours per week, usually including once- or twice-weekly individual, group, or family counseling as well as other services. As already noted, these programs can vary from ambulatory methadone maintenance treatment to drug-free approaches. Patients attending outpatient programs should have some appropriate support systems in place, adequate living arrangements, transportation to the services, and considerable motivation to attend consistently and benefit from these least intensive efforts. Ambulatory care is used by both public programs and private practitioners for primary intervention efforts as well as extended aftercare and followup (Institute of Medicine, 1990).

Treatment Techniques

Within each treatment approach, a variety of specialized treatment techniques (also known as elements, modalities, components, or services) are offered to achieve specified goals. Each patient is likely to receive more than one service in various combinations as treatment proceeds. The emphasis may change, for example, from pharmacological interventions to relieve withdrawal discomforts in the initial stage of treatment to behavioral therapy, self-help support, and relapse prevention efforts during the primary care and stabilization phase and continuing AA participation after discharge from formal treatment. A patient in methadone maintenance treatment will receive pharmacotherapy throughout all phases of care, in addition to other psychological, social, or legal services that are selected as appropriate for achieving specified individual treatment goals. Again, the categorization of these techniques is not standardized and the terminology differs among programs. However, the principal elements are

- *Pharmacotherapies,* which discourage continuing alcohol or other drug use, suppress withdrawal symptoms, block or diminish euphoric effects or cravings, replace an illicit drug with a prescribed medication, or treat coexisting psychiatric problems (see Appendix A for more information on specific pharmacotherapies)
- *Psychosocial or psychological interventions,* which modify destructive interpersonal feelings, attitudes, and behaviors through individual, group, marital, or family therapy
- *Behavioral therapies,* which ameliorate or extinguish undesirable behaviors and encourage desired ones
- *Self-help groups* for mutual support and encouragement to become or remain abstinent before, during, and after formal treatment

Pharmacotherapy

Medications to manage withdrawal take advantage of cross-tolerance to replace the abused drug with another and safer drug in the same class. The latter can then be gradually tapered until physiologic homeostasis is restored. Benzodiazepines are frequently used to alleviate alcohol withdrawal symptoms, and methadone to manage opioid withdrawal, although buprenorphine and clonidine are also used.

Numerous drugs such as buprenorphine and amantadine and desipramine hydrochloride have been tried with cocaine abusers experiencing withdrawal, but their efficacy is not established. Acute opioid intoxication with marked respiratory depression or coma can be fatal and requires prompt reversal, using naloxone. However, if a patient is physically dependent on opioids, naloxone will precipitate withdrawal symptoms (American Psychiatric Association, 1995; Institute of Medicine, 1990; Gerstein and Harwood, 1990). (See Appendix A.)

Medications to discourage substance use precipitate an unpleasant reaction or diminish the euphoric effects of alcohol and other drugs. Disulfiram (Antabuse), the best known of these agents, inhibits the activity of the enzyme that metabolizes a major metabolite of alcohol, resulting in the accumulation of toxic levels of acetaldehyde and numerous highly unpleasant side effects such as flushing, nausea, vomiting, hypotension, and anxiety. More recently, the narcotic antagonist, naltrexone, has also been found to be effective in reducing relapse to alcohol use, apparently by blocking the subjective effects of the first drink. Naltrexone also is used with well-motivated, drug-free opioid addicts to block the effects of usual street doses of heroin or morphine derivatives. Naltrexone keeps opioids from occupying receptor sites, thereby inhibiting their euphoric effects. These antidipsotropic agents, such as disulfiram, and blocking agents, such as naltrexone, are only useful as an adjunct to other treatment, particularly as motivators for relapse prevention (American Psychiatric Association, 1995; Landry, 1996). (See Appendix A.)

Agonist substitution therapy replaces an illicit drug with a prescribed medication. Opioid maintenance treatment, currently the only type of this therapy available, both prevents withdrawal symptoms from emerging and reduces craving among opioid-dependent patients. The leading substitution therapies are methadone and the even longer acting levo-alpha-acetyl-methadol (LAAM). Patients using LAAM only need to ingest the drug three times a week, while methadone is taken daily. Buprenorphine, a mixed opioid agonist-antagonist, is also being used to suppress withdrawal, reduce drug craving, and block euphoric and reinforcing effects (American Psychiatric Association, 1995; Landry, 1996).

Medications to treat comorbid psychiatric conditions are an essential adjunct to substance abuse treatment for patients diagnosed with both a substance use disorder and a psychiatric disorder. Prescribing medication for these patients requires extreme caution, partly due to difficulties in making an accurate differential diagnosis and partly due to the dangers of intentional or unintentional overdose if the patient combines medications with abused substances or takes higher than prescribed doses of psychotropic medications. Since there is a high prevalence of comorbid psychiatric disorders among people with substance dependence, pharmacotherapy directed at these conditions is often indicated (e.g., lithium or other mood stabilizers for patients with confirmed bipolar disorder, neuroleptics for patients with schizophrenia, and antidepressants for patients with major or atypical depressive disorder). Many psychiatrists agree that diagnoses for comorbid psychiatric conditions cannot be made until patients have been detoxified from abused substances and observed in a drug-free condition for 3 to 4 weeks since many withdrawal symptoms mimic those of psychiatric disorders. Absent a confirmed psychiatric diagnosis, it is unwise for primary care clinicians and other physicians in substance abuse treatment programs to prescribe medications for insomnia, anxiety, or depression (especially benzodiazepines with a high abuse potential) to patients who have alcohol or other drug disorders. Even with a confirmed psychiatric diagnosis, patients with substance use disorders should be prescribed drugs with a low potential for (1) lethality in overdose situations, (2) exacerbation of the effects of the abused substance, and (3) abuse itself. Selective serotonin reuptake inhibitors (SSRIs) for patients with depressive disorders and buspirone for patients with anxiety disorders are examples of psychoactive drugs with low abuse potential. These medications should also be dispensed in limited amounts and be closely monitored (Institute of Medicine, 1990; Schuckit, 1994; American Psychiatric Association, 1995; Landry, 1996).

Because prescribing psychotropic medications for patients with dual diagnoses is clinically complex, a

conservative and sequential three-stage approach is recommended. For a person with both an anxiety disorder and alcohol dependence, for example, nonpsychoactive alternatives such as exercise, biofeedback, or stress reduction techniques should be tried first. If these are not effective, nonpsychoactive drugs such as buspirone (or SSRIs for depression) should be administered. Only if these do not alleviate symptoms and complaints should psychoactive medications be provided. Proper prescribing practices for these dually diagnosed patients encompass the following six "Ds" (Landry et al., 1991a):

1. Diagnosis is essential and should be confirmed by a careful history, thorough examination, and appropriate tests before prescribing psychotropic medications. Patients with substance use disorders should be evaluated for anxiety disorders and, conversely, those with anxiety disorders evaluated for substance abuse or dependence rather than just treating presenting symptoms.
2. Dosage must be appropriate for the diagnosis and the severity of the problem, without over- or undermedicating. If high doses are needed, these should be administered daily in the office to ensure compliance with the prescribed amount.
3. Duration should not be longer than recommended in the package insert or the *Physician's Desk Reference* so that additional dependence can be avoided.
4. Discontinuation must be considered if there are complications (e.g., toxicity or dependence), at the expiration of the planned trial, if the original crisis abates, or when the patient learns and accepts alternative coping strategies.
5. Dependence development must be continuously monitored. The clinician also should warn the patient of this possibility and the need to make decisions regarding whether the condition warrants toleration of dependence.
6. Documentation is critical to ensure a record of the presenting complaints, the diagnosis, the course of treatment, and all prescriptions that are filled or refused as well as any consultations and their recommendations.

Psychosocial Interventions

Individual therapy uses psychodynamic principles with such modifications as limit-setting and explicit advice or suggestions to help patients address difficulties in interpersonal functioning. One approach that has been tested with cocaine- and alcohol-dependent persons is supportive-expressive therapy, which attempts to create a safe and supportive therapeutic alliance that encourages the patient to address negative patterns in other relationships (American Psychiatric Association, 1995; National Institute on Drug Abuse, unpublished). This technique is usually used in conjunction with more comprehensive treatment efforts and focuses on current life problems, not developmental issues. Some research studies indicate that individual psychotherapy is most beneficial for opiate-dependent patients with moderate levels of psychopathology who can form a therapeutic alliance (National Institute on Drug Abuse, unpublished). Drug counseling provided by paraprofessionals focuses on specific strategies for reducing drug use or pragmatic issues related to treatment retention or participation (e.g., urine testing results, attendance, and referral for special services). This differs from psychotherapy by trained mental health professionals (American Psychiatric Association, 1995).

Group therapy is one of the most frequently used techniques during primary and extended care phases of substance abuse treatment programs. Many different approaches are used, and there is little agreement on session length, meeting frequency, optimal size, open or closed enrollment, duration of group participation, number or training of the involved therapists, or style of group interaction. Most controversial is whether confrontation or support should be emphasized.

Group therapy offers the experience of closeness, sharing of painful experiences, communication of feelings, and helping others who are struggling with control over substance abuse. The principles of group

dynamics often extend beyond therapy in substance abuse treatment, in educational presentations and discussions about abused substances, their effects on the body and psychosocial functioning, prevention of HIV infection and infection through sexual contact and injection drug use, and numerous other substance abuse-related topics (Institute of Medicine, 1990; American Psychiatric Association, 1995).

Marital therapy and family therapy focus on the substance abuse behaviors of the identified patient and also on maladaptive patterns of family interaction and communication. Many different schools of family therapy have been used in treatment programs, including structural, strategic, behavioral, and psychodynamic orientations. The goals of family therapy also vary, as does the phase of treatment when this technique is used and the type of family participating (e.g., nuclear family, married couple, multigenerational family, remarried family, cohabitating same or different sex couples, and adults still suffering the consequences of their parents' substance abuse or dependence). Family intervention, a structured and guided attempt to move a resistant and active substance abuser into treatment, can be a helpful motivator for program entry. Involved family members can help ensure medication compliance and attendance, plan treatment strategies, and monitor abstinence, while therapy focused on ameliorating dysfunctional family dynamics and restructuring poor communication patterns can help establish a more appropriate environment and support system for the person in recovery. Several well-designed research studies support the effectiveness of behavioral relationship therapy in improving the healthy functioning of families and couples and improving treatment outcomes for individuals (Landry, 1996; Institute of Medicine, 1990; American Psychiatric Association, 1995). Preliminary studies of Multidimensional Family Therapy (MFT), a multicomponent family intervention for parents and substance-abusing adolescents, have found improvement in parenting skills and associated abstinence in adolescents for as long as a year after the intervention (National Institute on Drug Abuse, 1996).

Behavioral Therapies

Cognitive behavioral therapy attempts to alter the cognitive processes that lead to maladaptive behavior, intervene in the chain of events that lead to substance abuse, and then promote and reinforce necessary skills and behaviors for achieving and maintaining abstinence. Research studies consistently demonstrate that such techniques improve self-control and social skills and thus help reduce drinking (American Psychiatric Association, 1995). Some of the strategies used are self-monitoring, goal setting, rewards for goal attainment, and learning new coping skills. Stress management training -- using biofeedback, progressive relaxation techniques, meditation, or exercise -- has become very popular in substance abuse treatment efforts. Social skills training to improve the general functioning of persons who are deficient in ordinary communications and interpersonal interactions has also been demonstrated to be an effective treatment technique in promoting sobriety and reducing relapse. Training sessions focus on how to express and react to specific feelings, how to handle criticism, or how to initiate social encounters (Institute of Medicine, 1990; American Psychiatric Association, 1995; Landry, 1996).

Behavioral contracting or contingency management uses a set of predetermined rewards and punishments established by the therapist and patient (and significant others) to reinforce desired behaviors. Effective use of this technique requires that the rewards and punishments, or contingencies, be meaningful, that the contract be mutually developed, and that the contingencies be applied as specified. Some studies suggest that positive contingencies are more effective than negative ones (National Institute on Drug Abuse, unpublished). Care must be taken that negative contingencies are not unethical or counterproductive (e.g., reducing methadone doses if urine results indicate continuing illicit drug use). Contingency management is only effective within the context of a comprehensive treatment program (National Institute on Drug Abuse, unpublished; Institute of Medicine, 1990; Landry, 1996).

Relapse prevention helps patients first recognize potentially high-risk situations or emotional "triggers"

that have led to substance abuse, and then learn a repertoire of substitute responses to cravings. Patients also develop new coping strategies for handling external stressors and learn both to accept lapses into substance abuse as part of the recovery process and to interrupt them before adverse consequences ensue. Controlled studies have found relapse prevention to be as effective as other psychosocial treatments, especially for patients with comorbid sociopathy or psychiatric symptoms (American Psychiatric Association, 1995). Cognitive-behavioral strategies, the improvement of self-efficacy, self-control training, and cue exposure and extinction have all been used as components of relapse prevention. In recent years, relapse prevention has become a vital part of most treatment efforts, learned during the intensive stage of treatment and practiced during aftercare (Institute of Medicine, 1990; American Psychiatric Association, 1995; Landry, 1996).

Self-Help Groups

Mutual support, 12-Step groups such as Alcoholics Anonymous, Narcotics Anonymous, Cocaine Anonymous or more recent alternatives (e.g., Rational Recovery and Women for Sobriety) are the backbone of many treatment efforts as well as a major form of continuing care. While AA and related groups are widely used, the success of this technique has not been rigorously evaluated. Nevertheless, these fellowships apparently help persons at any point in the recovery process to change old behavior patterns, react responsibly to drug cravings, maintain hope and determination to become and remain abstinent. Self-help groups can also help people build a new social network in a community of understanding peers, find satisfactory drug-free activities and recreational skills, establish healthy intimate relationships, and avoid stressful social situations and environments.

The process of working through the 12 steps under the tutelage of a sponsor encourages group members to reassess past life experiences and take more responsibility for their substance use disorders. Attendance may vary from daily to much less frequent, with more intensive involvement available whenever the recovering person feels this need.

Patients who do not accept the spiritual focus and abstinence orientation of AA may benefit from Rational Recovery groups or the Recovery Training and Self-Help (RTSH) programs in some communities. Patients who are prescribed psychotropic medications for comorbid psychiatric disorders (e.g., antidepressants or neuroleptics) or are maintained on methadone or LAAM must attend fellowships or groups where pharmacotherapy is accepted as appropriate treatment. Young persons, persons of color, and gays and lesbians often find more acceptance in groups where at least some members have similar characteristics. Friends and relatives of persons in recovery and of those who refuse treatment can benefit from Al-Anon, Alateen, Nar-Anon, and similar groups that offer support and education about the disease of alcoholism or other forms of substance abuse and teach participants to curb their own "enabling" behaviors. Improvements in substance-abusing behavior among meeting participants are associated with frequent attendance, obtaining a sponsor, "working" the 12 steps, and leading meetings (National Institute on Drug Abuse, 1993; American Psychiatric Association, 1995; Landry, 1996).

Other Primary and Ancillary Services

Patients in treatment may need other primary and adjunctive services as well: social services, vocational training, education, legal assistance, financial counseling, health and dental care, and mental health treatment. These may be provided onsite or through referral to community resources. Adjunctive services to encourage patients to enter and remain in treatment may include child care, transportation arrangements, financial assistance or welfare support, supported housing, and other supplemental help. The types of additional services supplied or arranged through a treatment program will obviously depend heavily on the characteristics of the population served. For example, persons with heroin, cocaine, or methamphetamine dependence disorders who inject these drugs will require many specialized education, identification,

counseling, and health care services for HIV infection and AIDS that are not likely to be needed by programs for people with alcohol dependence.

The Treatment Process

All the components, approaches, techniques, and settings discussed above must be monitored and adjusted as treatment progresses. Primary care clinicians should understand the following aspects of appropriate care.

- *Repeating assessments* to evaluate a patient's changing medical, psychological, social, vocational, educational, and recreational needs, especially as more basic and acute deficits or crises are resolved and new problems emerge or become amenable to treatment. For example, homelessness or acute withdrawal symptoms will need to be treated before family interactions can be identified or resolved. Suicidal thoughts or actions will need prompt attention whenever they emerge.
- *Developing a comprehensive treatment plan* that clearly reflects all identified problems, has explicit goals and strategies for their attainment, and specifies techniques and services to be provided by designated specialists at particular frequencies or intensities.
- *Monitoring progress and clinical status* through written notes or reports that describe responses to treatment approaches and outcomes of services provided, including counseling sessions, group meetings, urine or other biological testing, physical examinations, administered medications, and referrals for other care. Each patient should have an individual treatment record that includes all appropriate materials yet maintains the patient's privacy.
- *Establishing a therapeutic alliance* with an empathic primary therapist or counselor who can gain the confidence and trust of the patient and significant others or family members and take responsibility for continuity of care. This is particularly important in the early stages of treatment to prevent dropout and encourage participation.
- *Providing education* to help the patient and designated others understand the diagnosis, the etiology and prognosis for the disorder, and the benefits and risks of anticipated treatment(s). Patients with special problems will need more extensive information. As with other medical treatments, informed consent to potentially risky procedures should always be obtained (American Psychiatric Association, 1995).

Treatment Programs for Special Populations

A variety of substance abuse treatment programs have been developed to meet the particular needs of special populations, including women, pregnant and postpartum mothers, adolescents, elderly persons, members of various minority groups, public inebriates or homeless persons, drinking drivers, and children of alcoholics. These special programs are found in the public and private sectors and include both residential and ambulatory care settings using therapeutic community, Minnesota model, outpatient drug-free, and methadone maintenance approaches. Researchers have not confirmed that these separate programs for special populations are superior to mainstream efforts with respect to outcomes, and experts question their cost-effectiveness and applicability to heterogeneous groups with overlapping characteristics that complicate placement of a particular patient in one group over another. Clinicians must be wary of defining any patient in relation only to age, gender, racial group membership, or functional characteristics, especially since other patient-related variables have been found to have greater implications for successful outcomes (e.g., addiction severity, employment stability, criminal involvement, educational level, and socioeconomic status). Nonetheless, clinical observations do indicate that treatment of special populations may be enhanced if their particular needs are considered and met. Notable components of these separate programs for special populations are as follows (Institute of Medicine, 1990;

American Psychiatric Association, 1995; Landry, 1996).

Women are more likely than men to have comorbid depressive and anxiety disorders, including posttraumatic stress disorders as a result of past or current physical or sexual abuse. Although women tended in the past to become involved with different substances than men (e.g., prescription drugs), their drug use patterns have become more similar to males' in recent years. Treatment components can address women's special issues and needs for child care, parenting skills, building healthy relationships, avoiding sexual exploitation or domestic violence, preventing HIV infection and other sexually transmitted diseases, and enhanced self-esteem. A high ratio of female staff and same-sex groups are also thought to improve treatment retention.

Pregnant and postpartum women and their dependent children have numerous special needs, including prenatal and obstetrical care, pediatric care, knowledge of child development, parenting skills, economic security, and safe, affordable housing. Pregnant women -- and those in their childbearing years -- need to know about birth control as well as the risks to pregnancy and fetal development of continuing substance use (e.g., spontaneous abortion, abruptio placentae, preeclampsia, early and prolonged labor, birth defects, impaired fetal growth, low birth weight, stillbirth, and neonatal withdrawal syndrome). Methadone maintenance throughout pregnancy and the postpartum period is often the treatment of choice for opioid-dependent women with seriously compromised lifestyles who are not likely to remain abstinent. However, many other medications used in the treatment of addiction, including disulfiram and naltrexone, should not be prescribed for pregnant substance abusers. See Appendix A and *TIP 2, *Pregnant, Substance-Using Women* (CSAT, 1993a).

Adolescents need treatment that is developmentally appropriate and peer-oriented. Educational needs are particularly important as well as involvement of family members in treatment planning and therapy for dysfunctional aspects. Substance abuse among adolescents is frequently correlated with depression, eating disorders, and a history of sexual abuse (American Psychiatric Association, 1995). A history of familial substance abuse and dependence is predictive of serious adolescent involvement. More information on specialized treatment of adolescents can be found in TIP 4, *Guidelines for the Treatment of Alcohol- and Other Drug-Abusing Adolescents* *(CSAT, 1993c).

Elderly persons may have unrecognized and undertreated substance dependence on alcohol or prescribed benzodiazepines and sedative hypnotics that can contribute to unexplained falls and injuries, confusion, and inadvertent overdose because age decreases the body's ability to metabolize many medications. Other coexisting medical and psychiatric conditions can also complicate treatment and compromise elderly patients' ability to comply with recommended regimens.

Minority group members may identify with particular cultural norms and institutions that increase feelings of social acceptance. While early phases of treatment that focus on achieving abstinence are not likely to be affected by minority group differences, the development of appropriate, drug-free social supports and new lifestyles during more extended treatment and aftercare stages may be enhanced by support groups with similar ethnic identification and cultural patterns. For some African-American patients, involving the church and treatment that incorporates a spiritual element may improve outcomes. Treatment programs for Native American tribes often incorporate their traditions, and a family focus as well as bilingual staff and translated written materials are important ingredients of many treatment programs for Hispanics. However, the Consensus Panel believes that culturally sensitive treatment may not be as important to individuals who do not strongly identify with an ethnic or cultural group and of less concern than socioeconomic differences, for example, in treatment retention.

Confidentiality

One important aspect of working with or making a referral for substance abuse treatment is the legal requirement to comply with Federal regulations governing the confidentiality of information about a patient's substance use or abuse. Laws protecting the confidentiality of alcohol and drug abuse patient records were instituted to encourage patients to enter treatment without fear of stigmatization or discrimination as a result of information disclosure without the patient's express permission (42 C.F.R. Part 2). Clarifying amendments passed in 1987 make it clear that patient records generated in general medical settings and hospitals are not covered unless the treating clinician or unit has a primary interest in substance abuse treatment *(CSAT, 1995b, p. 64). Nonetheless, records containing information about substance use disorders should always be handled with discretion.

If referral is made by the primary care clinician for a substance abuse assessment or to a specialized treatment program, written permission of the patient is required before any information or records can be disclosed or redisclosed in which the patient's identity is revealed, *except in cases of medical emergency or reporting suspected child abuse to the proper authorities.* Often, treatment programs will want to coordinate a patient's treatment with the primary care provider -- such collaboration is essential for certain patients, such as chemically involved pregnant women. See Appendix B for a detailed discussion of confidentiality. Confidentiality issues are also discussed in TIPs 4 *(Guidelines for the Treatment of Alcohol- and Other Drug-Abusing Adolescents)* (CSAT, 1993c), 8 *(Intensive Outpatient Treatment for Alcohol and Other Drug Abuse)* (CSAT, 1994a), 11 *(Simple Screening Instruments for Outreach for Alcohol and Other Drug Abuse and Infectious Diseases)* (CSAT, 1994c), 13 *(The Role and Current Status of Patient Placement Criteria in the Treatment of Substance Use Disorders)* (CSAT, 1995a), 16 *(Alcohol and Other Drug Screening of Hospitalized Trauma Patients)* (CSAT, 1995b), and 19 *(Detoxification from Alcohol and Other Drugs)* (CSAT, 1995c).

The Role of the Primary Care Clinician Throughout Treatment

As already noted, all primary care clinicians have important roles to play in identifying, screening, and referring patients with substance use disorders for in-depth assessment or treatment and in delivering brief interventions to patients with milder substance-related problems. In addition, the clinician has an array of options, depending on time and resources available, for offering ongoing support and encouragement to patients who do enter the formal treatment system. These options include

- Learning about treatment resources in the community that offer appropriate services
- Keeping in touch with the specific treatment program where the patient is enrolled to ascertain its quality and understand the approach and services offered
- Requesting formal reports regarding the treatment plan and progress indicators from the program on a periodic basis (with the patient's explicit permission)
- Clarifying the clinician's role in the continued care of the patient (e.g., treating specified medical conditions, writing prescriptions, and monitoring compliance through urine or other biological testing)
- Reinforcing the importance of continuing treatment to the patient and relatives

Completing specialized treatment is only the beginning of the patient's recovery process. Primary care clinicians should continue to ask their patients about the problem they were treated for at every office or clinic visit. During these visits, the clinician can monitor the potential for relapse and take any necessary steps to prevent slips from occurring (Brown, 1992).

The primary care clinician also has a responsibility to patients who refuse to accept referral to treatment or drop out before completion. In such cases, the primary care clinician should

- Continue treating any medical problems, including those related to continuing substance abuse.
- Reiterate the primary diagnosis and be ready to refer the patient for specialized treatment. If the patient objects to the initial referral, the physician should look for acceptable and appropriate alternatives.
- Encourage family members and friends to participate in appropriate Al-Anon, Alateen, Adult Children of Alcoholics, or similar groups in order to learn more about the substance use disorder, how to minimize distress, and how to avoid enabling behaviors.
- Exercise extreme caution in prescribing psychotropic medications for anxiety, insomnia, and other complaints because these drugs may exacerbate continued abuse.

Chapter 6 -- Implementation and Recommendation Summary

Though the health benefits are great, addressing substance use disorders takes time and requires primary care clinicians to incorporate new behaviors in their practice. While some will act on what they read in this TIP and other resources, studies show that clinicians are more likely to adopt behaviors learned through a combination of didactic and experiential training (Davis et al., 1995).

Achieving Change

Clinician Education

All clinicians and support staff in the practice setting should be trained, and training should be required for all new employees. The straight Continuing Medical Education (CME)-style lecture or conference should be avoided in favor of multifaceted interventions that incorporate handouts, practice-reinforcing strategies, role-playing, videos, outreach visits by peers and other professionals, and lectures by opinion leaders. Throughout the sessions, peer discussion, especially of attitudes toward alcohol and other drugs and personal and family experiences with substance abuse and dependence, should be encouraged. This training should be repeated every 2 to 3 years.

Valuable training curricula include Project ADEPT at Brown University (Dube and Lewis, 1994) and the Substance Abuse Education for Family Physicians project (Project SAEFP) (Fleming et al., 1994). A sample 6-hour training module is described in Figure 6-1.

System Supports and Feedback

The importance of built-in system supports and feedback in efforts to change clinicians' behavior has been strongly affirmed by two recent comprehensive literature reviews. The first review systematically examined effects of a variety of CME strategies to improve physicians' performance and health care outcomes (Davis et al., 1995). A total of 99 controlled CME trials containing 160 separate interventions were reviewed. The least effective change strategy was the formal CME conference or activity that did not include enabling strategies (role play of skills and system supports) and practice-reinforcing strategies (feedback). The most effective change strategies were

- Clinician reminders
- Patient-mediated interventions (e.g., patient educational materials and patient reminders)
- Outreach visits to clinicians by peers and other professionals such as nurse facilitators, including "academic detailing" (i.e., visits by physician educators such as pharmacists)
- Use of local opinion leaders or influential persons
- Use of multifaceted interventions combining two or more of the effective strategies

The second literature review examined scientifically rigorous evaluations of 36 programs to improve practice performance in primary care settings (Yano et al., 1995). The reviewers found the following strategies to be the most successful in helping primary care clinicians achieve desired changes in performance:

- Computer-generated reminders to clinicians to perform an indicated test
- Audit of administrative and medical record data and personalized feedback to clinicians
- Social-influence-based methods (e.g., advice, guidance, and feedback from peers)
- Shifting workload for specific functions (e.g., telephone followup and coordination and assessment) from individual clinicians to multidisciplinary teams

Reminder Systems

Several studies have shown that an effective way to prompt clinician behavior is to incorporate reminders in or on the patient's chart (Davis et al., 1995; Yano et al., 1995). Such reminders alert the clinician that it is time to conduct specific preventive tests, such as mammograms, or to discuss patients' health concerns, such as smoking or drinking. Settings with computerized patient databases will be better able to institute reminder systems of the first type.

Computerized reminder systems are used in some large staff-model health maintenance organizations (HMOs) (Balas et al., 1996). Each time a patient visits his or her physician, the computer generates an individualized, updated health screen report that is placed on the front of the chart before the patient arrives. The report lists several health screen procedures, the frequency with which such tests should be performed based on medical research and decisions by the leadership of the HMO, and the last date on which the patient was screened in these areas. The frequency standard that has been applied to alcohol use history is to review it at every new patient's initial health assessment and during periodic health reviews thereafter. When such a review is due, the computer places an asterisk next to the "Alcohol Use" category on the health screen report.

Summary of Recommendations

The following guidelines are excerpted from the TIP. Supporting citations to the material below can be found in Chapters 2 through 5 and Appendix B.

Screening

The Consensus Panel that developed this TIP recommends that *primary care clinicians* -- a term that includes all professionals with patient contact in primary care settings -- periodically and routinely screen all patients for substance use disorders. While opinions vary about whether to integrate substance abuse screening into a standard history, asking potentially sensitive questions about substance abuse in the context of other behavioral and lifestyle questions appears to be less threatening to patients. Since problematic use of alcohol, illicit drug use, and the consequences of those behaviors can vary over an

individual's lifetime, the Panel recommends periodic rescreening for substance abuse.

Alcohol

Most people with substance abuse disorders drink alcohol. Therefore, to expedite screening and increase the likelihood of honest answers, clinicians should ask questions sequentially, beginning with the legal drug alcohol. If the patient says he or she is a life-long abstainer or has been in recovery for 5 years or more, the clinician can conclude the screening process for alcohol misuse.

To screen for alcohol problems among English-speaking, literate patients, clinicians should use a brief, self-administered, written questionnaire such as the AUDIT, reproduced in Appendix C. If the screen will be administered by a clinician, the CAGE (reproduced in Chapter 2), supplemented by the first three quantity/frequency questions from the AUDIT, is recommended. This combination will increase sensitivity for detection of both problem drinking and alcohol dependence because it includes questions about alcohol consumption and consequences. With the CAGE, two positive answers normally indicate that alcohol may be a problem. However, the Consensus Panel recommends that primary care clinicians lower the threshold to one positive answer to cast a wider net and identify more people who may have a substance use disorder.

Drugs

Of the drug abuse screening instruments, CAGE-AID (CAGE Adapted to Include Drugs) is the only tool that has been tested with primary care patients. Like the CAGE, CAGE-AID, reproduced in Chapter 2, focuses on lifetime use. While those patients who are drug dependent may screen positive, adolescents and those who have not yet experienced negative consequences as a result of their drug use may not. For this reason, the Consensus Panel recommends asking patients, "Have you used street drugs more than five times in your life?" In Panelists' experience, a positive answer indicates that drugs may be a problem and suggests the need for further in-depth screening and possibly assessment.

The Panel also recommends that clinicians treating patient populations at high risk for drug abuse ask their screening questions regarding alcohol and drug use in combination. (This high-risk group includes those with psychiatric, behavioral, demographic, familial, social, or genetic risk factors that increase the likelihood of drug abuse.)

Special populations

Of the screening instruments that have been modified for pregnant women, the TWEAK has been found to be the most effective for this population for whom any use is relevant. Based on best clinical judgment, the Panel recommends the use of the TWEAK (reproduced in Chapter 2) for pregnant patients in the primary care setting.

The Consensus Panel recommends that all adults age 60 and older be screened for alcohol and prescription drug abuse as part of their regular physical examination by using either the CAGE, the AUDIT, or the MAST-G (reproduced in Appendix C). Because the physical changes that come with age change the effects of alcohol on an individual, it is particularly important with older adults to lower the cutoff score to 1 when using the CAGE. Since the MAST-G was developed specifically for older adults, it provides a sound screening option for clinicians willing to spend the time required to administer this 24-item test. Although the AUDIT has not been evaluated for use with older adults, it has been validated cross-culturally. Since there are few culturally sensitive screening instruments, the AUDIT may prove useful for identifying alcohol problems among older members of ethnic minority groups. If clinicians suspect that older patients are confused about their prescriptions, seeing more than one doctor, using more

than one pharmacy, or seem reluctant to discuss their use, further assessment is warranted.

Health care professionals are not exempt from substance abuse problems and should be screened according to the same protocols applied to the larger primary care population.

Since many adolescents do not receive annual physicals or well-care examinations, screening should occur every time they seek medical services, including visits necessitated by acute illness, accidents, or other injuries. Physical or sexual abuse, parental incarceration, and other serious situational or behavioral factors may be red flags for a substance abuse problem.

Who should screen

Physicians, advanced practice nurses, and physician assistants who are familiar with available questionnaires and their interpretation, demonstrate interviewing skills, and are culturally competent can screen patients effectively for substance abuse. To overcome discomfort with screening questions and increase the likelihood of honest answers, clinicians should pose screening questions and accept patient responses matter-of-factly and without judgment.

Documenting screening

When recording screening results, the clinician should specifically indicate that a positive screen is not a diagnosis, which should not be given until and unless the positive screen is confirmed by further assessment and discussed with the patient. An unconfirmed substance use disorder diagnosis entered on a patient's record may cause health insurance problems. Patients should be apprised of their right to deny insurers access to their medical records, but warned that such a refusal also may result in insurance-related problems.

Responding to a positive screen

Clinicians should present results of positive screens in a nonjudgmental manner. In areas where specialized substance abuse resources are available, the Consensus Panel recommends that high-risk patients be referred to a substance abuse expert for assessment.

Brief Intervention

When screening or brief assessment indicates a problem with substance use, especially if such use is not life-threatening, a brief intervention is recommended. *Brief intervention* is a pretreatment tool or secondary prevention technique that involves office-based, clinician-patient contacts of 10 to 15 minutes for a limited number of sessions. The Consensus Panel recommends at least one followup visit to the initial brief intervention, but the number and frequency of sessions depend on the severity of the problems and the individual patient's response. Brief intervention is not a one-time event but rather a step that can be useful before or after an in-depth assessment and after specialized treatment as part of followup and relapse prevention.

Components

The Consensus Panel recommends that primary care clinicians do the following as part of a brief intervention.

1. Give feedback about screening results, impairment, and risks while clarifying the findings.
2. Inform the patient about safe consumption limits and offer advice about change.
3. Assess the patient's readiness to change.

4. Negotiate goals and strategies for change.
5. Arrange for followup treatment.

The sequence and specific emphasis placed on these five elements will vary for individual patients.

Appropriate candidates

The Consensus Panel recommends that the following types of patients receive brief intervention: patients with positive but low scores on any screening tests (e.g., one positive response to the CAGE or CAGE-AID or a score of less than 8 on the AUDIT, see Chapter 2) and patients with at-risk drinking (e.g., above established cutoff limits), occasional use of marijuana (e.g., five or more episodes in a lifetime), or questionable use of mood-altering prescription medications.

The Consensus Panel believes that patients with these less severe problems are the most likely candidates for a successful brief intervention. The technique, however, can serve a different purpose for another set of patients: those with several positive responses to screening questionnaires and suspiciously heavy drinking or problematic drug use histories, symptoms of substance dependence, chronic or escalating use of addictive prescription medications, current use of illicit drugs, or complicating medical illnesses and psychiatric disorders. These patients need further in-depth assessment to confirm a substance use disorder, but they may initially resist a referral. They may, however, be willing to participate in a brief intervention. Even though they are unlikely to be successful in cutting down their use or maintaining recovery for any length of time through informal self-help mechanisms, a brief intervention may help motivate them to accept the needed referral or come to terms with the diagnosis.

Moving from the brief intervention

One of the most important concepts of substance use treatment is that one treatment failure is no reason to give up. Clinicians should be prepared for the brief intervention to fail: The patient may not be able to achieve or maintain the mutually established goal of reducing or stopping use.

Lack of success in following the advice given and the strategies undertaken in a brief intervention can be a learning and motivating experience, evidence to a patient that substance use may be more of a problem than previously thought. The clinician can steer a patient toward such a revelation by saying something like, "You weren't able to cut down your alcohol use as you contracted to do. Does this make you think this is a bigger problem for you than you thought?" Failure to achieve the goals of an initial brief intervention may move the patient along the continuum of change.

It is important to remain flexible vis-_-vis goals when performing brief interventions. If problem use persists, those discussions between clinician and patient should serve as a springboard to a more in-depth assessment or referral to specialized treatment.

Assessment

Many primary care clinicians will refer patients suspected of having a substance abuse problem to specialists for both in-depth assessment and treatment, although clinicians in underserved areas or with expertise in substance abuse may assume partial or total responsibility for this function. However, even clinicians who will not perform substance abuse assessments should have a basic understanding of their elements and objectives so that they can

- Initiate appropriate referrals
- Participate effectively as a member of the treatment team, if required
- Better fulfill the gatekeepers' monitoring responsibility with respect to patient progress

- Carry out needed case management functions as appropriate

Information gained through an in-depth assessment will clarify the type and extent of the problem and will help determine the appropriate treatment response. At a minimum, patients must be assessed for

1. Acute intoxication and/or withdrawal potential
2. Biomedical conditions and complications
3. Emotional/behavioral conditions (e.g., psychiatric conditions, psychological or emotional/behavioral complications of known or unknown origin, poor impulse control, changes in mental status, or transient neuropsychiatric complications)
4. Treatment acceptance or resistance
5. Relapse potential or continued use potential
6. Recovery/living environment

Who should assess

Where possible, the Consensus Panel recommends referring patients to an experienced substance abuse specialist for in-depth assessment. If referral is not possible, the Panel believes that empathic primary care clinicians including physicians, physician assistants, and advanced practice nurses (nurse practitioners and clinical nurse specialists) with proven interviewing skills may perform intensive assessments after receiving training in

- The signs and symptoms of substance abuse
- The biopsychosocial effects of drugs and alcohol and likely progression of the disease
- Common comorbid conditions and medical consequences of abuse
- The terms used in the American Psychiatric Association's *Diagnostics and Statistical Manual of Mental Disorders,* Fourth Edition (DSM-IV) classification system, their interpretation, and relationship to the findings that emerged during the assessment history
- The appropriate use, scoring, and interpretation of standardized assessment instruments

Primary care clinicians should refer patients to assessors who understand and are trained in mental health as well as substance abuse assessment and who are willing and able to expand the assessment process as needed to identify any coexisting psychiatric disorders that may be contributing to a patient's problems

Setting and components

Like screening, assessments must be conducted in private, and patients must be assured that the information they provide is confidential. Patients often will not reveal information about drug or alcohol use because they fear that information will be shared with their family members or employers or be used against them by health insurance organizations or law enforcement agencies. Prior to conducting an assessment, assessors should review current legal protections with the patient and discuss the limitations that apply to sharing information.

The Consensus Panel recommends sequential and multidimensional assessments for alcohol- and other drug-related problems. Sequential assessment entails separating assessment into stages ordered to naturally lead to the next. In this model, a broad-based assessment is conducted first. If the information compiled suggests that other problems may be present, such as a psychiatric disorder, then a series of progressively more intense procedures would be initiated to confirm and characterize that finding. A multidimensional approach to assessment includes consideration of all the factors that impinge on an individual's substance abuse (level, pattern, and history of use; signs and symptoms of use; and consequences of use) when evaluating individual patient problems and recommending treatment.

Based on their clinical experience, the Consensus Panel recommends that an in-depth assessment include a medical and psychological history along with family, social, and sexual histories, a mental status examination, and a physical examination. Specific elements and suggested wording for sensitive questions appear in Chapter 4.

Supplementing assessment results

Collateral reporting (information supplied by family and friends) can help a clinician or assessor validate substance use because patients do not always reply honestly to assessment questions, especially questions concerning illicit drug use. Before contacting family members and significant others, however, the assessor must obtain the patient's consent.

In emergency situations or hospital-based settings, especially when responding to trauma victims, blood alcohol concentrations (BACs) contribute information important to clinicians in devising effective treatment plans. However, the Consensus Panel does not recommend their routine use in the office-based primary care setting. Based on their clinical experience, members of the Consensus Panel do recommend checking the enzyme gamma-glutamyl transferase (GGT) results as part of the assessment process. If it is elevated, lowering it can serve as a measurable goal of treatment. Much like supplemental laboratory tests for alcohol, urine drug tests may be used during assessment to encourage honest responses to questions, to confirm suspicions about use when it is denied, and to verify use of heroin prior to referral or admission to a methadone program. During treatment, urine tests help to monitor progress and, in methadone programs, help ensure that patients are taking their methadone. Although not required, a positive urine screen -- together with findings from a patient's history, mental assessment, and physical examination -- provides strong support for a diagnosis of substance use disorder.

Making the diagnosis

Drug-specific diagnosis (including alcohol) are made using the criteria in the American Psychiatric Association's DSM-IV. However, assessment results also guide both the choice and content of needed treatment. For this reason, the Panel recommends that clinicians follow the guidelines presented in the second edition of the American Society of Addiction Medicine's *Patient Placement Criteria* when devising assessment-based treatment plans (see Chapter 4).

Treatment

To refer patients for appropriate care, primary care clinicians need information about available substance abuse treatment resources, including the type of services offered and the treatment philosophy espoused. The clinician's responsibility to the patient does not end with the patient's entry into formal treatment. The clinician frequently continues to treat the patient's medical conditions, encourages the patient's continuing participation in the program, and schedules followup visits after treatment termination to monitor progress and help prevent relapse.

Goals of treatment

While each individual in treatment will have specific long- and short-term goals, all specialized substance abuse treatment programs have three similar generalized goals:

- Reducing substance abuse or achieving a substance-free life
- Maximizing multiple aspects of life functioning
- Preventing or reducing the frequency and severity of relapse

Other goals of treatment include maximizing physical health, treating independent psychiatric disorders,

improving psychological functioning, addressing marital or other family and relationship issues, resolving financial and legal problems, and improving or developing necessary educational and vocational skills. Programs also prepare patients to understand and guard against relapse by teaching about "triggers" for use, how to recognize cues, how to handle craving, alternative responses to stressful situations, and what to do if there is a "slip."

The continuum of care

The four treatment settings, ranging from most intensive to least, are inpatient hospitalization, residential treatment, intensive outpatient treatment, and outpatient treatment. Although patients should be placed initially in the least restrictive environment that is still safe and effective, relapse or failure to progress in one setting may require transfer to a more restrictive environment or a different mix of services.

Good treatment management requires continuity of care and the flexibility to adjust components, approaches, techniques, and settings. Important aspects of appropriate care include

- *Repeating assessments* to evaluate a patient's changing medical, psychological, social, vocational, educational, and recreational needs, especially as more basic and acute deficits or crises are resolved and new problems emerge or become amenable to treatment.
- *Developing a comprehensive treatment plan* that clearly reflects all identified problems, has explicit goals and strategies for their attainment, and specifies techniques and services to be provided by designated specialists at particular frequencies or intensities.
- *Monitoring progress and clinical status* through written notes or reports that describe responses to treatment approaches and outcomes of services provided. Records should include counseling sessions, group meetings, urine or other biological testing, physical examinations, administered medications, and referrals for other care. Each patient should have an individual treatment record that includes all appropriate materials.
- *Establishing a therapeutic alliance* with an empathic primary therapist or counselor who can gain the confidence and trust of the patient, significant others, and family members and take responsibility for continuity of care. This is particularly important in the early stages of treatment to prevent dropout and encourage participation.
- *Providing education* to help the patient and designated others understand the diagnosis, the etiology and prognosis for the disorder, and the benefits and risks of anticipated treatment(s). Patients with special problems will need more extensive information. As with other medical treatments, informed consent to potentially risky procedures should always be obtained.

Training

The Consensus Panel recommends that primary care clinicians receive training in substance abuse screening and assessment during medical and nursing school. This will require increased attention to content and to skill acquisition included in medical and nursing programs.

In addition, the Panel recommends that clinicians and clinic staff

- Master screening, assessment, brief intervention, and referral techniques
- Develop an understanding of the pharmacotherapies used in treating substance use disorders
- Become familiar with and sensitive to standards of care for persons with substance use disorders
- Establish recordkeeping systems and reminder programs to cue clinicians about the need to screen and rescreen patients for alcohol and drug abuse

Confidentiality

Screening, assessing, and treating substance use disorders present primary care clinicians with legal and ethical questions about privacy and confidentiality. No screening or laboratory tests (such as blood or urine tests) should be performed without the patient's consent.

Most primary care clinicians are not subject to 42 C.F.R. Part 2, the Federal rules covering patient confidentiality. Practitioners should be aware, however, that if a health care practice includes someone whose primary function is to provide substance abuse assessment or treatment and if the practice benefits from "Federal assistance," that practice must comply with the Federal law and regulations and implement special rules for handling information about patients who may have substance abuse problems.

Depending on their professional training (and licensing), primary care physicians, physician assistants, advanced practice nurses, nurses, and others may be covered by State prohibitions on divulging information about patients. Note that even within a single State, the kind of protection afforded medical information may vary from profession to profession. Clinicians should learn whether any confidentiality law in the State in which they practice applies to their profession.

The clinician should consult the patient before discussing his or her substance use with anyone else -- family, employers, treatment programs, or the legal system.

Prevention and Gatekeeping

The changes in the health care system brought about by managed care reaffirm the critical importance of the primary care prevention mission. Substance use disorders, as preventable as they are ruinous to patients' health, must be acknowledged as part of that mission. The information in this TIP can help clinicians forestall incipient problems from progressing to full-blown disorders and help them intervene in later stages of the disease. While following these guidelines will not "cure" substance abuse, it will improve the nation's health.

Appendix A -- Pharmacotherapy

Donald R. Wesson, M.D.[1]

In the context of substance abuse, *pharmacotherapy* is the treatment of drug or alcohol dependence with medication to achieve one of three ends: detoxification, relapse prevention, or opioid maintenance (see Figure A-1).

As part of drug abuse treatment, the term *detoxification* refers to the process of reversing a patient's physical dependence. (Note: This is not the usual medical meaning of the term *detoxification*, which implies the removal of a toxin, such as lead, from the body.) If a patient enters treatment inebriated, detoxification includes the period of "sobering up" while the alcohol is being metabolized.

During detoxification, medications are prescribed to reduce the intensity of withdrawal signs and symptoms. Increasingly, patients are being detoxified on an outpatient basis, which is associated with more risks than inpatient detoxification. The section below on outpatient detoxification will help primary care practitioners identify and minimize these risks.

Although detoxification is rarely adequate treatment for drug dependence, it is often an entry point into more definitive treatment. Even in the best of circumstances, however, substance abuse treatment cannot eliminate the chance that a relapse to alcohol or other drug use may occur. To reduce the probability of a

relapse, the use of medications is becoming a widespread clinical practice. Drugs prescribed for this purpose directly target substance abuse or treat underlying depression or other psychopathology that can be a comorbid condition for drug dependence. Many alcohol- and drug-abusing patients have comorbid psychiatric disorders, which, if untreated, may predispose many of them to relapse.

Finally, opioid maintenance involves the substitution of heroin with medications such as methadone or levo-alpha-acetyl-methadol (LAAM) that are medically safe, long-acting, and can be taken orally. Opioid maintenance is generally considered a treatment of last resort for opiate abusers who have not had success in abstinence-oriented treatment. Since opioid maintenance treatment remains tightly regulated by the Food and Drug Administration (FDA) and the Drug Enforcement Administration, efforts to incorporate it into general medical practice is still investigational. With the exception of patients hospitalized for treatment of a serious medical or psychiatric disorder, opioid maintenance can only legally be provided in specially licensed clinics.

Pharmacotherapy is an extremely important adjunct in the treatment of drug dependence and will likely become more widespread as substance abuse treatment becomes more integrated with mainstream medical care. While pharmacotherapy skillfully applied is a powerful tool in facilitating recovery, pharmacotherapy alone will not result in the lifestyle changes necessary for long-term recovery.

The Role of Primary Care Providers

Addiction treatment services are increasingly being provided by primary care physicians, nurse practitioners, and physician assistants in the context of patients' general medical care. With continued rationing of health care in the United States, primary care clinicians are providing much of the addiction treatment previously provided by addiction specialists or in drug abuse treatment clinics. Primary care practitioners in managed care plans are the gatekeepers for patients' access to treatment by medical specialists, and those with special expertise in treatment of addictions are sometimes the medical directors of inpatient or outpatient drug dependency treatment programs.

Whatever the setting, primary care clinicians should be able to diagnose drug dependency and either initiate appropriate medical treatment or make a referral to an addiction medicine specialist or drug abuse treatment clinic.

Patients who are referred elsewhere for drug abuse treatment generally return to their primary care physician for followup care, for continued care of previously diagnosed or emergent medical or psychological conditions, and possibly for pharmacotherapy to prevent relapse. Continued case management and treatment of emergent medical conditions may require that patients be treated with medications that have abuse potential, such as opiates for pain relief or sedative-hypnotics for insomnia or anxiety. The prescription of drugs with abuse potential to recovering addicts can be problematic in primary care settings unless the primary care physician understands the recovering addict's unusual relationship with mood-altering drugs.

Pharmacotherapy of Alcohol Dependence

Detoxification

Although some patients can be safely withdrawn from alcohol without medication, guidelines for identifying those patients have not been validated in controlled clinical trials. Clinically, it is safer to provide treatment for patients who may not need it than to withhold medication until patients develop severe withdrawal signs and symptoms.

The alcohol withdrawal syndrome

The alcohol withdrawal syndrome develops in individuals who are tolerant to alcohol, as indicated by a reported history of withdrawal symptoms (particularly in the morning) during periods of heavy drinking and a history of regular morning drinking.

Symptoms of alcohol withdrawal typically begin within 6 to 24 hours after reduction or cessation of alcohol use, and signs and symptoms can be severe even in the presence of a positive blood or breath alcohol level. Alcohol withdrawal signs and symptoms peak in intensity between 24 and 48 hours following cessation of alcohol use, and they generally resolve within 4 or 5 days. The most common signs or symptoms of alcohol withdrawal include tremor of the hands and tongue, hypertension, tachycardia, sweating, nausea, more active deep tendon reflexes, diaphoresis, gastrointestinal (GI) distress, irritability, insomnia, and restlessness.

The most severe manifestation of an inadequately treated withdrawal syndrome is agitated delirium (delirium tremens or DTs), which generally appears 3 to 7 days after withdrawal starts. DTs commonly presents in association with other serious medical illnesses. Impaired attention, disorientation, paranoia, hallucinations, and memory disturbances characterize alcohol withdrawal delirium, which can be life-threatening. Grand mal seizures are another severe manifestation of withdrawal; fewer than 5 percent of those in alcohol withdrawal experience seizures or delirium (American Psychiatric Association, 1994).

Monitoring alcohol withdrawal

A standardized worksheet for assessing alcohol withdrawal symptoms has been developed at the Addiction Research Foundation. The worksheet, known as the Clinical Institute Withdrawal Assessment -- Alcohol (CIWA-Ar) (Sullivan et al., 1989), is reproduced in Appendix C. Observed physical phenomena and interview questions are scored, and decisions to medicate made according to the total. The CIWA-Ar, which can be administered by nurses, has been shown to result in more judicious use of medications and appears to produce more cost-effective care. On an inpatient detoxification ward at an urban Veterans Affairs medical center, 3 hours of nurse training in use of the CIWA-Ar led to reduced medication use and more appropriate levels of treatment for a sample of 50 male subjects (Wartenberg et al., 1990).

A key element in training staff in the use of the CIWA-Ar is to rate signs and symptoms that are reasonably attributable to alcohol withdrawal. A common error, particularly in the elderly, is to attribute a tremor or hypertension to alcohol withdrawal, when, in fact, the signs were present before alcohol withdrawal began.

Alcohol withdrawal: Medications

Benzodiazepines are the medication of choice for initiating alcohol detoxification in a new patient where treatment must be initiated before results of liver function studies are available. They decrease the likelihood of withdrawal seizures and episodes of delirium tremens and suppress severe anxiety, insomnia, tremulousness, tachycardia, rising blood pressure, and grand mal seizures. Benzodiazepines rarely produce respiratory depression, liver toxicity, or allergic reactions. They are cross-tolerant with alcohol.

Among those who should receive benzodiazepines are abruptly abstinent patients with a history of seizures (even in the absence of withdrawal symptoms), patients with symptomatic withdrawal and a history of DTs, patients with underlying conditions that cannot tolerate the symptoms of withdrawal, patients with moderate to severe symptoms scoring higher than 14 on the CIWA-Ar, and those with concurrent acute illness (Foy et al., 1988).

The particular benzodiazepine to be prescribed for alcohol withdrawal is determined by patient

characteristics and the pharmacology of the benzodiazepine. The long-acting benzodiazepine chlordiazepoxide (Librium) is the most frequent medication prescribed for alcohol withdrawal in the United States (Saitz et al., 1993) and is the medication of first choice unless there is jaundice or other clinical indicators of severely compromised liver function. Oxazepam (Serax) or lorazepam (Ativan) are acceptable alternatives with patients who have severe liver disease because neither is metabolized by the liver. Many physicians prefer chlordiazepoxide over diazepam (Valium) for alcohol detoxification medication because paradoxical rage and behavioral dysinhibition are more common with diazepam than with chlordiazepoxide. Other benzodiazepines suitable for alcohol withdrawal are clonazepam (Klonopin) and chlorazepate (Tranxene).

Although the dangers of overmedicating in a hospital setting during the first 24 hours are less than those of undermedicating, patients should still be monitored for signs and symptoms of overmedication, which for chlordiazepoxide include obtunded consciousness, ataxia, impairment of short-term memory, sustained horizontal nystagmus, slurred speech, unsteady gait, and, rarely, noxious or belligerent behavior.

Initial dosing is chlordiazepoxide 25 to 50 mg every hour until the patient is becoming less tremulous and pulse rate is decreasing. Some patients will have sustained nystagmus even in the presence of increasing signs and symptoms of withdrawal. In such cases, additional chlordiazepoxide to decrease withdrawal symptoms is reasonable during the first 72 hours of alcohol abstinence. Some patients are inebriated on admission and may require initiation of benzodiazepine treatment before blood levels of alcohol are below 0.1 to prevent emergence of alcohol withdrawal. If adequate control of signs and symptoms of alcohol withdrawal are obtained during the first 48 hours of detoxification and alcohol blood levels are zero, additional chlordiazepoxide is not necessary. Chlordiazepoxide is slowly metabolized, so it is, in effect, "self-tapering." For patients with severe liver disease, administer oxazepam 30 mg every hour.

Patients who are vomiting or having severe diarrhea may not reliably absorb oral benzodiazepines. In such cases, the benzodiazepine should be given by intramuscular injection. Lorazepam in 2 mg doses is the medication of choice because it is reliably absorbed from muscle tissue, unlike chlordiazepoxide or diazepam. A lorazepam injection should be given every hour until tachycardia, profuse sweating, and tremulousness begin to subside. As soon as possible, the patient should be switched to oral chlordiazepoxide (or oxazepam). Patients who are clinically dehydrated should be treated with intravenous (IV) fluids until they are able to reliably retain oral fluids.

Patients with a history of seizures not related to acute alcohol or other drug withdrawal or toxicity (e.g., cocaine) should be maintained on their usual anticonvulsant (e.g., **phenytoin [Dilantin], phenobarbital) during detoxification.**

Carbamazepine and valproate

Both carbamazepine (Tegretol) and valproate (Depakote, Depakene) enhance GABA function, seemingly by a different mechanism than the benzodiazepines. Both are effective in suppressing alcohol (and benzodiazepine) withdrawal symptoms, and neither produces effects that most alcohol abusers find desirable.

Phenobarbital

Phenobarbital can be used for alcohol detoxification with a patient who is also addicted to sedative-hypnotics. Although phenobarbital has an anticonvulsant activity similar to that of diazepam, because it is long-acting with a half-life of over 72 hours, it has a longer duration of anticonvulsant action, and it increases the seizure threshold. The long latency reduces its abuse potential, plus overuse induces dysphoria, so patients are less likely to overmedicate.

Seizures during alcohol withdrawal are primarily generalized, with fewer than three seizures occurring per

withdrawal episode. Most patients either have no seizures or one seizure; seizures typically occur between 12 and 36 hours after the last drink. Patients who have a history of alcohol withdrawal seizures or who have epilepsy may need to be hospitalized for detoxification. Noncompliance with prescribed antiepileptic medications is a common source of epileptic (not alcohol withdrawal) seizures among patients with alcoholism, so a provider should check blood levels and, if necessary, reinitiate these medications for patients experiencing **withdrawal.**

Alcohol withdrawal: Protocols

There are several acceptable medication protocols for treating alcohol withdrawal:

- **Gradual, tapering doses.** Oral benzodiazepines are administered on a predetermined dosing schedule for several days and gradually discontinued; specific protocols vary widely among treatment facilities. As an example, patients may receive 50 mg of chlordiazepoxide (or 10 mg of diazepam) every 6 hours during the first day and 25 mg (or 5 mg of diazepam) every 6 hours on the second and third days (Saitz et al., 1994). Doses of withdrawal medication are usually omitted if the patient is sleeping soundly or showing signs of oversedation.
- **Symptom-triggered therapy.** Using the CIWA-Ar, nurses are trained to recognize signs and symptoms of alcohol withdrawal and to administer withdrawal medications to their patients only when signs and symptoms of alcohol withdrawal appear. Studies have demonstrated that appropriate training of nurses in the application of the CIWA-Ar dramatically reduces the number of patients who receive medication (from 75 percent to 13 percent) (Wartenberg et al., 1990). Patients with CWIA-Ar scores below 15 are generally not medicated, while patients with scores between 15 and 30 are administered 25 mg chlordiazepoxide (or equivalent of another benzodiazepine) and reassessed every hour until the score is 20 or below. Patients with scores above 30 are administered 50 mg of chlordiazepoxide and reassessed every hour.
- **Loading dose.** A slowly metabolized benzodiazepine is administered for the first day of treatment only (Sellers et al., 1983). Patients in moderate-to-severe withdrawal receive 20 mg of diazepam (or 100 mg of chlordiazepoxide) every 1 to 2 hours until they show significant clinical improvement (such as a CIWA-Ar score of 10 or less) or become sedated. A 1985 study indicates that "oral diazepam loading alone may be sufficient to prevent withdrawal seizures in patients who have had them previously and who have no other reason for having seizures" (Devenyi and Harrison, 1985, p. 799).

The clinical merits of one protocol over another have not received adequate study. One randomized, double-blind controlled study conducted in an inpatient Department of Veterans Affairs (VA) hospital compared fixed-dose and symptom-triggered therapy. The researchers found that patients "treated with symptom-triggered therapy completed their treatment courses sooner and required less [medication] than patients treated using the standard fixed-schedule approach" (Saitz et al., 1994, p. 522). Specifically, they received less chlordiazepoxide (median 100 mg versus 425 mg) and received treatment for a shorter period of time (9 hours versus 68 hours). This indicates that symptom-triggered therapy is an approach that could individualize and improve the management of alcohol withdrawal. "Future studies should evaluate the effect of symptom-triggered therapy on the cost and duration of hospitalization for the treatment of alcohol withdrawal and should identify . . . patient populations for whom symptom-triggered therapy may be appropriate" (Saitz et al., 1994, p. 523).

An example of medication orders for uncomplicated, symptom-triggered alcohol withdrawal appears below.

Inpatient vs. outpatient detoxification

Some patients need to be detoxified in a hospital, where the signs and symptoms of their alcohol withdrawal can be frequently monitored. These include patients

- With a history of alcohol withdrawal hallucinations, withdrawal seizures, or withdrawal delirium
- With a documented history of very heavy alcohol use and high tolerance, conferring substantial risk of a severe withdrawal syndrome
- Who are currently abusing or are dependent on other drugs (particularly sedatives or opioids)
- Who have a severe comorbid general medical or psychiatric disorder
- Who are pregnant
- Who live with people who use alcohol and drugs
- Who do not have a reliable person to monitor their condition
- Who have substantial risk of committing suicide

A primary concern with outpatient detoxification is that patients will drive an automobile or otherwise endanger themselves or others. During detoxification, patients' judgment, short-term memory, and motor skills may be impaired due to alcohol withdrawal symptoms or to the medications used to ameliorate withdrawal symptoms. Nonetheless, some patients can be safely and successfully detoxified as outpatients. Good candidates include

- Patients with a good psychosocial support system
- Patients without a history of severe withdrawal symptoms and who are not currently severely dependent on alcohol or concurrently abusing other drugs
- Patients who are attending day treatment or intensive outpatient treatment
- Patients who agree not to drive an automobile or operate hazardous machinery during detoxification

Detoxification of debilitated, acutely ill patients

Patients who have been drinking heavily for long periods may be malnourished. At the time they present for treatment, they may be dehydrated and have disturbances in electrolyte balance, particularly if they are vomiting or having diarrhea. Stat electrolyte determinations should be part of the initial assessment. Fluid, electrolytes, thiamine, and glucose should be given at the beginning of treatment. Patients undergoing withdrawal who are malnourished are at risk for Wernicke-Korsakoff syndrome. Patients being administered IV fluids should be given 100 mg of thiamine to reduce the probably of developing Wernicke-Korsakoff syndrome.

Hypomagnesemia may produce seizures and cardiac arrhythmias. In patients with normal kidney function, magnesium is safe. Patients who are malnourished and sufficiently ill to be receiving intravenous fluids should receive supplemental magnesium.

Because of the risk of drug accumulation and associated toxicity, use of long-acting benzodiazepines is relatively contraindicated in patients older than 60, particularly those who are hypoxic, hypercapnic, or those who have chronic obstructive pulmonary disease (Mayo-Smith and Bernard, 1995; Liskow et al., 1989). Patients with advanced liver disease should get oxazepam and lorazepam, agents that are not oxidatively metabolized by the liver, because they accumulate less and are less likely to produce excessive sedation. Shorter acting medications may be preferable in patients with severe obstructive lung disease or liver disease with synthetic dysfunction.

Adrenergic agents

On the basis of a small number of clinical studies, it appears that adjunctive atenolol (Tenormin) and clonidine may increase the effectiveness of treatment for alcoholic patients in withdrawal who present in a

hyperadrenergic state, that is, with a marked elevation in blood pressure or heart rate. These medications should not be used alone for treatment of withdrawal because they do not prevent seizures or DTs.

Studies suggest that atenolol can help supplement treatment. Compared with patients getting a standard treatment of benzodiazepines, fluids, thiamine, and nutrition, a group receiving adjunctive atenolol as needed for 9 days experienced more prompt resolution of the withdrawal syndrom (Kraus et al., 1985). Similar trials of clonidine produced the same results (Baumgartner and Rowan, 1987, 1991). Beta blockers such as propranolol (Inderal) and atenolol may have an adjunctive role in withdrawal of patients with coronary artery disease (CSAT, 1995a).

Relapse Prevention

Medications used for relapse prevention include those that are administered postdetoxification to increase patients' chances of remaining abstinent from alcohol use.

Disulfiram (Antabuse)

Actions and dosing

Disulfiram deters drinking by triggering an unpleasant physical reaction to alcohol. Few studies convincingly indicate a general usefulness of disulfiram, and many patients are noncompliant. However, patients who succeed at abstinence are often users of disulfiram; the lack of proof should not interfere with its availability to patients and therapists.

Disulfiram interferes with the metabolism of acetaldehyde, an intermediary product in the oxidation of alcohol. As a result, acetaldehyde accumulates in the blood. Drinking alcohol within 12 hours after taking disulfiram produces facial flushing within 15 minutes, then intense vasodilation of the face and neck with suffusion of the conjunctivae, throbbing headache, tachycardia, hyperpnea, and sweating. Nausea and vomiting follow after 30 to 60 minutes and may be so intense as to lead to hypotension, dizziness, and sometimes fainting and collapse. The reaction lasts 1 to 3 hours. Discomfort is so intense that few patients will risk taking alcohol as long as they are taking disulfiram.

Disulfiram may be started when the patient has been free of alcohol for 4 or 5 days. The initial dose is 0.5 gram orally once a day for 1 to 3 weeks. The maintenance dose is adjusted individually; 0.25 to 0.5 gram once a day is usually adequate. Both patient and relatives should be advised that the effects of disulfiram may persist for 3 to 7 days following the last dose. The patient must want to be alcohol abstinent, must cooperate, and should be seen periodically by the physician to encourage his continuing to take disulfiram as part of an abstinence program. The patient should avoid medications that contain alcohol (e.g., tinctures, elixirs, and some over-the-counter liquid cough and cold preparations, which contain as much as 40 percent ethanol).

Providing an adequate dosage of disulfiram is essential to prevent chronic relapses. In a meta-analysis of international studies of the use of disulfiram, Brewer noted a wide range of dosages and found that an adequate dosage varies from patient to patient (Brewer, 1992). Brewer recommends an initial dose of 250 to 500 mg for most patients, but starting those for whom relapse would be disastrous on a dose of 500 mg. Lower dosages may be appropriate for individuals with liver impairment or those who may not require high doses (for example, people with a small body size, some women, and elderly persons).

Patients should receive disulfiram as long as it seems beneficial in helping them to remain abstinent. Patients have been treated up to 16 years with disulfiram (Kristenson, 1992). The optimal length of treatment has not received systematic study.

Caveats

Adverse effects of disulfiram include optic neuritis, peripheral neuritis, polyneuritis, and peripheral neuropathy. Patients should be examined at least every 4 months while taking disulfiram.

Cholestatic hepatitis is an uncommon but potentially serious complication of disulfiram therapy. Liver enzymes that are elevated due to alcohol generally decline while patients are taking disulfiram. Fuller and colleagues found no significant hepatoxicity in patients on disulfiram who do not drink (Fuller et al., 1986). Patients who become jaundiced or who develop anorexia or malaise should have liver function checked.

Occasional skin eruptions are, as a rule, readily controlled by concomitant administration of an antihistaminic drug. In a small number of patients, a transient mild drowsiness, fatigability, impotence, headache, acneiform eruptions, allergic dermatitis, or a metallic or garlic-like aftertaste may be experienced during the first two weeks of therapy. These complaints usually disappear spontaneously with the continuation of therapy or with reduced dosage.

Psychotic reactions have been noted, attributable in most cases to high dosage, combined toxicity (with metronidazole or isoniazid), or to the unmasking of underlying psychoses in patients stressed by the withdrawal of alcohol.

Patients unlikely to abstain are not appropriate candidates for disulfiram, nor are patients with

- Acute hepatitis
- Significant cardiac disease
- Pregnancy (as well as women trying to get pregnant)
- Severe chronic lung disease or asthma
- Schizophrenia or manic depressive illness (disulfiram may precipitate psychosis)
- Suicidal ideation or intent
- Allergy to rubber
- Jobs that include handling alcohol or solvents (e.g., painters and mechanics)

Episodic use of disulfiram can be clinically effective. Patients can take disulfiram the day before an event that holds high risk for relapse, for example, a trip alone out of town or a wedding where alcohol is sure to be served. Episodic use may have an added benefit of lowering the risk of disulfiram toxicity (Duckert and Johnsen, 1987). Some patients always carry an unfilled prescription for disulfiram or an unopened vial of the medication, which they may never use. Disulfiram is most likely to be effective when used in conjunction with counseling, regular attendance at Alcoholics Anonymous (AA) or other 12-Step recovery meetings, and frequent medical visits.

Naltrexone

Actions and dosing

In 1994, after a decade of use with opiate abusers, the opiate antagonist naltrexone was approved by FDA for prevention of relapse to alcohol use. B**y competitively binding at opioid receptors,** naltrexone appears to block the pleasurable effects of both **alcohol and opiates.** When it was approved for treatment of alcohol dependence, the trade name was changed from Trexan to ReVia.

For patients who are alcohol dependent and are not abusers or medicinal users of opiates, naltrexone can be started as soon as alcohol withdrawal symptoms have stopped. Initial dosing is 25 mg (tablet) once a day with a meal. Occasionally, patients will report feeling stimulated with the first few doses, so it is best administered early in the day. If the patient has no side effects, the dose can be increased to 50 mg once

daily.

O'Malley and colleagues found that the best candidates for naltrexone had

- High levels of alcohol dependence
- Familial alcoholism
- High levels of craving
- Less than a high school education (O'Malley et al., 1996)

In a study of 70 male veterans, fewer naltrexone-treated subjects than placebo-treated subjects (23 percent compared with 54.3 percent, respectively) met criteria for relapse (Volpicelli et al., 1992). Similarly, naltrexone has produced higher rates of abstinence among a sample of 97 patients when combined with supportive (as opposed to cognitive) treatment, reduced relapse rates by 50 percent, and reduced craving (O'Malley et al., 1992).

The study indicated that continuing naltrexone for more than 3 months may be desirable, especially among nonabstainers. Naltrexone is generally well tolerated (Bohn et al., 1994).

Caveats

Because naltrexone adheres very tightly to the : opiate receptor, it is extremely difficult to override the effect of naltrexone either to get "high" or to obtain analgesia. Patients must know that after they are on naltrexone, opiates will not provide pain relief, though nerve blocks and nonopiate analgesics are still effective. Patients who have a medical need for opiates should not be administered naltrexone. Patients who are to have surgery or other medical procedures should not be administered naltrexone within 3 days of the procedures. After the procedure, patients should be restarted on naltrexone 3 days after their last use of opiates. Earlier reinduction of naltrexone is likely to precipitate opiate withdrawal signs and symptoms.

Patients whose serum glutamic-oxaloacetic transaminase (SGOT) or serum glutamic-pyruvic transaminase (SGPT) is greater than 5 times the upper normal range should not be started on naltrexone.

The use of naltrexone is contraindicated for some alcoholic patients, including those

- With acute hepatitis
- Who are dependent on opioids (naltrexone precipitates opioid withdrawal)
- Who have stopped opioid use in the past 2 weeks
- Who may require intermittent opioid treatment for relief of pain (migraine headaches) or who are scheduled for elective surgery
- Who are pregnant or trying to become pregnant

Patients should be advised about potential side effects. The most common is nausea or abdominal cramping 30 to 90 minutes following a dose. The GI side effects can often be minimized by having the patient take naltrexone with meals. Much less common are anxiety, insomnia, and malaise (Croop et al., 1995). The cost of naltrexone to the health care system or patient is substantial. Costs for naltrexone range from $2.50 per day in the VA system to between $4 and $6 per day in retail pharmacies.

Medications for psychiatric comorbidities

Antidepressants

A substantial proportion of alcoholic patients seeking treatment report symptoms of depression and anxiety; 25 to 45 percent have been diagnosed as having anxiety disorders (Chambless et al., 1987; Cox et al., 1989). Treatment of withdrawal symptoms like nausea, headaches, and insomnia can substantially

improve patients' well-being and outcomes. All patients should be carefully evaluated for signs of serious depression in the early weeks of abstinence; depression in these patients confers a risk of suicide, and treatment planning should include measures to maximize patient safety.

For many depressed or anxious alcoholic patients receiving alcohol counseling, symptoms of depression resolve within 30 days of abstinence. If defining symptoms of a mood disorder have not been observed and noted during earlier periods of abstinence, the clinician should wait for at least 30 days to initiate antidepressant treatment.

Selective serotonin reuptake inhibitors (SSRIs) are now the most commonly prescribed antidepressants because they are better tolerated than the tricyclic medications. Nonetheless, the tricyclics are still inexpensive and useful for patients who can tolerate them. Recent studies have reported imipramine (McGrath et al., 1996) and desipramine (Mason et al., 1996) effective in treating depression among alcoholic patients. Trazodone, in doses of 50 to 100 mg, is often helpful at bedtime as an alternative to sedative-hypnotics.

Anxiolytics

The prescription of benzodiazepines to treat anxiety disorders among those recovering from alcohol and other drug dependencies is controversial. Many addiction specialists believe that recovering patients are likely to develop physical dependency on or overuse benzodiazepines. Because of these dangers, benzodiazepines are generally contraindicated and should not be prescribed to alcoholics by primary care physicians.

Buspirone (Buspar) can sometimes be a useful and nonaddictive alternative to addictive benzodiazepines for treatment of anxiety. Kranzler and colleagues recommend a 12-week regimen of buspirone (5 mg three times daily, increasing every 3 or 4 days to a maximum dose of 40 to 60 mg/day) (Kranzler et al., 1994).

Pharmacotherapy for Benzodiazepine Dependence

Long-term, daily benzodiazepine use can result in physical dependence even when the benzodiazepine is used within usual therapeutic doses.

Physical dependence is caused by neuroadaption of the cells of the brain to the presence of a drug or medication. Physical dependence does not necessarily mean that the patient has an addiction disorder. A patient who has been taking benzodiazepines for months to years for medical reasons may be physically dependent and have withdrawal symptoms when the benzodiazepine is stopped.

The risks of withdrawal are particularly high for people over 65, because their bodies metabolize drugs differently. Rapid benzodiazepine withdrawal has been shown to cause catatonia in older patients (Rosebush and Mazurek, 1996). Primary care clinicians should always consult an addiction medicine specialist about older adults' detoxification from sedatives.

Carbamazepam and valproate can aid in withdrawal from benzodiazepines as well as from alcohol. The use of valproate for withdrawal from **benzodiazepines is supported by several case studies** (Roy-Byrne et al., 1989; Apelt and Emrich, 1990). In clinical experience with treating benzodiazepine withdrawal and in the controlled clinical trials in treatment of epilepsy, valproate appears to be better tolerated than carbamazepam.In general, patients will fall into one of two categories: One is patients who take relatively fixed doses of benzodiazepines, with or without the prescribing physicians' knowledge and consent. These patients are able to ration their use of benzodiazepines (i.e., they may be physically dependent but are not "out of control"). Discontinuation of therapeutic doses of benzodiazepines may produce psychosis, parathesias, increased sensitivity to sound and light, irritability, acute anxiety, and insomnia.

The second group of patients use benzodiazepines frequently, but generally use as much as is available to them; many also abuse other drugs. Abrupt discontinuation of large doses of benzodiazepines can result in signs and symptoms such as seizures, psychosis, severe anxiety, intense nightmares, and insomnia. As outlined below, the treatment strategy for these two groups of patients is different.

Patients Who Control Their Daily Use

If a patient has been maintained on benzodiazepines for medical purposes, the term for cessation is *therapeutic discontinuation* or *taper* rather than *detoxification.* If the therapeutically prescribed benzodiazepine of dependence is long-acting, it should be slowly tapered on an outpatient basis. For patients who are dependent on a short-acting benzodiazepine, a long-acting one such as clonazepam should be substituted and then slowly tapered.

For patients who can adhere to the withdrawal regimen and who do not have a diagnosable substance abuse disorder, the benzodiazepine is first tapered to the lowest dose that the patient can tolerate. Then a regimen of valproate should begin, starting with 125 mg three times a day. Then the daily dose is increased as tolerated or until the patient is taking 750 to 1200 mg/day and symptoms have abated. The benzodiazepine is then abruptly stopped. Valproate is continued for 30 days and gradually discontinued over a 2-week period.

For patients who have significant depressive symptoms, treatment with an antidepressant may be indicated before initiating the final phase of pharmacological withdrawal. Acceptable antidepressants include nefazodone (Serzone) 300 to 600 mg/day (in b.i.d. dosing) or fluoxetine (Prozac) 10 to 20 mg/day. Both may decrease the metabolism rate of benzodiazepines and valproate.

Patients "Out of Control"

Patients who are abusing benzodiazepines require hospitalization for detoxification because they cannot reliably adhere to a detoxification regimen. The patient should be maintained on a long-acting benzodiazepine such as clonazepam at a dosage that does not produce intoxication. Valproate should be started at 125 mg/day and increased to 750 to 1200 mg as rapidly as tolerated. The long-acting benzodiazepine is discontinued on the third day.

Alcohol and Benzodiazepine Dependence

Some alcoholics also chronically abuse benzodiazepines or other sedative-hypnotics and have a physical dependence on both. Patients may deny drug use generally, so it is wise to specifically inquire about Librium, Valium, Xanax, and Ativan. Urine screening and history from family members can help confirm such a dual dependence. Even if the dual dependence is strongly suspected, patients can be treated initially with chlordiazepoxide until results of liver function studies are available. Patients who do not have laboratory or clinical evidence of acute hepatitis should be started on valproate 250 **mg three times a day the first day. On the second day, valproate is increased to 250 mg four times a day.** Chlordiazepoxide is used in addition to suppress acute withdrawal signs and symptoms for up to 72 hours.

Pharmacotherapy for Dependence on Other Drugs

Other Sedatives

Nonbenzodiazepine sedatives include barbiturates (such as secobarbital, pentobarbital [Nembutal], and amobarbital); carbamates; and chloral hydrate. Withdrawal from these sedatives is associated with orthostatic changes in blood pressure and pulse and can be life-threatening. The duration of the withdrawal

syndrome varies depending on the half-life of the drug and the duration and severity of drug dependence.

Another difference suggested by clinical evidence is the higher risk of withdrawal seizures, including repeated/status withdrawal seizures, in sedative withdrawal than in alcohol withdrawal. The time between the last dose of the drug and peak intensity of symptoms is 24 to 72 hours for pentobarbital, secobarbital, oxazepam, and alprazolam (Xanax) compared with 5 to 8 days for long-acting drugs like diazepam and chlordiazepoxide. For patients addicted to faster acting sedative-hypnotics, one option is to substitute phenobarbital or chlordiazepoxide and then taper those doses. Conversion schedules can be found on pages 32 and 33 of TIP 19, Detoxification From Alcohol and Other Drugs (CSAT, 1995a).

Cannabis

Some people use marijuana chronically, but most do not have a medically significant withdrawal syndrome. No specific pharmacotherapy is needed.

Opioids

In classical pharmacology, opiates are derivatives of thebaine. Many synthetic opiates have been synthesized, and the term opioids encompasses morphine, heroin, codeine, methadone, hydrocodone bitartrate (Vicodin), and hydromorphone (Dilaudid).

Opioid Detoxification

Opioid withdrawal syndrome

Opioid withdrawal ranges from mild drug craving and anxiety to three grades of symptom severity. (See Figure A-2.) Symptoms of withdrawal from heroin or morphine begin 8 to 12 hours after a patient's last dose and last for 5 to 7 days. For methadone, withdrawal begins 12 hours after the last dose and can last for 3 weeks or more, generally at a lower intensity than other opioid abstinence syndromes (CSAT, 1995a).

Patients suffering Grade 1 or even Grade 2 symptoms may be able to be treated with clonidine, a hypertension medication that alleviates most of the milder abstinence symptoms. An initial test dose of 0.1 mg should be administered orally (sublingually if symptoms are acute). If after 45 minutes the patient's diastolic blood pressure is normal and no orthostatic hypotension is evident, then doses of 0.1 to 0.2 mg should be administered orally every 4 to 6 hours. Clonidine also comes in patch form, and patch wearers seem to have fewer drug cravings than those who take the drug orally (CSAT, 1995a).

Outpatient detoxification of opioid-addicted persons using narcotics (usually methadone or LAAM) is legal only in licensed clinics, all of which are medically staffed. When a patient is involved in a clinic-based, outpatient methadone detoxification, the primary care provider may need to work with the clinic staff to integrate agents other than methadone (e.g., clonidine or buprenorphine) into the treatment program. Few data are available on primary-care-based opioid detoxification in the United States. Medications to treat nonspecific symptoms, such as antinauseants, antispasmodics, and anti-inflammatory pain relievers, may be effective in patients with moderate addiction. The judicious, time-limited use of anxiolytics such as hydroxyzine (Vistaril, Atarax) and nonbenzodiazepine sedating medications can help patients sleep and reduce their anxiety. These medications include trazodone, diphenhydramine, doxepin (e.g., Benadryl), imipramine, and amitriptyline.

Primary-care-based opiate detoxification can be successful (O'Connor et al., 1995), and

outpatient opioid detoxification may provide an opportunity to engage more opioid-addicted persons in specialized treatment. However, a primary care practitioner treating such patients should consult an addiction specialist. Many opioid-addicted individuals have multiple problems, and their care should be part of integrated clinical and social support programs. A primary care setting that accepts many such patients must be prepared for clinical challenges and strained resources.

Rapid opioid detoxification

Rapid opioid detoxification protocols involve anesthetizing patients and infusing increasing amounts of opiate antagonists (naloxone [Narcan] or nalmephine) over a 12- to 24-hour period. This plays to some opioid addicts' wish for a quick, painless cure. The procedure has been touted in the press, and some opioid-dependent patients request the procedure. At the time of this writing, the procedure is not part of standard addiction medicine practice and should be left to a small group of physicians who are specializing in it.

Relapse Prevention

Relapse prevention in this context refers to preventing relapse to medically unsupervised opiate use. The two main pharmacotherapies are (1) opiate maintenance with methadone or LAAM and (2) opioid blockade with naltrexone.

Methadone maintenance

Although opioid maintenance therapy still has its detractors, many studies document the efficacy of methadone maintenance among opiate abusers in reducing use of heroin, criminal activity, and activities that put them at risk for acquiring or spreading HIV infection. Some addicts cease use of heroin altogether while on maintenance and relapse to heroin use when maintenance is terminated. The issues surrounding methadone are complex and beyond the scope of this appendix.

Although methadone therapy has been successfully provided in a primary care setting to stable methadone-maintained patients (Novick et al., 1988), there is no consensus on clinical procedures (Wesson, 1988), and the use of methadone for detoxification or maintenance must be provided in specially licensed clinics. An exception is methadone-maintained patients who are hospitalized for treatment of a serious medical illness.

Medically ill, methadone-maintained patients

When methadone-maintained patients are admitted to the hospital for treatment of an acute medical illness, they should normally be kept on their maintenance dose of methadone. The maintenance program should be called to verify the maintenance dose, because patients may not be reliable informants. It is sometimes wrongly assumed that patients' methadone dose will provide adequate analgesia if they are having pain. This is not usually the case for severe pain, and patients should be administered standard opiates such as morphine in addition to their methadone. Their opiate tolerance may be very high, and they may need much larger than standard doses. The best approach is to incrementally administer opiates until satisfactory pain relief has been achieved. (See TIP 1 State Methadone Treatment Guidelines and TIP 20 Matching Treatment to Patient Needs in Opioid Substitution Therapy for more on State treatment guidelines and patient-treatment matching for methadone patients [CSAT 1993, 1995b]).

Naltrexone

Naltrexone is a long-acting competitive antagonist at : opioid receptors that blocks the response to opioids. Naltrexone was approved in 1984 by the FDA for preventing relapse to opiate use. Naltrexone's greatest

clinical utility is to prevent relapse to opiate use among patients who are highly motivated to abstain. It has proven extremely useful in the treatment of health professionals and some other opiate-dependent patients (Ling and Wesson, 1984).

While the pharmacological efficacy of oral naltrexone in blocking the effects of heroin and other opiates is well established, compliance problems have limited its utility. Unlike methadone, naltrexone does not provide patients with a beneficial mood-altering effect.

The usual maintenance dose of naltrexone is 50 mg per day. If it is self-administered, once-daily dosing is usual. In some instances, monitoring compliance is desirable (e.g., with a health professional who handles opiates at work). To minimize logistical problems, clinicians generally administer naltrexone according to the following schedule: 100 mg Monday, 100 mg Wednesday, and 150 mg Friday. The increased dose on Friday provides adequate opiate blockade throughout the weekend.

For heroin users, allow at least 7 days after the last opioid dose before administering the first dose of naltrexone. This recommendation also applies to opioids (including propoxyphene [Darvon] and methadone) that may have been used during detoxification. For patients who have been *abusing* or *maintained* on methadone, allow at least 10 days following the last dose. Induction protocol is the same as for prevention of alcohol relapse.

Medically ill, naltrexone-maintained patients

The analgesic effects of opiates will be blocked 24 to 72 hours following the last naltrexone dose. If a patient needs pain relief from peripheral injuries, the physician should not attempt to override the opiate blockade by administering extra-therapeutic doses of opiates but rather should use a nerve block. Patients maintained on naltrexone who are facing elective surgery should stop naltrexone three days prior to surgery and resume it several days following the last administration of an opiate.

Cocaine and Methamphetamine

No specific pharmacological detoxification regimen is required for cocaine, crack cocaine, or methampethamine. Use is typically a binge pattern alternating with days to weeks of abstinence. Following cessation from daily use, some patients are agitated, appear depressed, and have difficulty sleeping. Symptomatic treatment with chlordiazepoxide 10 to 25 mg for a few days provides some amelioration of agitation and insomnia.

Nicotine

Nicotine is increasingly being viewed as an addictive drug among addiction medicine specialists. Most people who are dependent on alcohol and other drugs smoke cigarettes. A recently published study reported that the cumulative mortality from tobacco-related causes (50.9 percent) among patients previously treated for alcohol and other drug dependencies exceeded that of alcohol (34.1 percent) (Hurt et al., 1996). As a practical matter, patients undergoing treatment for alcohol or other drug dependencies are often resistant to stopping smoking while they are undergoing treatment. A common response is, "Yes, I want to stop, but not now."

Physicians should aggressively encourage patients to begin a smoking cessation program during the early phases of drug dependency treatment. One approach is to help patients quit smoking while being maintained on nicotine via the transdermal patch or nicotine gum.

Conclusions

Although much has been learned during the past 20 years about the neurophysiology of addiction, drug abuse treatment models have not changed as much as patients' access to drug abuse treatment services has. Cutbacks in public funding of drug abuse treatment have severely limited access to treatment in the public sector, and managed care has severely curtailed access in the private sector. Addiction medicine has responded with some innovations, like greater use of day treatment and intensive outpatient services. Managed care has engendered a greater emphasis on outpatient treatment and curtailed patients' access to specialists.

The fractured health care of the 1990s, however, is an interim condition, and health care reform will eventually be realized in a reasonable way. Although the shape of health care in the future is far from defined, some current trends will likely persist. One such trend is the integration of addiction treatment into mainstream medicine.

[1] Medical and Scientific Director, MPI Treatment Services, Summit Medical Center, Oakland, California; Associate Clinical Professor of Psychiatry, University of California at San Francisco.

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Appendix B -- Legal and Ethical Issues

by Margaret K. Brooks, Esq.[1]

Because substance use disorders carry such a stigma, primary care clinicians who screen their patients for substance abuse unavoidably intrude on their autonomy and their privacy. Whether clinicians screen through laboratory testing or by administering behavioral questionnaires, they are seeking very personal information. When clinicians use this information to suggest or urge that patients get treatment, or share this information with others, patients may feel their autonomy threatened and their privacy invaded.

Clinicians generally perform substance abuse screening and assessment either to improve management of presenting conditions or to encourage patients to accept treatment. However, patients, accustomed to clinicians' respect for their autonomy, may not see it that way. A patient "in denial" may not realize, or want to realize, that he has to cut back on or give up his alcohol or other drug use, and he may view the clinician's questions and suggestions as intrusive.

A patient may also be concerned about the social stigma that comes with admission of a substance use problem. It is common for people with such problems to face stigmatization and discrimination if those problems become public knowledge. Such patients may find it difficult or impossible to obtain coverage for hospitalization costs if an insurer or health maintenance organization (HMO) learns that their traumatic injuries were related to alcoholism. Or, patients' employers could take a dim view of their entering drug treatment. Relationships with a spouse, parent, or friends may suffer. Adverse consequences such as these may discourage patients with substance use problems from seeking treatment.

This appendix will examine how the issues of privacy and confidentiality affect the way primary care clinicians may screen patients for substance use problems. The first issue discussed is the relationship between patient autonomy, a value medicine holds dear, and the clinician's obligation to inform and counsel his patient about the health risks of alcohol or other drug use. A discussion of privacy of

information about a patient's substance use problems follows: How can the clinician keep accurate records and communicate with others concerned about the patient's welfare without disclosing information that may subject the patient to scorn, loss of employment, or problems with insurance? This section offers specific examples of situations primary care clinicians may encounter in connection with patients who have substance use disorders.

Patient Autonomy and The Clinician's Mission

A clinician confronted with evidence of a patient's substance abuse is caught between respect for his patient's autonomy and his duty to ensure his patient's health. Should the clinician raise the issue and then drop it at the slightest hint of resistance on the part of the patient? Or should he intervene more forcefully -- with argument, or by involving the family?

To fulfill his ethical responsibility to his patient's health, the clinician should do more than simply raise the issue. He should give the patient all the relevant information, engage the patient in a discussion, and follow up in future visits.

Ordering Laboratory Tests

Testing patients' urine for drugs is not an everyday practice in primary care, but a clinician may want to use such a screen, especially when treating adolescents for substance abuse problems. Must, or should, a clinician get the patient's consent before ordering a drug screen? Such a decision must be guided by the strictures of trust and privacy, because the law addresses only the case of doctors reporting pregnant substance-abusing women to child protective services or the criminal justice system. Ordinarily, a clinician does not ask a patient to consent before she sends his urine or blood for other testing.

However, ordering laboratory tests to screen patients for substance abuse problems is different than screening for, say, diabetes. Patients expect to be screened for blood sugar and cholesterol but not for alcohol and other drugs. A patient confronted with the results of a test he did not know about and did not consent to may feel betrayed by the clinician and that the clinician has shown a lack of respect for his right to make his own decisions about medical tests and care. Feeling he can no longer trust the clinician and angry that he has been "tricked," the patient may refuse to participate in any further discussion about his substance use problem. In the interest of a more productive clinician-patient relationship, the better practice is to ask the patient before running any laboratory screens.

A second reason clinicians should get a patient's consent before testing urine or blood for alcohol or other drugs is the patient's privacy. If the clinician orders a test, the patient's health insurance carrier will know about it and perhaps the result as well. The clinician's decision to order a drug screen tells the third party payer a good deal, even if the result is negative. The patient should decide whether he is willing to have his insurance carrier learn this information.

A third reason is financial. The patient's third party payer may not cover drug screens as a matter of course. The advent of managed care has narrowed the range of tests a clinician can order on a routine basis. If the patient's insurance or HMO will not cover the test, the patient should have the opportunity to decide whether he is willing to pay for the test out of his own pocket, a decision he should make before the test is taken.

Unfortunately, there is a good chance that if the clinician consults the patient and asks for his consent, he will refuse to agree to the test. However, this exchange leaves the door open to further discussion with the patient about his possible substance use problems (see Chapter 3). The patient may be more open to examining his own behavior after refusing a test than if he thought the clinician acted behind his back. The clinician could begin the discussion by asking, in a neutral way, why the patient does not want to have a

drug screen.

Privacy and Confidentiality

Concern about privacy and confidentiality is fueled by the widespread perception that people with substance use disorders are weak or morally impaired. A patient whose substance use problem becomes known to her employer may lose an expected promotion -- or her job. If she has marital problems, information about her substance use could have an impact on divorce or custody proceedings. Or her health insurance could be canceled.

Federal Law

The concern about the adverse effects that social stigma and discrimination have on patients in recovery (and how those adverse effects might deter people from entering treatment) led the Congress to pass legislation and the Department of Health and Human Services (DHHS) to issue a set of regulations to protect information about patients' substance abuse. The law is codified at 42 U.S.C. 290dd-2. The implementing Federal regulations, "Confidentiality of Alcohol and Drug Abuse Patient Records," are contained in 42 CFR Part 2 (Vol. 42 of the Code of Federal Regulations, Part 2).

The Federal law and regulations severely restrict communications about identifiable patients by "programs" providing substance use diagnosis, treatment, or referral for treatment (42 CFR 2.11). The purpose of the law and regulations is to decrease the risk that information about individuals in recovery will be disseminated and that they will be subjected to discrimination, which should also encourage people to seek treatment for substance use disorders.

In most primary care settings, Federal confidentiality laws and regulations do not apply. For many years, there was confusion about whether general medical care settings such as primary care clinics or hospital emergency rooms were subject to the Federal law and regulations because they provided substance abuse diagnosis, referral, and treatment as part of their services. In 1995, DHHS revised the definition of the kinds of "programs" subject to the regulations, making it clear that the regulations do not usually apply to a general medical care facility unless that facility (or person) "holds itself out as providing, and provides, alcohol or drug abuse diagnosis, treatment or referral for treatment" (42 CFR 2.11).[2]

Most primary care clinicians are not subject to the Federal rules. Practitioners should be aware, however, that if a health care practice includes someone whose primary function is to provide substance abuse assessment or treatment and if the practice benefits from "Federal assistance,"[3] that practice must comply with the Federal law and regulations and implement special rules for handling information about patients who may have substance abuse problems.[4]

Moreover, the fact that most primary care clinicians are not subject to the Federal rules does not mean that they can handle information about patients' substance use problems in a cavalier manner. Because of the potential for damage to patients, clinicians should always handle such information with great care.

State Law

Although Federal rules do not restrict how most primary care clinicians gather and handle information about patients' substance abuse, there are other rules that may limit how such information may be handled. State laws offer some protection to medical information about patients. Most clinicians -- and patients -- think of these laws as the "doctor-patient privilege."

Strictly speaking, the doctor-patient privilege is a rule of evidence that governs whether a physician can be asked or compelled to testify in a court case about a patient. In many States, however, laws offer wider

protection. Some States have special confidentiality laws that explicitly prohibit practitioners from divulging information about patients without consent. States often include such prohibitions in professional licensing laws; such laws generally prohibit licensed professionals from divulging information about patients, and they make unauthorized disclosures grounds for disciplinary action, including license revocation.

Each State has its own set of rules, which means that the scope of protection offered by State law varies widely. Whether a communication (or laboratory test result) is "privileged" or "protected" may depend upon a number of factors:

- The type of professional holding the information and whether he or she is licensed or certified by the State
- The context in which the information was communicated
- The context in which the information will be or was disclosed
- Exceptions to any general rule protecting information

Clinicians covered by the "doctor-patient" privilege

Which practitioners are covered depends on the State within which the clinician practices. California, which grants its citizens "an inalienable right to privacy" in its Constitution, has what may be the most extensive protections for medical (including mental health) information. California law protects communications with a wide variety of professionals, including licensed physicians, nurses, and psychotherapists (which includes clinical social workers, psychologists, and marriage and family counselors), as well as many communications with trainees practicing under the supervision of a number of these professionals. A California court has held that information given to an unlicensed professional by an uneducated patient may be privileged if the patient reasonably believes the professional is authorized to practice medicine.[5]

Other States' laws cover fewer kinds of professionals. In Missouri, for example, protection is limited to communications with State-licensed psychologists, clinical social workers, professional counselors, and physicians. Even within a single State, the kind of protection afforded medical information may vary from profession to profession. Clinicians should learn whether any confidentiality law in the State in which they practice applies to their profession.

Context in which the information was communicated

State laws vary tremendously in this area, too. Some States limit protection to cover only information a patient communicates to a professional in private in the course of the medical consultation. Information disclosed to a clinician in the presence of a third party -- like a spouse -- is not protected. Other States, such as California, protect all information the patient tells the clinician or the clinician gains during examination.[6] California also protects other information acquired by the clinician in his professional capacity about the patient's mental or physical condition, as well as the advice the clinician gives the patient.[7] When California courts are called upon to decide whether a particular communication of medical information is privileged, State law requires them to presume that it is.

California affords even greater protection to communications between patients and psychotherapists, a term that covers a wide range of professions. Communications by and to the patient as well as information communicated by a patient's intimate family members to therapists and psychiatric personnel[8] are protected. California also protects information the patient discloses in the presence of a third party or in a group setting.

Understanding what medical information is protected requires primary care clinicians to know whether

State law recognizes the confidentiality of medical information in the many contexts in which the clinician acquires it.

Circumstances in which "confidential" information is protected from disclosure

Some States protect medical information only when that information is sought in a court proceeding. If a physician divulges information about a patient in any other setting, the law in those States will not recognize that there has been a violation of the patient's right to privacy. Other States protect medical information in many different contexts and may discipline professionals who violate their patients' privacy, allow patients to sue them for damages, or criminalize behavior that violates patients' privacy. The diversity of State rules in this area compounds the difficulty clinicians face in becoming knowledgeable about what rules apply to them.

Exceptions to State laws protecting medical information

Consent

All States permit health care professionals to disclose information if the patient consents. However, each State has different requirements regarding patient consent. In some States, consent can be oral; in others, it must be written. States that require written consent sometimes require that certain elements be included in the consent form or that everyone use a State-mandated form. Some States have different consent forms with different requirements for particular diseases.

Other exceptions

All States also require the reporting of certain infectious diseases to public health authorities and of child abuse to child protective service agencies, although definitions of infectious disease and child abuse vary. And most States require health care professionals and mental health counselors to report to the authorities threats patients make to inflict harm on others. There are States that permit or require health care professionals to share information about patients with other health care professionals without the patients' consent, but some limit the range of disclosure for certain diseases, like HIV. Most States make some provision for communicating information to health insurance or managed care companies.

Many of the situations that primary care clinicians face daily -- processing health claims, for example -- are covered by one of these exceptions. To fully understand the "rules" regarding privacy of medical information, primary care clinicians must know about the exceptions to those rules as well. Those exceptions are generally in the statute books -- in either the sections on evidence or the professional licensing sections, or both. The State licensing authority as well as professional associations can usually help answer such questions.

Strategies for Dealing With Common Situations

Charting Substance Use Information

One way for a primary care clinician to safeguard his patients' privacy and avoid breaking the rules is to develop a charting, or recordkeeping, system that is accurate but still protects patients' rights to privacy and confidentiality. It's important to remember how many people could see a patient's medical chart: the medical office staff, the insurance company (or HMO or managed care organization [MCO]), and in the event of a referral, another set of clinicians, nurses, clerical workers, and insurers. If the patient is involved in litigation, and his medical or mental health is an issue, the court will most likely require the clinician to disclose the chart in response to a subpoena.

The Consensus Panel recommends that when documenting screening or assessment results or flagging an issue to be raised during the patient's next visit, clinicians use neutral chart notations or reminders that do not identify the problem as being substance-use-related. Following are three recordkeeping systems that comply with the stringent Federal confidentiality regulations, protect patients' autonomy and privacy, and can be used in the primary care setting (TIP 16, Alcohol and Other Drug Screening of Hospitalized Trauma Patients, CSAT, 1995: [9]

- The "minimalist" approach, which relies on the clinician to enter only that information in the chart that is required for accuracy and to use neutral terms wherever possible.
- The "rubber band" approach, which segregates substance abuse information in a separate "confidential" section in the chart. Information in this section would be shared with other clinicians only on a need-to-know basis, without being open to the view of every staff person who picked up the chart.
- The "separate location" approach, which keeps sensitive information separate from the rest of the patient's chart. The other place might be a locked cabinet or other similarly secure area. A "gatekeeper" familiar with the clinician's recordkeeping system and the reasons for the extra security would be responsible for deciding when others -- within or outside of the office -- will have access to this information. This approach provides, in effect, a stronger "rubber band" than that described in the second approach.[10]

The push toward computerization of medical records will complicate the problem of keeping sensitive information in medical records private. Currently, there is protection afforded by the cumbersome and inefficient way many, if not most, medical records make their way from a clinician in one practice to a clinician in another. When medical records are stored in computers, retrieval can be far more efficient. Computerized records may allow anyone with a disk and access to the computer in which the information is stored to instantly copy and carry away vast amounts of information without anyone's knowledge. Modems that allow communication about patients among different components of a managed care network extend the possibility of unauthorized access to anyone with a modem, the password(s), and the necessary software. The ease with which computerized information can be accessed can lead to "casual gossip" about a patient, particularly one of importance in a community, making privacy difficult to preserve.

Communicating With Others

One of the trickiest issues is whether and how clinicians should communicate with others about patients' substance use problems. The Consensus Panel suggests the clinician gather information from other sources or enlist help for a patient struggling with recovery in several circumstances. Speaking with relatives (including parents), doctors and other health and mental health professionals, employers, or schools might seem at first glance to pose no risk to a patient's right to privacy, particularly if the person or organization approached for information referred the patient to the clinician or the clinician is seeking to enlist help for the patient. However, gathering information; responding to questions about a patient's problems from a spouse, school, or employer; or making a referral to a substance abuse treatment program can involve an explicit or implicit disclosure to an outsider that the clinician believes the patient has a substance abuse problem. And the clinician making such a disclosure may be inadvertently stepping on a land mine.

Gathering information from family and others

A clinician screening or assessing a patient for substance abuse problems may well want to ask a relative (including a parent), a previous doctor, or a mental health provider what they have observed about the patient's use of alcohol or drugs. Such information may confirm the clinician's judgment that the patient needs help or may be useful in persuading a reluctant patient that treatment is necessary. However, before going elsewhere for information, it is best to get the patient's consent for reasons of trust, privacy, and

autonomy already discussed. And, if harm does result from the clinician's conversation with a third party, there will be a record that the patient consented to the communication.

Making referrals to substance abuse treatment programs

The clinician has persuaded the patient to try outpatient treatment and knows the director of an excellent program in the immediate area. Rather than simply picking up the phone and letting the director know she has referred the patient, she should consult the patient about the specific treatment facility. Though it may seem that consent to general treatment is the same as consent to a facility, it takes very little time to get the patient's consent, demonstrates respect for the patient, and protects the clinician if, say, the treatment program's director is the patient's boss's cousin or some such connection.

Communicating with employers

Suppose a clinician believes that a patient's problem requires intensive treatment, available only in another county or a residential facility. The patient's employer must be notified that she will be gone for a period of time to get treatment. The patient expresses concern about being fired if her employer learns she has a substance use problem. How should the clinician proceed?

Clinicians should listen when patients express concern that an employer will not be sympathetic about either the substance use problem or the decision to enter treatment. The patient may well have an accurate picture of her employer's attitude. If the clinician's communication to the employer directly or indirectly discloses the patient's substance use problem and the patient loses her job, the clinician may find himself facing an unpleasant lawsuit.

There are two ways of handling the problem -- that are best when used together: (1) Communicate a neutral diagnosis to the employer that does not directly or indirectly disclose the patient is entering alcohol or other drug treatment and (2) get the patient's consent before sending the communication.

Communications with insurers, HMOs, and other third party payers

Traditional health insurance programs offering reimbursement to patients for clinicians' fees typically require patients to sign claim forms containing language consenting to the release of information about their care. The patient's signature authorizes the clinician to release such information. While HMOs do not require patients to submit claim forms, both clinicians and patients understand that the HMO or MCO can review clinical records at any time and may well review records if it questions the clinician's care.

Should the clinician rely on the patient's signed consent on the health insurance form or the HMO contract and release what she has in her chart (or a neutral version of that information)? Or should she consult the patient?

The better practice is for the clinician to frankly discuss with the patient what information she intends to disclose and the likely consequences of the alternatives open to the patient -- disclosure and refusal to disclose. Will the information the clinician sends explicitly or implicitly reveal the nature of the patient's problem? Does the patient's chart contain a substance abuse diagnosis? Once again, the clinician confronts the question of how such information should be charted. Has she balanced the need for accuracy with discretion and a respect for patients' privacy? Finally, even if the chart contains explicit information about the patient's substance use problem, can the clinician characterize the information and her diagnosis in more neutral terms when releasing information to the third party payer?

Once the patient understands what kind and amount of information the clinician intends to send the third party payer, he can decide whether to agree to the disclosure. The clinician should explain that a refusal to comply with the insurer's request for information may result in a loss of coverage for at least some related

services. If the patient expresses concern, she should not mislead him, but confirm that once his insurer learns he has had a substance use problem, he could well lose his insurance coverage and be unable to obtain other coverage.[11] A patient whose employer is self-insured may fear he will be fired, demoted, or disciplined if the employer suspects he has abused alcohol or other drugs -- and he could be right.[12]

The final decision should be the patient's. He may well decide to pay out of pocket. Or he may agree to the limited disclosure and ask the clinician to inform him if more information is requested.

As managed care becomes more prevalent throughout the country, clinicians are finding third party payers demanding more and more information about patients and about the treatment provided to those patients in order to monitor care and contain costs. Clinicians need to be sensitive about the amount and kind of information they disclose because there is a risk that this information may be used by the insurer to deny benefits to the patient. For example, if, in response to a demand from the insurer, the clinician releases the patient's entire chart, the insurer may learn from the clinician's notes that the substance abuse included the use of both alcohol and illegal drugs. The insurer may then deny benefits, arguing that since its policy does not cover treatment for abuse of drugs other than alcohol, it will not reimburse treatment when abuse of both alcohol and drugs is involved. Insurers have been known to use the information that a patient began drinking at age 11 to deny benefits because the alcohol problem is a "pre-existing condition." Chart notes may also contain detailed and very personal information about family life that may be unnecessary for a third party payer to review in order to determine whether and what kind of treatment should be covered.

As in so many other areas involving patients' privacy, it is best to follow two simple rules: First, keep notations and documentation as neutral as possible while maintaining professionally acceptable standards of accuracy. Second, consult the patient and let the patient decide whether to agree to the disclosure.

Communicating with the legal system

If a clinician gets a call from a lawyer asking about a patient or a visit from a law enforcement officer asking to see records or a subpoena to testify or produce medical records, what should he or she do? As in other matters of privacy and confidentiality, (1) consult the patient, (2) use common sense, and (3) as a last resort, consult State law (or a lawyer familiar with State law).

Responding to lawyers' inquiries

Say a lawyer calls and asks about Roger Smith's medical history or treatment. As a first approach to the question, the clinician could tell the lawyer, "I don't know that I have a patient with that name. I'd have to check my records"[13] or tell the caller that she must consult with her patient before having a conversation about him: "I'm sure you understand that I am professionally obligated to speak with Roger Smith before I speak with you." It will be hard for any lawyer to disagree with this statement.

The clinician should then ask the patient if he knows what information the caller is seeking and whether the patient wants her to disclose that or any other information. She should leave the conversation with a clear understanding of the patient's instructions -- whether she should disclose the information, and if so, how much and what kind. It may be that the lawyer is representing the patient in a case and the patient wants the clinician to share all the information she has. On the other hand, the lawyer may represent the patient's employer or some other party with whom the patient is not anxious to share information. There is nothing wrong with refusing to answer a lawyer's questions.[14]

If the lawyer represents the patient and the patient asks her to share all information, the clinician can speak freely with the lawyer. However, if the clinician is answering the questions of a lawyer who does not represent the patient (but the patient has consented to the disclosure of some information), the clinician should listen carefully to each question, choose her words with care, limit each answer to the question asked, and take care not to volunteer information not called for.

Visits by law enforcement

A police officer, detective, or probation officer who asks a clinician to disclose medical information about a patient or a patient's medical records can usually be handled in a similar manner.[15] The clinician can safely tell the officer, as he might a lawyer, "I'm sure you understand that I am professionally obligated to speak with my patient before I speak to you."[16]

The clinician should then speak with the patient to find out whether the patient knows the subject of the officer's inquiry, whether he wants the clinician to disclose information and if so, how much and what kind. The clinician might end the conversation by asking whether there are any particular areas the patient would prefer she not discuss with the officer.

When a law enforcement officer comes armed with a search warrant, the answer is different. In this case, the clinician has no choice but to hand over the records listed in the warrant.

Responding to subpoenas

Subpoenas come in two varieties. One is an order requiring a person to testify either at a deposition out of court or at a trial. The other, known as a subpoena *duces tecum,* requires a person to appear with the records listed in the subpoena. Depending upon the State, a subpoena can be signed by a lawyer or a judge. Unfortunately, it cannot be ignored.

In this instance, the clinician's first step should be to call Roger Smith -- the patient about whom she is asked to testify or whose records are sought -- and ask what the subpoena is about. It may be that the subpoena has been issued by or on behalf of Roger's lawyer with Roger's consent. However, it is equally possible that the subpoena has been issued by or on behalf of the lawyer for an adverse party. If that is the case, the clinician's best option is to consult with Roger's lawyer to find out whether the lawyer will object -- ask the court to "quash" the subpoena -- or whether the clinician should simply get the patient's consent to testify or turn over her records. An objection can be based on a number of grounds and can be raised by any party, including the person whose medical information is sought. Often, the clinician may assert the patient's privilege for the patient.

Conclusion

It is essential for primary care physicians to respect their patients' autonomy and rights to privacy and confidentiality if they are to be effective in screening and assessing patients for substance use disorders and persuading them to cut down their use or enter treatment. In most situations, clinicians can follow these simple rules: (1) consult the patient, (2) let the patient decide, and (3) be sensitive to how information is charted or disclosed. It is only as a last resort that the clinician will have to consult State law or a lawyer.

1. Margaret K. Brooks is an independent consultant in Montclair, New Jersey.
2. The full text of 2.11 now reads:
Program means:
(a) An individual or entity (other than a general medical care facility) who holds itself out as providing, and provides, alcohol or drug abuse diagnosis, treatment or referral for treatment; or
(b) An identified unit within a general medical facility which holds itself out as providing, and provides, alcohol or drug abuse diagnosis, treatment or referral for treatment; or
(c) Medical personnel or other staff in a general medical care facility whose primary function is the provision of alcohol or drug abuse diagnosis, treatment or referral for treatment and who are identified as such providers. (See 2.12(e)(1) for examples.) 60 Federal Register 22,297 (May 5, 1995).
3. The regulations provide that "federally assisted" programs include:

Programs run directly by or under contract for the Federal government;
Programs carried out under a Federal license, certification, registration, or other authorization, including certification under the Medicare Program, authorization to conduct a methadone maintenance treatment program, or registration to dispense a drug that is regulated by the Controlled Substances Act to treat alcohol or drug abuse;
Programs supported by any Federal department or agency of the United States, even when the Federal support does not directly pay for the alcohol or drug abuse diagnosis, treatment, or referral activities;
Programs conducted by State or local government units that are supported by Federal funding that could be (but is not necessarily) spent for the substance abuse treatment program;
Tax-exempt programs.
42 C.F.R. 2.12(b).

4. For a full explanation of the Federal law and regulations, see TIP 8 (Center for Substance Abuse Treatment. *Intensive Outpatient Treatment for Alcohol and Other Drug Abuse.* Treatment Improvement Protocol (TIP) Series, Number 8. DHHS Pub. No. (SMA) 94-2077. Washington, DC: U.S. Government Printing Office, 1994) and TAP 13 (Center for Substance Abuse Treatment. *Confidentiality of Patient Records for Alcohol and Other Drug Treatment.* Technical Assistance Publication (TAP) Series, Number 13. DHHS Pub. No. (SMA) 95-3018. Washington, DC: Government Printing Office, 1994).

5. Luhdorff v. The Superior Court of Tulare County, 166 CA3d 485, 212 Cal. Rptr. 516 (5th District, 1985). Interestingly, Luhdorff was a criminal case in which the prosecution sought the records of an unlicensed social worker who interviewed the defendant, diagnosed his problem, determined the appropriate treatment, and treated him for 3 months. The social worker was working under a licensed individual's supervision. The defendant thought the social worker was a psychiatrist.

6. Section 451 of the California Evidence Code codifies the doctor-patient privilege. See Grosslight v. Superior Court of Los Angeles , 42 Ca 3d 502, 140 Cal. Rptr. 278 (1977), in which the court held that information communicated by the parents of a minor psychiatric patient to her doctor and his secretary was privileged, even though the parents were being sued on the theory that they knew their child was a danger to others.

7. Note that the breadth of the protection may vary according to the clinician's profession.

8. Grosslight v. Superior Court of Los Angeles , 72 Cal. App. 3d 502, 140 Cal. Rptr. 278 (1977), interpreting Section 451 of the California Evidence Code (see endnote 5).

9. Center for Substance Abuse Treatment. *Alcohol and Other Drug Screening of Hospitalized Trauma Patients.* Treatment Improvement Protocol (TIP) Series, Number 16. DHHS Pub. No. (SMA) 95-3041. Washington, DC: U.S. Government Printing Office, 1995.

10. The Consensus Panel for TIP 16 noted: "Physical separation of clinical information is not unusual. Patient charts from past years are generally kept in a separate location. Physicians routinely request charts to be sent to them from this location so that they can review historical clinical information about the patient. In addition, nurses are quite accustomed to keeping some medications locked up and accessible only to designated personnel" (TIP 16, *Alcohol and Other Drug Screening of Hospitalized Trauma Patients.* CSAT, 1995, p. 76. See endnote 9).

11. Some States prohibit insurance companies from discriminating against individuals who have received substance abuse treatment; however, these kinds of discriminatory practices continue. Insurance companies routinely share information about applicants for life and disability insurance through the Medical Information Bureau-a data bank maintained by a private organization and supported by the industry.

12. Although Federal and/or State law may prohibit the employer from firing the patient or from taking other action simply because the patient has entered treatment, discriminatory practices against recovering people continue to be a problem.

13. In fact, in some States, depending on the clinician's profession, the identity of patients as well as their medical records are protected. Therefore, clinicians should find out whether disclosing a patient's name or acknowledging that the individual about whom the lawyer is inquiring is a patient would be considered a

violation of the patient's right to confidentiality.

14. A firm but polite tone is best. If confronted by what could be characterized as "stonewalling," a lawyer may be tempted to subpoena the information he is asking for and more. The clinician will not want to provoke the lawyer into taking action that will harm the patient.

15. The only exception to this advice would be if the clinician knew the patient was a fugitive being sought by law enforcement. In that case, in some States, a refusal to assist or give officers information might be a criminal offense.

16. As noted above, in those States where the identity of patients as well as their medical records are protected, the clinician should give a noncommittal response, such as, "I'll have to check my records to see whether I have such a patient."

Appendix C -- Screening and Assessment Instruments

This appendix includes

- The Alcohol Use Disorders Identification Test (AUDIT)
- The Michigan Alcoholism Screening Test (MAST)
- The Short Michigan Alcoholism Screening Test (SMAST)
- The Michigan Alcoholism Screening Test -- Geriatric Version (MAST-G)
- The Problem Oriented Screening Instrument for Teenagers (POSIT)
- The Self-Administered Alcoholic Screening Test (SAAST)
- The Addiction Research Foundation Clinical Institute Withdrawal Assessment for Alcohol (CIWA-Ar)

In addition, ordering information for some of these and other tools appears at the end of the appendix.

The Alcohol Use Disorders Identification Test (AUDIT)

The following guidelines, questions, and scoring instructions are excerpted from Babor, T.F.; de la Fuente, J.R.; Saunders, J.; and Grant, M. AUDIT: The Alcohol Use Disorders Identification Test: Guidelines for Use in Primary Health Care. Geneva: World Health Organization, 1992.

How To Use AUDIT

Screening with AUDIT can be conducted in a variety of primary care settings by persons who have different kinds of training and professional backgrounds. The core AUDIT is designed to be used as a brief structured interview or self-report survey that can easily be incorporated into a general health interview, lifestyle questionnaire, or medical history. When presented in this context by a concerned and interested interviewer, few patients will be offended by the questions. The experience of the WHO collaborating investigators (Saunders and Aasland, 1987) indicated that AUDIT questions were answered accurately regardless of cultural background, age, or gender. In fact, many patients who drank heavily were pleased to find that a health worker was interested in their use of alcohol and the problems associated with it.

In some patients, the AUDIT questions may not be answered accurately because they refer specifically to

alcohol use and problems. Some patients may be reluctant to confront their alcohol use or to admit that it is causing them harm. Individuals who feel threatened by revealing this information to a health worker, who are intoxicated at the time of the interview, or who have certain kinds of mental impairment may give inaccurate responses. Patients tend to answer most accurately when

- The interviewer is friendly and nonthreatening
- The purpose of the questions is clearly related to a diagnosis of their health status
- The patient is alcohol- and drug-free at the time of the screening
- The information is considered confidential
- The questions are easy to understand

Health workers should try to establish these conditions before AUDIT is given. When these conditions are not present, the Clinical Screening Instrument following the AUDIT questionnaire may be more useful. Alternatively, health workers may also use AUDIT to guide an interview with a concerned friend, spouse, or family member. In some settings (such as waiting rooms), AUDIT may be administered as a self-report questionnaire, with instructions for the patient to discuss the meaning of the results with the primary care worker. . . In addition to these general considerations, the following interviewing techniques should be used:

- Try to interview patients under the best possible circumstances. For patients requiring emergency treatment or who are severely impaired, it is best to wait until their condition has stabilized and they have become accustomed to the health setting where the interview is to take place.
- Look for signs of alcohol or drug intoxication. Patients who have alcohol on their breath or who appear intoxicated may be unreliable respondents. Consider conducting the interview at a later time. If this is not possible, make note of these findings on the patient's record.
- If AUDIT is embedded, as recommended, in a longer health interview, then a transitional statement will be needed when the AUDIT questions are asked. The best way to introduce the AUDIT questions is to give the patient a general idea of the content of the questions, the purpose for asking them, and the need for accurate answers. The following is an illustrative introduction: "Now I am going to ask you some questions about your use of alcoholic beverages during the past year. Because alcohol use can affect many areas of health (and may interfere with certain medications), it is important for us to know how much you usually drink and whether you have experienced any problems with your drinking. Please try to be as honest and as accurate as you can be." This statement should be followed by a description of the types of alcoholic beverages typically consumed in the population to which the patient belongs (e.g., "By alcoholic beverages we mean your use of wine, beer, vodka, sherry, etc.") If necessary, include a description of beverages that may not be considered alcoholic, e.g., cider, low alcohol beer, etc. . . .
- It is important to read the questions as written and in the order indicated. By following the exact wording, better comparability will be obtained between your results and those obtained by other interviewers.
- Most of the questions in AUDIT are phrased in terms of "how often" symptoms occur. It is useful to offer the patient several examples of the response categories (for example, "Never," "Several times a month," "Daily") to suggest how he might answer. When he has responded, it is useful to probe during the initial questions to be sure that the patient has selected the most accurate response (for example, "You say you drink several times a week. Is this just on weekends or do you drink more or less every day?"). If responses are ambiguous or evasive, continue asking for clarification by repeating the question and the response options, asking the patient to choose the best one. At times, answers are difficult to record because the patient may not drink on a regular basis. For example, if the patient was drinking intensively for the month prior to an accident, but not before or since, then it will be difficult to characterize the "typical" drinking sought by the question. In these cases it is best to record the amount of drinking and related symptoms for the heaviest drinking period of the

past year, making note of the fact that this may be atypical or transitory for that individual.

Record answers carefully, using the comments section of the interview brochure to explain any special circumstances, additional information, or clinical inferences. Often patients will provide the interviewer with useful comments about their drinking that can be valuable in the interpretation of the total AUDIT score. . . .

The AUDIT Questionnaire

Circle the number that comes closest to the patient's answer.

1. **How often do you have a drink containing alcohol?**

(0) Never (1) Monthly or less (2) Two to four times a month (3)Two to three times a week (4)Four or more times a week

2. **How many drinks containing alcohol do you have on a typical day when you are drinking?**

(0) 1 or 2 (1) 3 or 4 (2 5 or 6 (3) 7 to 9 (4)10 or more

3. **How often do you have six or more drinks on one occasion?**

(0) Never (1) Less than monthly (2) Monthly (3)Weekly (4)FDaily or almost daily

4. **How often during the last year have you found that you were not able to stop drinking once you had started?**

(0) Never (1) Less than monthly (2) Monthly (3)Weekly (4)Daily or almost daily

5. **How often during the last year have you failed to do what was normally expected from you because of drinking?**

(0) Never (1) Less than monthly (2) Monthly (3)Weekly (4)Daily or almost daily

6. **How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?**

(0) Never (1) Less than monthly (2) Monthly (3)Weekly (4)Daily or almost daily

7. **How often during the last year have you had a feeling of guilt or remorse after drinking?**

(0) Never (1) Less than monthly (2) Monthly (3)Weekly (4)Daily or almost daily

8. **How often during the last year have you been unable to remember what happened the night before because you had been drinking?**

(0) Never (1) Less than monthly (2) Monthly (3)Weekly (4)Daily or almost daily

9. **Have you or someone else been injured as a result of your drinking?**

(0) No (2) Yes, but not in the last year (4)Yes, during the last year

10. **Has a relative or friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?**

(0) No (2) Yes, but not in the last year (4)Yes, during the last year

* In determining the response categories it has been assumed that one drink contains 10 g alcohol. In countries where the alcohol content of a standard drink differs by more than 25 percent from 10 g, the response category should be modified accordingly.

Record sum of individual item scores here. _____

Procedure for scoring AUDIT

Questions 1-8 are scored 0, 1, 2, 3, or 4. Questions 9 and 10 are scored 0, 2, or 4 only. The response is as follows:

Procedure for scoring AUDIT	0	1	2	3	4
Question 1	Never	Monthly or less	Two to four times per month	Two to three times per week	Four or more times per week
Question 2	1 or 2	3 or 4	5 or 6	7 to 9	10 or more
Question 3-8	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
Question 9-10	No		Yes, but not in the last year		Yes, during the last year

The minimum score (for nondrinkers) is 0 and the maximum possible score is 40. A score of 8 or more indicates a strong likelihood of hazardous or harmful alcohol consumption.

AUDIT "Clinical" Questions and Procedure

Trauma history

1. Have you injured your head since your 18th birthday?

(3) Yes

(0) No

2. Have you broken any bones since your 18th birthday?

(3) Yes

(0) No

Clinical examination

1. Conjunctival injections

(0) NOT PRESENT (1) MILD (2) MODERATE (3) SEVERE

2. Abnormal skin vascularization

(0) NOT PRESENT (1) MILD (2) MODERATE (3) SEVERE

3. Hand tremor

(0) NOT PRESENT (1) MILD (2) MODERATE (3) SEVERE

4. Tongue tremor

(0) NOT PRESENT (1) MILD (2) MODERATE (3) SEVERE

5. Hepatomegaly

(0) NOT PRESENT (1) MILD (2) MODERATE (3) SEVERE

GGT Values* Lower normal (0-30 IU/1)=(0)

Upper normal (30-50 IU/1)=(1)

Abnormal (50 IU/1)=(3)

*These values may change with laboratory methods, and standards may vary with sex and age of the drinker.

Record sum of individual item scores here._____

Scoring and Interpretation of AUDIT

As indicated by the AUDIT questions, each item is scored by checking the response category that comes closest to the patient's answer.

On the basis of evidence from the validation study (Saunders et al., in press), two cutoff points are suggested, depending on the purpose of the screening program or the nature of the research project. A score of 8 or more produces the highest sensitivity, while a score of 10 or more results in higher specificity. In general, high scores on the first three items in the absence of elevated scores on the remaining items suggest hazardous alcohol use. Elevated scores on items 4 through 6 imply the presence or emergence of alcohol dependence. High scores on the remaining items suggest harmful alcohol use. As discussed in the following section on diagnosis, each of these areas of alcohol-related problems implies different types of management.

The Clinical Screening Instrument is considered to be elevated when the total score is 5 or greater. Here, too, the examiner should give careful consideration to the different meanings attributed to alcohol-related trauma, physical signs, and the elevated liver enzyme. It should be noted that false positives can occur when the individual is accident prone, uses drugs (such as barbiturates) that induce GGT, or has hand tremor because of nervousness, neurological disorder, or nicotine dependence.

References

Saunders, J.B., and Aasland, O.G. *WHO Collaborative Project on the Identification and Treatment of Persons with Harmful Alcohol Consumption. Report on Phase I: Development of a Screening Instrument*. Geneva: World Health Organization, 1987.

Saunders, J.B.; Aasland, O.G.; Babor, T.F.; de la Fuente, J.R.; and Grant, M. *WHO collaborative project on early detection of persons with harmful alcohol consumption. II. Development of the screening instrument "AUDIT."* British Journal of Addictions, in press.

Michigan Alcoholism Screening Test (MAST)

	0. Do you enjoy a drink now and then?	**YES**	**NO**
(2)	1. *Do you feel you are a normal drinker? (By normal we mean you drink less than or as much as most other people)	**YES**	**NO**
(2)	2. Have you ever awakened the morning after some drinking the night before and found that you could not remember a part of the evening?	**YES**	**NO**
(1)	3. Does your wife, husband, a parent, or other near relative ever worry or complain abut your drinking?	**YES**	**NO**
(2)	4. *Can you stop drinking without a struggle after one or two drinks?	**YES**	**NO**
(1)	5. Do you ever feel guilty about your drinking?	**YES**	**NO**
(2)	6. *Do friends or relatives think you are a normal drinker?	**YES**	**NO**
(2)	7. *Are you able to stop drinking when you want to?	**YES**	**NO**
(5)	8. Have you ever attended a meeting of Alcoholics Anonymous (AA)?	**YES**	**NO**
(1)	9. Have you gotten into physical fights when drinking?	**YES**	**NO**
(2)	10. Has your drinking ever created problems between you and your wife, husband, a parent, or other relative?	**YES**	**NO**

(2)	11. Has your wife, husband (or other family member) ever gone to anyone for help about your drinking?	**YES**	**NO**
(2)	12. Have you ever lost friends because of your drinking?	**YES**	**NO**
(2)	13. Have you ever gotten into trouble at work or school because of drinking?	**YES**	**NO**
(2)	14. Have you ever lost a job because of drinking?	**YES**	**NO**
(2)	15. Have you ever neglected your obligations, your family, or your work for two or more days in a row because you were drinking?	**YES**	**NO**
(1)	16. Do you drink before noon fairly often?	**YES**	**NO**
(2)	17. Have you ever been told you have liver trouble? Cirrhosis?	**YES**	**NO**
(2)	18. **After heavy drinking have you ever had Delirium Tremens (DTs) or severe shaking or heard voices or seen things that really weren't there?	**YES**	**NO**
(5)	19. Have you ever gone to anyone for help about your drinking?	**YES**	**NO**
(5)	20. Have you ever been in a hospital because of drinking?	**YES**	**NO**
(2)	21. Have you ever been a patient in a psychiatric hospital or on a psychiatric ward of a general hospital where drinking was part of the problem that resulted in hospitalization?	**YES**	**NO**
(2)	22. Have you ever been seen at a psychiatric or mental health clinic or gone to any doctor, social worker, or clergyman for help with any emotional problem where drinking was part of the problem?	**YES**	**NO**
(2)	23. ***Have you ever been arrested for drunk driving, driving while intoxicated, or driving under the influence of alcoholic beverages? If YES, how many times? _____	**YES**	**NO**
(2)	24. Have you ever been arrested, or taken into custody, even for a few hours, because of other drunk behavior? If YES, how many times?_____	**YES**	**NO**

*Alcoholic Response is negative
**5 points for each Delirium Tremens
***2 points for each arrest

SCORING SYSTEM:

In general, five points or more would place the subject in alcoholic category. Four points would be suggestive of alcoholism, and three points or fewer would indicate the subject is not alcoholic.

Source: Selzer, M.L. The Michigan Alcoholism Screening Test: The quest for a new diagnostic instrument. *American Journal of Psychiatry* 127:1653-1658, 1971.

Short Michigan Alcoholism Screening Test (SMAST)

PATIENT NAME: _____
DATE OF BIRTH: _____
DATE OF ADMINISTRATION: _____

1. Do you feel you are a normal drinker? (By normal we mean you drink less than or as much as most other people)	**YES**	**NO**
2. Does your wife, husband, a parent, or other near relative ever worry or complain about your drinking?	**YES**	**NO**
3. Do you ever feel guilty about your drinking?	**YES**	**NO**
4. Do friends or relatives think you are a normal drinker?	**YES**	**NO**
5. Are you able to stop drinking when you want to?	**YES**	**NO**

6. Have you ever attended a meeting of Alcoholics Anonymous?	**YES**	**NO**
7. Has drinking ever created problems between you and your wife, husband, a parent, or other near relative?	**YES**	**NO**
8. Have you ever gotten into trouble at work or school because of drinking?	**YES**	**NO**
9. Have you ever neglected your obligations, your family, or your work for two or more days in a row because you were drinking?	**YES**	**NO**
10. Have you ever gone to anyone for help about your drinking? If YES: was this other than Alcoholics Anonymous or a hospital? (If YES, code as YES; if NO, code as NO)	**YES**	**NO**
11. Have you ever been in a hospital because of drinking? If YES: Was this for (a) detox; (b) alcoholism treatment; (c) alcohol-related injuries or medical problems, e.g., cirrhosis or physical injury incurred while under the influence of alcohol (car accident, fight, etc.)?	**YES**	**NO**
12. Have you ever been arrested for drunken driving, driving while intoxicated, or driving under the influence of alcoholic beverages?	**YES**	**NO**
13. Have you ever been arrested, even for a few hours, because of other drunken behavior?	**YES**	**NO**

Source: Selzer, M.L.; Vinokur, A.; and Van Rooijen, L. A self-administered Short Michigan Alcoholism Screening Test (SMAST). *Journal of Studies on Alcohol* 36(1):117-126, 1975.

Michigan Alcoholism Screening Test -- Geriatric Version (MAST-G)

1. After drinking have you ever noticed an increase in your heart rate or beating in your chest?	**YES**	**NO**
2. When talking with others, do you ever underestimate how much you actually drink?	**YES**	**NO**
3. Does alcohol make you sleepy so that you often fall asleep in your chair?	**YES**	**NO**
4. After a few drinks, have you sometimes not eaten or been able to skip a meal because you didn't feel hungry?	**YES**	**NO**
5. Does having a few drinks help decrease your shakiness or tremors?	**YES**	**NO**
6. Does alcohol sometimes make it hard for you to remember parts of the day or night?	**YES**	**NO**
7. Do you have rules for yourself that you won't drink before a certain time of the day?	**YES**	**NO**
8. Have you lost interest in hobbies or activities you used to enjoy?	**YES**	**NO**
9. When you wake up in the morning, do you ever have trouble remembering part of the night before?	**YES**	**NO**
10. Does having a drink help you sleep?	**YES**	**NO**
11. Do you hide your alcohol bottles from family members?	**YES**	**NO**
12. After a social gathering, have you ever felt embarrassed because you drank too much?	**YES**	**NO**
13. Have you ever been concerned that drinking might be harmful to your health?	**YES**	**NO**
14. Do you like to end an evening with a night cap?	**YES**	**NO**
15. Did you find your drinking increased after someone close to you died?	**YES**	**NO**

16. In general, would you prefer to have a few drinks at home rather than go out to social events?	**YES**	**NO**
17. Are you drinking more now than in the past?	**YES**	**NO**
18. Do you usually take a drink to relax or calm your nerves?	**YES**	**NO**
19. Do you drink to take your mind off your problems?	**YES**	**NO**
20. Have you ever increased your drinking after experiencing a loss in your life?	**YES**	**NO**
21. Do you sometimes drive when you have had too much to drink?	**YES**	**NO**
22. Has a doctor or nurse ever said they were worried or concerned about your drinking?	**YES**	**NO**
23. Have you ever made rules to manage your drinking?	**YES**	**NO**
24. When you feel lonely does having a drink help?	**YES**	**NO**

Scoring: 5 or more "yes" responses indicative of alcohol problem. For further information, contact Frederick Blow, Ph.D., at University of Michigan Alcohol Research Center, 400 E. Eisenhower Parkway, Suite A, Ann Arbor, MI 48104. (313) 998-7952.
Source: Blow, F.C.; Brower, K.J.; Schulenberg, J.E.; Demo-Dananberg, L.M.; Young, J.P.; and Beresford, T.P. The Michigan Alcoholism Screening Test -- Geriatric Version (MAST-G): A new elderly-specific screening instrument. *Alcoholism: Clinical and Experimental Research* 16:372, 1992.

Problem Oriented Screening Instrument for Teenagers (POSIT)

Developed for the Adolescent Assessment/Referral System

NOTIFICATION TO RESPONDENT OF ESTIMATED BURDEN

Public respondent burden for this collection of information is estimated to average 25 minutes per response, including time for reviewing instructions and completing the collection of information. Send comments regarding this burden estimate, or any other aspect of this collection of information, including suggestions for reducing this burden, to: Public Health Service Reports Clearance Officer, Attn: PRA, Hubert H. Humphrey Building, Room 721B, 200 Independence Avenue, S.W., Washington, DC 20201; and to the Office of Management and Budget, Paperwork Reduction Project, Washington, DC 20803.

Problem Oriented Screening Instrument for Teenagers (POSIT)

The purpose of these questions is to help us choose the best way to help you. So, please try to answer the questions honestly.

Please answer all the questions. If a question does not fit you exactly, pick the answer that is most true.

You may see the same or similar questions more than once. Please just answer each question as it comes up.

Please put an "X" through your answer.

If you do not understand a word, please ask for help.

You may begin.

1. Do you have so much energy you don't know what to do with it?	**YES**	**NO**
2. Do you brag?	**YES**	**NO**
3. Do you get into trouble because you use drugs or alcohol at school?	**YES**	**NO**
4. Do your friends get bored at parties when there is no alcohol served?	**YES**	**NO**
5. Is it hard for you to ask for help from others?	**YES**	**NO**
6. Has there been adult supervision at the parties you have gone to recently?	**YES**	**NO**
7. Do your parents or guardians argue a lot?	**YES**	**NO**
8. Do you usually think about how your actions will affect others?	**YES**	**NO**
9. Have you recently either lost or gained more than 10 pounds?	**YES**	**NO**
10. Have you ever had sex with someone who shot up drugs?	**YES**	**NO**
11. Do you often feel tired?	**YES**	**NO**
12. Have you had trouble with stomach pain or nausea?	**YES**	**NO**
13. Do you get easily frightened?	**YES**	**NO**
14. Have any of your best friends dated regularly during the past year?	**YES**	**NO**
15. Have you dated regularly in the past year?	**YES**	**NO**
16. Do you have a skill, craft, trade, or work experience?	**YES**	**NO**
17. Are most of your friends older than you?	**YES**	**NO**
18. Do you have less energy than you think you should?	**YES**	**NO**
19. Do you get frustrated easily?	**YES**	**NO**
20. Do you threaten to hurt people?	**YES**	**NO**
21. Do you feel alone most of the time?	**YES**	**NO**
22. Do you sleep either too much or too little?	**YES**	**NO**
23. Do you swear or use dirty language?	**YES**	**NO**
24. Are you a good listener?	**YES**	**NO**
25. Do your parents or guardians approve of your friends?	**YES**	**NO**
26. Have you lied to anyone in the past week?	**YES**	**NO**
27. Do your parents or guardians refuse to talk to you when they are mad at you?	**YES**	**NO**
28. Do you rush into things without thinking about what could happen?	**YES**	**NO**
29. Did you have a paying job last summer?	**YES**	**NO**
30. Is your free time spent just hanging out with friends?	**YES**	**NO**
31. Have you accidentally hurt yourself or someone else while high on alcohol or drugs?	**YES**	**NO**
32. Have you had any accidents or injuries that still bother you?	**YES**	**NO**
33. Are you a good speller?	**YES**	**NO**
34. Do you have friends who damage or destroy things on purpose?	**YES**	**NO**
35. Have the whites of your eyes ever turned yellow?	**YES**	**NO**
36. Do your parents or guardians usually know where you are and what you are doing?	**YES**	**NO**
37. Do you miss out on activities because you spend too much money on drugs or alcohol?	**YES**	**NO**
38. Do people pick on you because of the way you look?	**YES**	**NO**
39. Do you know how to get a job if you want one?	**YES**	**NO**
40. Do your parents or guardians and you do lots of things together?	**YES**	**NO**
41. Do you get As and Bs in some classes and fail others?	**YES**	**NO**
42. Do you feel nervous most of the time?	**YES**	**NO**
43. Have you stolen things?	**YES**	**NO**
44. Have you ever been told you are hyperactive?	**YES**	**NO**

45. Do you ever feel you are addicted to alcohol or drugs?	**YES**	**NO**
46. Are you a good reader?	**YES**	**NO**
47. Do you have a hobby you are really interested in?	**YES**	**NO**
48. Do you plan to get a diploma (or already have one)?	**YES**	**NO**
49. Have you been frequently absent or late to work?	**YES**	**NO**
50. Do you feel people are against you?	**YES**	**NO**
51. Do you participate in team sports which have regular practices?	**YES**	**NO**
52. Have you ever read a book cover to cover for your own enjoyment?	**YES**	**NO**
53. Do you have chores that you must regularly do at home?	**YES**	**NO**
54. Do your friends bring drugs to parties?	**YES**	**NO**
55. Do you get into fights a lot?	**YES**	**NO**
56. Do you have a hot temper?	**YES**	**NO**
57. Do your parents or guardians pay attention when you talk with them?	**YES**	**NO**
58. Have you started using more drugs or alcohol to get the effect you want?	**YES**	**NO**
59. Do your parents or guardians have rules about what you can and cannot do?	**YES**	**NO**
60. Do people tell you that you are careless?	**YES**	**NO**
61. Are you stubborn?	**YES**	**NO**
62. Do any of your best friends go out on school nights without permission from their parents or guardians?	**YES**	**NO**
63. Have you ever had or do you now have a job?	**YES**	**NO**
64. Do you have trouble getting your mind off things?	**YES**	**NO**
65. Have you ever threatened anyone with a weapon?	**YES**	**NO**
66. Do you have a way to get to a job?	**YES**	**NO**
67. Do you ever leave a party because there is no alcohol or drugs?	**YES**	**NO**
68. Do your parents or guardians know what you really think or feel?	**YES**	**NO**
69. Do you often act on the spur of the moment?	**YES**	**NO**
70. Do you usually exercise for a half hour or more at least once a week?	**YES**	**NO**
71. Do you have a constant desire for alcohol or drugs?	**YES**	**NO**
72. Is it easy to learn new things?	**YES**	**NO**
73. Do you have trouble with your breathing or with coughing?	**YES**	**NO**
74. Do people your own age like and respect you?	**YES**	**NO**
75. Does your mind wander a lot?	**YES**	**NO**
76. Do you hear things no one else around you hears?	**YES**	**NO**
77. Do you have trouble concentrating?	**YES**	**NO**
78. Do you have a valid driver's license?	**YES**	**NO**
79. Have you ever had a paying job that lasted at least 1 month?	**YES**	**NO**
80. Do you and your parents or guardians have frequent arguments which involve yelling and screaming?	**YES**	**NO**
81. Have you had a car accident while high on alcohol or drugs?	**YES**	**NO**
82. Do you forget things you did while drinking or using drugs?	**YES**	**NO**
83. During the past month have you driven a car while you were drunk or high?	**YES**	**NO**
84. Are you louder than other kids?	**YES**	**NO**
85. Are most of your friends younger than you are?	**YES**	**NO**
86. Have you ever intentionally damaged someone else's property?	**YES**	**NO**
87. Have you ever stopped working at a job because you just didn't care?	**YES**	**NO**
88. Do your parents or guardians like talking with you and being with you?	**YES**	**NO**

89. Have you ever spent the night away from home when your parents didn't know where you were?	**YES**	**NO**
90. Have any of your best friends participated in team sports which require regular practices?	**YES**	**NO**
91. Are you suspicious of other people?	**YES**	**NO**
92. Are you already too busy with school and other adult supervised activities to be interested in a job?	**YES**	**NO**
93. Have you cut school at least 5 days in the past year?	**YES**	**NO**
94. Are you usually pleased with how well you do in activities with your friends?	**YES**	**NO**
95. Does alcohol or drug use cause your moods to change quickly like from happy to sad or vice versa?	**YES**	**NO**
96. Do you feel sad most of the time?	**YES**	**NO**
97. Do you miss school or arrive late for school because of your alcohol or drug use?	**YES**	**NO**
98. Is it important to you now to get or keep a satisfactory job?	**YES**	**NO**
99. Do your family or friends ever tell you that you should cut down on your drinking or drug use?	**YES**	**NO**
100. Do you have serious arguments with friends or family members because of your drinking or drug use?	**YES**	**NO**
101. Do you tease others a lot?	**YES**	**NO**
102. Do you have trouble sleeping?	**YES**	**NO**
103. Do you have trouble with written work?	**YES**	**NO**
104. Does your alcohol or drug use ever make you do something you would not normally do-like breaking rules, missing curfew, breaking the law, or having sex with someone?	**YES**	**NO**
105. Do you feel you lose control and get into fights?	**YES**	**NO**
106. Have you ever been fired from a job?	**YES**	**NO**
107. During the past month, have you skipped school?	**YES**	**NO**
108. Do you have trouble getting along with any of your friends because of your alcohol or drug use?	**YES**	**NO**
109. Do you have a hard time following directions?	**YES**	**NO**
110. Are you good at talking your way out of trouble?	**YES**	**NO**
111. Do you have friends who have hit or threatened to hit someone without any real reason?	**YES**	**NO**
112. Do you ever feel you can't control your alcohol and drug use?	**YES**	**NO**
113. Do you have a good memory?	**YES**	**NO**
114. Do your parents or guardians have a pretty good idea of your interests?	**YES**	**NO**
115. Do your parents or guardians usually agree about how to handle you?	**YES**	**NO**
116. Do you have a hard time planning and organizing?	**YES**	**NO**
117. Do you have trouble with math?	**YES**	**NO**
118. Do your friends cut school a lot?	**YES**	**NO**
119. Do you worry a lot?	**YES**	**NO**
120. Do you find it difficult to complete class projects or work tasks?	**YES**	**NO**
121. Does school sometimes make you feel stupid?	**YES**	**NO**
122. Are you able to make friends easily in a new group?	**YES**	**NO**
123. Do you often feel like you want to cry?	**YES**	**NO**
124. Are you afraid to be around people?	**YES**	**NO**

125. Do you have friends who have stolen things?	**YES**	**NO**
126. Do you want to be a member of any organized group, team, or club?	**YES**	**NO**
127. Does one of your parents or guardians have a steady job?	**YES**	**NO**
128. Do you think it's a bad idea to trust other people?	**YES**	**NO**
129. Do you enjoy doing things with other people your own age?	**YES**	**NO**
130. Do you feel you study longer than your classmates and still get poorer grades?	**YES**	**NO**
131. Have you ever failed a grade in school?	**YES**	**NO**
132. Do you go out for fun on school nights without your parents' or guardians' permission?	**YES**	**NO**
133. Is school hard for you?	**YES**	**NO**
134. Do you have an idea about the type of job or career that you want to have?	**YES**	**NO**
135. On a typical day, do you watch more than 2 hours of TV?	**YES**	**NO**
136. Are you restless and can't sit still?	**YES**	**NO**
137. Do you have trouble finding the right words to express what you are thinking?	**YES**	**NO**
138. Do you scream a lot?	**YES**	**NO**
139. Have you ever had sexual intercourse without using a condom?	**YES**	**NO**

Source: Rahdert, E., ed. *The Adolescent Assessment/Referral System Manual.* DHHS Pub. No. (ADM) 91-1735. Rockville, MD: National Institute on Drug Abuse, 1991.

Self-Administered Alcoholic Screening Test (SAAST)

1.	+	Do you enjoy a drink now and then? (If you never drink alcoholic beverages, and have no previous experience with drinking, do not continue with questionnaire.)	**YES**	**NO**
2.	-	Do you feel you are a normal drinker? (That is, drink no more than average).	**YES**	**NO**
3.	+	Have you ever awakened the morning after some drinking the night before and found that you could not remember a part of the evening?	**YES**	**NO**
4.	+	Do close relatives ever worry or complain about your drinking?	**YES**	**NO**
5.	-	Can you stop drinking without a struggle after one or two drinks?	**YES**	**NO**
6.	+	Do you ever feel guilty about your drinking?	**YES**	**NO**
7.	-	Do friends or relatives think you are a normal drinker?	**YES**	**NO**
8.	-	Are you always able to stop drinking when you want to?	**YES**	**NO**
9.	+	Have you ever attended a meeting of Alcoholics Anonymous (AA) because of your drinking?	**YES**	**NO**
10.	+	Have you gotten into physical fights when drinking?	**YES**	**NO**
11.	+	Has drinking ever created problems between you and your wife, husband, parent, or near relative?	**YES**	**NO**
12.	-	Has your wife, husband, or other family members ever gone to anyone for help about your drinking?	**YES**	**NO**

13.	+		Have you ever lost friendships because of your drinking?	**YES**	**NO**
14.	+		Have you ever gotten into trouble at work because of your drinking?	**YES**	**NO**
15.	+		Have you ever lost a job because of drinking?	**YES**	**NO**
16.	+		Have you ever neglected your obligations, your family, or your work for 2 or more days in a row because you were drinking?	**YES**	**NO**
17.	+		Do you ever drink in the morning?	**YES**	**NO**
18.	+		Have you ever felt the need to cut down on your drinking?	**YES**	**NO**
19.	+		Have there been times in your adult life when you have found it necessary to completely avoid alcohol?	**YES**	**NO**
20.	+		Have you ever been told you have liver trouble? Cirrhosis?	**YES**	**NO**
21.	+		Have you ever had delirium tremens (DTs)?	**YES**	**NO**
22.	+		Have you ever had severe shaking, heard voices, or seen things that weren't there after heavy drinking?	**YES**	**NO**
23.	+		Have you ever gone to anyone for help about your drinking?	**YES**	**NO**
24.	+		Have you ever been in a hospital because of drinking?	**YES**	**NO**
25.	+		Have you ever been told by a doctor to stop drinking?	**YES**	**NO**
26.	+		Have you ever been a patient in a psychiatric hospital or on a psychiatric ward of a general hospital?	**YES**	**NO**
27.	+		Was drinking part of the problem that resulted in the hospitalization?	**YES**	**NO**
28.	+		Have you ever been a patient at a psychiatric or mental health clinic or gone to any doctor, social worker, or clergyman for help with any emotional problem?	**YES**	**NO**
29.	+		Have you ever been arrested, even for a few hours, because of drunken behavior (not driving)? How many times?	**YES**	**NO**
30.	+		Have you ever been arrested, even for a few hours, because of driving while intoxicated? How many times?	**YES**	**NO**
31-34. Have any of the following relatives ever had problems with alcohol?					
31.	+	A.	Parents	**YES**	**NO**
32.	+	B.	Brothers or Sisters	**YES**	**NO**
33.	+	C.	Husband or Wife	**YES**	**NO**
34.	+	D.	Children	**YES**	**NO**

Note: The + sign indicates alcoholic responses.

Reproduced with permission from Swenson and Morse. Mayo Clinic Proceedings 50:204-208, 1975.

Addiction Research Foundation Clinical Institute Withdrawal Assessment for Alcohol (CIWA-Ar)

CIWA-Ar

Patient:_____ Date: _____ Time: _____.(24 hour clock, midnight = 00:00)

Pulse or heart rate, taken for one minute:_____ Blood pressure:_____

NAUSEA AND VOMITING -- Ask "Do you feel sick to your stomach? Have you vomited?" Observation.
0 no nausea and no vomiting
1 mild nausea with no vomiting
2
3
4 intermittent nausea with dry heaves
5
6
7 constant nausea, frequent dry heaves and vomiting

TACTILE DISTURBANCES -- Ask "Have you any itching, pins and needles sensations, any burning, any numbness, or do you feel bugs crawling on or under your skin?" Observation.
0 none
1 very mild itching, pins and needles, burning or numbness
2 mild itching, pins and needles, burning or numbness
3 moderate itching, pins and needles, burning or numbness
4 moderately severe hallucinations
5 severe hallucinations
6 extremely severe hallucinations
7 continuous hallucinations

TREMOR -- Arms extended and fingers spread apart. Observation.
0 no tremor
1 not visible, but can be felt fingertip to fingertip
2
3
4 moderate, with patient's arms extended
5
6
7 severe, even with arms not extended

AUDITORY DISTURBANCES -- Ask "Are you more aware of sounds around you? Are they harsh? Do they frighten you? Are you hearing anything that is disturbing to you? Are you hearing things you know are not there?" Observation.
0 not present
1 very mild harshness or ability to frighten
2 mild harshness or ability to frighten
3 moderate harshness or ability to frighten
4 moderately severe hallucinations
5 severe hallucinations
6 extremely severe hallucinations
7 continuous hallucinations

PAROXYSMAL SWEATS -- Observation.
0 no sweat visible
1 barely perceptible sweating, palms moist
2
3
4 beads of sweat obvious on forehead
5
6
7 drenching sweats

VISUAL DISTURBANCES -- Ask "Does the light appear to be too bright? Is its color different? Does it hurt your eyes? Are you seeing anything that is disturbing to you? Are you seeing things you know are not there?" Observation.
0 not present
1 very mild sensitivity
2 mild sensitivity
3 moderate sensitivity
4 moderately severe hallucinations
5 severe hallucinations
6 extremely severe hallucinations
7 continuous hallucinations

ANXIETY -- Ask "Do you feel nervous?" Observation.
0 no anxiety, at ease
1 mild anxious
2
3
4 moderately anxious, or guarded, so anxiety is inferred
5
6
7 equivalent to acute panic states as seen in severe delirium or acute schizophrenic reactions

HEADACHE, FULLNESS IN HEAD -- Ask "Does your head feel different? Does it feel like there is a band around your head?" Do not rate for dizziness or lightheadedness. Otherwise, rate severity.
0 not present
1 very mild
2 mild
3 moderate
4 moderately severe
5 severe
6 very severe
7 extremely severe

AGITATION -- Observation.
0 normal activity
1 somewhat more than normal activity
2
3
4 moderately fidgety and restless
5
6
7 paces back and forth during most of the interview,
or constantly thrashes about

ORIENTATION AND CLOUDING OF SENSORIUM -- Ask "What day is this? Where are you? Who am I?"
0 oriented and can do serial additions
1 cannot do serial additions or is uncertain about date
2 disoriented for date by no more than 2 calendar days
3 disoriented for date by more than 2 calendar days
4 disoriented for place/or person

Total CIWA-Ar Score _____
Rater's Initials _____
Maximum Possible Score 67

The CIWA-Ar is not copyrighted and may be reproduced freely. This assessment for monitoring withdrawal symptoms requires approximately 5 minutes to administer. The maximum score is 67 (see instrument). Patients scoring less than 10 do not usually need additional medication for withdrawal. *Source:* Sullivan, J.T.; Sykora, K.; Schneiderman, J.; Naranjo, C.A.; and Sellers, E.M. Assessment of alcohol withdrawal: The revised Clinical Institute Withdrawal Assessment for Alcohol scale (CIWA-Ar). *British Journal of Addiction* 84:1353-1357, 1989.

Ordering Information for Selected Assessment Instruments

Addiction Severity Index (ASI)

The Addiction Severity Index (ASI) is a multidimensional, 161-item structured interview that takes approximately 45 minutes to complete and score.

A copy of the fifth edition of the ASI form and administration manual are available at no charge by writing the developer:

Thomas McLellan, Ph.D.
Department of Psychiatry
University of Pennsylvania
Philadelphia, PA 19104

(215) 823-6095

Free copies of the National Institute on Drug Abuse (NIDA) *ASI* technology transfer package can be obtained by calling the National Clearinghouse for Alcohol and Drug Information (NCADI) at (800) 729-6686 and asking for package BKD 122.

Beck Depression Inventory (BDI)

The Beck Depression Inventory (BDI) is a 21-item, paper and pencil self-report depression rating scale that requires about 15 minutes to complete.

The manual and 25 record forms cost $41 and may be ordered from:

The Psychological Corporation
555 Academic Court
San Antonio, TX 78204
(800) 228-0752

Beck Hopelessness Scale

The Beck Hopelessness Scale (BHS) is a 20-item self-administered questionnaire that takes 10 minutes to complete. Developed by the author *of the Beck Depression Inventory, the BHS may* be ordered from:

Aaron Beck, Ph.D.
Center for Cognitive Therapy
University of Pennsylvania
Suite 519
133 South 36th Street
Philadelphia, PA 19104

Mini-Mental State (MMS)

The 11-question Mini-Mental State (MMS) is frequently used by mental health clinicians in evaluating patients. It can also be used by nonmental health clinicians with minimal training.

The MMS may be ordered from:

Marshal F. Folstein, M.D.
Department of Psychiatry
New England Medical Center
750 Washington Street
Boston, MA 02111
(617) 350-8442
(617) 956-5772 FAX

Problem Oriented Screening Instrument for Teenagers (POSIT)

The POSIT is reproduced in this appendix. The 139-item POSIT instrument can be self-administered via paper and pencil, computer, or audiotape; or it can be administered as a structured interview.

The POSIT has no copyright and may be ordered along with its scoring templates at no cost by contacting:

Adolescent Assessment Referral System Manual *(DHHS publication no. ADM 91-1735)

National Clearinghouse for Alcohol and Drug Information
P.O. Box 2345
Rockville, MD 20847-2345
(800) 729-6686

Recovery Attitude and Treatment Evaluator:

Clinical Evaluation (RAATE-CE) Questionnaire I (RAATE-QI)

The RAATE-CE and RAATE-QI are assessment of severity tools designed for compatibility with the ASAM Patient Placement Criteria. The RAATE-CE is a 35-item structured interview that requires approximately 20 to 30 minutes. The RAATE-QI is a 94-item self-report that takes patients about 30 to 45 minutes to complete.

These tools may be ordered from:

New Standards, Inc.
1080 Montreal Avenue
Suite 300
St. Paul, MN 55116
(800) 755-6299
(612) 690-1303 FAX

Self-Administered Alcoholic Screening Test (SAAST)

The 37-item SAAST is derived from the MAST and is reproduced in this appendix. This test can be administered by an interviewer or self-administered via paper and pencil or computer.

The SAAST may be ordered from:

Mayo Foundation for Medical Education and Research
200 First Street, S.W.
Rochester, MN 55905

Appendix D -- Substance Abuse Resources for the Primary Care Setting

Alcoholics Anonymous

P.O. Box 459
Grand Central Station
New York, NY 10163
(212) 870-3400

http://www.alcoholics-anonymous.org/index.html (general)

http://www.alcoholics-anonymous.org/pro/engpro.html (information for professionals)

Single copies of the following pamphlets are free to those with a professional interest in Alcoholics Anonymous:

- Alcoholics Anonymous as a Resource for the Medical Profession
- The Alcoholics Anonymous Member -- Medications and Other Drugs

Hazelden

CO.3, P.O. Box 11
Center City, MN 55012-0011
(800) 257-7810

http://www.hazelden.org/index.dbm

Low-cost information available on subjects such as

- Alcoholism and other drug addictions
- Family and friends' addiction issues
- Psychiatric problems with alcoholism/drug addition
- Special populations

National Clearinghouse for Alcohol and Drug Information

(800) 729-6686
(301) 468-6433 fax

Free publications include

Tips for Teens

- Tips for Teens About Alcohol (PH323)

Prevention Program Planners

- Making the Link Fact Sheets (Center for Substance Abuse Prevention, 1994)

  These one-page fact sheets discuss alcohol and other drug abuse in various settings such as the workplace and college and examine substance abuse's relationship to societal problems such as violence and automobile crashes.

Women

- Healthy Women/Healthy Lifestyles: Here's What You Should Know About Alcohol, Tobacco, and Other Drugs (Center for Substance Abuse Prevention, 1995)

  This eight-page, two-color brochure examines why women are at especially high risk for the health and social problems caused by substance abuse. The booklet describes how alcohol affects women and men differently physiologically and why pregnant women shouldn't drink, smoke, or take illicit drugs. The links between violence and child abuse and neglect and substance abuse are also examined. A list of organizations that provide help are given on the last page. (PHD691)

- Women and Drug Abuse *(National Institute on Drug Abuse, 1994)

  This brochure addresses issues of particular importance to drug-abusing women: HIV/AIDS and maternal exposure to drugs. Encourages women, their families, and friends to seek treatment for drug addiction and provides information on where to go for help. (PHD669)

Alcohol Alert (Publications in Series)

- Alcohol and AIDS #15 (PH311)
- Moderate Drinking #16 (PH315)
- Alcohol and the Liver #19 (PH329)
- Alcohol and Cancer #21 (PH345)

- Alcohol and Nutrition #22 (PH346)
- Alcohol and Minorities #23 (PH347)
- Alcohol-Related Impairment #25 (PH351)
- Alcohol and Hormones #26 (PH352)
- Alcohol Medication Interactions #27 (PH355)

Patient Education Materials for Health Professionals

These can be ordered in bulk for waiting rooms. Titles include

- How Getting High Can Get You AIDS (PHD573)
- If You Use Steroids, These Aren't the Only Things Stacked Against You (PHD624)

See catalog for additional titles.

National Council on Alcoholism and Drug Dependence, Inc. (NCADD)

12 West 21st Street

New York, NY 10010

(212) 206-6770

(212) 645-1690 fax

Hope Line: (800) NCA-CALL

Drug-specific information: (800) 729-6686

http://www.ncadd.org/

Low-cost fact sheets and brochures include

- Alcohol-Related Birth Defects (revised 1994)
- Alcoholism and Alcohol-Related Problems (revised 1995)

Appendix E -- Bibliography

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Appendix F -- Resource Panel

M. Carolyn Aoyama, C.N.M., M.P.H.
Deputy Chief
Clinical Branch
Bureau of Primary Health Care
U.S. Public Health Service
Division of Community and Migrant Health
Bethesda, Maryland

Adrienne W. Askew
Student Representative
Commission on Public Health
American Academy of Family Physicians
Washington, D.C.

Juliann DeStefano
Special Assistant
Office of the Director
Center for Mental Health Services
Rockville, Maryland

James V. Dolson
Child and Family Development
Office of Planning, Research, and Evaluation
Administration for Children and Families
Washington, D.C.

Jean Donaldson
Public Health Advisor
Center for Substance Abuse Treatment
Substance Abuse and Mental Health Services Administration
Rockville, Maryland

Linda S. Foley, M.A.
Member
TIPS Editorial Advisory Board
Chevy Chase, Maryland

Harry W. Haverkos, M.D.
Director
Office on AIDS
Division of Clinical Research
National Institute on Drug Abuse
Rockville, Maryland

Vaughn J. Howland
Director
The Intervention Center
Kensington, Maryland

Howard Lerner, M.P.H.
Deputy Director
Division of Special Populations
Bureau of Primary Health Care
Health Resources and Services Administration
Bethesda, Maryland

Sloan Mahone
Deputy Director of Research
American Academy of Child and Adolescent Psychiatry
Washington, D.C.

Mary Kay Mullen
Health Insurance Specialist
Medicaid Bureau
Health Care Financial Administration
Baltimore, Maryland

David C. Thompson
Public Health Advisor
Division of National Treatment Demonstrations
Center for Substance Abuse Treatment
Substance Abuse and Mental Health Services Administration
Rockville, Maryland

Verna Tyler
Health Insurance Specialist
Medicaid Bureau
Health Care Financial Administration
Baltimore, Maryland

Appendix G -- Field Reviewers

Catherine Adams
Professor
Department of Nursing
The Sage Colleges
Troy, New York

Kristen Barry, Ph.D.
Associate Research Scientist
Serious Mental Illness Treatment Research and Evaluation Center
Veterans Administration
Ann Arbor, Michigan

Robert Bick, M.A., S.A.C.
Director
Champlain Drug and Alcohol Services
Howard Center for Human Services
South Burlington, Vermont

Richard L. Brown, M.D., M.P.H.
Assistant Professor
Department of Family Medicine
University of Wisconsin School of Medicine
Madison, Wisconsin

James Carter, M.D.
Professor
Department of Psychiatry
Duke University Medical Center
Durham, North Carolina

Imodale L. Caulker-Burnett, R.N., C.-F.N.P., M.A.
Family Nurse Practitioner
Substance Abuse Consult Service
Division of Substance Abuse Medicine
Medical College of Virginia Hospitals
Richmond, Virginia

Dorynne Czechowicz, M.D.
Associate Director
Medical/Professional Affairs
Treatment Research Branch
Division of Clinical and Services Research
National Institute on Drug Abuse
Rockville, Maryland

Sara S. DeHart, Ph.D., R.N.
Associate Professor
School of Nursing
University of Minnesota
Minneapolis, Minnesota

Martin C. Doot, M.D.
Chief
Division of Addiction Medicine
Addiction Medicine/Family Practice
Lutheran General Hospital Advocate
Park Ridge, Illinois

John Fitzpatrick, Ph.D.
Director
Alcoholism Program
Sunset Terrace Family Health Center
Brooklyn, New York

Linda S. Foley, M.A.
Member
TIPS Editorial Advisory Board
Chevy Chase, Maryland

Karen M. Goans, C.C.D.C.
Clinical Supervisor
Addictive and Mental Disorders Center
Montana Chemical Dependency Center
Butte, Montana

Norman Graham, Ph.D.
Manager
Family and Behavioral Health
Metro Health Clement Center
Cleveland, Ohio

Allan Graham, M.D.
Associate Medical Director
Chemical Dependency Treatment Services
Kaiser Permanente
Denver, Colorado

Sandra Handley, Ph.D., R.N., C.A.R.N.
Consultant
Addiction Training Center
University of Missouri-Kansas City
Kansas City, Missouri

Harry W. Haverkos, M.D.

Director
Office on AIDS
Division of Clinical Research
National Institute on Drug Abuse
Rockville, Maryland

Lt. Col. Kenneth J. Hoffman, M.D., M.P.H., M.C.F.S.
Director, Center for Addiction Medicine
Center for Training and Education in
Addiction Medicine (C-Team)
Department of Preventive Medicine/Biometrics
Uniformed Services University of the Health Sciences
Bethesda, Maryland

Robert Holden, M.A.
Program Director
Partners in Drug Abuse Rehabilitation Counseling
Washington, D.C.

Deborah Horan
Manager
Special Issues
American College of Obstetrics and Gynecology
Washington, D.C.

Vaughn J. Howland
Director
The Intervention Center
Kensington, Maryland

Christine Kasser, M.D.
Assistant Professor and Medical Director
Recovery Services
Behavioral Health Center
College of Medicine
University of Tennessee at Memphis
Memphis, Tennessee

Julian F. Keith, M.D.
Director
Developmental Disabilities and Substance Abuse Services
Division of Mental Health
Department of Human Resources
Raleigh, North Carolina

Anton J. Kuzel, M.D.
Associate Professor
Director of Graduate Programs

Medical College of Virginia
Richmond, Virginia

Geoffrey Laredo
Office of Policy Analysis
National Institute on Alcohol Abuse and Alcoholism
Kensington, Maryland

Stephen W. Long
Director
Office of Policy Analysis
National Institute on Alcohol Abuse and Alcoholism
Rockville, Maryland

Kathleen Masis, M.D.
Medical Officer for Chemical Dependency
Office of Health Care
Billings Area Indian Health Service
Billings, Montana

Daniel Nauts, M.D.
Medicaid Director
Addiction Medicine Center
Behavioral Health Services
Benefits Health Care
Great Falls, Montana

Christine D. Olson, M.S.
Director
Services for Families, Women, and Children
Colorado Alcohol and Drug Abuse Division
Denver, Colorado

Paula Ortiz Smith, L.M.S.W.
Social Services Coordinator
Ben Archer Health Center
Hatch, New Mexico

Gennaro Ottomanelli, Ph.D.
Director
Division of Drug Dependence
Kings County Addictive Disease Hospital
Brooklyn, New York

Anthony Quintiliani, Ph.D.
Clinical Director, Chief Psychologist
Drug and Alcohol Division
Howard Center for Human Services

Burlington, Vermont
Anthony Radcliffe, M.D.
Regional Coordinating Chief of Addiction Medicine
Kaiser Permanente/CDRP
Fontana, California
Barbara Reid, M.S.W.
Social Worker
Ann Arbor, Michigan
Peter B. Rockholz, M.S.S.W.
Director
APT Residential Services
APT Foundation
Newtown, Connecticut
June Ross, B.S., I.C.A.D.C.
Executive Director
12 12, Inc.
Tulsa, Oklahoma
Linda S. Ruble, P.A./C.
Administrative Director
Primary Health Care, Inc.
Broadlawns Medical Center
Des Moines, Iowa
Richard Saitz, M.D., M.P.H.
Assistant Professor of Medicine
Clinical Addictions Research and Education Unit
Section of General Intense Medicine
Boston Medical Center
Boston, Massachusetts
Margaret Salinger, M.S.N., R.N., C.A.R.N.
National Nurses Society on Addiction
c/o Department of Veterans Affairs Medical Center
Coatesville, Pennsylvania
Eleanor Sargent
Director, Clinical Issues
The National Association of Alcoholism and Drug Abuse Counselors
Arlington, Virginia
William Schlenger, Ph.D.
Director
Mental and Behavioral Health Research
Health and Social Policy Division
Research Triangle Institute

Research Triangle Park, North Carolina
Lynn Shelton
President
Shelton Consulting
El Paso, Texas
James E. Smith, Ph.D
Professor and Chair
Department of Physiology/Pharmacology
Bowman Gray School of Medicine
Winston-Salem, North Carolina
Mary Jo Stralka, Ph.D., C.P.N.P.
Associate Clinical Professor
Barnes College of Nursing
University of Missouri at St. Louis
St. Louis, Missouri
Richard T. Suchinsky, M.D.
Associate Director
Addictive Disorders
Mental Health and Behavioral Sciences Services
Department of Veterans Affairs
Washington, D.C.
John M. Thorp, Jr., M.D.
Associate Professor
School of Medicine
University of North Carolina at Chapel Hill
Chapel Hill, North Carolina
Jeanne G. Trumble, M.S.W.
Executive Director
American Academy of Addiction Psychiatry
Prairie Village, Kansas
Mark Werner, M.D.
Associate Professor and Director
Division of Adolescent Medicine
School of Medicine
Vanderbilt University
Nashville, Tennessee
Joyce Young, M.D., M.P.H
Medical Director
Research Triangle Park
IBM
Research Triangle Park, North Carolina

[Tables and Figures]

[Tables]

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CAGE Questionnaire

1. Have you ever felt you should cut down on your drinking?
2. Have people annoyed you by criticizing your drinking?
3. Have you ever felt bad or guilty about your drinking?
4. Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (eye opener)?

Scoring: Item responses on the CAGE are scored 0 for "no" and 1 for "yes" answers, with a higher score an indication of alcohol problems. A total score of 2 or greater is considered clinically significant.

Source: Ewing, 1984.

As mentioned above, the normal cutoff for the CAGE is two positive answers. However, the Consensus Panel recommends that primary care clinicians lower the threshold to one positive answer to cast a wider net and identify more patients who may have substance use disorders.
A number of other screening tools also are available. Appendix C includes some of the most widely used options to the AUDIT and the CAGE, including the Michigan Alcoholism Screening Test (MAST) (Selzer, 1971) and the Short MAST (SMAST) (Selzer et al., 1975).

The CAGE Questions Adapted to Include Drugs (CAGE-AID)

1. Have you felt you ought to cut down on your drinking or drug use?
2. Have people annoyed you by criticizing your drinking or drug use?
3. Have you felt bad or guilty about your drinking or drug use?
4. Have you ever had a drink or used drugs first thing in the morning to steady your nerves or to get rid of a hangover (eye-opener)?

Source: Reprinted with permission from the *Wisconsin Medical Journal.* Brown, R.L., and Rounds, L.A. Conjoint screening questionnaires for alcohol and drug abuse. *Wisconsin Medical Journal* 94:135-140, 1995.

TWEAK Test

T	**Tolerance:** How many drinks can you hold?
W	Have close friends or relatives **worried** or complained about your drinking in the past year?

E	**Eye-opener:** Do you sometimes take a drink in the morning when you first get up?
A	**Amnesia:** Has a friend or family member ever told you about things you said or did while you were drinking that you could not remember?
K (C)	Do you sometimes feel the need to **cut** down on your drinking?
Scoring: A 7-point scale is used to score the test. The "tolerance" question scores 2 points if a woman reports she can hold more than five drinks without falling asleep or passing out. A positive response to the "worry" question scores 2 points, and a positive response to the last three questions scores 1 point each. A total score of 2 or more indicates the woman is likely to be a risk drinker.	
Source: Russell, 1994.	

Sample Alcohol Withdrawal Medication Orders

1. Chlordiazepoxide 25-50 mg p.o. q. 1 h p.r.n. tremulousness, increasing blood pressure, increased pulse rate, or severe diaphoresis x 5 days.
2. If patient is vomiting, hold chlordiazepoxide and give instead lorazepam 2 mg IM q. 1 h. p.r.n. tremulousness, increasing blood pressure, or diaphoresis.
3. Ambien 10 mg at h.s. p.r.n. insomnia. May repeat x 1 during night, x 5 days.
4. Thiamine 100 mg q.d.
5. Multivitamin q.d.
6. Folic acid 1 mg q.d.
7. Maalox two tablespoons q. 2 h. p.r.n.
8. Temperature, pulse, and blood pressure q. 4 h. while awake.
9. Confine patient to unit until detoxification completed.

Symptoms of Opioid Withdrawal

Grade 1	**Grade 2**	**Grade 3**
Yawning	Mydriasis (dilated pupils)	Insomnia
Sweating	Piloerection (goose bumps)	Increased pulse
Lacrimation (tearing)	Muscle twitching	Increased respiratory rate
Rhinorrhea (runny nose)	Anorexia	Elevated blood pressure Abdominal cramps Vomiting Diarrhea Weakness

Sample Opiate Withdrawal Medication Orders

1. Apply Clonidine #2 Transdermal Therapeutic System (TTS) patch now.
2. Clonidine 0.1 mg q. 4 h. x 2 days. Hold clonidine dose if patient becomes dizzy upon standing or if sleeping soundly.
3. Darvocet-N 100 mg every 4 hours if needed for pain x 5 days (maximum of 1,200 mg in 24-hour period).
4. Imodium 2 mg after each loose stool x 5 days.
5. Chlordiazepoxide 25 mg p.o. q. 6 h. p.r.n. for agitation or extreme irritability.
6. Ambien 10 mg p.o. at h.s. (may repeat x one p.r.n. during the night.

[Figures]

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Figure 1-1 Alcohol Use Among Primary Care Patients Over the Age of 18

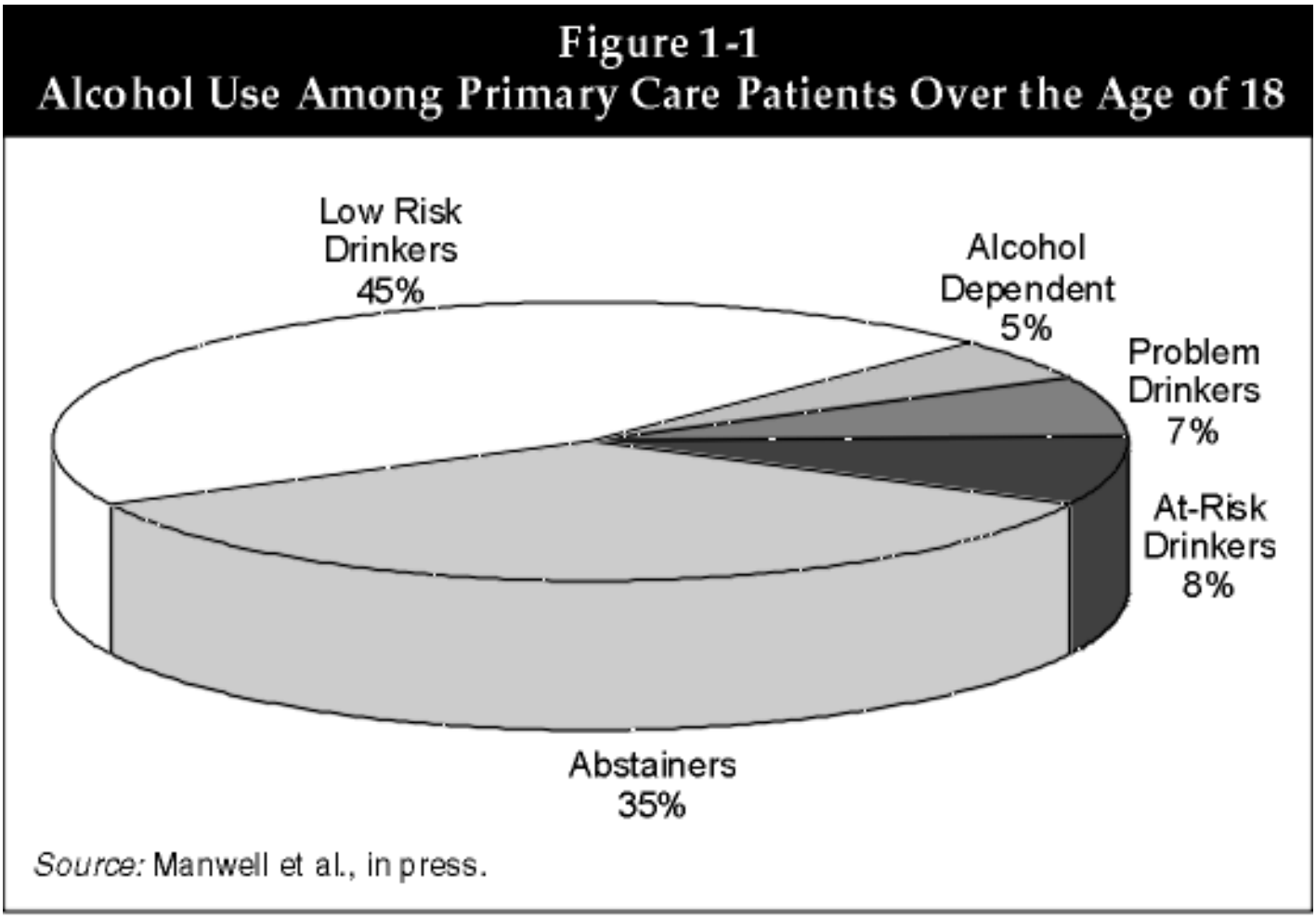

Figure 1-2 Risk Factors for Alcohol and Other Drug Abuse

Figure 1-2
Risk Factors for Alcohol and Other Drug Abuse

These factors are not definitive; rather their presence suggests that an individual may develop a problem. Absence of risk factors provides no assurance that an individual will not develop a problem with drugs or alcohol.

Psychiatric
Depression
Anxiety
Low self-esteem
Low tolerance for stress
Other mental health disorders (e.g., learning disabilities)
Feelings of desperation
Feelings of loss of control over one's life
Feelings of resentment

Behavioral
Use of other substances
Aggressive behavior in childhood
Conduct disorder; antisocial personality disorder
Avoidance of responsibilities
Impulsivity and risk-taking
Alienation and rebelliousness; reckless behavior
School-based academic or behavioral problems; school drop-out
Involvement with criminal justice system or illegal activities
Poor interpersonal relationships

Demographic
Male gender
Inner city or rural residence combined with low socioeconomic status; lack of employment opportunities

Family
Use of drugs and alcohol by parents, siblings, spouse
Family dysfunction (e.g., inconsistent discipline, poor parenting skills, lack of positive family rituals and routine)
Family trauma (e.g., death, divorce)

Social
Alcohol- and drug-using peers
Social or cultural norms approving use
Expectations about positive effects of drugs and alcohol
Availability of or accessibility to alcohol and drugs

Genetic
Inherited predisposition to alcohol or drug dependence
Deficits in neurotransmitters (e.g., serotonin)
Absence of aldehyde dehydrogenase (flushing or palpitations occur when alcohol ingested)

Source: Adapted from Hawkins et al., 1985; Kandel et al., 1986; Newcomb and Bentler, 1988; Heath et al., 1989; Brook and Brook, 1990; Landry et al., 1991a; Landry, 1994.

Figure 1-3 Relationship Between Alcohol Use and Alcohol Problems

Figure 1-3
Relationship Between Alcohol Use and Alcohol Problems

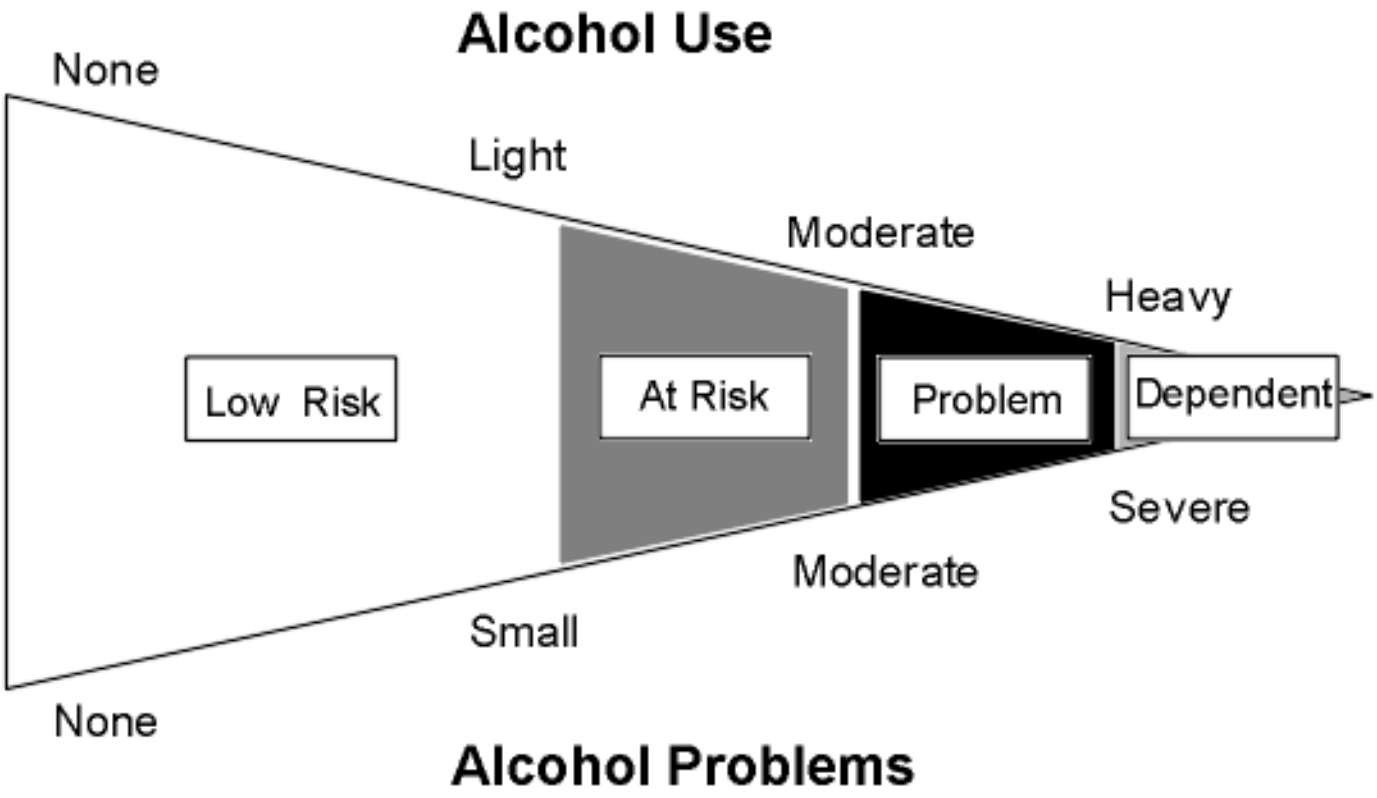

Figure 1-4 Past Month Illicit Drug Use, 1995

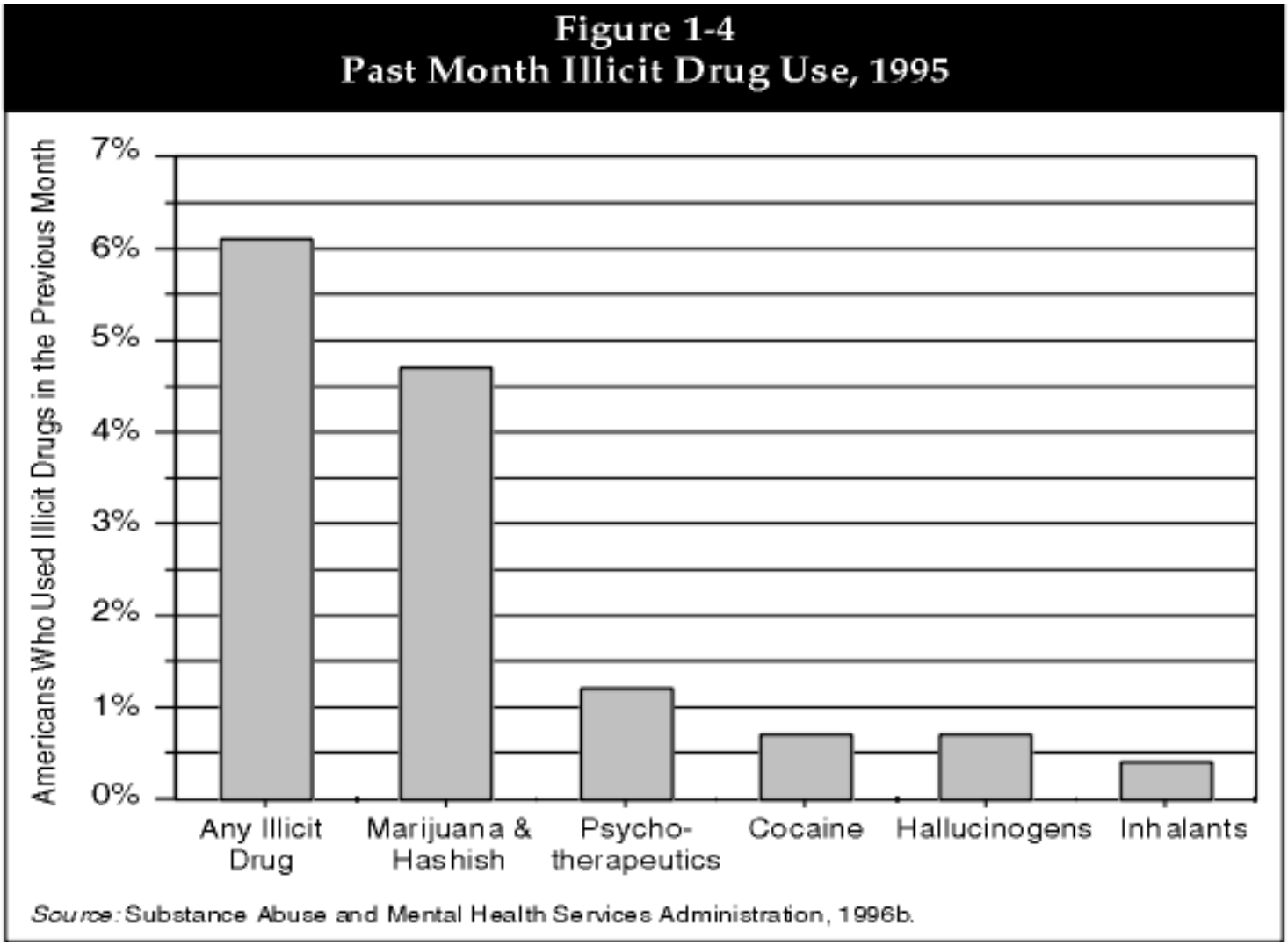

Figure 3-1 Interview Approaches that Account for the Patient's Readiness for Behavioral Change

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Figure 4-1 Key Elements for Inclusion in Assessment

Figure 4-1
Key Elements for Inclusion in Assessment

Standard Medical History and Physical Exam, With Particular Attention to the Following:

Inability to focus (both visually and mentally)
Nicotine stains
Dental caries
Disrupted menstrual cycle
Frontal lobe release reflexes (e.g., snout reflex, palmomental reflex)
Slurred, incoherent, or too rapid speech
Unsteady gait (staggering, off balance)
Tremors
Red facies
Dilated or constricted pupils
Blackouts or other periods of memory loss
Gingivitis
Perforated septum
"Nodding off" (dozing or falling asleep)
Agitation
Scratching
Needle track marks
Skin abscesses, burns on inside of lips (from smoking crack or heroin)
Angiomas
Swollen hands or feet
Swollen parotid glands
Leukoplakia in mouth
Insomnia or other sleep disturbances
Withdrawal symptoms including delirium tremens
Seizures
Physical injuries (If yes, consider using **Skinner Trauma History:** A score of two or more positive responses indicates a high probability of problem drinking)

Skinner Trauma History

Since your 18th birthday, have you

1. Had any fractures or dislocations to your bones or joints?
2. Been injured in a road traffic accident?
3. Injured your head?
4. Been injured in an assault or fight (excluding injuries during sports)?
5. Been injured after drinking?

Source: Skinner, H.A.; Holt, S.; Schuller, R.; Roy, J.; and Israel, Y. Identification of alcohol abuse using laboratory tests and a history of trauma. *Annals of Internal Medicine* 101: 847–851, 1984.

Alcohol and Other Drug Use History

Use of alcohol and other drugs (begin with legal drugs first)
Mode of use with drugs (e.g., smoking, snorting, inhaling, chewing, injecting)
Quantity used
Frequency of use
Pattern of use: date of last drink or drug used, duration of sobriety, longest abstinence from substance of choice (When did it end?)
Alcohol/drug combinations used
Legal complications or consequences of drug use (selling, trafficking)
Craving (as manifested in dreams, thoughts, desires)

Family/Social History

Marital/cohabiting status
Legal status (minor, in custody, immigration status)
Alcohol or drug use by parents, siblings, relatives, children, spouse/partner (Probe for type of alcohol or drug use by family members since this is frequently an important problem indicator: "Would you say they had a drinking problem? Can you tell me something about it?")
Alienation from family
Alcohol or drug use by friends
Domestic violence history, child abuse, battering (Many survivors and perpetrators of violence abuse drugs and alcohol.)
Other abuse history (physical, emotional, verbal, sexual)
Educational level
Occupation/work history (Probe for sources of financial support that may be linked to addiction or drug-related activities such as participation in commercial sex industry.)
Interruptions in work or school history (Ask for explanation)
Arrest/citation history (e.g., DUI, legal infractions, incarceration, probation)

Sexual History

Sexual preference—"Are your sexual partners of the same sex? Opposite sex? Both?"
Number of relationships—"How many sex partners have you had within the past 6 months? Year?"
Types of sexual activity engaged in; problems with interest, performance, or satisfaction—"Do you have any problems feeling sexually excited? Achieving orgasm? Are you worried about your sexual functioning? Your ability to function as a spouse or partner? Do you think drugs or alcohol are affecting your sex life?" (A variety of drugs may be used or abused in efforts to improve sexual performance and increase sexual satisfaction; likewise, prescription and illicit drug use and alcohol use can diminish libido, sexual performance, and achievement of orgasm.)
Whether the patient practices safe sex; frequency of use of condoms (Research indicates that substance abuse is linked with unsafe sexual practices and exposure to HIV.)
Women's reproductive health history/pregnancy outcomes (In addition to obtaining information, this item offers an opportunity to provide some counseling about the effects of alcohol and drugs on fetal and maternal health.)

Mental Health History

Mood disorders—"Have you ever felt depressed or anxious or suffered from panic attacks? How long did these feelings last? Does anyone else in your family suffer from similar problems?" (If yes, do they receive medication for it?)
Other mental health disorders—"Have you ever been treated by a psychiatrist, psychologist, or other mental health professional? Has anyone in your family been treated? Can you tell me what they were treated for? Were they given medication?"
Self-destructive or suicidal thoughts or actions—"Have you ever thought about committing suicide?" (If yes: "Have you ever made an attempt to kill yourself? Have you been thinking about suicide recently? Do you have a plan?" [If yes, "What means would you use?"] Depending on the patient's response and the clinician's judgment, a mental health assessment tool like the Beck Depression Inventory or the Beck Hopelessness Scale may be used to obtain additional information, or the clinician may opt to implement his/her own predefined procedures for addressing potentially serious mental health issues.)

Figure 4-2: DSM-IV Diagnostic Criteria for Substance Abuse

The DSM-IV defines the diagnostic criteria for substance abuse as 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).

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Figure 4-3: DSM-IV Diagnostic Criteria for Substance Dependence

The DSM-IV defines the diagnostic criteria for substance dependence as a maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three or more of the following, occurring at any time in the same 12-month period:

1. Tolerance, as defined by either of the following:
   - The need for markedly increased amounts of the substance to achieve intoxication or desired effect.
   - Markedly diminished effect with continued use of the same amount of the substance
2. Withdrawal, as manifested by either of the following:
   - The characteristic withdrawal syndrome for the substance
   - The same (or closely related) substance is taken to relieve or avoid withdrawal symptoms
3. Taking the substance often in larger amounts or over a longer period than was intended.
4. A persistent desire or unsuccessful efforts to cut down or control substance use.
5. Spending a great deal of time in activities necessary to obtain or use the substance or to recover from its effects.
6. Giving up social, occupational, or recreational activities because of substance abuse.
7. Continuing the substance use with the knowledge that it is causing or exacerbating a persistent or recurrent physical or psychological problem.

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Figure 6-1: Training Module

Hour 1: The first hour is a didactic session focused on screening, assessment, brief intervention, and referral for alcohol use that includes role-playing and practice-reinforcing strategies. Participants are sent out at the end to practice their new skills in "real-world" settings by using the CAGE questionnaire, for example, and by counseling and referring patients as needed.

Hour 2: Participants debrief and discuss how they used or did not use their skills and knowledge. Trainers address any problems encountered and lead role plays on problem situations. At the end, participants again are instructed to apply new knowledge and skills in their practice settings.
Hour 3: In this session, discussion focuses on ways to implement changes in participants' primary care settings to support alcohol and drug screening and assessment. Particular barriers are identified as well as key persons to include in change strategies.

Hour 4: This primarily didactic session on pharmacotherapy of alcohol use disorders focuses on withdrawal, use of disulfiram and naltrexone, and antidepressants and anxiolytics. The session includes case presentations and peer discussion.

Hour 5: This primarily didactic session on illicit drugs describes effects of various drugs of abuse and treatments for drug use disorders. The session includes case presentations and peer discussion.

Hour 6: This primarily didactic session, including case presentations and peer discussion, focuses on abuse of prescription drugs and on polypharmacy among elderly persons.

Figure A-1: Ways in Which Psychopharmacology is Used to Treat Alcohol or Other Drug Dependencies

Purpose	Treatment Goal	Examples
Detoxification	Enable patients to be safely withdrawn from their drug of dependency	Chlordiazepoxide for alcohol withdrawal Clonidine or methadone for opiate withdrawal Phenobarbital or valproate in benzodiazepine withdrawal
Relapse Prevention	Make drinking alcohol aversive	Disulfiram (Antabuse)
	Reduce alcohol craving	Naltrexone (ReVia) Acamprosate (Campral)*
	Block reinforcing effects of opiates	Naltrexone (ReVia)
	Treat underlying or drug-induced psychopathology that may cause relapse to drug use	Antidepressants, mood stabilizers (e.g., lithium or valproate)
Opioid Maintenance	Reduce the medical and public health risks of heroin use	Methadone LAAM Buprenorphine*

* Investigational at the time this was written (1997).

***** This Line Follows Each Range of Selected Text *****